

An analysis of the evolving military futures debate: Explaining alternative military futures for the South African National Defence Force

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## DECLARATION

Hereby I, Francois Vreÿ, declare that this study project is my own original work and that all sources have been accurately reported and acknowledged, and that this document has not previously in its entirety or in part been submitted at any university in order to obtain an academic qualification.

F. Vreÿ

20 May 2005



## ACKNOWLEDGEMENTS

I hereby wish to thank and acknowledge the role of the following people.

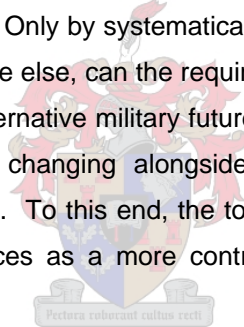
- My Creator for his guidance and grace during the course of this study.
- My wife Alta for her patience, support and positive attitude.
- My late father who never ceased to encourage me to further my academic studies.
- Professor Andre Roux, my promoter, for his diligence, meticulousness, constructive criticism, and encouragement.



## ABSTRACT

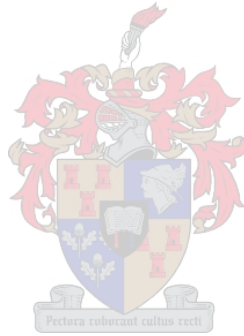
Twenty-first century armed forces increasingly have to operate amidst unprecedented uncertainty and complexity cascading onto the military domain. Not only are their roles and implicitly their whole being now constantly questioned; the historic rationale for their existence is also under pressure. New and even unorthodox responsibilities find their way into and increasingly begin to eclipse and challenge traditional elements that configure the military sphere. Adjustments towards new futures thus become essential, as the images of warless futures and endisms about war remain merely that - images. Subsequently, notions about the adaptive military and armed forces being open ended systems sensitive to and capable of remaining in step with unfolding futures, become imperatives. In addition to learning from history, military futures now increasingly co-feature as the domain to master in the pursuit of appropriate future armed forces.

Exploring the future through a recognised field of study allows for alternative futures to unfold that are bound to differ from an historic review and its linear continuance. This also serves as a tenable argument for military futures. Only by systematically peeling away the dogma that armed forces are instruments for war and little else, can the required changes to and future contributions of military establishments towards alternative military futures be exposed. Subsequently, military forces become entities capable of changing alongside their societies towards futures not predominantly shaped for and by war. To this end, the topic of alternative military futures offers insights into the utility of armed forces as a more contributing and constructive future policy instrument.



In researching alternative military futures through contiguous debates concerning the futures-military nexus, military change, the Revolution in Military Affairs, and the unfolding strategic environment, it emerges that military change towards new futures is a rather slow and incremental process. Furthermore, the Revolution in Military Affairs, in spite of its prominence, offers limited future options to the majority of governments aspiring to exploit new ways and means for engaging military futures. In turn, the future strategic environment premises strategic futures leaving armed forces little choice but to prepare for a horizontal threat spectrum of simultaneity and complexity, and a vertical dimension of a destructive-constructive merger. This matrix calls for expanded military means to meet complex futures characterised by simultaneity and variety through a response hierarchy comprising destructive and constructive ways and means. These are future challenges also faced by the defence decision-makers and military practitioners in South Africa.

Alternative military futures for the South African National Defence Force (SANDF) comprise some interface with the dynamics posited by theories on military change, contributions by the Revolution in Military Affairs and threat-response continuum posited by the future strategic environment. From this challenging premise alternative military futures embedded in the more constructive and preventative use of its military policy instrument towards Africa in particular, a South African defence paradigm is emerging for employing the South African National Defence Force in future. Renouncing the warfighting option to bring about change, accepting the volatile and complex African challenge and embracing democracy and multilateralism call for new defence thinking to probe the future. This search is bound to reveal the unfolding of alternative military futures that reach beyond the expectations of South African defence decision-makers and military practitioners from both the *apartheid* and *struggle* generations.



## OPSOMMING

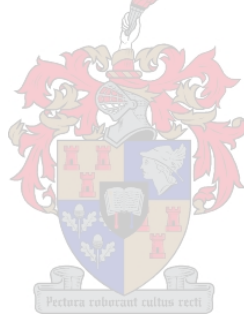
Militêre magte van die 21ste eeu opereer toenemend te midde van ongeëwenaarde onsekerheid en kompleksiteit wat op hul terrein van verantwoordelikheid aanspoel. Nie net die bydraes wat gewapende magte lewer nie, maar ook hul aard en wese word bevraagteken. Verskeie en selfs vreemde verantwoordelikhede kruip tans op die militêre verantwoordelikhedsgebied aan, wat weer die boustene van die militêre sfeer verwing of ondergrawe. Aanpassing om by toekomskwessies aan te pas raak dus noodsaaklik aangesien verwagtinge dat oorlog en die nut van militêre magte gaan verdwyn, 'n onderontwikkelde teorie verteenwoordig. Sieninge dat gewapende magte oop sisteme en aanpasbaar is met 'n sensitiwiteit vir wat in hul saamlewings plaasvind, asook dat hul in pas kan bly met hoe die toekoms ontvou, het noodsaaklike eienskappe geraak. Ter aanvulling van die historiese lesse, raak toekomsaspekte van die militêre domein nou kritiek vir die daarstelling van doelgeskikte en toekomsgerigte militêre magte.

'n Ondersoek van die toekomsveld deur van 'n erkende studieterrein gebruik te maak bevorder sieninge oor wat moontlik kan ontvou. Hierdie vooruitskouinge kan weer die historiese benadering en die linieêre voortsetting of projeksie daarvan aanvul. Hierdie onderlinge aanvulling is ook tersaaklik in die geval van die militêre toekomsomgewing. Slegs deur die dogma dat gewapende magte alleenlik geskik is vir die voer van oorloë en weinig anders, te weerlê, kan die veranderinge en bydraes van gewapende magte binne nuwe toekomsdimensies ondersoek en afgebaken word. Militêre magte kan dus voorgestel word as entiteite wat tog saam met hul gemeenskappe aanpas by veranderinge en die toekoms tegemoet kan gaan sonder dat laasgenoemde hoofsaaklik deur oorlog gevorm en onderlê word. Op hierdie wyse bied die onderwerp bekend as alternatiewe militêre toekomste meerdere insigte rakende die langer termyn nuttigheid van meer konstruktiewe gewapende magte.

Die naspur van toekomstige militêre aangeleenthede deur van die toekoms-militêre samehang, militêre verandering, die Rewolusie in Militêre Aangeleenthede, en die opkomende strategiese omgewing gebruik te maak, bied bepaalde insigte: die aanwesigheid van 'n samehang tussen toekomsstudies en die militêre faktor en dat die aard van militêre veranderinge as 'n inkrementele proses waarneembaar is. Ten spyte van die prominensie wat dit geniet, blyk dit dat die Rewolusie in Militêre Aangeleenthede beperkte opsies bied aan diegene wat beplan om die weg te volg om militêre aspekte van die toekoms tegemoet te gaan. Die toekomstige strategiese omgewing dui weer daarop dat gewapende magte min beweegruimte gegun word om vir tradisionele rolle voor te berei. 'n Horisontale spektrum van gelyktydigheid en kompleksiteit vorm saam met 'n vertikale destruktiewe-konstruktiewe kontinuum 'n matriks. Hierdie matriks vereis nou van weermagte die totstandbringings van uitgebreide militêre vermoëns en middele om

kompleksiteit wat deur gelyktydigheid en verskeidenheid gekenmerk staan te word, die hoof te bied. Hierdie toekomstige kwessies word ook deur Suid-Afrikaanse besluitnemers en militêre bevelvoerders in die gesig gestaar.

Toekomskwessies vir Suid-Afrikaanse Nasionale Weermag (SANW) word vervat in dieselfde aspekte wat deur die aard van militêre veranderinge, die rol van die Rewolusie in Militêre Aangeleenthede en verwickeldheid van die strategiese omgewing gereflekteer word. Gegewe hierdie uitdagende situasie, blyk dit dat alternatiewe vir die SANW neig om merendeels die konstruktiewe en voorkomende gebruik van die militêre beleidsinstrument te weerspieël. Hierdie neiging omvat dan ook 'n onteenseglike Afrika fokus met die gevolg dat die meer voorkomende en konstruktiewe gebruik van die land se weermag prominent in die opkomende Suid-Afrikaanse verdedigingsparadigma figureer. Deur die oorlogsopsie as 'n wyse om verandering te bewerkstellig af te keur, die onstabiele en komplekse Afrika-uitdaging te aanvaar en demokrasie en multilateralisme voor te staan, vereis nuwe verdedigingsdenke vir die toekoms. Vanuit hierdie vertrekpunt is dit waarkynlik dat militêre alternatiewe en toekomskwessies kan ontvou wat veel wyer strek as dit waarop besluitnemers vanuit beide die apartheids - sowel as *struggle* geledere reken.



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## LIST OF ABBREVIATIONS

AR	African Renaissance
ASF	African Standby Force
ASEAN	Association of South East Asian Nations
AU	African Union
AWC	Army War College
CA	Constitutive Act
CCS	Chief of Corporate Staff
CDSS	Centre for Defence and Security Studies
CIS	Commonwealth of Independent States
CJ OPS	Chief of Joint Operations
CMI	Command Management and Information
CMR	Civil Military Relations
CSANDF	Chief of the South African National Defence Force
CSBM	Confidence and Security Building Measures
CSSDCA	Conference for Security, Stability Development and Co-operation in Africa
DOD	Department of Defence
DR	Defence Review
DRC	Defence Research Center
DRWG	Defence Review Work Group
D STRAT	Directorate Strategy or Director Strategy
ELTMS	Extended Long-Term Military Strategy
ENSP	Executive National Security Programme
EU	European Union
GSSA	Gray Security Services Africa
HANSARD	Verbatim transcriptions of parliamentary debates
IFR	Institute for Futures Research
IMT	Institute for Maritime Technology
ISS	Institute for Security Studies
IW	Information Warfare
JFQ	Joint Force Quarterly
JO	Junior Officers
JSCSP	Joint Senior Command and Staff Programme
LI	Landward Institute
LIC	Low Intensity Conflict
MAP	Millenium Africa Plan
MOU	Memorandum of Understanding
MP	Member of Parliament
MPRI	Military Professional Resources Incorporated
MR	Military Revolution

MS	Military Strategy
MTR	Military Technical Revolution
NATO	North Atlantic Treaty Organisation
NAM	Non-Aligned Movement
NBC	Nuclear, Biological and Chemical
NDU	National Defence University
NEPAD	New Partnership for Africa's Development
PDA	Project on Defence Alternatives
PLA	Peoples Liberation Army
PMC	Private Military Company
PSC	Private Security Company
PRC	Peoples Republic of China
RAF	Royal Air Force
RAM	Revolution in Attitudes towards the Military
RDP	Reconstruction and Development Programme
RJTF	Regional Joint Task Force
RMA	Revolution in Military Affairs
RMPA	Revolution in Military And Political Affairs
RSA	Republic of South Africa
RU	Rhodes University
SAAF	South African Air Force
SA	South African
SABC	South African Broadcasting Corporation
SADC	Southern African Development Community
SAN	South African Navy
SANDEF	South African National Defence Force
SAPS	South African Police Service
SIPRI	Stockholm Institute for Peace Research
SOF	Special Operations Forces
SST	Security Sector Transformation
SU	Stellenbosch University
UK	United Kingdom
UN	United Nations
USA	United States of America
USB	University of Stellenbosch Business School
UNSG	United Nations Secretary General
USSR	Union of Socialist Soviet Republics
WEU	West European Union
WFS	World Futures Society
WP	White Paper
WW1	World War One
WW2	World War Two



# CHAPTER 1

## INTRODUCTION

### 1.1 BACKGROUND

Contemporary outlooks of South African politicians indicate that idealist notions about the world and Africa largely delimit futures pathways into the 21st century in particular. These outlooks inherently allow little leeway for considering the use of the primary coercive policy instrument, the South African National Defence Force (SANDF), in its traditional realm. Nonetheless, the military policy instrument is to accompany a democratising South African society towards its preferred optimistic futures according to political decisions about its future use.

An emphatic demand for eradicating war on the African continent (with South Africa playing a prominent role in this regard) is indicative of new futures as political outlooks require military pliability to satisfy rising security demands. Whether the SANDF is truly ready and being appropriately reconfigured to meet the upcoming decades of democracy and its intended African focus, remains shrouded in uncertainty for military institutions are complex organisations, military futures are uncertain domains and military change is notorious for its long and arduous character.<sup>1</sup> It is therefore not possible to simply and clearly define a precise future towards which the SANDF is heading, aside from knowing that it is likely to be guided by new defence thinking (as alluded to by the Chief of the SANDF) to comply with new futures (Nyanda, 2000).

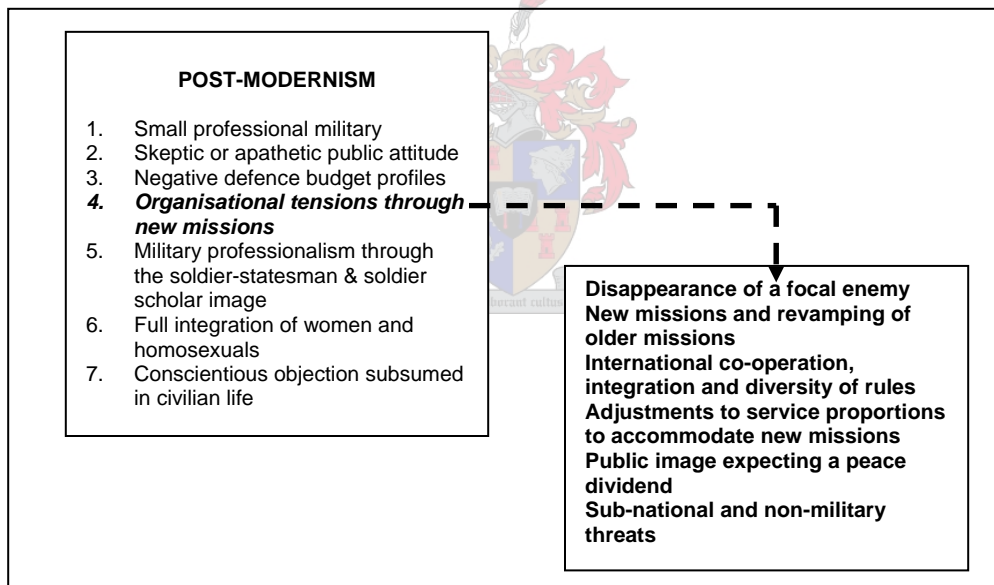
A number of academic fields, theoretical outlooks, and opinions offer leeway to configure or draw outlines of futures pathways for the SANDF. This exploration of and reporting on the future are embedded in a history encompassing both the non-military and military domains as, according to Comte (in Caforio (ed), 1998:xiv) progression in the one draws the other along. Although the military parameters of the futures domain are closely intertwined with those of the non-military, it is nonetheless possible to demarcate indicators of the debate concerning military futures, or - as it eventually emerged - alternative military futures. The matter of alternative military futures is a phenomenon not always readily observed or particularly sought after. However, two concerns keep it visible in the minds of decision-makers and on the global agenda: its destructive impact and enduring controversies regarding its use. These two matters keep the notion of "*War now, war forever*" alive. Subsequently, the topic of military futures continues - explicitly or implicitly - to

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<sup>1</sup> The term military futures here refers to the evolutionary or imposed spectrum of expected roles, missions and tasks that armed forces are bound to assume in order to execute their constitutional, political and societal responsibilities at the national and international levels at some prospective point in time.

hover over the 21st century agendas of states and the myriad of actors above and below the state (Inayatullah, 2003).

It may be argued that to prevent war, or to emerge victorious if involved in war, understanding and preparedness are required before engaging in it. The alternative is to consider its eradication. However, in the minds of many people, war is mostly some future event and one could well argue that as they deem the future to be something to contend with only when it arrives, this applies to war as well. Nonetheless, as entities responsible for preventing or eradicating and, should it occur, successfully conducting wars, it is the obligation of military institutions and their decision-makers to contend with matters pertaining to this issue and its futures profile in particular. Military futures, however, are not independent variables and war, therefore, not necessarily a singular linear future – and even lesser so in contemporary times (Thompson in Burk (ed), 1998:110). Elements of this military futures environment are illustrated through the two worlds of new missions and the posited longer term future of post-modernism in Figure 1.1.



**Figure 1.1: Elements of the Future Military Environment**

(Source: Compilation from Caforio (ed), 1998:xxii-xxiii ; Burk (ed), 1998:169)

## 1.2 METHODOLOGY

This study is a qualitative study based upon descriptive research to demarcate and explain the phenomenon of alternative military futures and elements of its South African manifestations. Military futures, as experienced in the real world, is the object of enquiry and subjected to more



rigorous scientific investigation of its constructs in order to promote the scientific goal of truthful knowledge. The first five chapters of the study leans towards the basic dimension of research, as the primary intention is to explore in order to stimulate thinking about the neglected domain of military futures. Chapters Six and Seven reflect applied research to explain SANDF futures and so assist SANDF decision-makers and practitioners to perceive and eventually deal with alternatives facing the SANDF. The goal is to contribute to basic theoretical knowledge about a phenomenon overlooked in recent times by providing basic facts, settings, and concerns relevant to the socio-military activity of contending with alternative military futures.

### 1.2.1 The need to investigate the domain of military futures

Military futures in general, and those of the SANDF in particular, represent topics that are not deeply researched and well reported. This deficiency results in part from the military option as a strategic policy instrument forfeiting its influence and prominence on the security agendas of states. South Africa concurs with this to address 21<sup>st</sup> century insecurities and the military sector in particular (Burk (ed), 1998:12 ; Department of Defence, 1996).<sup>2</sup> It is therefore now more difficult. Although issues about military futures tend to elicit discussion and many opinions, ample scope for further research remains as the prominence of military coercion has gained renewed, albeit controversial and perhaps temporary, prominence with the multinational military campaigns against Afghanistan (2002) and Iraq (2003). For South Africa its rapidly growing African commitments necessitates a deeper look at its military futures.

In South Africa, the topic of military futures remain subdued, but intermittently features on the politico-military agenda. Due to the political debate on African futures driven by the African Union (AU) and the New Partnership for Africa's Development (NEPAD) initiatives with the prominent role of South Africa, alternative military futures for the SANDF can no longer remain submerged. Indicative of this is the observation of longer term and common security paradigms gaining more prominence at the military strategic level and a visible commitment by South Africa to use military diplomacy in Africa. This observation is backed by post-2000 programmes such as

- the SANDF HR 2010 Strategy regarding future human resource matters;
- an African Standby Force by 2010;
- Director Strategy (SANDF) Project Strategic Vision extending to approximately 2030<sup>3</sup>; and

<sup>2</sup> Mueller, Elman and Orme in Art and Waltz, (eds), (1999) question the utility of military coercion whilst Buzan (1992) argues that the military imperative lost its saliency as other security sectors rose to prominence in the aftermath of the Cold War.

<sup>3</sup> This vision is augmented by for example the SA Army Vision 2020 that was officially launched by the Chief of the SA Army, Lieutenant General Shoke, on 24 January 2005 at the SA Army Engineer Formation, Pretoria.

- Outlooks by the Chief Director Operations Development of CJ OPS (SANDF) on future interoperability between African defence establishments by 2040.

Entering the futures debate to eventually investigate South African military futures, however, supposes some theoretical departure and subsequent pathway embedded in past events as well as presumed futures matters in the field of interest. A framework of past and contemporary academic debates first needs to be explored and integrated to promote insight and understanding of this important, but marginalized matter now once again presenting itself to South African decision-makers.

### **1.2.2 A methodology to investigate alternative military futures**

If one argues that dire problems concerning defence decision-making reside in the future, then the future needs to be studied. The domains of military futures are accessible through existing and acknowledged research methodologies and do not represent a field demanding specialised research. Military futures, according to Spies (2001), are no more intricate than non-military ones; or, as pointed out in Jahoda and Freeman (eds), (1978), should they be avoided or ignored. In this regard, the Tofflers (1995), for example, argue that as society moves into the future, its military forces are taken along. Manigart (2003) draws the parallel even further by stating that military organisations are responsive to the types of societies they form part of and that socio-cultural and geopolitical environments are influential variables in this relationship. Military futures are therefore closely connected to those of civil society and the complexities currently flooding societies with its erosive effect upon boundaries, only serve to complicate this symbiotic connection. For military institutions to partake in opposing pessimistic futures and uphold optimistic ones for the benefit of humanity, their futures, and the pathways leading there need to receive special attention or, at the minimum, not be marginalized.

This study commenced with a reading programme on the future of land forces that eventually evolved into an interest in the phenomenon currently referred to as the Revolution in Military Affairs (RMA). This interest led to an exchange of ideas with Dr Steven Metz of the US Army War College, an acknowledged expert on the RMA debate. A review of the literature commenced during late 1998 with a dominant focus upon the notion of an RMA.<sup>4</sup> From these readings and interactions with Dr Metz, arose a curiosity for researching the topic of military futures, as much of the RMA literature contains or supposes some futures perspective. In turn, this exploration established some conception by the researcher of [1] the need for and a growing familiarity with the relevance of military change, [2] innovation and diffusion, [3] the limitations of the RMA and

[4] the importance of the future strategic environment with a subsequent endeavour to link own research with an evolving body of knowledge on military futures.

The initial review of knowledge domains delimited by military change, the RMA and the future strategic environment subsequently led to the formulation of a first tentative research problem: What military futures for national military forces in a strategic environment where the military option is increasingly marginalized or questioned? The research problem thus initially centred upon the matter of a perceived decline in the traditional military option and subsequently the presumed need for delimiting alternative military futures facing national military forces. The predicament of armed forces became more accentuated as the strategic environment changed and the need materialised for military forces to be structured and trained to operate according to different future role demands as posited by Kuhlman (1998), Dandekker (1998), Moskos and Burke (1998). These latter demands showed some resemblance to the very uncertainties and difficulties confronting South African defence decision-makers at the turn of the 20<sup>th</sup> century regarding the future kind of defence force envisaged for the country and the notion of balancing different alternatives to cope with alternating futures.

Two aspects of the initial research problem, however, remained underdeveloped. First, uncertainty about the futures connection and secondly, that of South Africa as a Second Tier country within the demarcated research sector. These two voids called for deeper research in order to approach the topic from a sound theoretical framework and coherently move towards the South African domain for South African military futures could not readily be deduced or merely sifted from the reigning debates. The researcher subsequently adjusted the research problem to address two adjacent, but consecutive research questions. First, which theories and debates, or elements thereof, direct the futures of national military forces and secondly, what frameworks of futures thinking and alternative futures exist within the South African defence realm for preparing and utilising a future SANDF? This dual research question henceforth directed the further exploration of the body of knowledge directing unfolding futures of armed forces into the 21<sup>st</sup> century and that of South Africa in particular. In the following section, the research question is discussed more comprehensively in terms of the secondary research questions that delimit the study area in order to answer the problem posed by the research question. These subordinate problems are the following:

- What does the established debate on and examples of military change contribute to a better understanding of how alternative military futures may unfold?

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<sup>4</sup> This literature study primarily focussed upon US literature and to a lesser extent that of Russian origin. By studying these knowledge domains of the RMA it soon became apparent to the researcher that the US dominated the RMA debate.

- What is the general contribution and fallacies of the RMA discourse towards the future employment of military forces?
- To what extent does the future strategic environment provide more clarity about the rise of military futures and what may confront armed forces?

### 1.2.3 Researching alternative military futures: Establishing a departure

Much is written and said about the future and a substantial number of institutions probe the future, but essential research and findings on military futures are limited and need to be filtered from available sources. A content analysis of futures publications held by the Bellville Park Campus of Stellenbosch University (USB) (which also houses the Institute for Futures Research) revealed that between 1990 and 2000, the frequency of articles on military futures in futures publications seemed quite marginal. By contrast, earlier works on the future of humankind reflect a substantial military focus and influence. This is observable from a content analysis (51 articles) from futures literature over the period 1969 to 1980 done at the USB and Rhodes University Library. By scrutinising and doing a content analysis of a special series of articles addressing the origins of and influences on the evolution of Futures Studies, the presence of military matters and the future use of military coercion could be established.<sup>5</sup>

It is within these earlier writings that a continuous futures-military connection was found amidst the later tendency to view the future as optimistic and devoid of destructive military events – whether as a result of an undue positivism, or by harnessing the military option to prevent devastation. More recently futures publications by Boucher (ed), (1977), Jahoda and Freeman (eds), (1978), Van Creveld (1991) as well as the Tofflers (1995) all include a particular military focus in their views or indicate the role of military factors in the unfolding future. Moskos and Caforio (ed), (2003) and Burk (ed), (1998) (from a military sociology perspective) also probed the future profile of the military to report upon its changing futures. As armed forces will not disappear from the future strategic landscape in the near future, their futures remain relevant – albeit in some changed format. This belief is reinforced by how alternative futures (including contemporary alternatives) are formulated and resultant scenarios tend to include a darker side, a low road, or pessimistic and destructive alternatives. These gloomy or sullen alternatives are judged to present an important avenue or rationale for dissecting and studying military futures for national military institutions. Military futures represent both a potential future threat as well as a future solution as it accentuates the need to view, prepare and employ armed forces in constructive ways to prevent or terminate destructive alternative futures (Rubenstein, 1999:66).

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<sup>5</sup> These articles by I.F. Clarke appeared in the Futures Research Quarterly since 1967 and reflect an observable and steady interest in and exploration of future war and military futures during earlier times.

The reading programme that preceded this study, as well as the research process itself culminated in various research outputs to explore the viability of particular elements of this study. Military futures, future war, the RMA, Futures Studies, and the African strategic environment form focus points of the following research products:

- Four international conference papers (one in Washington DC during October 1998, and three in Saldanha, South Africa during 1999, 2001 and 2003 respectively) that dealt with RMA-matters, military futures and the South African-African connection.
- Six accredited articles (one co-authored) in Security Studies, Military Science, and History Journals on matters pertaining to this study.
- One international article during 2002 that dealt with the topic of Futures Studies and Military Strategy.
- Two national presentations on the unfolding debate on future war at DefenceTek (Pretoria) and the Institute for Maritime Technology (Simonstown) respectively.

The aim of these research outputs was to undertake and present ongoing research to a wider community of academics and military officials in order to elicit comments and criticism on views put forward by the researcher. In response, the only major consideration that arose was that this represents a field that is in need of research, but not yet reflecting active South African participation. From some quarters within the SANDF in particular, apprehension was raised about the idea of researching alternative military futures and including an African - South African focus. This attitude resulted primarily from the perception that contemporary or immediate matters of the late 1990s allowed little if any time to diligently consider alternative futures.<sup>6</sup> The study nonetheless gained increasing support from the SANDF and the wider defence community after 2000. It culminated in approval by the CSANDF, Chief of Joint Training and Defence Intelligence, to conduct such a study and ultimately written consent from the Minister of Defence to also conduct primary research amongst members of parliament on their views concerning alternative military futures.

From these ventures and regular visits since 2000 to the Director of the Institute for Futures Studies, the field of Futures Studies was decided upon as a departure. This allowed leeway to shift away from a dominant RMA and military history focus towards an approach that is embedded in alternative futures and military change. For the researcher, a more multidisciplinary

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<sup>6</sup> Although perceived as neglected by the researcher, Dr G. Koornhof (MP), government spokesperson on defence, reiterated during two telephone conversations (23 and 26 August 2004) that, although not clearly foreseen and articulated at the time, military futures were attended to. He also pointed out their present (2004) saliency to interface the SANDF with envisaged African military futures in the near future.

approach (as promoted by the field of Futures Studies and Mode Two Research) became possible. This eventually included elements of Military History, Strategic and Security Studies, and Military Sociology. An introductory reading programme on Futures Studies and attending sessions on Futures Studies presented to M Phil students of the Institute for Futures Research underpinned this shift to draw upon the Futures Studies domain.

In conjunction with the introductory reading programme, the study period with IFR assisted the researcher in gaining a fuller understanding of the field of Futures Studies and its use or relevance to address the topic of military futures. Subsequently some cognition emerged of the compatibility between the domains of Futures Studies and that of alternative military futures. This saliency resulted from exposure to the thoughts of futurists such as de Jouvenel (1967), Clarke's anthology in the Futures Research Quarterly (Various), Harman (1976), Boucher (ed), (1977), Simmonds (1977), Masini (1993), Cornish (1990) and Schwartz (*et al*) (2000).

#### **1.2.4 Affirming and structuring the focus of the study**

From the literature study, a clear bias emerged towards the military needs and futures of developed countries. Developing countries remained quite peripheral and marginalized in the debate and the need for their inclusion in the study was noted. To address this void, Africa and South Africa in particular became one focal point of the research effort. Being a study that received the blessing of the SANDF with its undeniable African futures focus, reaffirmed the decision to include South Africa as a case study. This focus later became more salient with the African debate on NEPAD and the inauguration of the African Union during July 2002 as well as growing political commitments to Africa.<sup>7</sup> From the above focus, a final index of critical matters or themes to address in the study was compiled. This index comprised the following:

- Establishing the futures – military futures nexus.
- Military change in attitude towards military futures.
- The RMA debate and its contributions or obstacles towards military futures.
- The strategic environment as a catalyst.

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<sup>7</sup> Although not clear at the commencement of this study, the May 2004 acknowledgement by the South African Defence Minister during his budget speech to parliament, Cape Town, confirmed this view of an indelible African commitment by South Africa.

- Military futures for South African Armed forces.

The above index directed the course and collation of research and was subsequently organised into the scope set out below.

### 1.3 SCOPE OF THE STUDY

Alternative military futures represent a somewhat abstract, but complex concept. This necessitates a clarification of the concept from both a retrospective and a forward-looking point of view. The retrospective dimension is in part contextualised by drawing upon the Futures Studies discipline and demarcating the debate on alternative military futures and future warfare within the futures realm. Identifying and demarcating indicators of the military futures field and its historic connections emerges from knowledge fields and views of a number of authors and theorists working in this area: Erikson (1977), Boucher (ed), (1977), Baumann (1997), Kipp (1999), Dator (2000), Clark (various), and Cornish (2004). The retrospective angle is further traced by revisiting the early debate on deep military change as described in the literature contending with the Military Revolution. As a historic process influencing military futures the foundations of the debate was studied by scouring the views of Roberts (1967), Paret (ed), (1986), Black (1991), Rogers (ed), (1995) and Parker (1996). To balance this Eurocentric slant, views of Thornton (1999) and Karsten (1998) on early warfare in Africa were studied, as well as selected essays in early editions of *The Journal of African History*.

The forward looking realm is contextualised by first establishing the futures-military nexus arising from an interest in and institutionalisation of entities upholding this connection. Following this nexus, military change is explored as a process how military institutions progress towards developing and using their ways and means to contend with new futures. Paradigm shifts, innovation and diffusion form important subject matter to study these military adjustments discernible in the work by Kuhn (1970), Porter (1994), Rosen (1991) Murray and Millet (eds), (1996) and Goldman and Andres (2001). Understanding the practical manifestation of military change necessitates insight into current military changes. In order to avoid the US dominance, and obvious African difficulties, military change in progress in three middle powers (France, Britain and Germany) is selected to illustrate the challenges involved even for developed countries. The work of Liard and Mey (1999) and Unterseher (1999) directs much of this latter investigation of military changes in modern armed forces.

The second debate is that of a Revolution in Military Affairs (RMA) as a contemporary and forward-looking military discourse on where the use of armed forces is heading. The RMA

debate includes not only futures thinking on employing future military forces of a particular kind, but also their employment context and rising criticism of this line of thinking. Although a burgeoning literature characterises this topic, the work of Kipp (1995), Cohen (1997), Pillsbury (1997 and 2000), Thomas (ed), (1997), Gareev (1997), Biddle (1998), Metz (2000) and Gray (2000) established much of the comprehension that was used to direct the exposé of the RMA on the international scene. Counteracting the growing RMA debate emanated from a number of theorists. Biddle (1996), Builder (1997), Freedman (1998), Grant (2000), McCabe (1999), and O'Hanlon (1998) contributed much to temper or warn against undue expectations of the RMA as a futures alternative and it remaining at odds with important elements of the future strategic environment. In turn, Biddle and Zirkle (1996), Van Vuuren (1998), Mahnken and Hoyt (2000) as well as Demchak (2000) and Arbatov (2000) represent sources of information from which a range of outlooks unfolds that contributes to understanding and presenting the debate beyond its US-Western parameters in the study.

A third prospective domain reviewed is that of the future strategic environment and it governing the context to be faced by future military institutions and for which they need to prepare. The future strategic environment represents an influential futures domain since what arises from it, configures the parameters directing the alternative futures faced by military institutions (Tangradi, 2000). Acceding to the pessimistic alternative as presented by Fukiyama (1992), Huntington (1993) and Kaplan (1994), obviously call for particular military futures. The optimistic alternative of warless futures or a minimum, but changed need for armed coercion, represents the other.

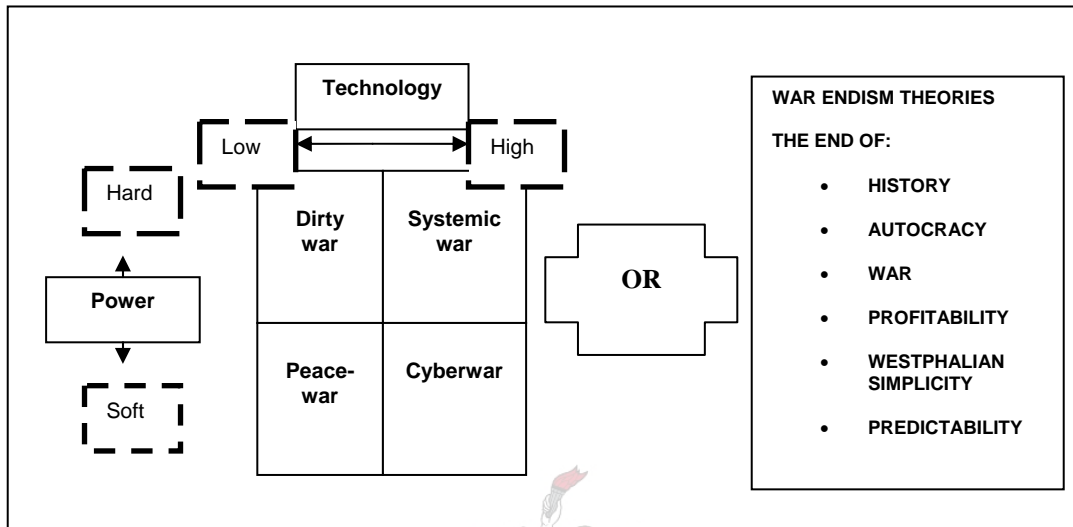
The changing strategic expanse not only places new demands upon armed forces as alluded to by Shultz (ed), (1997) and MccGwire (2001 and 2002), but offers glimpses of a spectrum of alternative futures for armed forces as illustrated by Metz (1997) that cannot be ignored. Spanning the non-lethal domain as explored by Alexander (1999) to that of future precision lethality argued by Metz (2000), towards change posited by post-modern thinking Burk, (1996), Walker, (1996), post-modern war Gray, (1997) and dramatic new uses of information Arquilla and Ronfeldt (eds), (1997) the strategic environment brings together the future, military changes and the realities of future operating theatres. One major prevision is that of asymmetry and new conflicts in and from the Second Tier becoming a primary future operating domain demanding new defence futures. Bunker (2001), Kaldor (1999) and Klare (2001) all direct their views towards these new threats and the responses they may elicit from future armed forces. The opposite alternative is the notion of transitional warfare that could culminate in alternative endisms<sup>8</sup> posited by Thompson in Burke (ed), (1998); Fukuyama (End of History); Kant (End of

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<sup>8</sup> Endism originates from Huntington (1989) who argues that by 1989 the theory of endism replaced that of declinism and, amongst others, points to a perception of certain kinds of war coming to an end.



Autocracy); Mueller (End of War); Kaysen (End of War's Profitability); Rosenau (End of Westphalian Simplicity); and Jervis (End of Predictability). Illustrative of these responses is the drive to cope with diversity, simultaneity, and dangers by attempting the military gymnastics depicted in Figure 1.2.



**Figure 1.2: Perceived Military Diversity in the Future Strategic Environment**

(Source: Own compilation from Roxborough and Eyre, 1999:30 ; Burk (ed), 1998:Chapter 3)

Alternative military futures and its guiding debates form the essence of the SANDF focus of the study. Military change, the mainstream debate dominated by the RMA and the undeniable structuring or guiding impact of military affairs emanating from the future strategic environment are harnessed to demarcate, construct and describe indicators of and possible alternative military futures for the SANDF at the dawn of the 21<sup>st</sup> century. As South African decision-makers explicitly chose to pursue a new and democratic pathway for civil society into the future, the SANDF had little choice but to co-embark upon this journey. The changes and futures bound to arise are investigated and reported as the SANDF contends with constitutional and democratic imperatives marginalizing military coercion, the duality of simultaneous constructive and destructive alternatives amidst growing political initiatives for integrative African military futures. These alternatives and their configuration of the future all impress the challenges of extended military change upon the SANDF, its decision-makers, personnel and South African society.

## 1.4 A COMPILATION OF RESEARCH ACTIVITIES

### 1.4.1 Secondary and primary research

The research conducted for this study involves secondary as well as primary research. The secondary research is confined to a comprehensive literature review (as indicated above) and reflects a qualitative nature. The primary research consists of conducting interviews, surveys and secondary data analysis as knowledge domains that contain elements of both quantitative and qualitative research. The primary research is predominantly conducted within the SANDF, but also extended to civilians and institutes, as well as secondary survey data deemed relevant to the study. The interviews include national as well as international views from individuals involved in the field of Futures Studies and in particular those with a military relevance. Although interviews are predominantly displayed in Chapter Six, Chapters Two, Three and Four also reflect particular interviews to clarify certain aspects. This research commenced in earnest during early 2000 as opportunities arose to meet with relevant academics, theorists and senior decision-makers that were willing to respond to the questions raised by the research problem. It continued to the latter part of 2002 and early 2003 when an analysis of the primary research commenced. New events during 2004 (such as the sudden announcement to conduct a defence review to reset the SANDF and *inter alia*, its roles towards Africa) were acknowledged where possible.

### 1.4.2 Reviewing the literature

The literature review was conducted from sources that included a noticeable component of electronic publications. From this review, a framework concerning the topic could be constructed and the theoretical setting and discourses relevant to military futures more coherently defined. Conventional publications were also useful to research sections that dealt with the historic side of the study and debates about past military changes - the Military Revolution in particular. In this regard, the focus shifted to authoritative sources available on matters of earlier military revolutions, innovations and their diffusion. A familiarity with these debates became indispensable for understanding recent, as well as future developments concerning military futures. This element of the study established the parameters of the historic element in researching and understanding the future (Boucher (ed), 1977) and the trend to present military change and future revolutions by first casting one's thoughts to the past as outlined by Murray, *et al.*, (eds), (1994) in particular.

As to more contemporary matters, journals, magazines and electronic sources became important sources of information. These sources served as a focal point for reporting on present and future

elements addressed in the study. American views and theories dominated the topics relevant to some themes of this study, in particular the RMA-debate, the future strategic environment and to a lesser extent, matters of military change. Non-US literature was therefore purposely traced and studied to compensate for this influence by probing the European, Russian, Chinese and Second Tier debates. However, it remains apparent that the US maintains an academic and military edge in the realm of research, theory building on military futures and adjacent debates. The contours of the debate about military futures, its pathways and evolving theory, its future operating environment and the future landscape as inferred from the literature and knowledge domains, set the indicators and subsequent scope for researching alternative military futures. From this knowledge base a setting is compiled to map out and investigate alternative military futures for the SANDF.

### 1.4.3 Primary research

The primary research is predominantly focussed towards the eventual South African locus of the study. Primary documents such as the South African Constitution and White Papers on Defence, Peace-Keeping and the Defence Industry, and HANSARDS form important policy pointers to pursue indicators of alternative military futures for the SANDF. In addition, primary sources about future matters and the SANDF strategic environment were studied. As for the latter, relevant reports scanning the strategic environment became a source of information about issues occupying the attention of SANDF decision-makers. However, these reports tended to be technical in nature and of limited value. Access to these reports was not denied and they became a longitudinal source of indicators on futures matters, but due to security restrictions, little substantial information could be gained for the purpose of the study. The alternative to this, and a valuable source of information, was the Draft on a Military Strategy for the SANDF by the Directorate Strategy (SANDF) since it housed a definite futures outlook on the institution, its future roles and missions.

Important futures-related information emanated from the South African participation in and leadership role in the African Union-NEPAD vision and initiatives. Primary documents, speeches, statements and draft documents of a political and military nature was used to trace this political outlook upon the future and the changing strategic direction of military initiatives to support the future political outlook and foreign policy trends it implied.<sup>9</sup> This unambiguous shift in focus to Africa and its own peculiar strands of military conflict contained valuable and influential indicators of futures change for the SANDF as a Second Tier military.

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<sup>9</sup> The extent to which the AU became institutionalised, a continuous source of information arose as its proceedings were reported and made accessible through the AU web site maintained by the Institute for Security Studies in Pretoria.

#### 1.4.4 Interviews to access particular knowledge domains.

Primary research was also conducted to augment some of the phenomena addressed in the literature. This is displayed in the study and emanates from the following:

***The military futures link.*** An interview with Professor P. H. Spies (former director of the Institute for Futures Research). The interview centred on the relevance of Futures Studies to the topic of military futures and what futures South Africa and the SANDF in particular should be involved with. An electronic interview on the futures-military connection was also conducted with Professor J. Dator of Hawaii University. Although not reflected, electronic exchange of ideas with Boucher (editor of *The Study of the Future. An Agenda for Research*) directed much of my thinking on the utility of Futures Studies towards military futures.

***The Military History-futures link.*** Interviews with two military historians (Professor (ret) J.S. Kotze and Dr G.E. Visser) assisted to define to the role and utility of history in studying the future of national military forces.

***The Military Revolution and Africa.*** Further interviews with a military historian from Stellenbosch University (Lt Col I Van der Waag) and an historian from Natal University (Professor J. Laband) took place on the topic of a pre-colonial military revolutions in Africa. The latter two interviews were deemed necessary in an attempt to address the marginalisation of or even belief that no such developments took place in Africa and were predominantly European experiences.

***The SANDF Military Strategy.*** An interview through electronic mail with the Director Strategy (SANDF) on the futures profile and departure of the new military strategy put forward by his directorate. The interview was conducted through two question and answer sessions towards the end of 2001 and later followed up with a personal meeting at the Military Academy. It dealt with the extent to which the new military strategy sought to contend with a need or mandate of alternative military futures. A follow-up took place via a personal interview with two senior staff officers of the Strategy Directorate that were closely involved in designing and revising the evolving SANDF Military Strategy about their futures approach and the futures profile of the new strategy. The matter of a military strategy for the SANDF was also taken up with Major General (ret) L. Le Roux, the former Chief Director Strategy and Planning SANDF. Major General Le Roux held and published particular views on contingencies that the SANDF should be aware of and alternative futures to take note of.

**Long-term outlooks for the SANDF.** A further interview was conducted with the incumbent Chief Director Strategy and Planning as to longer term views of what types of futures the SANDF might be looking at. A similar interview took place with the Chief Director, Command, Management and Information (SANDF) on the importance of information and information warfare and whether the SANDF is adjusting its outlook in this direction. A brief interview was also secured with the Chief of Corporate Staff (CCS) (SANDF) on the status of futures thinking within the SANDF.

The interview focussed upon his view that the difficulty of defence decision-making is accentuated by having to deal with complex future issues. These interviews were recorded, transcribed and returned to the respondents for further comment. They were then introduced as primary research information concerning the SANDF. An interview with Ms L. Heineken of The Centre for Military Studies of Stellenbosch University centred on her expertise as to whether the SANDF was truly moving into and assuming features to operate as a future post-modern military institution.

**The technology factor.** As to the high-tech - low-tech debate, several interviews were conducted. The Institute for Maritime Technology in Simonstown was approached and two interviews secured with Ms M. van der Merwe on whether the SA Navy was a futures-oriented organisation and where technology fits into the naval view of the future. A further interview was conducted with the Head of the War Games Centre of the Army (also the war-gaming centre for the SANDF) on the role of technology.<sup>10</sup> The matter of technology was further pursued in an interview with the Chief of Army Acquisition (currently Deputy Chief of the SA Army) as to how alternative futures oriented this domain and the future role of technology. The latter interview also included the newly established Landward Institute (LI) of the SANDF as Major General Jooste was closely involved in establishing and launching this institute with its stated future intent. During March 2002 the technology *indaba* of the SA Navy held in Simonstown was attended as to gain some insight into the technology debate of the SA Navy. By virtue of their role and naval platforms they are technology driven and therefore the need to report on this domain as well. Its confidential focus, however, meant that very little could be used in this study, except for its stated mission on technology and the SA Navy.

**Accessing political outlooks.** A number of further interviews on the matter of the future SANDF were conducted with members of parliament (MPs) serving on the Portfolio Defence Committee of Parliament. The Chairperson of the Defence Portfolio Committee was first interviewed on her

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<sup>10</sup> Of interest is the emergent connection between wargaming and science fiction to role-play futuristic events or ideas by using modern computer simulation technology (Gray, 1994). This modernisation of the early science fiction concept is a fast-growing practice in modern armed forces to clarify elements of their future operating domain.

views of futures matters and the direction the SANDF should take. This was followed by interviews with five MPs from the different political parties (the ANC, ACDP, IFP and DP) represented on the committee. These interviews centred upon their views and preferences concerning an optimistic alternative future for the SANDF, a pessimistic alternative, a dual role alternative, the rise of secondary roles, the African collective alternative and the war fighting alternative. No member of the New National Party was interviewed as the crossing-over for MPs was in progress and no NNP spokesman for defence matters was available. A more political outlook upon the future of the SANDF was pursued along this route.

#### **1.4.5 Surveys**

In order to address the futures realm of the broader SANDF, surveys were conducted amongst different target populations judged to be influential in determining the future pathway upon which the SANDF is to embark.

**Junior SANDF officers.** The first survey was conducted during the first semester of 2001 amongst 183 junior officers involved in tertiary studies at the SANDF Military Academy. These respondents were junior officers or candidate officers representing all services of the SANDF. The objective was to gain their views on future matters concerning the SANDF as well as future roles, whilst being at an early stage of their careers. The Military Academy respondents consisted of junior officers involved in preparatory studies, undergraduate studies towards obtaining a B Mil degree and Air Force pupil pilots involved in academic studies in preparation for eventual pilot training. The total student population present completed the questionnaire in one session under the supervision of the Section Military Development, a departmental assistant and the researcher.

**Senior officers: The Executive National Security Programme.** The second target population consisted of senior officers of the SANDF. A survey was conducted at the South African National Defence College in Pretoria amongst 98 senior officers attending the Executive National Security Programme (ENSP). The survey took place over the period 2001 to the middle of 2002 as it was directed at three consecutive ENSP courses over an eighteen-month period. The available candidates of each course completed the questionnaire in a single session under supervision of the Director, Centre for Military Studies of the University of Stellenbosch. This survey had as its objective the views of rising senior officers of the SANDF on the future and particular alternative futures they deemed important. These respondents were selected senior officers from all four services attending a strategic programme in preparation for senior future appointments within the Department of Defence. Civilians attending the ENSP were excluded, unless they served in the Defence Secretariat.

**Senior officers: The Joint Senior Command and Staff Programme.** A similar survey as above was done amongst the 88 officers attending the first two Joint Senior Command and Staff Programme (JSCSP) at the newly established National War College in Pretoria. This course combines the individual staff courses previously presented by the Services and is the senior military course preceding the ENSP. This survey had as its objective views about the future and alternative futures of middle rank officers earmarked for later senior appointments within the organisation. Respondents represented all four Service Arms and the researcher himself conducted the survey during the last week of July 2002 at the National War College. During March 2003 a similar survey was conducted amongst a further 89 members of the second JSCSP at the National War College. The latter survey was conducted by Col (Dr) J. Jacobs, Resident Historian at the War College. A total of 177 JSCSP candidates were accessed during the two surveys.

**Senior officers in their working environment.** A third survey was conducted during August to October 2001 amongst a population of senior military decision-makers within the broader SANDF. This survey was completed with the assistance of the Section for Affect Analysis of the SANDF in Pretoria. The objective was to obtain views about the future from senior officers involved in the day-to-day planning and management of the SANDF and its units. It took place amongst respondents working within the SANDF and predominantly located in or close to the Pretoria military community. A section on futures matters was attached to a questionnaire distributed by the Section for Affect Analysis as part of their annual opinion poll conducted amongst senior officers of the different services. These questionnaires were distributed to the respondents by field workers, followed up, and returned over a period of approximately two months. The data were subsequently processed and returned to the researcher. This survey was augmented by the inclusion of responses by Regional Joint Task Force (RJTF) commanders and their Chiefs of Staff via a second wave of questionnaires sent out during December 2001 and January 2002. The latter part of the survey was conducted by the researcher and a post-graduate student within the Faculty of Military Science. Each RJTF-commander and his Chief of Staff were contacted and a questionnaire faxed to their secretaries or aides for completion by the respondents after which the completed questionnaire was returned to the Military Academy by fax. Of the 158 questionnaires distributed, 74 were returned - a response rate of 46,8 per cent.

**Senior defence and military decision-makers.** A further questionnaire was distributed to senior military decision-makers at the top level (deputy-director and above) of the SANDF and Defence Secretariat. The underlying argument to their selection was that they were judged to be less concerned with day-to-day events, but rather involved with what the future holds and where

the SANDF should be heading. The CSANDF, service chiefs of the Army, Air Force, Navy and Medical Health Services and equivalent ranks of the Policy and Strategy, Training, Operations, Intelligence, Logistics and Resource Planning Divisions as well as the Inspector General (SANDF) were selected. As this was a crucial but small target population, each individual was approached through his/her secretary or aide whom in turn received and eventually returned the completed questionnaires. This personalised method ensured a high response rate. The questionnaire for this survey reflected a range of alternative futures for the SANDF. The option was left to the respondent to augment the set futures in the questionnaire with his/her own formulated futures. Each respondent had to present a cluster of four possible longer term, four probable shorter term and four undesirable futures from those presented or formulated via their own outlook or preferences. Eighteen completed questionnaires were returned.

***The Portfolio Defence Committee of Parliament.*** The above questionnaire was also distributed to politicians of the Portfolio Defence Committee of Parliament during August 2002 and again during May 2003 as the response rate to the first survey was deemed unsatisfactory. This parliamentary committee operates at the pinnacle of policy matters and decision-making relevant to defence. Accordingly it was reckoned that they are primarily to be involved in future matters as policy should have a forward-looking profile in order to assist or guide the SANDF to cope with and prepare for future military affairs. Permission was obtained from the CSANDF and the Minister of Defence to complete this survey. This questionnaire with its range of alternative military futures for the SANDF was distributed to respondents via the designated secretary and in consultation with the Chair for the Defence Standing Committee. In both cases the response rate was too low to justify the use of this survey.

***Questionnaires.*** Respondents from the Military Academy, National War College and National Defence College completed identical questionnaires. This questionnaire was primarily directed towards eliciting responses on the inclination of the respondent and the SANDF to influence the future and the selection of alternative futures to be contemplated and prepared for by the SANDF. The questionnaire distributed via the Section for Affect Analysis and the follow up to the Regional Task Forces were directed towards acquiring opinions on the importance to the SANDF of the future, its proper management and readiness concerning some establishment and control of its future.

***Confidentiality.*** The surveys were conducted in a manner that permitted anonymity (as prescribed by the SANDF authority for doing these surveys). Only the respondent's rank and institution were known for the respondents of the Military Academy, National War College and Defence College respectively. As for the second questionnaire, only the rank group is known and



the information as included by the Section for Effect Analysis. The responses received from the RJTF commanders and from the service and divisional chiefs, contained their particulars as it was faxed to avoid the risk of lost and repeated surveys. These particulars are, however, not included in the statistics and eventual findings resulting from the two surveys. The questionnaires completed by the Defence Standing Committee were anonymous with the only information being that the respondent is a member of the Parliamentary Portfolio Committee on Defence and thus a politician and not a member of the armed forces.

**Measurements.** As for the questionnaires completed by respondents from the Military Academy, National War College, the ENSP population, that used by the Centre for Affect Analysis and for the RJTF-commanders, each question contained a range of alternative responses in order to assist respondents with the topic not well-known to even senior military officials. All questionnaires were predominantly constructed according to the close-ended style with the respondent having to choose from a range of fixed responses to each question. For the respondents from the Military Academy, National War College and Defence College one question was open ended where additional alternative futures could be indicated. This was omitted from the second questionnaire (completed via the Section for Effect Analysis and the RJTF-commanders) as only a limited number of questions were allowed. The questionnaires completed by the Service and Divisional chiefs as well as members of the Defence Standing Committee were set as a range of alternative military futures from which to choose. It contained the further option of adding own perceived futures and grouping their preferences into desirable and undesirable alternative futures for the SANDF.

**Data analysis.** Completed questionnaires from the Military Academy, National War College and ENSP, the RJTF-commanders, Service and Divisional Chiefs and the Parliamentary Defence Committee were processed at the Military Academy by utilising the SPSS-statistics programme. Responses to the questionnaire managed by the Centre for Effect Analysis were processed at their location in Pretoria and posted to the Military Academy. The data were augmented with the responses from the RJTF-commanders as it represented a corresponding response group and questionnaire.

**Secondary data analysis: OMNIBUS 3 and 4 of 2002.** In order to obtain a broad spectrum of preferences from the SANDF as a population, use was made of a 2002 representative survey conducted by the Centre for Affect Analysis (SANDF). Access was gained through a request to the Director Affect Analysis after which the Senior Staff Officer and a senior researcher made available the relevant data of their OMNIBUS 3 and 4 (November 2002) survey data. This

release facilitated insight into particular variables used to perform the survey and deemed relevant to the South African focus of this study.

## 1.5 SUMMARY

If the past can be studied in a scientific way, why not the future? This question is as valid for the military field, as for others. The difficulty or perhaps obscurity of this approach is also the very rationale for this study: to generate scientific knowledge about future phenomena that hold great destructive power, but is vulnerable to ignorance and indifference. Subsequently its future use, manifestation and dangers or utilities in part remain embedded in a pessimistic and destructive past. This tendency negates a proper consideration of alternatives of a more optimistic and constructive kind.

Studies of the future include military futures and it is merely the focus - to prevent, tone down, better understand or change it - that is modulated. Although the ultimate optimistic future holds sway with warless or, as a second prize, constructive military futures, the more pessimistic alternatives are buffeted between war forever or sophisticated and/or robust variants thereof. Preferences in this regard however, remain in the domain of human decision-making and the human psyche for as long as military futures and human beings constitute primary variables of the futures equation.

The study that follows seeks to promote a deeper understanding of the pathways and domains that introduce alternatives from which decisions-makers have to choose. This choice needs to be embedded in both the past and the future, as both fields are reservoirs of the known and lesser-known variables that ultimately constitute the future and its military sector. Military futures, military change towards the future, the RMA as an apparent dominant military future and the tempering influence of the strategic environment are investigated. Drawing upon these debates in the research and reporting that follows, the case of the SANDF is reviewed and upon which the reader can draw for information and insight into this important, but underdeveloped field of study.

## 1.6 CHAPTER OUTLAY

Chapter Two of the study is directed towards the nexus between Futures Studies and military futures. Here Futures Studies and its connection to the phenomena of war and future warfare are investigated and described. The focus is first upon the historic futures-military connections in the evolution of Futures Studies. The importance of the military-futures connection is then extended by illustrating American, Russian and Chinese futures thinking and the futures-military connection upheld by countries who aspire/aspired to house and maintain professional armed forces in future. A third focus is the use of different methods to probe the future and that

optimism cannot independently or indefinitely sustain future outlooks. Subsequently the military domain and its role and applicability is highlighted as well. The crucial matter that is addressed turns upon the inclusion of matters of war, defence and military affairs when outlining the future to contend with their inherent destructive potential by also harnessing the constructive utilities of military forces to prevent destruction and uphold optimistic alternatives.

In Chapter Three important variables driving military change, as well as the readiness or inclination of military forces to change or adapt in the face of future needs direct the gist of the discussion. Theoretical tenets on paradigm shifts are used as a backdrop to first argue a fundamental theory of change, or, at the minimum to use it as a explanatory theory for military changes encountered. Secondly and more directed at the military realm, innovation and diffusion as agents of change are addressed. In particular, the readiness of military institutions during peace and war are more closely studied to establish the essence of military change. Thirdly, and at the less theoretical level, the researcher turns to military revolutions to outline fundamental changes in military affairs of earlier times, albeit a debate not characterised by futurology and conjecture. To balance this European and Eurocentric dominance of the debate, instances of military change in Africa are also investigated to demonstrate earlier indicators of the more universal nature of military changes towards building more effective armed forces. The chapter is concluded by outlining military change in France, Britain, and Germany at the turn of the 20<sup>th</sup> century and the persistent complexities faced even by modern armed forces when entering the change-military futures arena.

The RMA, as the main theme of Chapter Four, infuses a theoretical, but more futures debate on particular developments that underpin contemporary military changes and, in particular, those deemed to dominate future military forces. Four main themes are addressed in this chapter. First, the RMA debate and its wide-ranging and somewhat unlimited growth as a mainstream debate for directing futures thinking on the use of military coercion. Secondly, attempts to create some order in the RMA debate to better comprehend its contributions and limitations towards the futures realm of armed forces by delimiting country-perspectives on its current status. Thirdly, endeavours to tone down the RMA debate and define or delineate its applicability and utility to actors outside the Developed World. Fourthly, an outline of the growing criticism of the RMA as a general explanation for contending with the expanse of future threats as they arise from the future strategic environment and new demands put to armed forces.

Chapter Five is dedicated to describing the rising future security landscape. It is upon this landscape that future military institutions are bound to ply their trade and five topics are addressed in this chapter. First, the meaning of the term strategic environment is set out in order

establish the role of armed coercion within this province. Secondly, an outline is done of the trends thought to be configuring the future strategic environment and the bifurcation and multiplicity of the threats (military threats in particular) and responses that are emanating or foreseen to emanate from it. Thirdly, an exposé of the security predicaments of Second Tier countries and in particular difficulties from the African strategic landscape. The chapter is concluded by first emphasising the diversity, simultaneity and unpredictability of the future strategic environment and secondly, positing an increasingly expanded response ladder for future armed forces as required by the brunt of conflicts emanating from the Second Tier in particular.

Chapters Six and Seven interface the research reported in Chapters Two to Five with the case of the SANDF and centres upon [1] the military-futures nexus, [2] incremental rather than dramatic military changes towards military futures, [3] limitations of the RMA as an explanation and feature of a general military future and [4] the expanded and simultaneous conflict spectrum exemplified by the future strategic environment. This final part of the study is therefore about futures matters and the SANDF in terms the military futures nexus, the dynamics of military change, applicability of the RMA debate and the growth of insecurities and threats arising from the evolving strategic environment. Accordingly, the following four sub-themes are selected to structure this chapter. First, the drive to change and set the SANDF upon a new futures pathway through a rising democratic dispensation and an explicit commitment to Africa by remodelling South African armed forces through defence policy and its military strategy towards alternative or perhaps alternating role profiles. Secondly, the escalating African connection and to further adjust the SANDF to address the non-traditional, but dangerous uncertainties of the future African strategic landscape through multilateral structures and arrangements directed at promoting security, not traditional military coercion and even a notion of endisms of war. Thirdly, the presentation of empirical findings on indicators of, preferences for and views of the SANDF and its envisaged non-traditional future pathway. These chapters are concluded by underlining the growing *de facto* duality of the SANDF and the apparent indifference to or silent consent from the South African defence community with the non-traditional futures and war fighting focus for the future.

In Chapter Eight the study is summarised and concluded by accentuating the most important matters concerning the analysis of the debate on alternative military futures and the exploration of the military futures concerning the SANDF. Included in this final chapter are the limitations experienced by the researcher as well as recommendations for further research pertaining to the SANDF as it increasingly assumes a prominent profile as a future policy instrument of the South African government.

## CHAPTER 2

### THE NEXUS BETWEEN FUTURES STUDIES AND MILITARY FUTURES

#### 2.1 INTRODUCTION

*"Futures Studies constitute an interdisciplinary, methodological, systemic and critical analysis of human nature, experience and knowledge with the primary purpose of understanding and developing humanities' actual and potential abilities to forecast and influence the emergence of alternative futures."* (Baker, 1987:87). As a field of study, it has no simplistic origin or definition and according to Masini (1993:1) only assumed the profile of a scientific field in the thirty years preceding 1994. Although the foundations of Futures Studies can be traced back into ancient history, its current status results from a dire need to ascertain what the future holds. In this regard McHale (1969) points out a causality between Futures Studies and rapid and interrelated change presuming that the faster the change, the further into the future we need to look (Masini, 1993:2). This outlook is more lucidly expressed by De Jouvenel in his remark: *The great problem of our age is that we want things to change more rapidly, and at the same time we want to have better knowledge of things to come.* (De Jouvenel, 1967:45).

The purposes of Futures Studies are threefold. to discover or invent, examine and evaluate, and propose possible, probable and preferable futures. (Bell, 1997:42). This triad of purposes is primarily addressed through futures research of which the essence is to generate alternative futures as choices for decision-makers (Boucher, 1977:7). It is within the idea of alternatives, it can be argued, that the triad of purposes of Futures Studies finds meaning. This in turn raises the difficulty of clarifying the future and to rather present it as alternatives. History, however, points out that this was not always the case. Viewing the future as unfolding alternatives primarily came about after the First and Second World War to cement the connection between war and how the future is to be perceived (Clarke, 1974a:74).

If the argument is upheld that the importance of Futures Studies increases as the world becomes a more complicated realm, then military-strategic complexities facing defence decision-makers should not be excluded or marginalized. Furthermore, if the rate of global change and resultant complexities are to increase, attempts and demands for clarity about military futures ought to increase as well. Although Spies (2001) is of the opinion that military futures are not more complex than non-military ones, war contains the potential to be deeply destructive. This destructive potential and its futures connections constitute a primary rationale for investigating a link between Futures Studies and future military alternatives as presented in this chapter.

Although military matters initially seemed prominent, the Futures Studies - military futures link of late appears underdeveloped. It is largely ignored in recent mainstream Futures Studies and the resultant literature. This is an artificial void as military matters feature as important variables in futures research and the rise of the futures field during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. Grand politics and strategy are still directed towards future peace, future progress, future prosperity and the pursuit of these outcomes is prone to include the military domain as well.

This chapter is directed at the evolvment of and the link between studying the future and the presence of military matters as a field of focus. First introduced are the early origins of the field of Futures Studies. Its rise as a scientific field of study is outlined and includes the founding of a theory about the future and concepts of futures thinking. A second objective is to reconcile Futures Studies with the future military domain. Here the pertinence of war, military technology and future war is addressed to point out the early military connection in the ascent of Futures Studies. This link is substantiated by also outlining indicators of the military-futures connection in the USA, the former USSR and present Russia as well as the People's Republic of China. Alternative futures and the imperative to also consider the military dimension of such alternatives are then addressed by first sketching the enduring nature of the military need before discussing particular challenges such as complexity and uncertainty faced by those having to decide about future military matters. The presentation of preliminary findings on Futures Studies, national military forces, and their futures concludes the chapter.

## **2.2 FUTURES STUDIES AS A SCIENTIFIC FIELD OF STUDY**

In order to understand the rise of Futures Studies, its history needs to be known before the development of its theoretical foundations can be examined. It was only after establishing the latter that substantive research emanated concerning the future. The following section therefore first outlines the historic origins before presenting certain earlier theoretical fundamentals about Futures Studies. Against this historic and theoretical backdrop, certain delimitations and guiding factors concerning Futures Studies as a research domain are presented.

### **2.2.1 Futures studies in history**

History, although it may seem a contradiction in terms, is the domain within which the origins of the field of Futures Studies become visible. Outlining the rise of Futures Studies brings to the fore an early military variable that had an observable influence upon the developmental pathway of the field. The military factor initially featured somewhat unobtrusively, but became more visible

over time as the interplay of military and non-military variables chartered the field of Futures Studies towards its present day status.

Ancient historians and philosophers are deemed to be foremost contributors to the origins of studying of the future. Historians were the first to contribute to a database of knowledge that made it possible to notice and understand that a way of life changes over time. It is furthermore perhaps not by chance that a soldier, the Greek general Thucydides, is being cited as influential in establishing the idea of change by his accurate reporting of military events of his time and in particular the long Peloponnesian War (431-404 BC) (World Futures Society (WFS), *circa* 1999:1/11). It subsequently became possible to identify change by studying historical facts over time that in turn fostered an understanding that the past differs from the present. Once people realised that their culture changed as time went by, it would become the impetus to probe the future to find out what it held and to understand the dynamics of such changes (Kressley, 1997 :3).

Philosophers such as Plato contributed as well by fostering early ideas about the creation of the just and ideal future society. Utopias and dystopias for example, represent early alternative images about the future and that such futures, once constructed, could be different from the present. Plato judged that military man could make an equal contribution towards the security of this future state and thus to the predicted ideal future society (WFS, *circa* 1999:2/11). Along this line ideas of a future utopian society that differed from the present spearheaded later endeavours in literature by More (*Utopia*) and Bacon (*The new Atlantis*) to name but two examples, to create imaginary perfect or preferred future societies for humanity (Masini, 1993:5).

A further ancient and non-secular contribution is from the realm of religion. Although Kressley (1997:2) outlines technical religious rites and practices in order to predict specific future events, Christianity perhaps presents a more structured view by means of alternative futures becomes visible. These include apocalyptic, teleological and prophetic views about the future. Each of these views holds an individual prophecy of how the future is to unfold and an early version of the future not being a linear unfolding of preferred events. The apocalyptic view is quite pessimistic with the world ending in some cataclysmic event. The teleological angle is that the future is to unfold in a particular way towards a preordained purpose that is yet unknown. For the prophetic view, it views the future being one of hope and responsibility and thus the optimistic alternative of the three and less anchored down by what unfolded in the past. Inherent to the religious role the book of *Revelation* contains a further representation of the future within the realm of religion. These views, however, are tempered by the more secular outlook of the future being shaped by what men decide to do. (Kressley, 1997 :2 ; WFS, *circa* 1999:2/11).

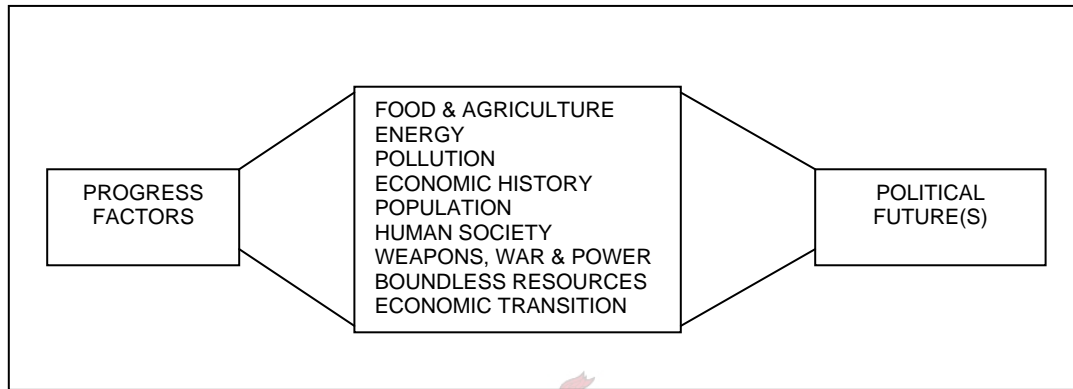
Over time, the idea surfaced that the future is not a closed entity and it began to assume outlines of a field of knowledge. These early beginnings are quite meticulously outlined in *The Study of the Future* published by the World Future Society. In part, the field unfolded as independent publications on some future issue or view surfaced. *Utopia* by More, *New Atlantis* by Bacon and *Encyclopedie* by Diderot and d'Alembert are publications that contributed to the idea of ... *the ability of man to improve his condition through science and industry*. (Cornish, 1990 :55). Bacon, according to Cornish, made humanity aware of change and thus to anticipate change and subsequently forecast what changes may occur. As these changes were to materialise in the future, they also tied in with the idea of influencing the kind of future that is to unfold. One major idea that flowed from this is the notion of progress and it became a dominant driver of ideas about the future (Baumann, 1997 :40).

*A belief in progress is a belief that one's culture will change for the better in the years ahead, but it does not in itself indicate just what alterations may occur in the human situation* (WFS, circa 1999:5/11). In order to clarify the latter, fiction appeared that addressed the underlying uncertainty. *The Year 2440* by Mercier in 1770 and *The Reign of George VI, 1900-1925* in 1763 by an anonymous author and *Sketch for a Historical Picture of the Progress of the Human Mind* (1793) by de Condorcet are early endeavours to trace and present the outlines of future developments. As later events began to support the aforementioned publications, the idea of forecasting, progress and its utility evolved in Europe where much of the debate took place. Progress from the past and present remained primary until Bernard de Fontenelle pioneered the idea of universal progress. This acted as a watershed to project the idea of progress into the future as well (WFS, circa 1999:6/11). This shift in thought implied that progress is not confined to the boundaries implied by the past and present, but its extension into the future could contribute to dramatically different futures.

Much speculation on progress and the future took place as it arose during the eighteenth and nineteenth centuries and became observed in events, discoveries and the resultant prosperity that transpired (WFS, circa 1999:7/11). One spectrum of this speculation about the future materialised as science fiction and forecasting of specific events whilst another segment of the literature remained focussed upon the future utopian realm of societies. Technology paved the way for an international audience to become exposed to the rise in futures literature - whether science fiction or utopian and social in kind with it subsequently gaining acknowledgement as a separate publication field. However, as presented in *The Discovery of the Future*, it appears that non-fiction literature received its share of attention as well by forecasting on progress about matters such as coal, population growth, electricity and oil as important areas in need of having



their futures contemplated as well (Cornish, 1990, 63-65 ; Peeters, 1979:1). This latter focus represents part of the migration from attending to the future as an informal activity towards that of a business for studying the future in the interest of humanity and its survival. These latter domains became prominent future focus areas during the 20<sup>th</sup> century and main themes of a futures publication by Peeters, *Can we avoid a Third World War around 2010?* (1979). These connections are illustrated in Figure 2.1.



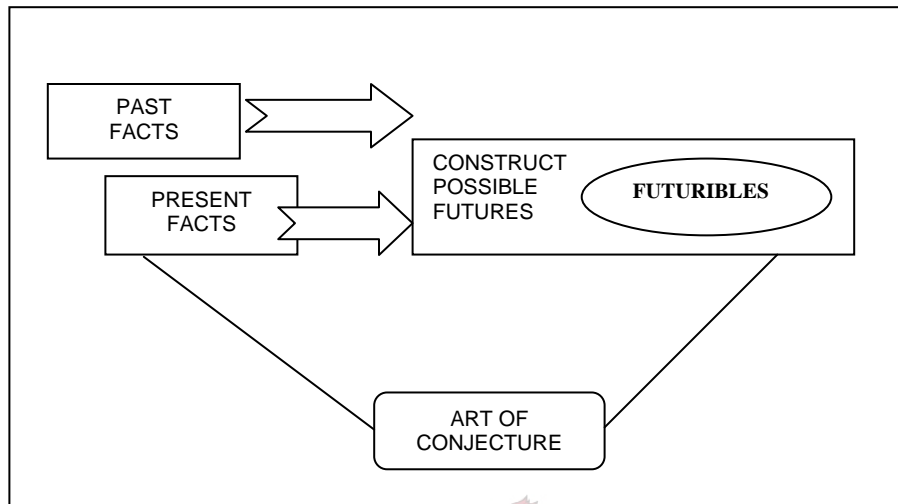
**Figure 2.1: Themes on Human Survival in Futures Studies**  
(Source: Own Compilation)

The above diagram could in retrospect be judged to also contain elements of futures thinking in that it is not merely the now and the past that needs to be known, but the future comes into play as well. A fixation with the future is quite absent in earlier publications, but futures elements are nonetheless discernible. However, the earlier futures domain displays only a partial structure or epistemology to understand and create the future and thus holds limited scientific merit and this void needs to be addressed. To explore the latter, it is necessary to review the more recent maturation of the field.

### 2.2.2 Towards a theory of the future

De Jouvenel (1967:40) described man as a being who needs the future and subsequently strives to form adequate images of future realities (*futura*) that inhabit the future domain. In this man is assisted by his knowledge of the past and in particular the way in which facts are being recorded and stored (Maupertuis in De Jouvenel, 1967 :13). Maupertuis further argues that if knowledge of the past is recognised as an art, what about an opposite art - that of foreseeing the future (Maupertuis in De Jouvenel, 1967:14). From this question two important French derived futures concepts arose - *prévoyance* and *prévision*. *Prévoyance* describes a mere effort of the mind and *prévision* a complete and assured possession of the future. These concepts promoted

forecasting - an intellectual activity of forming opinions about the future. From this derived the art of conjecture that is deemed to be a less deterministic and more probabilistic intellectual construct (De Jouvenel, 1967:16-17) and is illustrated in Figure 2.2.

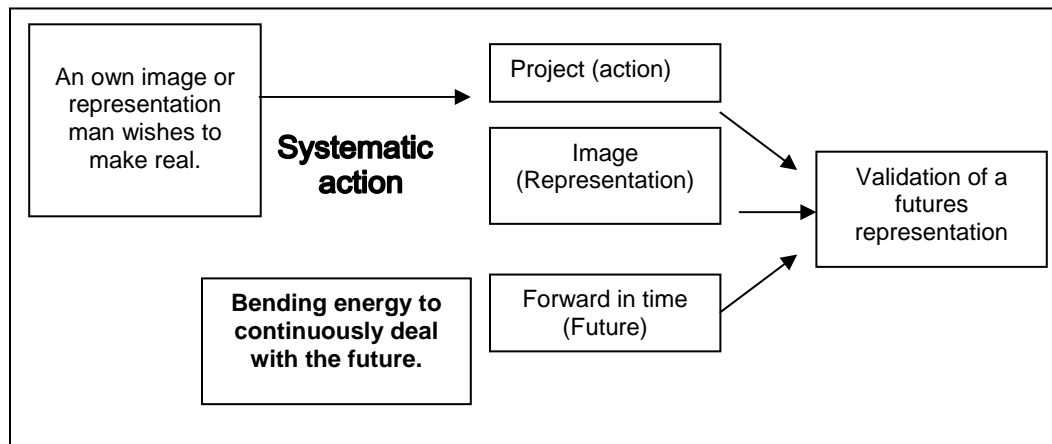


**Figure 2.2: The Art of Conjecture**

**(Source: Own Compilation from De Jouvenel, 1967)**

The intellectual process of coping with the unknown future by asking the right questions and forming opinions in the mind about future alternatives became the dominant way of using methods to understand and clarify the future. From these representations in the mind result actions, systematic action (as opposed to reactions), aimed at validating a futures representation. If this action is carried out with sufficient assertion about the future, it becomes a pathway towards creating that future (De Jouvenel, 1967:25-26). This contention is illustrated in Figure 2.3.

The above activities transpire against the backdrop of uncertainty for the *social surface*, as expressed by De Jouvenel, is prone to deformation as opposed to a stable surface or a mere extension of the present (De Jouvenel, 1967:37). If the social surface remains stable, with no intervening variables appearing, achieving the future representation of the mind is quite possible. Depending on the extent to which deformation takes place, whether man-made or not, the pathway towards the future becomes entrapped and in need of alternatives or interferences to be mapped out in advance. Certainties and uncertainties are thus in constant interplay to influence and direct the art of conjecture by taking an image and projecting it into the future in an effort to have it realised at some future place and time. This projection and realisation of the future demands some knowledge about Futures Studies and its aim of researching and delimiting it.



**Figure 2.3: Creating the Future through Representations of the Mind**  
 (Source: Own Compilation)

For Futures Studies to be instrumental in paving the way to have an image projected and realised in the future supposes that the field's characteristics support this probability. It is therefore necessary to also review some general observations on researching the future for they represent utility foundations as well as tempering or moderating catalysts for the field. In order to know more about the future, to guide future actions and avoid problems futures research is utility oriented. A global outlook empowers it to accommodate both soft and hard data as well as to minimise future surprises. Bias is inevitable and even if only implicit, its recognition should, nonetheless, be emphasised. In some way bias is desirable as the future is to be delimited in support of some focus of interest. Whether hard technological or softer and humane in kind, a particular bias is to be expected. Outputs of research about the future invariably affects thinking and modifies behaviour. The future thus becomes influenced and stands to be changed by this process as actions and reactions interplay. Results of futures research are also not always viewed as benevolent. In particular a challenge to the *status quo*, even if necessary, may not always be welcome (Harman in Boucher (ed), 1974:76-77). These observations ought to be considered in the light of futures research contending in some fundamental way with the future of humanity and therefore the visible slant towards bias, utility and resistance.

The views held by Harman can be extended to more formal characteristics defining the field of Futures Studies. These characteristics are transdisciplinarity, complexity, globality, normativity, scientificity, dynamacy and participation (Masini, 1993:17).

**Transdisciplinarity.** To understand complex problems of the future, contributions of jointness become important. As such mathematics, psychology and sociology support the Delphi technique of obtaining alternative futures preferences. Sociology, mathematics and history support scenarios whilst mathematics, sociology and statistics join to create global models (Masini, 1993:18). This is augmented by multidimensional approaches injecting different ways of looking forward and viewing the future in more diversified ways.

**Complexity.** The content of Futures Studies is complex as it is related to uncertainty and thus in need of more variables to address the problem. It is furthermore linked to how different groups view the future and whether it is rather one of living with or in complexity than trying to manage it (De Jouvenel, 1967:47 ; Linstone in Linstone and Simmonds (eds), 1977:79). Complexity is recognised as a future companion and Futures Studies represents one pathway to contend with its challenges and that of uncertainty in particular.

**Globality.** Future matters are to be considered in their global (planet earth) dimensions. As future issues and challenges become global in their origins and outcomes, local solutions and efforts begin to fall short. The applicable approach to and subsequent solutions are increasingly contained in global efforts. Accordingly, as and if globalism continuous to increase so will the spectrum of future problems and their management or solution increasingly feature in this domain as well. The struggle to contain the effects of globalisation is currently a case in point as society, financial institutions and governments struggle and clash to map out new alternatives to contain its current and future impact (Masini, 1993:20-21 , SABC News, 30 September 2002).

**Normativity.** This characteristic holds sway with future values, desires or needs. As such normativity refers to proposals for action or postulates a future and by so doing invokes a search for transition in the present towards that goal. Postulating a future via imagination and creativity cannot be divorced from values and their preferences, desires and fears. The latter is thus glaringly present in normative studies of the future (Masini, 1993 :21-23). This movement from the present to the future and the inertia (such as organisational culture or service cultures found in military institutions) it has to overcome is an important matter focussed upon in this study.

**Scientificity.** The scientificity of Futures Studies draws much criticism in that it is either viewed as impossible, or as an art or containing strong elements of scientific value. The scientificity of Futures Studies rather originates from approaches and methods adopted and that correct questions are asked by properly defining the problem and its structures as opposed to pure scientific experiments. Although not rigid, the methodology's ways and means grew over time

towards the end of a quasi-scientific grounding of Futures Studies (Masini, 1993:23-24 ; Simmonds in Linstone and Simmonds (eds), 1977:15).

***Dynamicity.*** As a discipline, Futures Studies constantly need to adapt and change for this became the founding imperative for the field. Constant change, living with complexity and globality represent constant flux and supposes coping with it if the future is to be comprehended and presented in a coherent way (Masini, 1993:25). The whole gist of rapid change and complexity lay at the root of studying the future. Dynamicity is thus a permanent condition or even precondition for those working in the field and in particular containing and structuring this characteristic by means of credible alternatives.

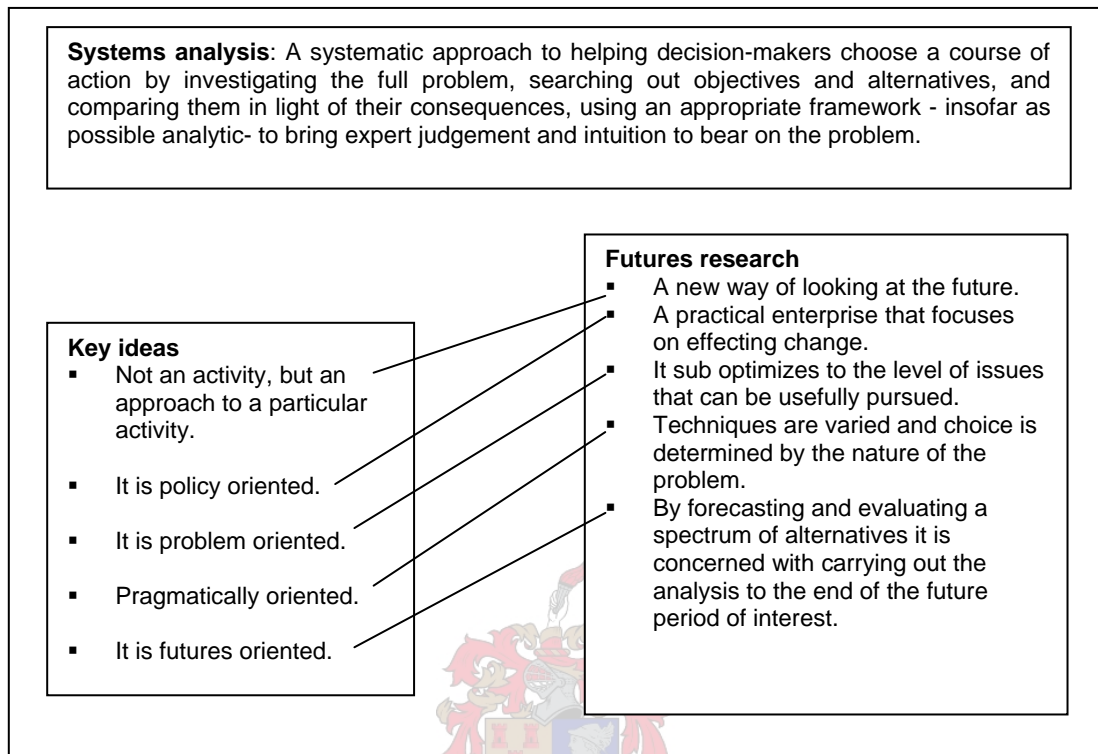
***Participation.*** It is argued that all who have a stake in the future need to participate in outlining and achieving or realising it. This implies humanity, state as well as non-state actors and although seemingly utopian in outlook, participation is judged to be the future of Futures Studies (Masini, 1993:26). Whilst earlier deemed to be the domain of certain futurists or gifted people (as Kressley indicates) it currently constitutes a field demanding broad participation as a result of living in a world increasingly characterised by the erosion of previously acknowledged borders. The latter is all the more a contemporary matter acutely identified and outlined by futurists Heidi and Alvin Toffler in their publication *War and Anti-war*.

### 2.2.3 Researching the future

Studying the future also implies research (Boucher (ed), 1974:6) and it is important to delimit this activity. Boucher refers to E.S. Quade of the RAND Corporation and his work on systems analyses as a research strategy. By reflecting upon systems analysis, Boucher made use of the attributes mentioned in a survey amongst futures researchers on defining their occupation and point out the correspondence in activities of systems analysis and futures research respectively. This overlap is illustrated in Figure 2.4.

The approach by Boucher should also be viewed against the backdrop of Quade's opinion that systems analyses is directed at areas where no accepted theoretical foundation exists for directing research and theory building. In this regard Quade refers to two further important matters relevant to the military focus of this chapter. He demarcates defence decision-making in particular and the use of expert judgement, (as a useful tool) to lower uncertainty, as two specific variables for employing systems analysis and the domain of Futures Studies (Quade in Trager and Kronenberg (eds), 1973:206). Systems analysis is therefore relevant to the refinement of

Futures Studies by introducing not only elements of scientific reasoning in searching for the truth, but a defence or military focus as well for arguing the Futures Studies - military link.



**Figure 2.4: Systems Analysis and the Field of Futures Studies**

(Source: Boucher (ed), 1974:6- 8)

According to Boucher (1977:7) the very essence of futures research lies in exposing the realm of choice by generating alternative futures. According to Jones (in Linstone and Simmonds (eds), 1977:206) the basic assumption is *...that policies developed or decisions made against a properly researched background assessment of likely future developments, and which have been objectively appraised by disinterested groups to minimise the risk of unanticipated side effects, are generally likely to be better than those developed in the absence of such aids.* It is, however, not only about generating alternatives. The extent to which time, space and events are relaxed or tightened, it expands or restricts alternatives and thus certainty and uncertainty. As uncertainty increases, so does the necessity to define the range of credible alternatives as clearly as possible. However, studying the future should not be unduly centralised or co-ordinated for diversity of approach and exposure to peer criticism is just about the only safeguards decision-makers have. The need should be determined outside cultural straightjackets that channel thinking whilst understanding is to be facilitated by allowing the scope for new concepts in order

to address new developments (Jones in Linstone and Simmonds (eds), 1977:208). This latter view, keeping in mind the military focus of this study, is a major difficulty that military institutions have to cope with when considering their movement towards alternative futures that are prone to clash with entrenched military cultures.

The research domain of Futures Studies also needs to cope with its own strand of limitations when formulating alternative futures. For one, the field is not very mature and thus not supported by a long developmental pathway. It was only during the early sixties, according to Helmer, that properly directed futures research and forecasting came about (Helmer in Boucher (ed), 1977:244). It furthermore had to persistently cope with problems of the real world - fast change and complexities in particular. Contending with the difficulty of addressing long range issues whilst knowing that operational conditions at the time of implementation are to differ substantially from the time of planning also make matters more intricate. Due to needs thrust upon it (war for example, cannot always be put on hold), it is close to impossible to always construct neat scientific theories before engaging in the future and therefore the acknowledgement of it being prescientific and outcomes subjected to later adjustments (Helmer in Boucher (ed), 1974:245).

Researching the future still remains more of an art than a science for elements of bias and values are close to impossible to dismiss under these conditions. As rigid theory construction, empirical data collection and controlled experimentation are difficult, it remains a challenge to achieve sufficient objectivity about the future and avoid being misled. Systems analysis, to the extent that it becomes merged into researching the future, can act as a counter although Quade (in Trager and Kronenberg (eds), 1973:208) acknowledges its limitations and persistence of elements of it being an art. An idealised value-free position as assumed for pure science is therefore improbable.

This scientific argument remained a topical issue during earlier times and was addressed by Helmer and Rescher of the RAND Corporation in a 1959 paper *'The epistemology of the inexact sciences* in which they argued that *....in a field not yet having scientific laws, the testimony of experts is permissible*. It therefore promotes to dependence upon experts and [1] their judgements about the future based upon intuitive insights into real world phenomena and [2] applying their expertise as role players in simulations as well as [3] their imagination and inventiveness regarding long-range strategies for action programmes to address problems of the future (Helmer in Boucher (eds), 1974:244-245). Futures Studies rather strives for a bias-free position than one free of values for the latter is more difficult to avoid - if possible at all. However, the bias inherent to mankind driven by culture and history remains problematic and needs to be acknowledged rather than denied. (Harman, 1976:14-15). One domain within which this

becomes quite apparent is that of military futures. Futures Studies nonetheless assumed an increasing role in influencing future views and outcomes amidst its acknowledged bias and expertise in the management of violence by military institutions.

## **2.3 THE MILITARY CONNECTION IN FUTURES STUDIES**

In its rise as a field of study with its accompanying literature, Futures Studies first tended to focus upon particular spheres such as progress of humanity towards some optimistic future. This tendency to reflect the future in primarily utopian and optimistic terms had a downside as well that was not only about difficulties inherent to its development as a scientific field. Devastating wars since the second half of the 19<sup>th</sup> century began to challenge optimistic futures and them positing linear change towards progress and prosperity or different sequential phases of development and change as envisioned by theorists. Thus entered the view that less optimistic and utopian views are to be deemed part of those futures contemplated for humanity and military matters, as briefly alluded to in the above passages, played an undeniable role in effecting this shift.

### **2.3.1 The early military connection in studying the future**

The idea of one future (mostly optimistic) in realising representations of the future whether through prediction, prophecy or merely describing what is to unfold, tended to be a dominant perspective during earlier times. In contrast to this optimism that inclined to shape thinking and subsequent views about the future, military events and its affairs, challenged the equilibrium of the social surface (as referred to by De Jouvenel) against which futures thinking had to take place. As science fiction grew as a way of outlining images of the future and communicating it to society, two phenomena nudged the evolving field of studying the future and the use of military coercion into closer proximity. The one was the outbreak of wars and the other an understanding that the future is not to evolve only along pathways of optimism, prosperity and progress.

War, in retrospect, not only contributed by introducing elements of pessimism into futures thinking, but it also brought along certain skills to enhance ways to address future uncertainty. War furthermore reiterated that human choice can send nations down a future path of war or that of peace - a matter addressed by H.G. Wells in his view that human choice can lead to destructive futures. The idea of a future utopia could therefore be severely disrupted by the human choice of not conducting world affairs in a rational way (Clarke, 1970a:172).

The non-military paradigm of progress that directed the exploration of particular futures for some time and underpinned its content became challenged and towards the end of the 19<sup>th</sup> century had



to trade some space to rising military influences. These influences originated from the military use of new technologies, how military matters began to influence the future as well as presumed shapes of future warfare. Insights about future war became visible in late 19<sup>th</sup> century literature such as *The Battle of Dorking* (1871) about a future war between Britain and Germany. Later Russian theories of Bloch and Neznamov on whether new factors were entering war and if technology was to put warfare beyond the reach of commanders and the control of man added a further futures dimension to military affairs (Baumann, 1997:43-44). Such influences of military concerns and future warfare upon the field of Futures Studies can be traced in futures research literature and filtered to outline its interaction with how the future of society changed over time.

### **2.3.2 Military futures in Futures Studies. Establishing a relationship**

Since September 1969, a regular column by I.F. Clarke appeared in the futures journal *Futures*. This column addressed certain observable trends in the development of the field of Futures Studies, although the field did not officially exist for much of the earlier period referred to by Clarke. Acknowledging it not being the aim of his essays, what is important concerning the topics addressed in Clarke's columns and relevant to the focus of this chapter are [1] persistent themes connecting warfare and studying the future as well as [2] influences of past or future warfare in particular. This connection or presence is illustrated in Table 2.1.

Table 2.1 represents a selected component of those articles that appeared on the evolvement of futures research and eventually Futures Studies. From 51 articles (September 1969 to December 1980) the above fourteen with their salient military content were identified as they portrayed the earlier influence of war. A total of 14 articles (27,45 per cent) from 51 reflect clear arguments (whether in their topics or subsequent content) about the influence of war on futures thinking. The extent to which a time line can be drawn from 1871 to 1945 to reflect the earlier destructive and deeply influential French-Prussian, First - and Second World Wars featured prominently during this period. A dominant presence of future warfare in the literature is not found, but rather an extended influence over time of the preparation, use and ascendancy of military coercion. From the essays analysed it appears that the Franco-Prussian War of 1871 was a major event that set the relationship between war and the future on its path. The First and Second World Wars as well as the intervening periods reinforced this military connection as literature on war and the future began to proliferate and sustained this emergent relationship. development of futures thinking, a continuous presence of military matters becomes visible as the

**Table 2.1: Observations of the Military Variable in Forecasting the Future**

Publication	Theme	Topic	Warfare and future focus
1. Futures, Dec 1969, 1/6.	The pattern of prediction 1763-1973.	Forecasts of future wars 1871-1914.	Predictive fiction to indicate future threats to society.
2. Futures, Jun 1970, 2/2.	The pattern of prediction 1763-1973.	HG Wells. Exponent of extrapolation.	Forced choice between good and evil. The atomic bomb and a new kind of future warfare.
3. Futures, Sep 1970, 2/3.	The pattern of prediction 1763-1973.	HG Wells. Preacher and prophet.	The accurate prediction by H.G. Wells of armoured and air warfare.
4. Futures, Dec 1970, 2/4.	The pattern of prediction 1763-1973.	Methods of prediction 1918 - 1939.	The impact of WW1 on technological forecasting and extrapolation.
5. Futures, March 1971, 3/1.	The pattern of prediction 1763-1973.	Anxious anticipations 1918-1939.	War as a future threat to society and the destructive nature of new weapons.
6. Futures, Jun 1971, 3/2.	The pattern of prediction 1763-1973.	The tribulations of technology.	WW2 influencing futures literature to focus on surviving future military catastrophes.
7. Futures, Feb 1974, 6/1.	From prophecy to prediction.	The tale of the future in modern society.	War as a major phenomenon and rising focus of futures literature.
8. Futures, Dec 1975, 7/6.	From prophecy to prediction.	Ideal worlds and ideal wars 1870-1914.	Future war featuring side-by-side with other views of the future.
9. Futures, Dec 1976, 8/6.	From prophecy to prediction.	The idea of the future 1784-1984.	Improvement and progress remains disrupted by regular occurrence of military matters - e.g. WW1 and WW2.
10. Futures, Aug 1977, 9/4.	From prophecy to prediction.	The Soviet Union, the future and futures research.	Military demands and focus of futures research in the USSR.
11. Futures, Feb 78, 10/1.	From prophecy to prediction.	Prophets, predictors and public policies 1870-1970.	A persistent influence of war in examining the future and techniques to do so.
12. Futures, Apr 1978, 10/2.	Political and military forecasting.	No sub-topic	The fallacy to forecast in the absence of war and alternative military futures
13. Futures, Jun 1980, 12/3.	The pattern of prediction.	A future without futurologists 1770-1870.	Future war destroying the dream of constant progress.
14. Futures, Apr 1985, 17/2*	Almanac anticipations.	No sub-topic	Military events being a stimulus for steering futures thinking.

\* Intermediate period filled by a period of essays on US futures thinking and its development.

**(Sources: Futures, (Various))**

### 2.3.3 War in forecasting the future: The emergence of future warfare

Futures literature after 1870 reflected outlines about how future war was to unfold, for what purpose and who was to be the future dominant party or actor (Clarke, 1975c:518). The realisation that war had to be projected into the future became accentuated by the Franco-Prussian War of 1870 and reinforced by the resultant literature on the topic for example *The*

*Battle of Dorking*, *'The Stricken Nation* and *'The Great War of 189-.'* (Clarke, 1969b:557). However, even during the late 19<sup>th</sup> century forecasting in the technological and social domains remained somewhat selective and partial although it included a focus upon future war. The latter focus lingered as a topic of interest, but not with the sole aim to prevent future disaster (Clarke, 1975a:240,243). The work of H.G. Wells on technology and its invasion of society is perhaps one example of such a warning against future disaster. He outlined what is possible and might happen in future - including warnings of future catastrophe. In this regard Wells paid close attention to future developments in warfare as found in *Tanks*, *The Land Ironclads*', *'The War of the Worlds*, and *The War in the Air* during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. Wells not only judged warfare as one factor that influenced future change whilst undergoing change itself and therefore the necessity to predict such changes. He also stressed its potential future devastation and that humanity should not underestimate it (Clarke, 1970b:273).

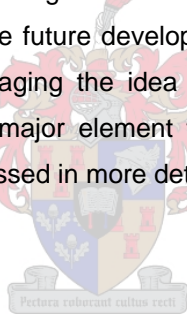
The outbreak of the First World War in 1914 fundamentally influenced how the future was viewed. It not only undermined the idea of unlimited progress and prosperity, but also introduced a sharp rise in pessimistic futures with a central military theme through publications such as *People in Ruins*, *Pestkrieg* and *Day of Wrath* (Clarke, 1971a:72, 75). Fear of how man decided to use technology in a destructive manner created fear of technology. Subsequently forecasts of future war was foreseen to be moving from a clinical affair to one barely excluding society and thus a phenomenon to be ignored at one's peril (Clarke, 1971a:76). Modern society now had new factors to reckon with and toying with merely one view of the future became insufficient if not outright dangerous. Futures outlooks soon began to manifest as a choice between good and evil and that the future could no longer be viewed as only utopian.

Following World War One, the Second World War had its own impact upon understanding the future. Although World War One introduced much technological forecasting, it also once again reiterated two earlier views. One, technology was not to be used as a benevolent agent only and two, war could no longer be viewed as a clinical military affair between opposing armed forces. These tenets found fertile ground in how technology, disaster and its potential perils were projected into the future and gave rise to much of the post World War Two literature about the future and destruction (Clarke, 1971a:72,75 ; Clarke, 1971b:170). Consequently a definite shift took place by predicting the future as more than a singular spectacular aspect with a bias of prosperity and progress for this made it vulnerable to criticism. Methods and institutions for contending with the future also changed after World War Two. Journals, conferences, administrative sections, governmental ministries and new societies for the future came into being to not only solidify the importance of the future, but to raise its profile as field of investigation as well (Clarke, 1974a:73).

War not only functioned in the futures realm by introducing pessimism, it also contributed knowledge and skills to do forecasting and predictions about the future that had a direct application in the civilian realm (as is more fully addressed later in the chapter). Military decision-makers were constantly involved in forecasting future events and planning for the future (Clarke, 1978:73). This futures outlook is quite apparent at the strategic and operational levels of war. These two domains demand of military decision-makers to plan for future events such as wars or operations and they thus think and work within a futures realm with its adjacent difficulties and needs as earlier outlined in the theory of Futures Studies. This skill or art did not remain unnoticed and it is quite probable that it is currently in demand as well amidst the uncertainty and complexity military institutions and their decisions-makers are facing.

The literature represents an understanding of efforts to delineate important ways and means to present the future to society as well as an important independent variable, warfare as military coercion, that co-directed the developmental pathway of Futures Studies. Concerning war and the future it came down to realising the danger and avoiding it or making adequate preparation if unavoidable. As expectations about the future developed via past events, future war remained alongside other phenomena in encouraging the idea of the future as an examinable field of investigation (Clarke, 1978:73). One major element that influenced this line of thinking was technology and it is subsequently addressed in more detail.

#### **2.3.4 The impact of technology**



One variable that cuts across matters of war and forecasting the future is the presence and projected impact of technology. Technology, war and the future had and continue to have a certain congruence that can be extrapolated into the future. Although addressed in more detail in subsequent chapters, this connection is here extended in terms of its earlier Futures Studies connection and it placing the military variable central to viewing alternative futures.

During earlier periods, the sometimes fatal future juncture between technology and warfare was not clearly visible or interpreted in terms of its negative effects (Clarke, 1974b:161). The future and technology were initially rather viewed for its noble use towards improvement, progress and advancement (Clarke, 1969a:464). Science fiction literature further heightened the awareness of technological possibilities, by addressing the movement into outer space and below the oceans, but it tended to ignore the dark side of what man would eventually opt for (Clarke, 1969a:468). It seems, however, that futures predictions and forecasting about technology eventually rang true, but social issues concerning peace, development and prosperity simultaneously remained

unanswered or seemed to complicate matters and answers when addressed in from a futures realm (Clarke, 1971c:305). The future thus became quite clear in a technical and linear way, but the presumed clarity became disrupted when more intangible human and social matters entered (Clarke, 1974b:165). Yet, what remained crucial was to probe the future for failure to do so implied the possibility of destructive futures.

Narrowing down the type of war that could break out in the future increased in importance. New matters entering the realm of war created new riddles that had to be solved in advance. It therefore had to be known if and when war was to be expected (Clarke, 1975b:335). Here technological forecasting contributed to finding technical answers for military problems such as Liddell Hart's *Future War* that held quite accurate elements of how warfare might unfold in future (Clarke, 1970c:379). Although taking on some format, it remained vulnerable in the sense that future war became projected in a preferred manner. Due to being formulated in a futures realm, but in isolation from the opposition as set views and strategic culture reigned supreme, technological imperatives became somewhat eroded. Although not clearly stated, it is probable that the difficulty of bringing about (radical) military change via technological innovations played a role to obstruct new theories and views of future warfare to diffuse and take effect. No substantial or comprehensive ways to indeed investigate the future transpired as military affairs increasingly changed and played their role to influence national futures. A void subsequently developed that heightened the probability of no or wrong future outlooks as was the case with the First World War (Clarke, 1975b:336).

Although no sophisticated views about the future rose to prominence during the late 19<sup>th</sup> century, their qualities are to be viewed as the first stage in the development of the futures field. As technology diffused the necessity increased to determine what is possible and its future manifestation(s). In this regard Jules Verne, for example, taught man what to expect by describing what lies ahead via the use of science fiction and primarily the benevolent use of technology. His science fiction drew unexpected attention from society and even governments as it addressed those future realms that remained unexplored by mankind and thus afforded a glimpse of possible futures (Clarke, 1969a:467). The extent to which it also dawned that technology was in fact not to be used as a benevolent agent only, this insight and its intimate connection to future war fostered an understanding that there were factors working for military change as well. Such understanding was harnessed to influence opinions and draw attention to matters of national defence and remains relevant even in contemporary modern science fiction literature (Gray, 1994). The significance of this becomes apparent if one considers the increasing dangers pointed out by futures literature if the future was to be viewed and acted upon in the absence of also considering military futures.

The technological imperative did not remain neutral. It furthermore not only functioned as a variable that influenced and directed studies of the future, it also fulfilled a significant role in fostering the future military conflict domain or pathway along which Futures Studies evolved.

## **2.4 FUTURES STUDIES: UPHOLDING THE MILITARY CONNECTION**

Although the military - futures link as discussed above is tenable, it is not all that enduring. The following section outlines the potential erosion of this link in the not so recent past and the criticism it invoked. This perceived decline also elicited protests for preventing it and therefore some arguments are presented for strengthening and upholding this interface. The importance and visibility of the latter are further illustrated by briefly demarcating and describing the US, Russian and Chinese profiles of attending to and upholding the military - futures link in their respective defence outlooks.

### **2.4.1 The potential erosion of military affairs in futures studies**

The link between the future and that of war did not remain prominent in the field of futures research. During the latter half of the 20<sup>th</sup> century this link became less conspicuous and the shift towards a lack of focus drew the attention of some futures theorists and those working in the policy domain. In a brief editorial in the February 1974 issue of *Futures*, Dror had harsh criticism for what he perceived as a rising disequilibrium in the issues preferred and researched by those working in the futures field. This preference, according to Dror, resulted in the undue absence of war in realistic studies about the future.

Although violence and war came to be deemed illegitimate and not a critical focus, Dror is of the opinion that such an approach is wishful thinking as the future is vulnerable to wars of all kinds. Actors make deliberate decisions about war and this practise is enhanced by the march of technology. The urge to think that humanity is to withdraw from making war is therefore judged to be unduly optimistic. It is thus necessary to at least consider the probability of its manifestation and impact. As such theorists are able to identify problems in advance and assist in putting forward measures to deal with it. As a social responsibility it demands from futures researchers to invest more of their time in addressing hard issues of war and violence as well (Dror, 1974:2).

Kaldor and Robinson (1978) support the criticism of Dror that, in lieu of the notion that the fear of destruction is bound to make war unthinkable, war is often avoided in Futures Studies. They further argue that war is not to be ignored or perhaps noted, but not further investigated as it is

not possible to wish it away. It represents a challenge that the Field of Futures Studies must come to terms with, rather than invoking its study only when it serves some subordinate purpose or need. War is much too complex a matter and destructive to be properly understood by opportunistic and intermittent research.

The presence of matters related to war and the future can be illustrated by viewing the following comparison (Table 2.2) of articles from futures publications that appeared over the period 1990 - 2001. These articles were researched in order to determine whether they in some way contained matters of peace, security/insecurity, war or other military styled conflicts.

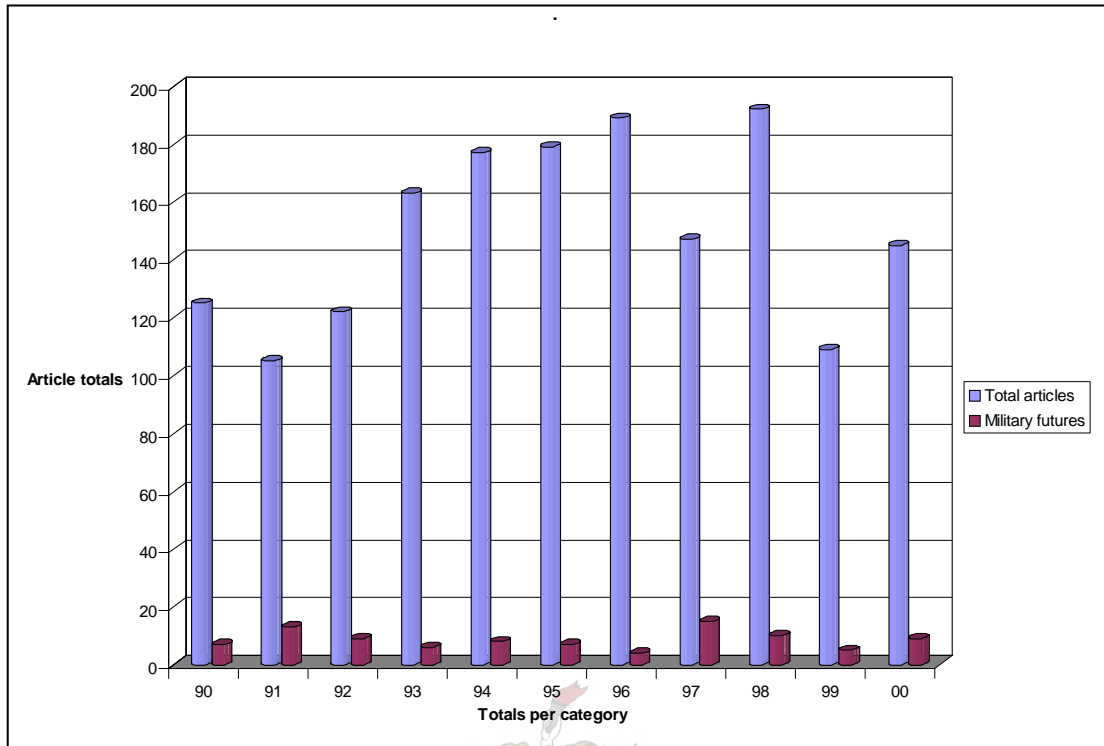
**Table 2.2: Futures Publications and their Military Focus**

Journal	Period	Military/security focus	Total articles researched
Futures Research Quarterly	1990-2001	14	189
Futures	1990-2001	19	610
Futures Summary	1990-2001	20	465
Futurist	1990-2001	49	481

(Articles collected from futures publications held by the library of the Business School of Stellenbosch University that houses the Institute for Futures Research.)

**(Source: Futures Research Quarterly (Various); Futures (Various); Futures Summary (Various); Futurist (Various))**

Only 5,85 per cent of articles screened had a focus on matters of war, future war, security, peace and conflict over the period 1990 - 2001. This content analysis has to be balanced in terms of the focus of the publications that are interdisciplinary in kind, has no military connections or affiliations and reflect the post Cold War period when the military's prominence was fading and war increasingly viewed as an outdated phenomenon. The views of Dror, (1974 :2) and that of Kaldor and Robinson, (1978:343) are, however, from a period when military matters were prominent, but its future not topical. To the extent that the period following the Cold War tends to extend the lack of focus pointed out by Dror, Kaldor and Robinson, it further underlines the perceived absence of the military focus in futures research in general and the need to attend to it. This void is illustrated in Figure 2.5 . The totals compiled and those articles reflecting a military focus and a futures orientation as opposed to the general trends or focus areas of the sum of articles illustrate the somewhat marginal focus in futures publications in the period following the demise of the Cold War. The exception is when destructive events like 9/11 occur and usurp whole editions of futures publications such as *Futures Research Quarterly*.



**Figure 2.5: The Military Focus of Selected Futures Articles: 1990-2000**  
 (Source: Compiled from Table 2.2)

Within the recent past questions of war, warfare and its future came to be further confronted by a rising challenge to the prevailing view of its use and utility. The period following 1989 became one of increased questioning of the future role and utility of war as the figures and dates in Figure 2.5 . This time round, however, it became much more complicated and demanded convincing arguments from defence decision-makers to uphold national military forces to wage future war amidst shifting and competing military paradigms circumscribed for example by alternatives such war fighting, deterrence and warless futures (Moskos in Caforio (ed), 1998:507-508).

#### **2.4.2 Upholding and strengthening the military link in studying the future**

Bauman, (1997:40) states that how we think about the future finds expression in subsequent views of future war. If the future results from change and change is better understood over time by new explanatory theories, thoughts on future war become adjusted accordingly. New explanatory theories are illustrated by the earlier linear pattern of change, later explanations of change unfolding through distinct stages and constant change as a result of evolution constituting



follow-on explanations of how change transpires over time. Baumann suggests that as these sequential understandings of change developed, they fostered analogous shifts in military thinking about the unfolding of future wars. Contemplating future war and piercing the uncertainty that shrouds it took on certain patterns and these tended to conform to

- a search for enduring principles to transcend ideas and effects of constant change;
- minimising or at least understanding the unpredictability of change; and
- matching phases of development to warfare and fitting each phase to what was achieved during a preceding phase.

These are reflections of some benign efforts to confine and make future war more manageable or understandable by projecting its future profile. Concerning evolution and survival of the fittest, a rival view dawned of countries waging wars at different stages against different opponents to determine who was to survive (Baumann, 1997:40-42). In part this was also the pathway for positing that new realities emanating from change could not always be understood from past views and neither always accommodate dramatic new developments. The latter supposed military change, but the enduring difficulties were bound up in understanding and responding to this change as it remained obscure. This uncertainty allowed for distinct interpretations to arise about how future war could unfold as different eras gave rise to dissimilar views (Baumann, 1997:43-44). Hereby the difficult art of accurately forecasting future war was once again reiterated, although the need remained.

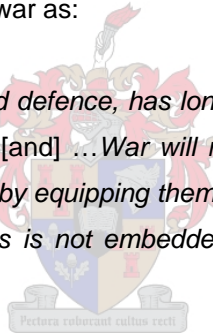
An alternative way to maintain the military link within futures thinking is to research and report on future warfare for the alternative is exposure to the phenomenon itself. According to Clarke's *Forecasts of future wars* it is possible to infer that bringing future warfare into futures thinking is not a dramatic new endeavour. Keeping it in the realm of futures thinking and Futures Studies is perhaps more of a challenge. Over the period 1871-1914 only two years went by without tales of future war to warn society about what is possible and to stress the danger of laxity concerning new methods of warfare. This topic prompted military and non-military parties to partake in outlining wars of the future (Clarke, 1969b:553-554, 557). Furthermore, as war grew in posture it became a constant focus of futures thinking over the period spanning 1771-1914 (Clarke, 1974 a:73-74) and increasingly featured side-by-side with more pacifist expectations and non-military outlooks upon the future (Clarke, 1975c:517-518).

Following World War One the practice of extrapolation found fertile ground as new means were developed which in turn opened up new possibilities to understand the future. Thus appeared new publications and anxieties about the future. (Clarke, 1970c:376). As destructive futures,

specifically those with a military content, became visible, it dawned that ... *man must live in peace or be destroyed* and therefore the need for pointing out future dangers (Clarke, 1971a:71, 75-76). This line of thought and the visibility of destructive technologies became more accentuated after World War Two. In turn a sharp rise appeared in futures literature, such as the work by Shute, *On the Beach*, about destructive future catastrophes caused by war (Clarke, 1971b:169-170). This pessimistic slant in literature became rapidly infused by the possibility that nuclear warfare is quite possible. This further raised the spectre of the destruction of mankind. The extent to which future wars and their effects were portrayed, it evoked a particular stance to the matter as opposition to nuclear war assumed an extended life of its own.

Dealing with future war remained visible within the realm of Futures Studies. Boucher (in Boucher (ed), 1974a:50) argues that the most important question facing futures research is the possibility of forecasting war. Although it is not nearly possible to forecast the totality of events leading to war, prevision makes it possible to identify some of them as it appears from the literature that appeared in the run up to World War Two. Kaldor and Robinson (1978:344) for example defined the durability of future war as:

*"Preparedness for war, nowadays called defence, has long been accepted and (sic) integral part of the functioning of modern society...[and] ...War will remain a potential discontinuant for so long as states continue to prepare for it by equipping themselves with mass destruction weapons; but a future in which war-preparedness is not embedded may also be discontinuous with the present."*



This predicament is reinforced via defence activities and remains in step with technological change. Futures Studies therefore has to face up to the continued possibility of war breaking out for as long as states continue to prepare and equip for its conduct (Kaldor and Robinson, 1978:344). This is necessitated by war holding the threat of deep and massive destruction for societies and not only via large-scale wars as pointed out by Kaldor and Robinson, but also along the more subdued lines of lesser destructive alternatives as argued by Moskos in Caforio (ed), (1998:507). Future militaries are not to be relevant only due to their violent and destructive potential, but also for roles apart from the violence domain and even in a dormant or constructive mode.

So-called new conflicts at the beginning of the 21<sup>st</sup> century are judged to remain destructive in spite of the observation that major war is no longer the instrument of choice for resolving conflicts (Moskos in Caforio (ed), (1998:507). The format and targets of new conflicts encourage destruction and the threat thus remains telling in a strategic environment where large-scale wars

are no longer readily contemplated (Mandel, 1994:36). The future discontinuity of traditional large-scale wars and the continued destructiveness of warfare therefore correlate in a way. The enduring nature of what future warfare may reflect therefore remains a significant matter for futures research. As long as alternative futures include chaos and order, insecurity and security, military and non-military factors, alternative military futures are to be considered a problem as well as a solution. Ignoring military conflict in futures studies therefore holds destructive future risks of its own. Such futures are ignored at the peril of the state and society in need of protection. Upholding the military connection is therefore not devoid of utility.

According to Helmer (in Boucher (ed), 1974:244) futures research is by default a branch of Operations Research that originated in the first place from assisting decision-makers with analysis and information during World War Two. Its utility became noted as problems that decision-makers had to contend with became more long term and complex. These matters soon included the military domain of the future as well as matters arising from the latter domain increasingly became noted as both contributory and demanding of closer attention.

Allowing the interplay of future war matters also inspired earlier ideas about the future and those of military futures in particular. The image of some future war destroying the dream of constant progress stimulated attention to flood towards thinking about the future (Clarke, 1980:244) and is perhaps not irrelevant to the current ideas of progressive African futures being threatened by wars impacting upon the African continent and African futures (Lekota, 2003). Furthermore, the legacy of war and military planners both represent elements demanding some forecast of future events as well as the strategic environment and are not be judged marginal to efforts of upholding future peace (Clarke, 1985:180-181). This outlook once again underlines the lingering relevance of future war and its adjacent realm of military affairs.

The military connection in the shift or perceived shift is also visible in more recent views obtained from Dator, a respected futures theorist from Hawaii University who (during an electronic interview) pointed out the military need as a strong impetus to Futures Studies. Although largely from the perspective of what evolved in the US, Dator outlines the enduring connections between the US military establishment and RAND, with Alvin Toffler of Tofflers Associates and the Institute for Alternative Futures. Implied in his comments is the number of retired military personnel shifting to these futures institutions and working with and for the military. Dator even argues that a preoccupation with the future is perhaps more evident in the military domain than in the civil sector (Dator, 2000). It is, however, not only in the USA that the futures-military connection becomes apparent. Other prominent powers also display such connections as is disclosed subsequent to the American case below.

### 2.4.3 The military futures link in the USA

The Futures Studies - military link in the USA became accentuated by the demand for national security after World War Two. This compelled defence-planners to also become *students of the future* from which technical forecasts for the military arose and the first permanent US futures think-tank called RAND, (with a strong Air Force connection) originated. From this institutionalisation for military purposes further institutes emanated such as the Institute for the Future, Futures Group, Hudson Institute and the System Development Corporation (WFS, circa 1999:6/11). Funding for research grew extensively as it became increasingly important for the USA to delimit the future and thus know which research priorities to further fund and develop. As such a space programme and space futures came into being and expanded. It rapidly migrated from a pure civilian realm to one merged with the military and the subsequent future concepts and thinking about the military use of space. More futures institutions sprang up in the wake of this to meet the rising need for futures institutions to probe alternative futures and not the least - that of military futures (WFS, circa 1999:9-10/11).

Over time the presence of the military imperative remained quite visible in US programmes to grapple with futures matters. A 1964 US study *Probing the future* for example included future military related preferences in the alternative future worlds used as a baseline. For the future worlds of 1984, 2000 and 2100 respectively, military matters seemed to decline to a complete absence in 2100. However, according to the respondents, war remained a definite factor in the foreseeable future of 10-25 years projected by the study. Furthermore, of the 136 future breakthrough innovations projected in the domains of science, automation, space and weapons, 32 were related to weapons systems. These represented non-lethal, biological, conventional and nuclear predictions and with continuous breakthroughs posited up to 2020. The projected increase of weapons of a non-killing, non-property destroying nature, covert means and attacks on the psychological or biological levels at this early stage surprised researchers (Didsbury, 1979:15, 17, 19). Although an early example of the military link, the USA has a substantial futures complex that subsequently came into its own as some of these earlier views found fruition in the 21<sup>st</sup> century.

The US link between the future and its military derivative is also quite clear as it manifests in the more contemporary civil-military realm. Although it is not possible to expose this domain in detail, the *Air War College Gateway to Internet Resources* reflects the futures character of military affairs in the USA and its overlap or fusion with civilian institutions (See Table 2.3).

**Table 2.3: Matters of Military Futures Addressed by US Institutions**

Topic	Futures Themes
Strategic visions DoD, Army, Air Force, Navy, Marines	Joint Vision 2020, Future Warfare visions Army Vision 2010 Navy - America's 21 <sup>st</sup> Century Force Marine Corps Strategy 21 Air Force Vision 2020, Air Force 2025
Future of War	Future warfare Terrorism Swarming on the battlefield Sources of future conflict Aerospace Battlefield of the future Nuclear futures Submarine force of the future
Asymmetrical warfare	Asymmetry in future war
Revolution in military affairs	The RMA debate and Strategy Shaping future US armed forces Information and nuclear matters Change Space power
Past futures	Historical perspectives on future war Predictions of the past 25 years Science after the war
Alternate or alternative futures	Alternate futures for 2025 The world of 2020 Alternate futures in war and conflict Military implications of alternative futures Alternative world scenarios for a new order of nations The age of revolutions
Institutions	RAND National Defence University  World Future Society Toffler Associates Institute for Alternative Futures Coates and Jarrett Online

(Source: Air War College, 2002)

In addition to Table 2.3 specific institutional sponsors function within the US Department of Defence. The following are some of the more important institutions working on military futures.<sup>11</sup>

- The Office of Net Assessment (ONA) that sponsors much of the research by private institutions on matters of military futures and dealt with military and technical revolutions

<sup>11</sup> For further detail on OFT and their work on force transformation and publications, see <http://www.oft.osd.mil>. For ONA see [http://www.disinfopedia.org/wiki.phtml?title=Office\\_of\\_Net\\_Assessment](http://www.disinfopedia.org/wiki.phtml?title=Office_of_Net_Assessment) and for the SSI see <http://www.strategicstudiesinstitute.army.mil>

- in particular. Studies from the ONA were influential in shaping views and putting forward daring ideas to influence defence, foreign affairs and intelligence decision-makers.
- The Office of Force Transformation (OFT) that meshed the different views of future war held by different services of the US military. Dedicated to transformation in particular, the OFT sponsored and attended to future war games and joint experimentation and thus had a more operational focus upon matters of future war and developing thought on network centric warfare.
  - The US Army War College Strategic Studies Institute (SSI) that do futures work beyond the confines of future land power by analysts such as Blank, Metz and Biddle. The latter produced an influential award winning publication during 2004 called *Military Power: Explaining Victory and Defeat in Modern Battle*.

The military-futures link in the USA is thus observable and consists of a civilian-military intermix of futures institutions. In this case, as a preliminary observation, it appears that military futures receive substantial attention, but that this focus is perhaps underpinned by dedicated and even some military institutionalisation of probing alternative futures for the US military services themselves. In addition, modern science fiction also influences this relationship as it became not only a growing practice, but a pervasive element influencing current thinking on the field of future war in the US in particular (Gray, 1994). Gray further points out that the reality of modern science fiction writing assumed an accuracy during the latter stages of the 20<sup>th</sup> century that hinted at it becoming a threat to classified US futures projects and their application. Illustrative of how science fiction grew more sophisticated and accurate is the rise of modern science fiction films. Movies such as *Star Trek*, *Matrix* and *Starship Trooper*, for example, deal with the benign and destructive use of technology. For the US, however, the military futures imperative remains to be at the cutting edge of what is to transpire in its military and cope with these futures.

A less military and more civilian outlook or pathway to address the matter is found in academic debates on future warfare.<sup>12</sup> Recent examples are the special issue on Non-State Threats and Future Wars edited by Bunker (2002) and that of *The Pentagon's New Roadmap* by Barnett. Although not apparent from the title and index, the work by Bunker (2000) is strongly based upon US events and subsequent threats and vulnerabilities the US and its instruments of coercive policy are to confront in future. These issues show little resemblance with contemporary US military practice and futures, but rather redirects thinking towards new non-state threats, new concepts to counter such new-fashioned opponents and case studies of recent events to substantiate the desired new threat-response loop. In essence the publication endeavours to

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<sup>12</sup> According to Bunker (1996), the modern academic debate of the late 20<sup>th</sup> century is primarily dominated by three dominant theories: Fourth Generation Warfare, Third Wave Warfare and Fourth Epoch Warfare. Bunker, however, acknowledges that theories, such as Russian Sixth Generation Warfare, also contribute to the debate.

redirect US attention along other pathways as the alternatives offered under the guidance of Bunker reflect a future not amenable to the traditional and contemporary attrition, manoeuvre and precision driven doctrines (Bunker in Bunker (ed), 2002:104). In brief, the futures outlook for the US military remains embedded within traditional war fighting alternatives and opposing notions of a paradigm shift positing the future threat not to be set in the war fighting paradigm and in need of substantial adjustments as is further elaborated upon in Chapter Three.

#### **2.4.4 The military - futures link in the former USSR and CIS-Russia**

In a chapter called *'Forecasting when the future is known: The case of the Soviet Union'*, elements of the futures-military connection in the former USSR can be observed. The former Soviet view articulated the future as a clear and uncluttered outcome and war as the pathway towards its achievement. The foreseen future contained visible utopian features with instruments of law and order, including the military, to disappear at some future date and time (Boucher in Boucher (ed), 1977b:138-9).

Nonetheless, for some period of time wars of different kinds were judged to be inevitable in pursuing the preferred future (Boucher in Boucher (ed), 1977b:173). Russian theorists involved in researching and discovering it shared the set image of the preferred future and its pursuit. Futures studies also became more accentuated after the Russian showdown with the West over Berlin and Cuba and the alarm of the Russian military to be drawn into such future stand-offs (Boucher in Boucher (ed), 1977b:148-9). War was, however, unmistakably viewed as a definite mean to effect the desired future outcome and attracted or demanded much attention and resources to promote the clarity of this difficult domain and preconceived future.

Erickson points towards a more visible connection between the Russian military and futures research. What became required or demanded from Cold War Soviet futures research included scenarios of possible future conflict, requisite mixes of forces related to the budget and military-economic matters as well as technological forecasting concerning qualitative weapons changes. The Russians preferred a continuous and systematic process of political-military forecasting and charged research groups with developing predictive techniques to assist in military planning (Erickson, 1977:337-338) According to Erickson this became a major drain on time and resources of Soviet research institutions. It was, however, not only civilian institutions and their 'futurists' that addressed Soviet military affairs and related futures issues.

*Future War* (1898) by Ivan Bloch is perhaps an early example of a study concerning military futures, and although being a civilian, he spearheaded Russian military interest in the future of

war. (Kipp on Kokoshin, 1999:4). Bloch quite accurately stated certain features of future war that later found meaning in how the stalemate developed that bogged down military forces during World War One. Bloch's work was followed by a 1928 study under Tukhachevsky on forecasting future conflict for the USSR that fielded the authoritative Russian operational doctrine of Deep Operations and the idea of mobility. (Kipp on Kokoshin, 1999:7-8). Following this a third Russian study of future war (*Military Strategy, 1964*) under Sokolovski appeared. This study addressed the question of military strategy in the nuclear age and a scientific understanding of the nature of future war. According to Sokolovski it became important to understand new demands in order to prepare the armed forces and the country for a particular future war (Sokolovski, in Trager and Kronenberg (eds), 1973:100). The fourth exercise in future war took place by the 1980's and is ascribed to Ogarkov. It followed on the debate about rapid technological innovation and new weapons whilst its focal points were continuity or radical change regarding future war. The latter represents an important break with previous studies on future war for it subordinated military-technological futures to politico-military matters (Kipp on Kokoshin, 1999:10-11). One of the latest Russian proponents of war and the future is Gareev whose work (published as *Future Warfare. If war comes tomorrow with Kipp as editor*) addresses military futures after the disintegration of the former USSR, the loss of its former republics and contains a strong Revolution in Military Affairs (RMA) emphasis that argues for a smaller more professional and technology rich Russian military (Kipp, 1999:13).

For the Russians forecasting, foresight and the science of future war were tightly woven into the skills of commanders and they considered it a lever to overcome opponents and cope with sudden or dramatic changes concerning military matters (Kipp, 1995: 5). The Russian outlook on war was also strongly directed by the view that *In its essence, military science is the science of future war*. Although the focus shifted away from rigid party confines about the future after the ascendance of Gorbachev, Russian outlooks still had to cope with alternative military futures following the demise of the USSR and vying for a new role for the Russian military (Kipp, 1995:6). This opened up a second front for those dealing with new Russian military futures in the face of the military imperative losing much of its energy, the organisation having to face goal displacement and new competitive and toned down views such as those of Gareev entering the debate.

#### **2.4.5 The military-futures link in the People's Republic of China**

Another important and influential role player concerning military futures is The People's Republic of China (PRC) and its rise towards peer power status. An inherent feature of its aspirations is the Chinese emphasis on having a modern military as part of its future posture as a big power on



the international scene. Although much more secretive, it is possible to isolate some elements of the military-futures connection, although this correlation is more accentuated in terms of their recent past and current outlooks. This visibility came about as a result of the exchange of ideas between Chinese and US military theorists and access to Chinese military research and the topic of military futures in particular.

On the secrecy of the Chinese views Boucher commented in 1977 that it is regrettable that the PRC declined from participating in the debate about futures research in spite of being engaged in forecasting via their planning as it eventually became visible during latter exchanges. However, although participation in the futures debate seemed absent, an explicit and very early reference to predicting the future is visible. The 1867 establishment of a Foreign Board by the Chinese to, amongst others, understand fire-arms, machinery, vessels and carriages (according to Boucher), is a first Chinese effort to deliberately deal with future matters and those of the military in particular (Boucher in Boucher (ed), 1977b:174).

A more intimate connection between the future and military matters are visible in contemporary Chinese assessment institutions and their close affiliation to government departments towards which they have an additional responsibility. These institutions and their work are not all that accessible, but in terms of their broad mission statements as portrayed in '*China debates the future security environment*' (Appendix 2) their focus upon the future and military related futures becomes visible. These futures oriented responsibilities were identified from studying the purposes of these institutions and are set out in Table 2.4.



**Table 2.4: Futures Orientations of Chinese Assessment Institutions**

Institution	Futures focus	Reference
China Institute of Contemporary International Relations.	Short term predictions of foreign political events including military trends.	Pillsbury, App 2, 2000, P186.
China Institute of International Studies. Shanghai Institute of International Studies.	Recent, past and near term trends. Not military or future war issues.	Pillsbury, App 2, 2000, P187.
Chinese Academy of Social Science.	Oriented toward the future re domestic developments and world structure. Challenges of the 21 <sup>st</sup> century for China.	Pillsbury, App 2, 2000, P188.
Academy of Military Science.	Its mission is to understand future warfare and the future security environment. Presents a PhD that includes modules on Future Warfare.	Pillsbury, App 2, 2000, P189.
National Defence University.	Houses a centre for military research on future warfare issues including the RMA.	Pillsbury, App 2, 2000, P190.
Chinese Society for Strategy and Management.	Forecasts about the future security environment.	Pillsbury, App 2, 2000, P191.
Foundation for International Strategic Studies.	Co-operation with counterparts on political and military matters including the	Pillsbury, App 2, 2000, P191.

	future security environment.	
Commission on Science Technology and Industry for National Defence.	Production research and development of future defence weapons. Publishing of assessments about the future. Assessments of the future security environment.	Pillsbury, App 2, 2000, P191.

(Source: Pillsbury, M. (ed), 2000)

Although the Chinese outlook on the future also contains elements of a predetermined future with contradictory and confusing factors or views deliberately discouraged, alternative military futures and alternative pathways are visible. How the PRC is to proceed towards the future and the format its military forces stands to assume, is not only confounded by the enormous scope of what has to take place. The existence of several different schools of thought concerning the changes that the Chinese military forces are to be subjected to for its future role, is a further difficulty. The challenge of moving the vast Chinese society into the future and to simultaneously transform its armed forces of several million and not leave them behind in the context of time and space, is a severe future challenge. Those outlooks that are particularly relevant to the military side, is the existence of the following military alternatives (Figure 2.6) concerning a future Chinese People's Liberation Army (PLA).

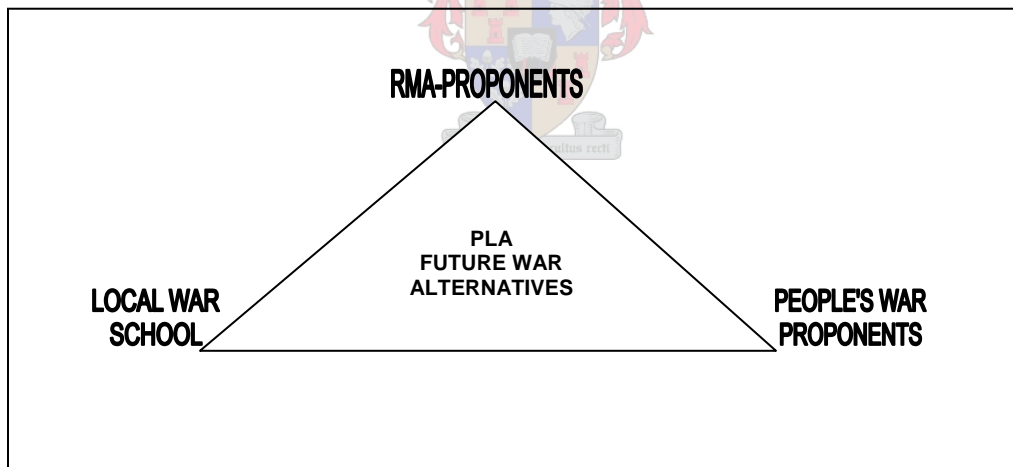


Figure 2.6: Alternative Futures Considered for the PLA

(Source: Pillsbury (ed), 2000:139-140)

These futures represent a strong link with traditional military culture as the People's War alternative displays. The other extreme is a break with the past and includes the RMA option with the local war alternative an intermediate or more conservative view aimed at not overextending the Chinese reach in some future conflict (Pillsbury (ed), 2000:135). Unrestricted warfare is a further extreme alternative, although it does not necessarily reflect official PLA thinking. The

unrestricted warfare alternative alludes to soldiers no longer having a monopoly on war while attempting expand the domain of war. The collapse of boundaries between war and peace and globalisation with its interconnectedness imply that nothing is exempted and everything is a target (Qiao Liang and Wang Xiangsui, 1999). The mentioned alternatives, however, begs the question of how to move your military institutions into the information domain whilst allowing for a military strategy that is embedded in its dependence upon the underdeveloped section of Chinese society and rural masses. Both are phenomena alien to the future envisaged by the Chinese as they contemplate more sophisticated alternative military futures.

The above arguments of upholding the military - futures link indicate that over time this connection experienced some difficulty, but did not disappear. It took on a particular format in some of the larger powers within which military futures became attended to in different ways. It subsequently becomes necessary to also view how military futures are found to emanate from the military-futures connection. This is done by investigating a presumed primary purpose of Futures Studies - to present alternatives - and alternative military futures to facilitate decisions by those responsible for deciding upon and conducting a future war.

## **2.5 FUTURES STUDIES AND ALTERNATIVE MILITARY FUTURES**

The utility of Futures Studies and research conducted in this domain can be traced back to the need to propose alternatives regarding the future from which well informed decisions are to originate. It is therefore judged to be accepted practice for military futures to be pursued and decided upon along similar lines. Viewing the future as alternatives is, however, complicated by certain limitations. These limitations are first outlined before presenting arguments that support the presence and use of alternative military futures.

### **2.5.1 Rapid change and complexity**

One tenet or rationale for this chapter is that accelerated change and complexity are also inherently part of military futures. Therefore, if rapid change and complexity are dynamics that compel the study of the future, their impact upon or relevance to military futures needs clarification. This rationale is taken from the salient RMA debate that posits for future militaries to be confronted by and therefore prepared for rapid change and complexities. However, another way of viewing the matter is to acknowledge that national military forces are unmistakably part of civil society and thus subjected to the very pressures and challenges facing society in general. However, the meaning of such conjecture needs closer scrutiny.

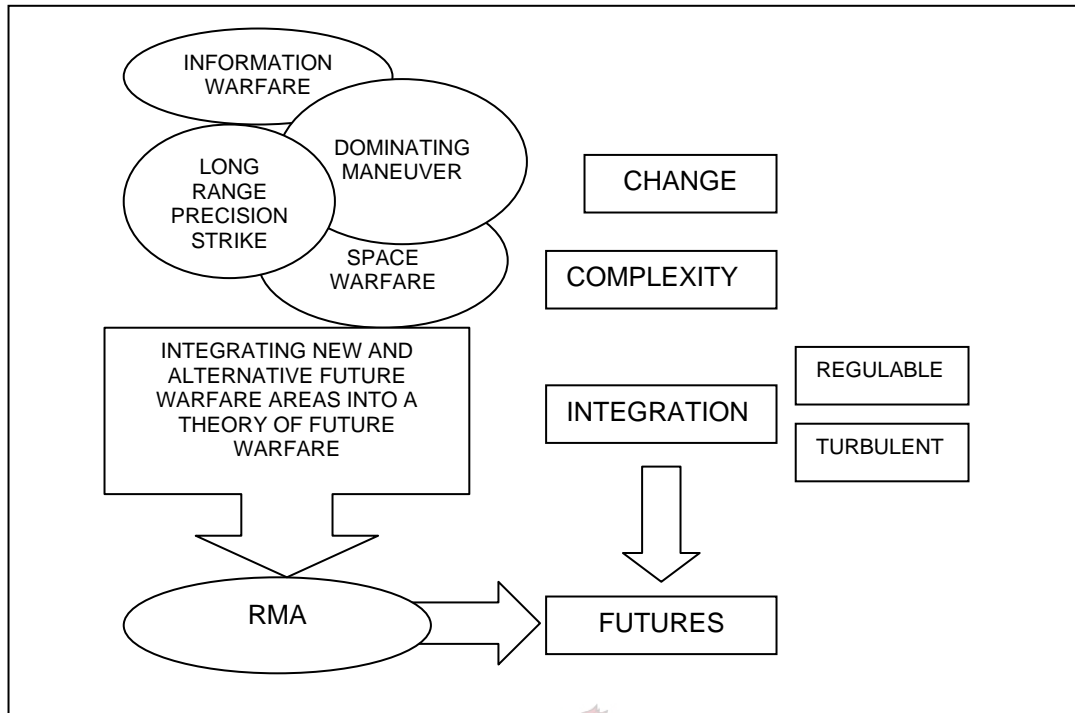
Futurists, according to Bell, are interested in and explore what causes change, they seek theories to explain it and assist people with recognising and understanding it (Bell, 1997:45). Concomitantly they accept some changes are not subject to human control whilst others are. Exposure to change can, however, be threatening if it is rapid, deep and radical. If change is externally imposed and unexpected or associated with loss of control it further increases the perception of threat and disempowerment (Mandel, 1994 :17). Military change is not to be left from this equation as military institutions are also threatened by rapid, deep and radical changes thrust upon them. This is what the Tofflers reflect upon in their publication *War and anti-war* when they point out changes as well as the accelerated pace of events that future military forces will have to learn to cope with (Toffler and Toffler, 1995:3).

Mercer reasons in *Future revolutions* that we are to experience more change in a few decades from now than in several centuries past. This implies the looming scope and pace of change. Mercer further indicates that some changes hold the potential of uncomfortable discontinuities whilst significant inventions (according to Fuller in Mercer, 1998:26) are now possible every few weeks or even every few days. These changes, it is argued, originate from revolutionary trends found in information technology or communications, post-modernism - the individual focus, post-materialism - the more spiritual search for meaning and post-Fordism - new patterns of work as information overtakes mass production (Mercer, 1998:7-8). If the pace and scope of projected change are accepted as unavoidable for society, it ultimately goes for their military establishments as well. As they accompany their societies into the future, these institutions are to prepare for rapid and deep change and not become paralysed by future phobia or reactionary tendencies to cling to the past.

Complexity is a dynamic operating adjacent to that of rapid change and constitutes a growing future challenge (Linstone in Linstone and Simmonds (eds), 1977:79). Complexity theory originates from the military arena as an effort to track certain dynamics of nuclear explosions (Schwartz, 2000:264) and poses a fundamental challenge to the traditional linear programme in science and its ideas of certainty and randomness (Byrne, 1997 :1). The Third Wave argument of the Tofflers about information dominance pushing out industrial second wave mass production became central to the future military outlook, but is still shrouded in much uncertainty. More information is to be exchanged among units and therefore the means to effect the exchange via new communication artefacts capable of handling growing complexity need to increase as well (Toffler and Toffler, 1995:25). This uncertainty, as pointed out by Bunker in Bunker (ed), (2002:102) results from rather configuring the military domain in terms of backward looking as opposed to forward post-modern outlooks. Future warfare is therefore recasted into more simplistic profiles for the past is projected as the future in a quasi-linear way.

Mounting complexity promotes or even dictates co-ordination over the idea of control as the impossibility increases (also for the future military domain) to control all dynamics (Toffler and Toffler, 1995:97-98). In such interactions complexity grows whilst the extent to which it can be kept in check or not, allows for uncertainty to be muted or not. As a function of this uncertainty military futures are rather presented as alternatives and the higher the uncertainty, the wider the alternatives to cater for complexity and uncertainty. As to future warfare uncertainty has to be catered for in that traditional avenues of directing, planning or distributing uncertainty of warfare has to be replaced by or augmented with new ways. Machine command, disruption rather than destruction by targeting relationships and cohesion as well as directing rather than fighting complexity and uncertainty on future battlefields all represent non-linear alternatives to contend with these difficulties (Czerwinski, 1996).

Complexity is important as well when it concerns strategic culture and the inclination of doing one-thing-at-a-time or understanding that everything is interconnected in a future world that is increasingly shifting towards the latter (Gray, 2000:149). Glenn, Howlett and Poore (eds) (2004) addressed this complexity by turning to three generations of theory on strategic culture. In broad, these generations delimit the complexity by the third generation theorists. The latter generation introduces shorter periods of change through shocks imposed upon states and decision-makers by events in the international system. However, it remains a tough challenge to change strategic culture and it remains a matter shrouded in uncertainty. Increased complexity also feeds into the difficulty to build a general theory on (future) war that is already complicated by the preference for it being depicted by a technological revolution (Gray, 2000:115). The frequency of wars and different types of future wars also contribute to the intricacies of the future military realm (Toffler, 1995:98). It is, however, important to note that only part of complexity can be regulated whilst some part tends to remain turbulent (Michael in Linstone and Simmonds (eds), 1977:91). This, however, is to be addressed in more detail in a following chapter. A military example of how rapid change and complexity are to confound alternative military futures is portrayed in the following figure (Figure 2.7) about future warfare and the integration of new concepts towards a new way of conducting such warfare.



**Figure 2.7: Integration, Complexity and Future Warfare**  
 (Source: Compiled from McKittrick, J. et al., 2002)

### 2.5.2 Alternative military futures: Challenges for defence decision-makers

Establishing equilibrium between the policies of political leaders, the future threat environment and strategic and structural decisions on the preparation and eventual utilisation of national military forces, hold challenges of its own. An appropriate awareness and comprehension of the future military environment becomes imperative, but change and complexity as indicated in the above discussion concomitantly influence it. Solving these challenges implies not only comprehending the future as alternatives, but also what to do in order to address them. However, alternative futures are subject to preferences by the parties involved. Analysts from some quarters (such as military services) prefer a particular view of the future while scholars, for example, do not. This distinction is important and raises questions on whether the military domain still needs to be attended to in current futures thinking and whether it is an enduring matter?

Clear and substantive arguments against alternative military futures are not abundant. Finding an explicit and outright rejection of the future military imperative is often built upon vague and emotional foundations. The notion that development and prosperity are to eventually mitigate the need for the military option and its eventual demise or a deliberate ignorance of war is entrapped by difficulties. On the involvement of individuals and organisations towards the military and future

matters McHale (in Boucher (ed), 1977:236-237) indicates in a 1969-1970 study that the military orientation of futures research was not prevalent at the time, but still noticeable. Forecasting, research and planning on alternative military futures originated mainly from organisations as opposed to individuals researching non-military matters. The military alternative is seemingly rather avoided than rejected whilst proponents of alternative military futures, even though mostly institutions as indicated by McHale, are still to be found.

Finding alternative futures for humanity that do not contain at least one or more pessimistic or destructive alternatives are not plentiful. The persistence of negative alternatives that demarcate danger zones of the future and best to be avoided, contain amongst others an implicit need for coercion or the threat thereof. As the military instrument remains a policy option in the arsenal of responsible governments, military coercion accordingly remains a future option. In spite of much talk and intentions to rid nations of the scourge of military forces, only Costa Rica has traded its military for an all police service and opted for having no military forces whatsoever (David in Shultz, *et al.*, 1997:290). It is thus probable to presume a future without military forces, but no trend portrays that this is in actual fact transpiring. According to Moskos (in Caforio (ed), 1998:514) however, the future alternative is rather one of a military with alternative roles and goal displacement as opposed to the option of closing it down on the premise that its fighting role had become defunct. This matter lends new impetus to the question of alternative military futures as it extends the future of the military domain.

References to the future role of military coercion to direct its development and adjustments are rarely clearly articulated. As war is for and about politics, this is the domain from which the future need for military coercion is to originate. However, deliberate vagueness, ignorance or politicians just not taking a stand on issues to direct future military needs create dilemmas and misunderstandings (Trager and Simonie in Trager and Kronenberg (eds), 1973:38, 42). This difficulty becomes further obscured by the tendency of politicians to rather focus upon short-term or immediate security issues as opposed to longer term outlooks that are difficult, intangible and often vague or shrouded in uncertainty (Buzan, 1991:338). According to Kronenberg (in Trager and Kronenberg (eds), 1973:7) organisations like defence institutions try to avoid uncertainty by rather engaging in short term and immediate problems. This difficulty was also articulated by the Director Strategy (SANDF) during a lecture at the SANDF Military Academy on 25 September 2002. He outlined the difficulty of having to design a longer term military strategy for the future whilst the guiding inputs from political decision-makers reflect a futures view that not necessarily extends beyond the 4-5 years of their political tenure (Roets, 2002). This looming strategic planning gap needs to be closed down and the African Union framework is perhaps a guide to the futures to be contemplated – including military futures.

A focus on alternative military futures suffers when the required nexus between politics, war and ultimately strategy is strained or even absent (Gray, 2000:57). A culture clash between articulate politicians and military focussed senior officers creates further tension. This reciprocal ignorance between military and political decision-makers results from the one knowing little about war and the other less about politics and this barrier reinforcing the divide. Distinctive politico-military responsibilities, according to Gray, further clouds the relationship as it gives rise to misconceptions as to what drives the politician's decisions and in turn, what they demand from the military for the purpose of the war. The difficult interface between politics and war further confuses matters as no true way of bringing the political and military decision-maker into harmony has been forthcoming. The futures profile of the politico-military outlook therefore remains obstructed or disjointed in some way.

The above challenges, in conjunction with complexity and rapid change, clutter the presumed pathway towards alternative military futures. As opposed to this, views that explicitly argue future military matters and assumes, in whatever format, a future need and role for military forces are to be pursued as well. In this regard, the enduring nature of and / or factors promoting military futures need to be deliberated as well.

### **2.5.3 Arguments for enduring military futures**

Fontela stressed the necessity of not forecasting and building scenarios about the future without including military events and developments. It is thus necessary to explore the probabilities and consequences of alternative political and military futures when forecasting. According to Fontela too many imbalances have potential military consequences for it to be ignored (Fontela, 1978:90). This remains important as the lingering phenomenon of war continually upsets or threatens to upset favourable views of the future (Clarke, 1978:72). Although futures theorists of recent times tend to display some aversion to war and things military, war's enduring nature, as alluded to by Fontela, is perhaps visible in the following view of Gray on the difficulty of escaping the reality of a world system tainted by war.

*On the one hand is the tradition of the scholar who struggles to reform, or revolutionise, the warprone, semi-anarchic world system of international relations. On the other hand is the tradition of the scholar who tries to work with that war-prone system, and who seeks to improve the performance of his side (Gray, 2000:9).*



Gray (2000:362) further argues that demands for military security are not always prominent, but they always return - even if only cloaked in a new garb. This view is closely related to the certainty that some part of humanity continues to experience bad times that tend to re-occur and invoke the need for military coercion or the threat thereof. Strategic history in no way indicates that the future should be viewed in undue optimistic terms and neither posits the demise of military coercion. The future role and use of the latter is perhaps to be modified by adjustments of the ways and means that are utilised, but not its purpose. Its future relevance is thus to remain. The fallacy to confuse dramatic changes in the ways and means with the future purpose of or need for military coercion is thus a dangerous divergence (Gray, 2000:364). The purpose of military coercion is an enduring concern and not to be entangled or confused with dramatic changes influencing merely instruments and ways to direct or achieve policy objectives.

Breytenbach is in agreement with the above view in that the optimistic outlook of a world devoid of conflict and war after the fall of the Berlin Wall (1989) quickly paled with the upsurge of new or simmering conflicts and small, but brutal wars. Although referring to Africa of the future, Breytenbach states that it is much too early to hope for peace and prosperity in the absence of national defence forces to either create the conditions for or defend advancements towards a better and more secure future. (Breytenbach, 2002) The need for upholding the future military option remains to be considered alongside other less-coercive ways and means of pursuing alternative futures. With no visible trend of closing down for example African national military entities, it becomes imperative to adjust them to rapid change on a continent prone to war as is suggested by the newly established African Union (Lekota, 2003).

*Pectora cobstant cultus recti*

Friman *et al.*, (2000) in *Which Defence against what?* investigated changes in terms of what future defence is prone to demand from military institutions. This research highlights future defence matters and the future interplay of real and virtual matters. The military's reality world and its responses are to contend with the rise to prominence of virtual matters contained in the ecology of wealth, value systems, identity and experiences (Friman, *et al.*, 2000:5). Future military defence therefore has to plan for the entry of virtual (intangible) matters as primary future threats and vulnerabilities.

Friman's findings represent an adjoining view to that of the Tofflers (in Arquilla and Ronfield (eds), 1997:xiv-xv) predicting that as a society changes, it takes its military along with it. The shift of society to the future knowledge domain is therefore not exclusive of its military institutions. The latter is thus to also enter the realm of intangibles as the relationship between tangible and intangible methods of destruction is adjusted by the movement of knowledge together with ideas, innovation, values, imagination, symbols and imagery from a peripheral to a central position

(Tofflers in Arquilla and Ronfield (eds), 1997:xiii-xiv). Future military forces will therefore have to adjust and contend with new intangible and virtual challenges in addition to traditional challenges and structure their alternative futures along these pathways, rather than to prepare for their demise. These challenges are presented in a more elaborate manner in Chapter Five on the future strategic environment.

Military futures also need to be reconciled with shifts in outlooks on the use and utility of military coercion. States need to harmonise their traditional war fighting capabilities with a changing strategic environment where brute strength and firepower are fading in the face of demands for small, flexible and rapidly deployable capabilities. At the global level burden sharing and jointness are becoming increasingly important to national military forces in order for them to cope with the rise in threats and vulnerabilities that defy the state-paradigm. National defence budgets are on the decline as well whilst the complexity of threats are increasing and simultaneously defying traditional and unilateral solutions. Defence decision-makers are compelled to balance global and regional demands with those of the national level as they face increasing military complexities (Mandel, 1994:36-37). As this complexity grows, probing the future becomes all the more important in order to balance or design trade-offs between local competitive and global co-operative perspectives of the military's future role (Mandel, 1994: 49).

A further future military matter is what Mandel refers to as that of *War and the instruments of force*. The causes of war are increasingly shifting to dissatisfaction with political, economic and social change. This becomes infused with personalities, ethnic identity and inequality as well as a rapid increase in dissatisfaction and turmoil. Little of the traditional and predictable political, ideological and territorial incentives to direct future military planning and actions are to be assumed (Mandel, 1994:50 ; Trager and Simonie in Trager and Kronenberg (eds), 1973:38-39). War and the instruments of force are also entering the Fourth Epoch where the military instrument is severely tested to cope with future change and for the change to be carried through by society in order to cope with new future challenges (Moore in Bunker (ed), 2002:169).

The nature of future war is prone to change as well. It is both an activity of high-technology and swiftness for some, whilst at the other end of the spectrum it is prone to degenerate into a fray where peace and war become indistinguishable as do the protagonists and civilians and, as in Africa, the very objective of why fighting is taking place in the first case (Mandel 1994:51 ; Snow, 1997:122). As for instruments of force, the weapons profiles begin to span a spectrum from nuclear/chemical/biological to devastating conflicts fought with old technologies and even rudimentary home made artefacts. The combatants reflect a similar spectrum that threatens a future where professional militaries are bound to lose control over the destructive instruments of

force (Mandel, 1994:52-3). These observations invoke the earlier fears of Bloch and Nezmanov that the military may begin to lose its grasp on what war is to become, although not entirely due to the technological imperative. National military forces therefore run the risk of becoming outdated and redundant in future as conflicts arise unto which they are unable or unwilling to adapt.

The danger of this potential redundancy becomes accentuated as the need for future military coercion is not to fade in a corresponding manner as post-modern or new wars, according to Kaldor, continue to loom. In terms of their goals, methods and financing, as opposed to the so-called old wars, new wars are on the rise and therefore part of the future and of military futures in particular (Kaldor, 1999:6). The enduring need for national military forces is therefore not to disappear, but the risk is rather one of their appropriate adjustment towards new military futures or being unable to cope with future goal displacement.

#### 2.5.4 Alternative futures: The need for the military alternative

Present outlooks upon alternative futures also display a propensity for preferences that in some way promote retaining the military option. Listing alternative futures that are regularly set forth, displays the implicit or explicit presence of one or more alternatives that imply a need for military coercion, its threat or mere presence. It is also possible to paint a predominantly pessimistic and negative future as in *'The coming anarchy'* by Robert Kaplan or the inevitable negative and war-fighting outcome as found in *'Clash of the civilisations'* by Samuel Huntington. These alternatives mostly tend to support the pessimistic or destructive side of the future and posit an established role for future military forces.

The opposite of optimistic futures of earlier times and the presumed decline of military coercion that followed the demise of the Cold War reflect the dangers of marginalizing future war. Both these earlier preferences proved to be overly optimistic. However, in line with the aim of Futures Studies and the practice to set out alternatives, the reigning trend is to include pessimistic and conflict-prone future alternatives. Examples of such alternatives as the downside or counter to more optimistic and utopian type alternatives are illustrated in Table 2.5.

**Table 2.5: Setting out Alternative Futures**

Project	Leading entity or institution.	Pessimistic alternative(s).
1. SPACECAST 2020.	US Air War College, Futures Group.	Rogue's world. Mad Max's incorporated world.
2. Alternative futures AD 2000-2025.	W.C. Clemens, Boston University.	Fragmented chaos.
3. Future revolutions:	David Mercer.	Dark fears.

Unravelling the uncertainties of life and work in the 21 <sup>st</sup> century.		
4. Scenarios for the new war: Post September 11, 2001.	New York University Interactive Telecommunications Programme.	Black market world, Gloom and boom, An empire stretched too thin.
5. The next South Africa.	Francis Fukuyama.	The Lebanon Option.
6. Southern Africa 2020.	Institute for Global Dialogue, Friedrich Ebert Stiftung, Representatives from Southern Africa.	Danger, Ingozi Kotzi, Behind the slow tide.
7. The September Scenarios.	COSATU.	Desert.
8. The World and South Africa in the 1990's.	Clem Sunter (Anglo American).	The low-road - (Cautionary tale and Wasteland)
9. The Mont Fleur scenarios.	Pieter Le Roux and multi-disciplinary team.	Ostrich and Lame Duck scenarios.
10. Proteus: Insights from 2020.	Tasc/Litton, Deloitte Consulting, The Futures Group <i>et al.</i>	The enemy within, Militant Shangri-la, Yankee going home.
11. Scenarios Europe 2010.	European Commission Forward Studies Unit.	Turbulent neighbourhoods.

## Sources:

1. Air University, The world of 2020 and alternative futures. Air University, USA..
2. Clemens, W.C. 2000, Alternative Futures AD 2000 - 2025, Boston University, October 5.
3. Mercer, D. 1998, Future Revolutions, Orion Business Books, London.
4. NYU, 2001, Scenarios for the new war, Interactive Telecommunications Programme, Sept 28.
5. Fukuyama, F. 1991 The next South Africa, SA International, Oct 22/2.
- 6-9. Southern Africa 2020. Five Scenarios, Johannesburg, June.
10. Linstone, H.A. 2002, Proteus Insights from 2020, Technological Forecasting and Social Change, Vol 69, No 5.
11. Bertrant, C. *et al.*, 1999, Scenarios Europe 2010, European Commission Forward Studies Unit.

Moving from mere optimistic linear views of the future to alternatives that also include the pessimistic (as illustrated in Table 2.5) originated from the military factor as promoter as well as opponent of destructive futures. Military related developments became quite central to arguments why the future was not to be viewed as only utopian. The extent to which pessimistic alternatives are formulated and form part of accepted present day practice to outline or approach the future, maintaining a future military option is not outdated thinking. It thus becomes necessary to also consider military futures when contemplating how to address the pessimistic alternatives outlined in the examples stated in Table 2.5. This, for example, is the approach by Peeters when he argues that in order to avoid a Third world war by 2010 forces working for negative futures should be checked during the first decade of the 21<sup>st</sup> century. This is to take place via development or the road to war is to become probable through the rise of militaristic policies in critical geographic areas such as Southeast Asia and Africa (Peeters, 1979:257). Pessimistic futures are prone to give rise to dissatisfaction and eventually conflict that threatens

security and stability to which the solution might well be co-located in the access to military coercion or the threat thereof. To this end, properly tailored coercive forces are to be maintained to offset pessimistic alternatives as primary agents directing the future.

Pursuing this line of thought needs to acknowledge future militaries within the realm of alternative military futures. If the future is characterised by increasing change and complexity, military forces are to face these matters in those futures it is expected to deal with. It becomes necessary to gain some understanding or insight into the dynamics that guide or challenge the evolvement of national military forces of the future. This is an ungainly process as outlined by a US Secretary of Defence during 2002. He pointed out the use of special forces on horseback to guide modern attack aircraft carrying precision guided munitions onto a Taliban target in Afghanistan in preparation for a cavalry attack by special forces and Afghans (Rumsfield, 2002:22).

A more direct way to argue the case for military futures is to posit the difficulty of the claim that war is obsolescent. History does not support the absence of war and neither recent claims that it has reached its final stage or that perpetual peace is about to break out (Black, 2001:1-2). Thus a quite pessimistic outlook as acknowledged by Black (2001:ix). Military forces are not obsolete, but have to face new futures that are complicated by the RAM - Revolution in attitudes towards the military. RAM is a concept used by Black to point out new realities that demand appropriate adjustments from national military forces that have to accommodate these shifts in forging their own futures (Black, 2001:9). RAM concerns shifts that emanate from the following domains. The declining willingness to serve in the military, feminism that is resetting outlooks on military culture via a reconceptualization of masculinity, military autonomy being penetrated and directed by public interest and a decline in conscription that underlines and supports the professionalization of war to better cope with the rising sophistication of its ways and means. (Black, 2001:10-12).

The above difficulties are not restricted to Western outlooks, but are challenges for Asian and other Third World national military forces as well. China, Japan, South Africa, Thailand and Chile are but a few examples of national military forces striving to adjust to a new future strategic environment. China has to make choices concerning its move towards big power status and how to take along its huge military institutions on this path towards a future military in the information age designated for 2020 (Pillsbury, 2000:11). Japan has to decide whether it is to rearm and play a wider role in the region (Stratfor Report 28/05/01) and extend its military-strategic reach accordingly (Stratfor Global Intelligence Update, 15 Aug 2000). South Africa has to adjust its military forces to reflect political change and its commitment to new initiatives as demanded by national policies concerning NEPAD and the African Union (AU) (Lekota, 2003). Chile and

Thailand have to define their modernisation towards the future in the perceived absence of future external threats whilst all three have to rid them of their past legacies and face competing domestic demands for funding in the face of a clamour demanding a peace dividend (Demchak, 2000:3). In total Demchak refers to one third of the world's states that are intent upon the electronic modernisation of their armed forces. This, in turn, points to their future intentions of having a future military option that coincides with the information wave that is to characterise future warfare to a larger or lesser extent.

## **2.6 SUMMARY: FUTURES STUDIES FOR ALTERNATIVE MILITARY FUTURES**

This chapter seeks to establish and uphold the link between studying the future and the relevance of military affairs to those futures contemplated by society. A fundamental tenet is that if the future becomes all the more important as rapid change and complexity enters the picture, military futures need to be included for they are equally complex and quick-changing. Ignoring alternative military futures as if they had become inapplicable, is therefore challenged as it is unduly optimistic to think humanity is to forfeit the war-option.

The military link in predicting the future and societal change is visible in the historic origins of the futures field and in particular the early belief that military man has a role to play in creating a preferred future. These early beginnings shaped the utopian outlook on how the future was to evolve. This idealistic view changed as it dawned that war represents a discontinuity in progress and therefore needs to be included when considering the future. The idea of the future thus shifted from a linear projection of the present 'good life' to one of alternatives. These alternatives, it became realised, had to include pessimistic and even destructive futures as the reality of the latter increasingly influenced the late 19<sup>th</sup> century international scene. The future subsequently increasingly became viewed as a necessary field of study, and not a mere informal activity for it included matters that supposed great prosperity or massive destruction for humanity.

The showing of wars functioned as one nodal point in the profile of Futures Studies and impacted upon how the field evolved since the latter part of the 19<sup>th</sup> century. War acted as a variable that moved the focus of forecasting or explaining the future away from a linear and optimistic view of the future. As such war contributed to equilibrium in addressing the future by warning decision-makers to contemplate destructive futures as well. The latter became reality via the First and Second World Wars as well as the Cold War as technology and the dark side of man combined to raise the eventual spectre of destructive nuclear futures. Military matters accordingly became an enduring element in forecasting the future via different means, but especially through literature.

In this way the future not only received more attention, but was also introduced to broader society with war, future war and relevant future military matters featuring quite prominently.

The early beginnings of the futures field rested upon an underdeveloped theory that made its scientific base questionable. Theorists like De Jouvenel injected some theoretical concepts and coherence into the subject in order to better structure it as a field of study. It also became underpinned by a certain outlook to promote the realisation of projecting ideas into the future and have them materialise or attained at some future point in time. Thus followed efforts to build further theoretical foundations. This took shape by outlining evolving characteristics and limitations of the field and the true utility of generating alternative futures for decision-makers to choose from.

Over time and even before its establishment as a field of study towards the middle of the 20<sup>th</sup> century, categories of futures literature evolved to fill certain voids. As such it facilitated policy and decision-making by presenting credible alternatives about the future to decision-makers. Systems analysis, operational research and complexity theories as well as expert judgements infused scientific credibility into the methodology of Futures Studies as it had to increasingly cope with difficult issues arising in its domain. Although acknowledged that its scientific foundations are not perfect and that expert opinions of individuals are drawn upon to compensate for it, assisting decisions about the future in this way still offered more desirable outcomes.

The evolvement of Futures Studies and futures research, however, remained subject to the outbreak of war and its adjacent sphere of military affairs. Not only war, but also the intervening periods of peace became susceptible to matters of future war, the future use of technology, future defence matters and related debates. The prominence of these military matters should be judged against their destructive potential that kept them salient in earlier futures thinking. This eminence declined over time and drew criticism since the presumed absence of future war was judged more a reflection of preferences in studying the future and not the disappearance of the phenomena of war and related military affairs. As military phenomena did not disappear, upholding the military-futures link remained an imperative. Although the literature presented reflects the presence of such a link, its time frames need to be understood. Thus the necessity to research, report and expose the futures-military link.

More historically and from earlier literature this link is visible as can be inferred from the futures literature by Clarke. The futures research imperative also has a military origin as it derived from Operations Research during World War Two and Systems Analysis with its own defence related background. The military link and utility is thus visible. This link is important for it is argued that

how we think about the future directs our thinking on future war. The establishment of this correlation raises the question as to whether the recent ebb in attending to military futures is not the result of difficulties to convincingly argue its future role and content. It is thus a reflection of a fallacy rather than a *de facto* decline. Therefore the need to convincingly argue for its continued role and presence remains an enduring matter.

The preference to ignore military matters drew criticism from theorists such as Dror and Fontenel for they argued that military futures and war are appropriate fields of futures research. Although future war and military matters seemed to forfeit some of its former attraction, arguments for its continued relevance can be found. Particular think tanks and theorists in the futures field maintain that war has not been replaced by perpetual peace. Governments still prepare their national military forces to operate in a future strategic environment - albeit along somewhat different ways than in the past as its character and not its goal is to change.

If war remains probable and destructive, its domain needs closer attention. In more recent times and despite the changes on the international stage, the Futures Studies-military link remains of interest. Military institutions of the USA, the former USSR and the current Russian Federation, the PRC and associated research institutions pay close attention to matters of future warfare and alternative military futures. Although not typical of dedicated futures institutions, they produce penetrating studies on military futures concerning future military options and institutional shifts relevant to such options. Although the military link in typical contemporary futures publications and institutions seems to have waned, much of it has shifted to dedicated research institutions and to military establishments themselves.

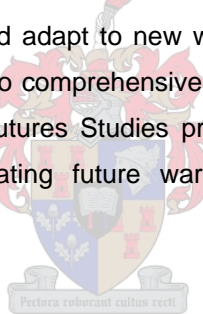
War is to remain a factor as perpetual peace has not yet overtaken it. No credible indicators point to a future decline in the use of or threat of the military alternative. This does not imply military business as usual, quite the contrary. An important challenge facing the study and support of alternative military futures is to be convincingly clear about future needs, typology of future military forces and their future roles. Credible arguments about these questions are necessary to persuade present day societies about their future need for military forces. It therefore becomes essential to argue persuasively that it is dangerous to outline alternative futures for humanity and ignore the plausibility of war - in whatever new format it may manifest. Alternative military futures are therefore rather about refining the military option for the future and its appropriate future roles and functions than extending war as an unchanging and unavoidable future dilemma.

If national military forces do accompany their societies into the future, they cannot avoid the changes that society has to confront. If they become outdated, they will become outmoded and



lose their future utility to uphold optimistic futures and assist in fending off pessimistic alternatives. Military forces is therefore to change for the sake of their own futures and that of their societies or run the risk to be to be rejected and become a destructive future problem in itself. From a futures perspective the changes and challenges are less about its relevance *per se*, but rather how it is to be used appropriately at some future point in time. This imperative underlines the necessity to investigate the dynamics that underpin adjustments and shifts of national military forces into the future. Contemporary alternative futures still contain pessimistic futures with dire conflict potential for states, regions and humanity in general. As long as such alternatives are possible or probable, although not desirable, national military forces have to face their own as well as societies' complex futures.

Addressing alternative military futures are complex for by introducing it within the context of Futures Studies implies challenging the status quo. This signifies difficulties even though the aim is to clarify types of future wars that could break out. Ignoring military futures could well invite the risk of destructive futures. Demarcating and aspiring towards clarity on future warfare is difficult and challenging, but old thinking and ideas cannot address this matter. War is not to disappear and thus the rising need to change and adapt to new wars of the future as does the need for alternative future military options. As no comprehensive ways existed to investigate and project military change during earlier times, Futures Studies presents one solution - even if it merely upholds the importance of contemplating future warfare and not allowing its demise or propagating its non-utility.



## CHAPTER 3

### INNOVATION, MILITARY CHANGE AND MILITARY FUTURES

#### 3.1 INTRODUCTION

In Chapter One the case for alternative military futures was argued and the conclusion reached that the future need for national military forces is not to suddenly disappear. It was explained that severing the link between the future and the domain of future war is rather wishful and a flirt with deep destruction. The chapter also addressed the rise and impact of war upon futures thinking, but did not elaborate upon particulars of the changes alluded to. The focus of this chapter is to outline important arguments and theories on national military change in order for future military institutions to fend off or uphold selected alternative futures.

Military futures are easily spoken or philosophised about, or sometimes even jeered at. For some it remains the subject of speculation and ridden with uncertainty, for others a serious matter to contend with and so much the more if it happens to be one's primary responsibility. Defence decision-makers need to regard military futures a serious matter and accept responsibility for removing those uncertainties clouding the future within which they expect their national defence forces to perform their responsibilities. What becomes imperative is the need to clarify these futures as best as possible and allow for national military forces to change or adjust accordingly. It is the latter adjustment or change that represents true future challenges.

In this chapter, the focus is on military innovation, diffusion, and change. Military futures do not result only from undirected and unsuspected dynamics that impact upon military organisations and eventually induce change, but from known procedures such as diffusion of progress and innovation as well. Military change, as opposed to military stasis, is first addressed as an introduction and background to the chapter. Both the historic manifestation of military change as well as contemporary theories on innovation, diffusion, change and their eventual outcomes are attended to. Historic antecedents are addressed by presenting earlier military revolutions and their outcomes upon military futures in the European and African environments. Following this more contemporary theories of progress are outlined. Innovation during war and peace as well as diffusion theories in both the technological and social environments is investigated. Each concept denotes a range of factors that either promote or hinder change and movement towards new military futures. To this end, a section on uncertainty and military change is presented to emphasise this difficulty and indicate some catalysts that tend to promote certainty. In conclusion, a brief summary is presented on military change and the future.

## 3.2 CLARIFYING MILITARY CHANGE: PARADIGM SHIFTS, INNOVATION AND DIFFUSION

As was argued earlier, societies change and their military forces need to adjust accordingly and in particular if such military organisations are to remain a reflection of and relevant to those societies from which they originate and have to defend. Matters of reflection and relevance for example received primary attention and were fundamental tenets of change to set the SANDF (SANDF) upon its future path during the period 1994-1998 (HANSARD, 1997:3150). Less well known is that its opposite denotes military stasis with its own range of problems for society and formed part of an intense defence debate in the South African Parliament on 22 June 1995. This debate involved a determined presentation by the Deputy Minister of Defence that focussed upon taking the SANDF into the future as opposed to the risk of allowing it to become redundant (HANSARD, 1995:3117). Ensuring the relevance of national military forces therefore remains important as it counters the potentially disastrous impact of outdated armed forces forfeiting their future relevance to become problem militaries. In the following section, salient matters on military change is addressed that need to be noted by military officials.

### 3.2.1 Shifts in scientific paradigms: Some theoretical departures

For a shift to take place in a dominant view, a crisis has to ensue in that existing conceptual tools such as theories, models and concepts fail to properly solve problems that arise in the field of understanding and explaining a phenomenon (Kuhn, 1970:76). Kuhn outlines this by emphasising that the change implied is tied up in the ascent of a rival paradigm. Such a paradigm represents an opposing model housing coherent and existing traditions of scientific research that flows from accepted examples of actual scientific practice (Kuhn, 1970:10). Challenging the status quo in this way is to be accompanied by an adjoining body of adherents comprising researchers, scientists, theorists and decision-makers that contest existing views and side with the new outlook or paradigm.

The extent to which the rival paradigm attracts support often implies the demise of older schools and their supporters or for such competing paradigms to even co-exist for a period of time before one eventually ascends to dominance. Once this transpires, researchers and supporters can adhere to the new paradigm and concentrate upon refining it (Kuhn, 1970:19-20). This is, however, not a *fait accompli* as adherents to the *status quo* will defend it or introduce own adjustments to counter anomalies. The resultant anomaly is either addressed or it assumes crisis proportions and draws increasing attention in order to resolve the crisis or it defies new approaches and remains a problem in the field (Kuhn, 1970:82-83, 84).

A new paradigm is not altogether coherent and fully matured as it remains open-ended to allow sufficient scope for new problems and their resolve. It also permits accounting for a wider range of phenomena as well as to explain certain previous events with more precision whilst it slowly rises to prominence amidst several attempts to refine it. Cohen argues that these scientific revolutions can be small as well as large. Large and wide-ranging revolutions are not frequent whilst even these leaps in actual fact consist of small and even invisible steps. Giant leaps are infrequent and furthermore quite visible above *the mode of regular and incremental progress* (Cohen, 1985:22). Nevertheless, these advancements do continue and gather their respective proponents as well as opponents. They are regularly viewed as negative in that they promote threatening and dangerous progress and developments such as increasingly deadly weapons systems. They are furthermore opposed from within entities for introducing change that opposes or destroys existing theories, beliefs and concepts (Cohen, 1985:17). Bringing about required changes is therefore a difficult matter and effecting it in the military domain is most probably no exception.

### **3.2.2 Military change: A shift in paradigms**

The contemporary and traditional paradigm of warfare is increasingly challenged by views that war is outdated and needs to be closed down, adjusted, or radically changed. A plethora of literature portrays the sentiment that warfare is in the throes of a need for change, although broad consensus about what exactly these changes should involve remains unclear. This pressure for change is particularly visible and debated concerning the Western view of warfare and its Clausewitzian framework (Baucom, 1984:1-3). It is furthermore also visible in the need for co-operation and not exclusionary and adversarial relationships (McCWire, 2002:3) based upon war fighting to promote own interests.

Views of future warfare as a changing phenomenon are not only visible in Western thinking, but also in East Asia, South East Asia, and South Asia. This evolving trend outside the West is reflected in Chinese views on future warfare and in the opinions of Asian participants in the conference, *The RMA in the Asia-Pacific: Challenges and responses* held in Canberra, Australia 17-19 May 2000 (Centre for Defence and Strategic Studies, 2000). A further indicator is the RMA-link on the web page of the Project on Defence Alternatives (PDA). This web page contains views and debates on future warfare of Western countries, the People's Republic of China and the debate outside the West (PDA). In Africa, for example the SANDF is involved in a transformation process to change its strategic posture and gear itself to operate on the future African strategic landscape. It is simultaneously, according to its Chief Director Strategy and Planning, adjusting its strategic culture towards that of an African military force geared for

supporting the objectives of the newly established AU (Hauter, 2002) and its futures outlook of ending African wars.<sup>13</sup>

The Western view of war, however, posits clarity between war and peace as well as upholding this clarity between soldier and civilian as war unfolds and is being fought (Freedman, 1998:15-16). This clinical view is increasingly challenged and alternatives are required to cope with new military extremities such as the terror attacks upon the USA on 11 September 2001, the response towards Afghanistan and Iraq, but also the spate of internal conflicts threatening many developing countries - those of Africa in particular. This is a fundamental challenge and from some quarters viewed as demanding of a new paradigm to demarcate and explain the unfolding context of future warfare. However, for this to materialise requires from those adhering to and within the comfort zone of the *status quo* of traditional war fighting futures to shift their outlooks towards rival or alternative theories on how warfare is to be conducted in future and within what kind of strategic environment this is to unfold (Baucom, 1984:1 ; Baumann, 1997:44-45).

### 3.2.3 Backdrop to shifting the military-strategic paradigm

The arguments for and theory on a military-strategic paradigm shift unfold against a larger backdrop of change in beliefs, theory, preconceptions and prejudices on how the international system works and what shapes it. Mccgwire (2001), drawing upon the work of Steinbruner and Rogers, sketches an international system based upon co-operative engagement and consent to meet the challenges of a future security environment. In essence the argument is premised upon the notion that the current and dominant paradigm of exclusionary national security is no longer valid and needs replacement. He accentuates that the future types of conflict and instabilities that are to arise are not to be sufficiently met by merely reconfiguring military forces geared for rapid deployments and long-range strikes. Depending upon these ways to maintain the *status quo* into the future is prone to fail (Mccgwire, 2001:778-779) and to avoid this is to embark upon a paradigm shift that entails moving from an adversarial national security paradigm to a co-operative global security paradigm (Mccgwire, 2002:7). :

For the preferred paradigm shift to take place is to recognise that the existing paradigm is dysfunctional and adds to difficulties of the future. It therefore loses its function to explain and resolve challenges in need of attention. This creates some conceptual space for new thought to enter (Mccgwire, 2002:8). However, four requisites are judged to underpin a shift of this nature. Mccgwire, (2002:8-9) notes these as an impulse for change, absence or removal of obstacles, an engine of change and a precipitating cause or event. It therefore requires some range of events or developments to bring about such a shift whilst it simultaneously and invariably promotes the

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This difficulty is the topic of a paper by the author to be presented at the 56<sup>th</sup> Political Science Association Conference, Reading University, England, on 4 April 2006: *Emergent South African Strategic Culture after a decade of democracy*.

idea of it not being a quick and dramatic process – in particular not in the case of where it is about attitudes and preferences as well as changing historic entrenchments (Mccgwire, 2002:5-6).

The idea of a paradigm shift in how military coercion is used also falls subject to the very changes alluded to in the above two paragraphs and the shifts in organising principles and attitudes. This shift also received attention from Prins and Tromp (eds) (2000), Burk (ed), (1998), and Prins (2002). These authors define an emergent shift away from destructive military alternatives, but neither manage to conclude or argue convincingly for the demise of the military alternative. Co-operation and changes in the role of armed forces, rather than their demise, appears to be the norm. Ultimately defence against aggression remains the primary concern in a dangerous strategic environment and one that limits the view of the demise of military institutions to the level of theory. In combination, national and collective postures that rather lean towards interoperability, could become a future reality (Gagiano, 2002a).<sup>14</sup> Raitasalo and Sipila (2004:239) posit that it is rather about grasping new roles and rules, not the demise of armed forces. Such matters are subject to what transpires within the military domain as well and are subsequently addressed in more detail as to their functioning as impulses and engines for eventual paradigm shifts.

### **3.2.4 Military change and military stasis**

The saying *if you don't know where you're going, then any road will do* could well apply to the future complexity that military forces have to face (Murray, 1998:51). Warfare is a phenomenon that is subject to pressures for constant change. This pressure is intensified by the dynamics of unclear or unpredictable stages of development and change along which societies progress. Such uncertainty creates much difficulty for leaders of military forces to charter their futures pathways. The constant change and resultant uncertainty that permeate warfare and the decisions of military leaders and defence decision-makers led to the early perception that mankind was losing its grip on war. This pessimism surfaced in the wake of the Franco-Prussian War (1871) as military commanders had to cope with controlling vast new military machines driven by technology and firepower amidst new relationships between technology, humanity and morality. As viewed by Ivan Bloch, the difficulty that arose flowed from the old way of thinking becoming incapable of accommodating new realities or change overtaking *status quo* thinking on military affairs (Baumann, 1997:43-44).

During earlier times particular shifts that military institutions had to cope with were formulated in terms of progressive stages and social development, 20<sup>th</sup> century understandings and a focus on

technologies and economic foundations for their production (Baumann, 1997:46 ; Giddens in Freedman (ed), 1994:112). The extent to which coping with such change falls outside the ambit or competencies of decision-makers, it allows for the rise of military stasis. Military stasis is further fuelled by whether or not the existing paradigm of war is accepted, adjusted or even radically altered (Baumann, 1997:44). The present scourge of severe violence and destruction is being eclipsed by ideas embedded in violence reduction via technology and its future applications (Baumann, 1997:46). In tackling future difficulties military decision-makers also need to contend with present demands and change that fall within the framework of so called legacy systems and a past age of understanding war and preparing for it (Hillen in Frontline interviews). Raitasalo and Sipila (2004:256) express this duality as military futures demanding a grasp of both past, as well as expected future paradigms of war. This dilemma holds the risk of entrenched military stasis whereby existing strategy, concepts and tactics are merely continued, irrespective of the future. In turn this is perpetuated by an assumed military unwillingness to allow for important structural and cultural changes that impede further change (Murray, 1998:59-60).

A major strategic adjustment or shift (tantamount to what Baumann refers to in the previous paragraph) transpired in the international arena during the late 20<sup>th</sup> century. The demise of the former Soviet Union confronted military forces with dramatic changes to the structure of the international strategic environment and thus the context for war. The parameters of the defence dilemma (contradictions between the pursuit of military defence and national security arising from the nature of military means and their deployment) that steered military thinking since the end of World War Two began to implode as well (Buzan, 1991:271). This shift in the strategic context that previously underpinned much of the rationale on preparing military forces and viewing future war in a somewhat predictable fashion called for politico-military decision-makers and theorists to reinterpret future warfare and align their military forces accordingly. As national military forces find themselves in a domain of continuous change, less resources and even less sympathy the risk increases of not being able to catch up at all once they have fallen behind. The difficulty and costs of solving such an intellectual and practical challenge with limited resources are prone to promote the *status quo* and the negative effects of military stasis.

The tendency to defend existing organisations, doctrine and fighting platforms in opposition to alternatives is but one obstacle. A further difficulty resides in not promoting officers whom may introduce the required change and perhaps upset the reigning military culture. These challenges are quite apparent in the *Frontline Interviews* concerning the future pathway for the US Army. This is a matter actively pursued by the US Army Chief of Staff, General Shinseki (appointed

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<sup>14</sup> See Vreÿ, F. 2005, Eradicating African wars. From political ambitions to military leadership and constructive military forces, *African Journal for Conflict Resolution*, Vol 5, No 2 for a more expanded view on future interoperability of African military forces.

June 1999) on questions pertaining to what tomorrow's wars would look like and how should the US Army prepare to fight them (Frontline Interviews on Future War). These early 21<sup>st</sup> century interviews with eight prominent US politicians, senior military decision-makers (including the US Chief of Staff) and military theorists accentuates the difficulty of changing set outlooks of a military institution and simultaneously coping with both contemporary as well as future demands. It accentuates the competitive reality of being prepared for the present and simultaneously preparing for the future. Schoomaker, Shinseki's successor, attended to the contemporary-future duality more closely. Through his guidance adjustments to cope with the range of traditional, irregular, catastrophic and disruptive challenges of the future through the rapid fielding and equipping programmes, received detailed attention in Field Manual 1 of 2005 (US Department of Defence, 2005:Sec 4-3).

It is, however, not only the US that confronts this problem. During its early transition, the SANDF as a rising future African military institution, also grappled with these issues. It led to a 1995 statement by the previous Deputy Minister of Defence that "*Our future depends on us and the way we prepare for that future*". Part of this was promoting and substituting its officer corps in order to facilitate its preparation for new (African) military futures and to cope with so-called legacy systems to avoid a military breakdown. This difficulty involved coping with existing military systems and simultaneously acquiring and adopting new systems to avoid being found wanting at some future point in time. Concrete acquisition frameworks were set in place to replace main equipment needs of a future SANDF from a futures perspective and thus reflecting the extremities of what has to be dealt with in order to avoid stasis when faced with a new context for war (HANSARD, 1995:3120 ; HANSARD, 1996:2296-2297, 2329 ; HANSARD, 1997:680, 3147-3148).<sup>15</sup>

An unwillingness to change leads to predictability and from there it is but a short step to vulnerability (Robertson, 2000). If defending the *status quo* is dangerous and invites military stasis whilst changing, in order to meet the future, is an acknowledged difficulty, but fends off military stasis, the latter needs closer attention. This is once again typical of the perceived need to shift away from the national to the global security paradigm (Mccgwire, 2001:803) and for military institutions to change accordingly as posited by the post-modern outlook on the future missions and tasks of these institutions - a matter closely attended to by Raitasalo and Sipila (2004). The discussion is henceforth shifted to the domain of military change and military institutions in particular.

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<sup>15</sup> See Vreÿ, F. 2004, Paradigm shifts, South African defence policy and the South African National Defence Force: From here to where? *Scientia Militaria. South African Journal on Military Studies*, Vol 32, No 2 for an expanded view of these changes.



### 3.2.5 On military change

The above section points to a state of affairs that has no easy answers. The type of change that is to oust military stasis refers to future configurations as suggested by Baucom (1984) on paradigm shifts. Current literature on future warfare is in essence also a debate on military change and how to understand and adjust to future needs and forces. This debate becomes quite lucid in two recent publications edited by Caforio (ed), (*The Sociology of the Military*, 2003) and Moskos, Williams and Segal (*The Post-modern Military: Armed Forces after the Cold War*, 2000) respectively as well as *the Report of the International Commission on Intervention and State Sovereignty*, (2001), co-chaired by Evans and Shannon. Changes in warfare are acknowledged, but for national military forces to understand and effect the required changes remains a challenge. Raitasalo and Sipila (2004:256) present an update on paradigm shifts and argue that after the Cold War ideas on a paradigm shift once again entered the debate on military change. However, they link such shifts primarily to armed forces of modern western countries and that many other states are left out. This is a hotly debated and contemporary topic and it is rare for the literature on this predicament not to commence with the difficulties it raises for military organisations.

Demarcating the changes that military institutions need to undertake is also confounded by their response to change. Military forces are often discredited as being reluctant to go along with changes that impact upon traditional military ways of doing things (Buzan, 1991 :349-350). This apprehension refers to the difficulties inherent to getting military bureaucracies to adjust, as they are not designed to change (Rosen, 1991:2). Shifts that could threaten survival of vested interests are opposed in particular. Large naval surface vessels, manned bombers and flying machines for the air force and supposedly armour and armoured warfare for the army are traditional and presumably not to be forfeited without undermining some part of a unique rationale for existing (Buzan, 1991:352 ; Mahnken, 2000:44-45). Change in the military realm therefore has its limits as to what is allowed and what is opposed.

Resistance to change is not mere inherent irrationality. It results from an inclination by military institutions to uphold simplicity and order as confusion and uncertainty are known trademarks of war. In fact, due to their dangerous operational domains, military organisations are risk averse organisations. They tend to avoid changes that threaten to compromise their readiness to perform their missions. However, the preference for keeping order, routine, predictability and simplicity in place, unfortunately contributes to the perception of militaries being resistant to change (Blodgett, 1987:22 ; Mason, 1986). As change has to be understood in terms of future warfare as well, this creates even more uncertainty and thus a preference to be selective regarding which innovations and their diffusion are allowed to enter and effect military change.

Embarking upon military change is subsequently viewed as a risky venture that tends to promote conservatism in military decision-making. This conservatism creates further vulnerabilities as much needed change becomes accepted, but simultaneously eroded by pockets of conservatism. As to this reality Evans argues that change is only successful if the military accepts it in a corporate manner or if agents or proponents of change harness organisational power to effect desired outcomes (Evans, 2001:5). In South Africa for example, this process became visible in how the Defence Ministry, Parliamentary Defence Committees and selected officer groupings co-operated to effect the desired first order changes and enshrined it in the resultant defence policy (HANSARD, 1997:3148-3150) in order to place the SANDF on a futures pathway still characterised uncertainty.

The criticism against the military and its reluctance to change need to be viewed with some pragmatism. Evans warns that even though some military organisations display a reactionary impulse and thereby inviting the risk of defeat in war, the other extreme, radical embrace, needs to be noted as well. Radical embrace holds its own dangers for even though it represents a daring response to allow for change, such boldness could clutter decision-making and lead to squandered resources, time and even military defeat with long term future consequences arising from deep destruction (Evans, 2001:7). The way in which Libya, for example, hoards military equipment without parallel organisational change to accommodate the inflow and subsequently dumping it, is a case in point (Evans, 2001:3). According to Biddle and Zirkle (1996) Iraq also neglected organisational adjustment and integration of new military hardware in the run-up to the Gulf War of 1991. This neglect is judged to have contributed to its poor performance in the ensuing war. Appropriate alternative military futures thus fall victim to sustaining the *status quo* and military stasis or undirected change. This difficulty leads to uncertain outcomes that further inhibit proper or desired change.

Pursuit of change for present day military organisations implies a field of complex systems change. From an American perspective, new technology, new concepts, and new organisations are considered vital domains for promoting deep changes in military establishments and this becomes obvious from the topics contained in their Field Manual 1 (Sec 4-17) referred to earlier. Technology represents a popular avenue of change and to solve future difficulties, but following a deterministic or one-sided approach as if technology explains and solves everything is inherently flawed (Moelker in Caforio (ed), 2003:401). Artifactual or technological success, but a systemic failure to integrate and interact promote risks for military institutions and their societies as adjustments by the former to absorb and optimise the utility of new innovations fail or are ignored (Demchak and Allen, 2001:103). Military organisations tend to adhere to those pathways they set out upon in order to face emerging contingencies or threats. With this focus in mind it becomes

difficult to interject changes. Such changes have to be sufficiently empowered, glaringly obvious or influential in their relative advantage (perceived to be better than the ideas they supersede) to overcome existing inertia. If not, the organisational change remains incremental, internally buried and seep along unexpected or undirected routes (Demchak and Allen, 2001:109 ; Mason, 1986). Failing to account for new concepts, technology and organisations therefore hold the risk of partial or unsuccessful military change.

External conditions also facilitate military change, but it remains a slow process (Demchak and Allen, 2001:110). This slow process nonetheless needs to be directed and its agents are therefore to be known or understood. Change in military institutions is influenced by two agents or catalysts namely innovation and its diffusion. Innovation refers to doing something differently and not just thinking about it although research implies that no agreement exists as to what it exactly represents (Rosen, 1991:4). Diffusion, on the other hand, refers to the spread and adoption of technologies, ideas and behavioural practices (Goldman and Andres:nd:1). These two concepts are subsequently addressed in the context of them operating as interdependent agents of military change and alternative military futures.

### **3.2.6 On innovation and military change**

Consensus on the concept of innovation, as reported in research by Mohr in *Determinants of innovations in organisations* (1969) and by Rogers and Schoemaker in *Communication of innovations*, (1971, as cited in Rosen, 1991:4-5), remains absent. Furthermore, searching for grand theories of innovation is not recommended; of more usefulness is the recognition of different kinds of innovation for different purposes and that different organisations are inclined to respond differently. This outlook applies to military organisations as well and they are inclined to reflect their own response patterns as alluded to earlier in terms of slow or opposed responses. Concerning military innovation and change, its functioning also has to be understood from the three domains within which it is judged to take place - during peace, during war and as technological innovation (Rosen, 1991:4-5).

Innovation during peace and war is about behavioural changes of individuals and organisations and as for technology, about new technologies and building new machines (Rosen, 1991:5, 8). A major innovation refers to significant change in a combat arm, which is a functional division within the military. Major shifts in concepts of operations, how forces are used during operations or how individual weapons are applied all refer to innovation at the military strategic, operational and tactical levels of war (Rosen, 1991:7). This takes place as new technology is introduced during periods of peace or war and effects its own influences on innovation at different levels. This is illustrated in Table 3.1.

**Table 3.1: Relationships: Levels of War and Innovation**

Domain	Change	Level of War
Context	Technological change	Strategy
Procedures	Operational change	Operations
Equipment	Technical change	Tactics

(Source: Murray in Murray and Millet (eds), 1996:305)

Innovation takes place at all levels of war (as indicated in Table 3.1) and the most challenging is when major changes reconstruct the political frameworks directing war and thus the context within which war takes place. This is due to the scope of uncertainty and change it introduces, as opposed to more localised and incremental changes at lower levels. The end of the Cold War and collapse of the USSR changed the politico-strategic context within which future warfare had to be judged whilst a combination of factors also shifted its sociological foundations. As such the context of using systems in battle and constructing it for the purpose of war both shifted dramatically during recent times as is argued in Caforio (ed), (2003) on the sociology of the military and in Moskos *et al.*, (2000) on the rise of the post-modern military.

Military organisations function as open-ended systems in constant interdependence and exchange with their environment and in particular the societies they serve (Manigart in Caforio (ed), 2003:323). Innovational success on the other hand, emanates from a strategic framework and the political guidance within which military institutions operate. What also needs to be noted is that professional military forces do not have leeway to independently demarcate their futures. If such future environments are judged incorrectly, innovation perishes as no innovation or wrong innovations transpire (Murray in Murray and Millet (eds), 1996:304-305). If military innovations do materialise, they can be evolutionary or revolutionary in kind although Murray argues (in agreement with the earlier incremental theory of Cohen) that evolutionary innovations are more common. Whether incremental or revolutionary, each, however, reflects its own pattern that needs to be noted.

Revolutionary innovations are top-down phenomena where leadership masters the technical and intellectual aspects of possible innovations and champion their successful introduction and diffusion. Dowding's innovative thinking about British air power is a case in point. As the head of the Royal Air Force (RAF) Fighter Command Dowding promoted a system of air defence via fighter planes and radar that was not in line with the reigning RAF emphasis on bombers and the

dictum *The bomber will always get through*. He managed to alter the military paradigm within which future air wars were to be fought and in particular that of the RAF during World War Two (Murray in Murray and Millet (eds), 1996:305, 306-308).

Evolutionary innovation is time intensive and involves learning lessons from past as well as present military experience. Organisational culture, strategic requirements and the international situation as well as the cumulative effect of small changes over brief periods eventually effect dramatic results (Murray in Murray and Millet (eds), 1996:308-309). Innovation of this kind is less dependent upon one individual. It demands an organisational focus to be sustained over a prolonged period of time by proponents of the innovation and desired change.

A sustained focus to change is perhaps visible in how US forces currently operate or changed since the end of the Cold War. This change is perhaps even more salient in how the US began to conduct affairs of war when compared to other countries that have either not yet begun to introduce such innovations or only did so in some cosmetic way. Europe also began to adjust and innovate to better cope with a range of new challenges that demanded change from their military establishments (Manigart in Caforio (ed), 2003:339). It soon became realised that these innovative changes required a constant focus. The case of South Africa further illustrates this difficulty as the intended future use of military forces also shifted dramatically after 1994 and was still in process a decade after transformation of the SANDF took effect. It was however, again realised (during September-October 2002) that the desired changes have still not been effected (Gibson, 2002:11) and that transformation does not occur overnight.



Evolutionary innovation is more dependent upon the inculcation of a culture of innovation to sustain the practice over time as opposed to revolutionary innovation where the drive of an individual is viewed crucial for success (Murray in Murray and Millet (eds), 1996:310). This approach is not without entrapments. In this regard innovation and change in the SANDF, for example, is perhaps becoming the domain of strong individuals. As time frames for evolutionary change seem to become constrained, the scope for allowing an evolving systemic culture to effect required changes could be fading. This, in turn, could make the desired outcomes of innovations more contingent upon the drive of strong decision-makers in the military and wider defence communities (Trainor, 2003). It should be considered that military changes do not necessarily coincide with somewhat esoteric political needs and the latter is currently demanding appropriate innovations and their diffusion within the SANDF.

The difficulty of military innovation is contained in its ultimate end - that of preparations for conducting future wars. This is to take place in the future against an unidentified opponent, under

unpredictable political conditions and in an arena of which the conditions cannot be replicated beforehand (Murray in Murray and Millet (eds), 1996:301). Innovation, however, remains dependent upon realistic judgements of future war. Capabilities based planning, as opposed to the threat based approach, emerged as one way to contend with the uncertainties of future war. This alternative not only features within the US military, but in the SANDF as well (Department of Defence, 2001:xix). Nonetheless, as disciplined organisations military institutions do not value new and untried ideas highly, but to be effective and successful, the need for a futures outlook on innovation remains indispensable. In order to address this conundrum, creating an officer corps with a culture of understanding innovation and sustaining it in future is a preferred option. Opposed to these, features the alternative of depending upon maverick-type individuals with its obvious short-term utility. Nonetheless, education and the business of war allow for longer term views of innovation's future role and utility (Mason, 1986) and this needs to be noted.

The success of innovation is, however, not only dependent upon whether it is effected by strong individuals or an officer corps properly educated and receptive to change. A further matter - diffusion - becomes party to what happens to ideas containing innovative powers and a possible futures utility. Diffusion therefore represents the expansion or spread of innovations to and within military establishments where it is to be either accepted and integrated or rejected.

### **3.2.7 On diffusion and military change**

Diffusion has to do with how weapons, technology, know-how and methods for carrying out military operations are distributed, assimilated and exploited by other actors. At present much attention is directed towards how the revolution in military affairs (RMA) is spreading amongst national military institutions, but does not constitute the only pathway. A new publication by Goldman and Eliason, *The Diffusion of Military Technology and Ideas (circa 2003)* for example investigates the spread of innovative ideas and practices as opposed to a mere focus upon matters that encourage or inhibit innovation. The dispersion and absorption of innovations tend to reflect different processes or catalysts. These can be competitive, co-operative or normative in kind with cultural, economic, political, organisational and technological factors playing their respective roles. In total they influence or direct the assimilation of innovations and subsequent strategic behaviour and, as stated by Manigart (in Caforio (ed), 2003:326), they create their own paradoxes.

Diffusion is important as it also indicates the future paths others might take. This promotes estimates of own positions or responses and whether own advantages can be extended into the future. As for the current debate on the RMA, information or asymmetric warfare or its more evolutionary iterations, the diffusion of innovations is a crucial factor. It not only alludes to who

might have the upper-hand in future, but one's own position rests upon certain assumptions about the future spread of innovation and change and its incorporation into the doctrines of other military organisations (Goldman and Eliason, 2002:1-2). From a futures perspective this forms part of understanding the unfolding future strategic environment. The defence dilemma of possible defeat in a future war and the power security dilemma emanating from the growing strength of certain actors make other parties all the more insecure and it directs one's own responses. South Africa's Minister of Defence touched upon this matter in parliament when he deliberately downplayed the military option by referring to the SANDF as an important security instrument of last resort and in no way dominant any more. However, to prevent conflict and war and deter aggressors, a credible defence capability is necessary to prevent a South African Bosnia, Chechnya or Somalia (HANSARD, 1996:1092 ; HANSARD, 1995:3119). This, however, remains a somewhat clouded or erratic process.

Diffusion of innovation and its future outcomes are not merely linear and predictable. Research by Goldman and Andres utilised four theories in order to outline the ambit of military diffusion. These theories relate to neo-realism, power-transition, offence-defence and organisation-diffusion (Goldman and Andres, nd:2). Neo-realism presumes for states to be highly reactive to one another's military practices via the demonstration effect. By way of emulation rapid and smooth diffusion of military innovations are subsequently promoted as the fear enters of staying behind or being outgunned in future. Organisation diffusion theory represents the other extreme of differential state responses and uneven diffusion of innovations. According to this theory rates of adoption and thus diffusion are subject to multiple variables with each playing its role to promote or hinder diffusion of military innovations. These variables and their differential roles are the following.

Relative advantage - The degree to which an innovation is perceived to be better than the idea it supersedes.

- Complexity - The degree to which an innovation is perceived to be difficult to understand and use.
- Trialability - The degree to which an innovation may be experimented with on a limited basis.
- Observability - The degree to which the results of an innovation are observable to others.
- Compatibility - The degree to which the innovation is perceived as being consistent with existing values, past experiences and needs (Goldman and Andres, nd:6-7).

At an intermediate level power transition and offence-defence theories further constrain an understanding of innovation and its diffusion. Power transition theory posits that differential national growth patterns and not competition drive adoption and thus diffusion of ideas and

technologies. As the pool of critical national resources grows or contracts, more or less resources become available for allocation towards building a military capacity. It therefore becomes a trade-off decision to allocate resources towards adopting and absorbing military innovations or towards more benign purposes as in the case of India (Mahnken and Hoyt, 2000:70) where vast non-military needs temper military allocations. Offence-defence theory, in turn, alludes to the resources spent to offset an opponent's defensive investments. Opting for offensive or defensive postures guides the need for and eventual adoption and absorption of particular innovations that are believed to support an offensive or defensive strategy. Innovation thus represents a future pathway to either make the defence or offence easier or even allow for a switch from the one to the other and thus an incentive for the scope and focus of diffusion (Goldman and Andres, nd:5). The interactions of these theories towards their more or less predictable diffusion are illustrated in Figure 3.1.

Diffusion, as a process, has to be understood within certain confines. It is not a uniform process and has rarely been one. The erratic pattern of diffusion also becomes visible in the analysis of historic patterns of innovation and its adoption or rejection (Goldman and Andres, nd:25-26). Furthermore, the spread of technology and tactics or doctrine also did not always coincide with the spread of innovations. These are findings of Goldman and Andres in their research on innovation and diffusion of technical, tactical and doctrinal advances, organisational innovations and macro-social innovations from the Mongol era to the current information domain (Goldman and Andres, nd:8-10).

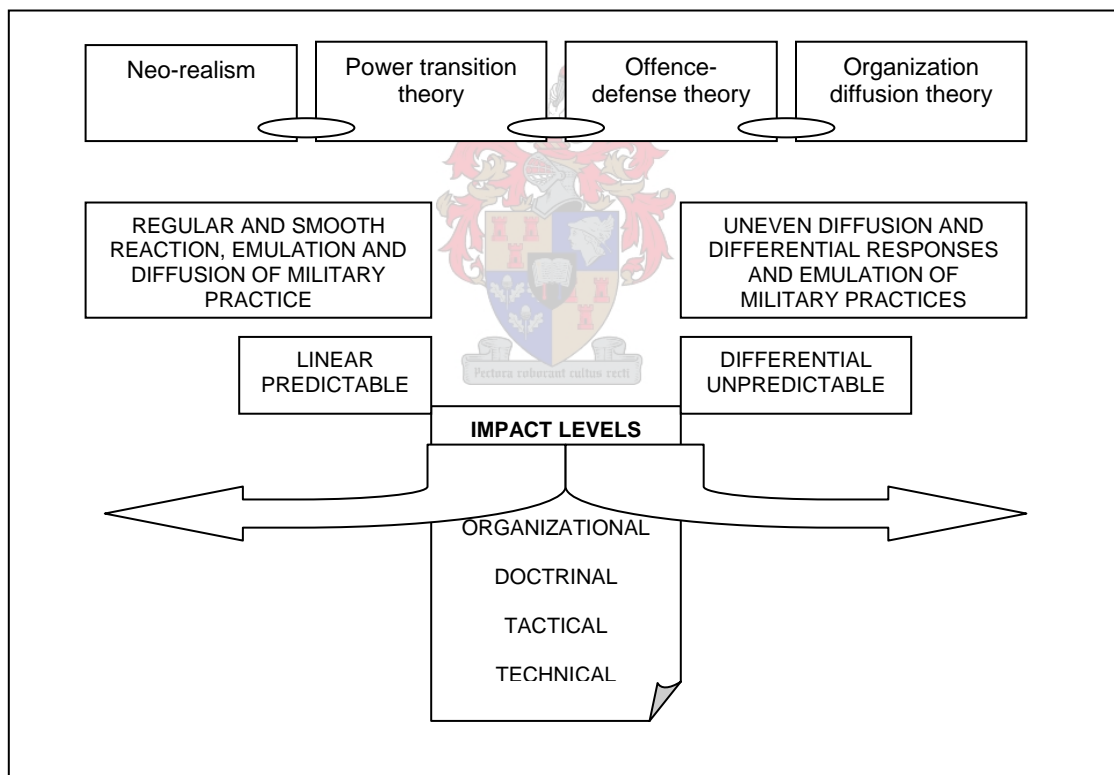
The speed of diffusion is also increasing as actors find more resources to allocate. As a result the advantages accruing from harnessing innovations tend to become usurped within increasingly shorter time spans. Currently globalisation is feeding the spread of innovation as traditional borders are fast becoming irrelevant. As knowledge is elevated to become the primary commodity pursued by military forces, diffusion of the ways and means to exploit it is to increase as well (Goldman and Andres, nd:25-26).

The rise of the internet promotes diffusion, but has a threat domain as well (Metz, 2000:93). Diffusing knowledge is greatly enhanced by the Internet for it transcends most notions of imposing or maintaining boundaries. Not only do non-traditional actors such as al Qaeda benefit from this virtual and networked knowledge base (as discussed in a later chapter), but traditional military establishments as well. In addition, the growth in contact between military organisations through military diplomacy, only contributes to the diffusion of knowledge and ideas in the military realm. Internet diffusion now assumes proportions that compel military institutions to restrict this virtual spread of knowledge and tactics with its threats to operational security. In



the South African case diffusion through networking with African defence forces is on the increase. Defence diplomacy towards other national defence establishments became a prominent feature in the updating of South African defence policy during 2005. Although only in draft format with no status, Defence Update 2005 (August 2005) dedicates defence diplomacy official status. Defence co-operation through training education defence planning exchange visits and exercises feature prominently in this initial document.

Military change resulting from innovations and their diffusion is a phenomenon that is clouded by institutional and conceptual difficulties. These difficulties cannot be ignored, but to better understand the matter of military change, two different approaches are possible: one, looking back in history and the other, working towards some clarification of what the future holds. These two alternative pathways are more deeply investigated in the following two sections that outline the occurrence of change in military organisations in a more comprehensive manner.



**Figure 3.1: Theories on Patterns of Diffusion**  
(Source: Own Compilation)

### 3.3 MILITARY CHANGE IN HISTORY

The above arguments set a brief conceptual background to military change and some explanatory theories of how change is effected in order for military institutions to adjust towards their preferred alternative futures. Not included in the above are specific incidences or trends of military change. Trends, however, are easier to identify than to explain in terms of their future implications or meaning. Some element of uncertainty is therefore to remain in the military change-innovation-diffusion triad as only possibilities and probabilities become viable (Gray, 1993:92-93). History, as was pointed out in the previous chapter, has a role to play concerning the future, although this approach is not devoid of pitfalls. According to Visser past events are unique and not to be repeated or re-enacted. Military history has a similar limited capability to explain the future. Its utility is rather embodied in it contributing to a better understanding of the origins and patterns of developments reflected by and observed within military events and phenomena (Visser, 2001).

This thesis on the utility of military history is subsequently used as a departure to investigate military change via earlier innovation and diffusion. The historic side of military change addressed in this section is investigated via the debate on early military revolutions. It is therefore not unusual for theories on military change to emanate from military historians and their field of study - as Sir Walter Raleigh commented in the 17<sup>th</sup> century “...*The ordinary theme and argument in history is war*” (Rogers in Rogers (ed), 1995:1).

#### 3.3.1 The domain of military revolutions and deep military change

For the purpose of this section and as history in this case represents a field upon which one could elaborate indefinitely, military change is limited to and presented within two frameworks. One, the changing context of war and the other, changes in war proper - the actual conduct of war. Both inevitably interact with tactical and technological military innovations and lead to change at the societal and constitutional levels and vice versa. Changes of this kind are also observable in the hierarchy on diffusion of military innovations presented by Goldman and Andres in the above section. These changes and their dynamics are, however, best explained via the strand of Military Revolutions as found in the field of military history (Rogers in Rogers (ed), 1995:2). It is to be noted that it is not possible to address all matters and to present a complete *exposé* of all changes as is duly recognised by Clifford Rogers in his opening chapter *The military revolution in history and historiography* (Rogers in Rogers (ed), 1995:1). , however, by making use of the military revolution - military change link as first developed by Michael Roberts, the founder of military change in *Essays in Swedish History* (1953), via earlier Military Revolutions, it becomes possible to address the topic more coherently.

The use by theorists of the concept Military Revolution (MR) to promote understanding reflects two preferences. First, it is delimited as a definition and secondly, it is used as a label for a field of study or scholarly inquiry. The latter is preferred by Guilmartin (in Rogers (ed), 1995:300) to avoid constricting what is to be investigated. The definitional minefield is touched upon by Parker in his arguments concerning the demarcation of time frames for the phenomenon, discrete phases and which events to include or exclude as to their relevance (Parker in Rogers (ed), 1995:339). In essence, Parker does not present a definition, but rather a range of phenomena relevant to the concept of a MR. It is, however, feasible to formulate a view on the MR for this study by positing the following:

During the broad timeframe of the 14<sup>th</sup> - 18<sup>th</sup> centuries explicit and implicit military and socio-political innovations and diffusions interacted and fed upon one another. From these innovations and their diffusion arose dramatic new, differently structured and changed state entities, administrative bureaucracies, and military institutions. These reconstructed entities became primary actors for directing and executing the future conduct of warfare. This view does not exclude developments outside Western Europe and neither does it suppose the time constraints imposed upon the European manifestation of the Military Revolution. It is thus utility oriented to also be expanded to the non-European domains of military changes as the concept of a Military Revolution is traditionally linked to events in Europe - Western Europe in particular.

### 3.3.2 The changing context of war: Some historic indicators

Although not immutable, Tilly's observation that *states made war but war also made states* as quoted by Parker (1996:159) represents the gist of this particular section. A reciprocal relationship between war and the state, although in retrospect, is perhaps where military change concerning innovation and diffusion becomes most visible and it remains a discourse whether this connection can become terminated. Parker (1996:159) maintains that major military change and political change have always been linked - whether continuously or intermittently - although the link between state formation and war is not universally accepted at face value. At the minimum, the state-war link is viewed as one explanation in conjunction with other theories about what transpired during the European Military Revolution (Porter, 1994:60).

Historically political entities had the right to defend themselves and accordingly set up and maintained military forces as a means of defence (Van Creveld, 2000:1). The number of small political units declined over time via expansion, absorption, and survival in a process of political consolidation that became particularly visible and solidified in Europe. As this process or practice progressed the power and wealth of these new territorial units increased as well. Substantial

growth in power and wealth provided a pathway for increasing military power as bureaucracies evolved to harness state power (finances in particular) and direct it, amongst others, also towards the function of war (van Creveld, 2000:2). This practice followed a trend where military institutions became subjected to various agents of change that took them down alternative pathways towards the future. The context for the preparation and use of military forces subsequently became one of constant change. In this context and from a more historic outlook Knox (in Murray, *et al.*, (eds), 1994:615) outlines bureaucracy, mass politics, ideology, technology and economic power as early agents or catalysts that moulded or changed the ways and means for the future use of military coercion.

### **3.3.3 Bureaucracy as an agent of change**

Bureaucracy resulted from the organisational challenge posed by modern war that compelled the rationalisation of state administration by the introduction of arbitrary, hierarchical and bureaucratic methods (Porter, 1994:13). Van Creveld (1999:135-136) for example describes the formidable growth in paperwork, rules and regulations that characterised earlier bureaucratisation to govern officials and direct uniformity. These developments increasingly encroached upon the power monopoly of the traditional custodians of power. The domain of military coercion did not escape these events. As the military domain grew increasingly complex, even in historic times, so did military bureaucracies for they now had to cope with demands and formalise the waging and financing of war (Porter, 1994:36).

The military revolution contributed to a bureaucratic revolution (Porter, 1994:67) and as pointed out in Caforio (Caforio (ed), 2003:16-17) also represents a struggle for control over the military. Even though bureaucracies streamlined the military processes of the state towards preparing and administering the capacity to eventually wage war, they changed the context of war as well. On the one hand military change became harder as bureaucracies assumed and usurped more and more responsibilities into its domain. On the other, they became a filter as to what was allowed to take place and what became shut out. Illustrative of this is the case of the Japanese bureaucracy of World War Two that did not allow other alternatives or ideas to enter the debate concerning the attack on Pearl Harbour (Knox in Murray, Knox and Bernstein (eds), 1994:619). Military matters became less confined to a monopoly by small groups of military experts or the nobility and increasingly assumed a collective responsibility within states. As for military change and bureaucracies, even in historic times (as outlined by Knox in Murray *et al.*, (eds), the military bureaucracy became and remained part of the solution and simultaneously part of the problem. Much of the locus of military affairs thus shifted to a bureaucratic institution, which in turn played its peculiar role regarding if, and how military change was to take place.

### 3.3.4 Modern mass politics as an agent of change

Modern mass politics was first sparked off during the 17<sup>th</sup> and 18<sup>th</sup> centuries when the Dutch and British parliamentary institutions allowed certain non-elites to gain access to political power. The subsequent American and French revolutions further reinforced this shift or concession (Knox in Murray *et al.*, (eds), 1994: 622) that further eroded the idea of excluding certain groups of society. Mass politics flowed into mass warfare as the barriers between domestic politics and what happened in the military realm of strategy crumbled. This shift was reinforced by broader society becoming empowered to add their voice to decisions about the use of military coercion and according to Burke (Caforio (ed), 2003: 127) essentially began to democratise its use. Formulating strategy and using military power thus became infused with public participation and opinions that in turn created a context for and factor in fighting a war (Knox in Murray *et al.*, (eds), 1994:623). The size of military forces grew and an early European security dilemma resulted as large military forces created insecurity for others and hereby changed the future of military relationships (Porter, 1994:37). A negative feedback cycle followed of larger military forces, more insecurity and once again building larger forces to offset the perceived threat. An example of this cycle is visible in the French revolution and subsequent diffusion of its ideas to other countries and the reaction of their military establishments to bring about appropriate military changes to offset the perceived insecurity posed by Revolutionary France (Porter, 1994:37). This view is posited on the assumption by Avant that states monitor successful military formats of opponents on training, raising and using their military institutions and emulating it (Burk in Caforio (ed), 2003:122-123).



### 3.3.5 Ideology as an agent of change

Mass politics also became infused with ideology and the use of military forces for the purpose of war had difficulty to remain immune to this connection. Ideology refers to any widely held set of notions about how the world works to that of all encompassing explanatory systems of belief also called total ideologies (Knox in Murray *et al.*, (eds), 1994:627). The use of military coercion became influenced by ideology in two ways. It shaped the expectations and goals of the decision-maker and sustained or fuelled the commitment of those doing the fighting. Such a belief system initially found fertile ground at the interface between religions (Christianity and Islam), but mass politics later entered along secular pathways as well. An ideology of class and that of the nation-state are two dominant belief systems emanating from the earlier secular fringes. The latter two developments added far-reaching future implications to the context of war. These implications remain visible and even influential in the present century. Nation states first had their influences working upon the context of war by being the primary actor, its power and interests and nationalism in particular. The politics of class unleashed the most enduring body of

doctrine. Along the Marxist-Leninist tradition and its subsequent iterations, it shaped the international context of war for an extended period of time (Knox in Murray, *et al.*, (eds), 1994:628-629 ; Giddens in Freedman (ed), 1994:116-117).

The nation-state became the superior organisation to generate armed force and allowed the military revolution to effect its changes. France and Sweden were the first to capitalise on its opportunities and bring to bear superior military force against those resisting change (Porter, 1994:104). However, the nation-state not only made war. It also became the bastion of defence against external aggression and internal anarchy. It furthermore also set some enduring parameters for the future use of military forces. The nation-state and its monopoly over the instruments of war (evolving from the dynamics of the Military Revolution) set the scene for those entities that were to decide upon and conduct future wars. State monopoly over the instrument of military coercion held its own up to the early 21<sup>st</sup> century where this monopoly became increasingly challenged by non-state actors from military and non-military fields (Van Creveld, 1999:412).

### **3.3.6 Technology and economic power as agents of change**

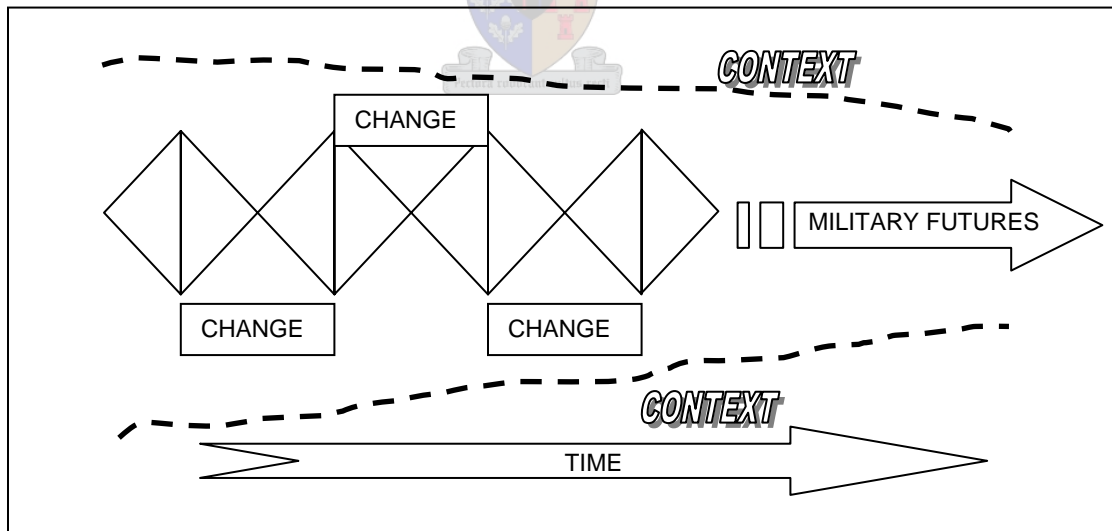
Although technology is more closely related to the conduct of war, its influence upon the context of war in conjunction with economic power is important as well (Manigart in Caforio (ed), 2003:324-325). Technological necessities raised the cost of war even before the state or nation-state came into being. Technological advancements in weaponry became increasingly expensive and in turn demanded larger countries and centralised governments as opposed to nobility and fragmented structures to field and sustain such forces (Porter, 1994:31). This cost-effect relationship promoted the shift of control over the state's instrument of destruction to a central authority.

As the process of technological progress and economic demands grew, the context of war moved away from personal and individual skills and interests to a test of political will and fiscal strength (Porter, 1994:32). Professional armies came into being with France and Sweden taking the lead. States now fielded professional military forces to address both domestic as well as foreign threats without being dependent upon the personal military fiefdoms of their nobility (Porter, 1994:33). In this way the idea of governments conducting war and their own armies fighting their wars materialised whilst war itself became a depersonalised state responsibility (Van Creveld, 1999:163).

Technology became all the more accentuated by the Industrial Revolution and in particular its prolonged effect. The technology imperative also raises the expectation of solving problems and

for the military to do more with less (Moelker in Caforio (ed), 2003:386). In addition to abolishing time and distance in war, making weapons more destructive and precise as well as enhancing instantaneous collection of information, technology furthermore fostered the following trends. Total economic power and technological innovation became just as important as battlefield success. Long term economic planning eventually promoted or detracted from the context within which wars were fought and came to be recognised as an important element of national power. Economic planning towards economic power therefore came to limit or extend the scope of strategic choice for decision-makers about how to fight and sustain a war. Technology and its continuous range of innovations also created dangers by promoting uncertainty about whether the balance of power being upset by one party suddenly making a breakthrough on key technologies or other innovations that are bound to lead to war. Communications technologies brought about another shift. Mass politics and the pathways to war were now juxtaposed in close proximity as the diplomacy or talk of war could no longer be isolated or withheld from the public (Knox in Murray , *et al.*, (eds), 1994:640-642).

The above represents factors, whether accelerators or mere catalysts, that interacted to bring about change in the context of war and in the politico-strategic context in particular. Particular changes engendered within warfare itself, contributed to and resulted from this context as the parallel developments manifested in a double spiral - touching and affecting one another at intermittent periods as alluded to by Geoffrey Parker (1996:159) and illustrated in Figure 3.2.



**Figure 3.2: A Continuum of Military Change and Context**  
(Source: Own Compilation)

### 3.3.7 The MR and changes in the conduct of war

Parker contends that the MR refers primarily to how European armies and navies innovated to make better use of new technologies at their disposal - such as gunpowder weapons and transoceanic sailing - and optimised these towards later imperial expansion. Parker makes particular reference to the capital ship with its broadside, development of gunpowder weapons to settle battles and sieges as well as the rise of the artillery fortress in response to the latter (Parker, 1996:159). Roberts (1967:196) views the MR as one more effort to solve the problem of tactics - *how to combine missile weapons with close action, how to unite hitting power, mobility and defensive strength*. Rothenberg (in Paret (ed), 1986:36) argues that if the MR is to be understood as much more than mere radical adjustments in weapons and tactics, then the rise of professional armies in its full context represents a MR. These confined views of the MR as a series of events is broadened by Guilmartin (in Rogers (ed), 1995:299-300) by stating it to be an accepted field of inquiry to study the MR-phenomenon in its broader context. This is to include the export of the developments, its use in imperial conquests and how the state-military connection grew from these dynamics. The essence of the MR is clearly set out in *The Military Revolution Debate* by Clifford Rogers and his acknowledgement of the authoritative views put forward by Roberts and Parker, as well as the complimentary views held by other theorists in the field.

**Roberts: Establishing the MR theory.** The views of a MR put forward by Roberts in *Essays in Swedish History* are acknowledged as authoritative, but not immune to rival theories of what the MR is judged to constitute. The view by Roberts represents primary or grounded theory of the debate and underpins what the MR in actual fact represents. All other views, whether in opposition or complimentary originated from the theories developed by Roberts. According to Roberts the MR consisted of tactical reforms and in particular the return to linear formations for shot armed infantry and aggressive cavalry charges. A need for more highly trained soldiers emanated from this and in turn raised the imperative of drill, uniforms to distinguish soldiers, standing armies, and smaller standard fighting units. These shifts initiated rapid growth in army size whilst the drastic shifts it brought about in tactics impacted upon the strategic level of war. In total it also introduced constitutional and societal shifts regarding the relationship between armies, society and the newly formed bureaucratic state structures (Rogers in Rogers (ed), 1995:2). Roberts in conclusion narrows down his theory on the MR to the infusion of mass armies, strict discipline, control by the state, submergence of the individual (depersonalised war), and the ascendancy of financial power as well as applied science in the conduct of war (Roberts, 1967:218).



**Parker: Challenging the agents of the MR.** Changes in warfare, as studied by Parker, became transformed by three related developments. On land it was the new use of firepower, new fortifications and an increase in army size (Parker, 1996:160). Changes in the conduct of war led to a demand for more sophisticated ways to supply these enlarged armies. The effectiveness of artillery fortifications furthermore shifted the balance towards the defence. Sieges subsequently became very prominent, prolonged and even stalemated. These developments in turn demanded money and manpower on an unprecedented scale. Stalemates on land and the quest for colonies extended the dramatic shifts in warfare to the maritime domain as well. It is possible to assume that maritime warfare and the broadside firing ships demanded their own share of funding and supply as navies increased in a corresponding way (Parker, 1996:158). As this coincided with population growth and that of wealth and technology of states, it encouraged a dramatic shift in the conduct of future warfare (Rogers in Rogers (ed), 1995:3 ; Parker, 1996:163).

**Black and Rogers: Military evolution.** Black and Rogers viewed continuity rather than change as characteristic of the period of revolution demarcated by Roberts (1560-1660) and Parker (1530-1710). According to Black revolutionary changes rather took place in periods preceding and following the time frames used by Roberts and Parker (Black, 1991:94). His views of more evolutionary change is supported by the assessment of Rogers concerning extended military change punctuated by specific dramatic changes via the Infantry and Artillery Revolutions. Due to firearms the former became more prominent and the latter managed to blunt the invincibility of fortifications (Rogers in Rogers (ed), 195:6). Black furthermore posits that military growth sprang from political rather than military matters whilst Rogers outlines the phased changes as a punctuated equilibrium model that suggests the following: The rise of the capital ship, the spread of the artillery fortress, major manpower increases (1510-1560), firepower becoming the dominant element in land and sea warfare (1580-1630) and rapid increases in armies and navies (1690-1715) as developments that made the difference (Parker, 1996:158). As to these changes Black contends that changes in the art of war (1660-1720) and revolutionary military history (1470-1530 and 1792-1815) building upon the Infantry and Artillery Revolutions of the 14<sup>th</sup> and 15<sup>th</sup> centuries continued. It is not to be confined or viewed as being a limited process (Rogers in Rogers (ed), 1995:6). Black, however, more than Rogers posits that insufficient research has been undertaken to place beyond doubt that a MR in actual fact occurred along these lines (Black, 1991:8).

**Guilmartin: The foreign focus of the MR.** Developments promoting a MR as argued by the above theorists not only influenced and changed warfare in Europe. Outcomes of these developments also promoted military ways and means how opponents outside Europe were challenged and eventually overwhelmed. Guilmartin attempts to delimit the MR as the Infantry

Revolution with foot soldiers becoming dominant to cavalry and maritime developments of sailing, navigation, and armaments on ships growing more feasible. The latter advancements not only extended the reach of maritime vessels, but also empowered naval vessels to defend themselves (Guilmartin in Rogers (ed), 1995:305). This was followed by the Artillery Revolution for destroying fortress walls with a flat trajectory, gun construction, and more powerful gunpowder. The next major transformation came about through siege craft with destructive siege trains and its artillery component forcing the redesign of fortifications (Guilmartin in Rogers (ed), 1995:306 - 307). A revolution in positional warfare occurred with a revolution in tactics taking place simultaneously. The latter transpired as the Combined Arms Revolution with the Spanish in the lead to combine pike men, arquebusiers, and light cavalry. Merging this innovation with fortifications when necessary and administrative innovation, a first modern, and permanent fighting force of mixed arms transpired (Guilmartin in Rogers (ed), 1995:307-308).

**Rothenberg: Questioning the technological imperative and setting the future.** The rise of professional armies included or emanated from many of the tactical-technical changes and it was only after 1560 that a more fundamental shift became visible: The recognition that an effective army had to be raised as an instrument of state policy (Rothenberg in Paret (ed), 1986:32-33). This emerged from the view that ... *war was not an act of uncontrolled violence, but rather the orderly application of force directed by a competent and legitimate authority in the interest of the state* (Rothenberg in Paret (ed), 1986:35). Accordingly strict regulations and discipline, rather than gunpowder brought about the desired change as discipline, drill and training gave gunpowder and other technology-related techniques and artefacts their significant impact (Rothenberg in Paret (ed), 1986:35). In effect the Dutch reforms with their emphasis on regulations and discipline under Maurice, and the follow-up and refinement of this by Gustavus Adolphus and Montecucolli of Austria shaped armies and bestowed upon them the obligations that today still characterise these institutions (Rothenberg in Paret (ed), 1986:32-33 ; 35-37). These reforms and outlooks therefore held true future alternatives as they set out a durable, but very particular future context for using military coercion.

The above developments represent important innovations in the way European warfare was adjusted and conducted over an extended period of time. Although this period contracts or expands (depending upon the theorist and his views) and represents a difference of opinion between the various theorists, the time factor can best be illustrated as in Table 3.2.

In summary, the innovative events of the MR can be stated in a more thematic way as outlined by Porter (1994:65-67). Although the gunpowder revolution is cited as the major innovation, it became the harbinger of a range of military changes in the ways and means of military coercion

on land and sea by new political entities. The most important events or innovations are the following.

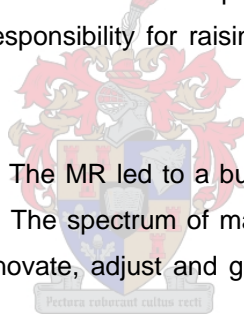
**Rising firepower.** The impact of handguns and siege cannon proliferated the quest for its possession (Porter, 1994:65).

**Advances in training, tactics, and operations.** Gunpowder and firearms had a significant impact and compelled further innovations in order to optimise their future use (Porter, 1994:66-67).

**Advances in fortifications.** Enhanced fortifications resulted from the new and more destructive type of siege warfare that manifested during the MR and threatened existing fortifications (Porter, 1994:67).

**Size and costs of armies.** After 1559 the size of armies grew dramatically and simultaneously drove up their costs. Supplying each soldier at state expense became a drain on state finances as the latter increasingly assumed responsibility for raising and maintaining a standing military force (Porter, 1994:66-67)

**The administrative burden of war.** The MR led to a bureaucratic revolution as new militaries needed to be properly administered. The spectrum of managing a modernising military and its future role forced governments to innovate, adjust and grow to meet the rising military burden (Porter, 1994:67).



**Table 3.2: Time Frames of Different Theorists to Delimit the MR in Europe**

Theorist	Time span of change.
Michael Roberts	1560-1660
Geoffrey Parker	1530 - 1710
Jeremy Black	1660-1792
J.F. Guilmartin	1494-1559, but visible in 16 <sup>th</sup> century only
Clifford Rogers	Continuous from the 14 <sup>th</sup> century.
G.E. Rothenberg	1560-1660

(Sources: Various)

With regard to these developments discussed above, their diffusion at the micro level (new artefacts) and at the macro level (how the organisation and use of military forces for the conduct of war have changed) should also be understood against the backdrop of their diffusion outside Western Europe. For the purpose of this study the focus is subsequently shifted to a traditionally marginalized domain of innovation, diffusion and military change - that of military changes in selected regions of the African continent.

### **3.4 THE MILITARY REVOLUTION OUTSIDE EUROPE: DIFFUSION OF INNOVATIONS**

The wider diffusion of innovations originating from the European MR came about predominantly through conquests of the New World and subsequent colonisation. Spanish, Portuguese, Ottoman and the Mediterranean domains were particularly prominent in its diffusion as is depicted by Guilmartin, but extended by Parker to Asia and the Far East as well.

A void in this debate is the African continent and the extent to which the MR and its outcomes either diffused to Africa from the 15<sup>th</sup> century onwards, or earlier, but indigenous changes evolved in regions of the continent. However, warfare on the African continent and that on the European continent during the demarcated periods of the MR and prior assumed different outlooks. The view of warfare in Africa became one of it rather being the pursuit of economic objectives. Those in Europe were judged as being political although the colonisation of foreign countries following in the immediate aftermath of the MR held strong economic incentives of its own (Thornton, 1999:151).

Although Thornton refers to African military history as being ignored, the real difficulty is that the continent's military history is not well developed. This vacuum is further skewed by a presumed inclination to view and address warfare in Africa in a different manner. In part, this results from its description as primitive warfare or mere raids with an economic rather than political objective (Thornton, 1999:1-2). African warfare furthermore came to be viewed as technologically backward and the changes noted, but judged not to be in the league of the MR in Europe (Thornton, 1999:7). In pre-colonial West Africa for example, war was an industry less concerned with land and more with plundering, seizing of cattle and slaves for domestic need as well as foreign markets. Even though military ways and means were used to channel warfare towards these ends, it evolved along different pathways that, as in the case of Europe, allowed for the context as well as warfare itself to change (van der Waag, nd:2-3). One region where warfare and change is quite visible and received scholarly attention, is West Africa or Atlantic Africa, as it also became known.

### 3.4.1 Contours of military change and warfare in West Africa

**Early introductions of revolutionary artefacts.** The chariot of the Nubians/Egyptians, the composite bow with its striking power and the advent of the war-horse are indicators of innovations that changed the face of African warfare without being subjected to external influences (Van der Waag, 2001). These indigenous innovations and change did not remain typical of or exclusive to African military affairs. West-African warfare was historically dominated by bow and arrow, but two innovations in military technology deeply changed warfare in this part of Africa - the use of mounted spearmen and of firearms (Law in Karsten (ed), 1998:114). According to Van der Waag two later Military Revolutions took place in Africa after the 13<sup>th</sup> century. The first came about with the advent of the horse from contact with Arabs from the Middle East - the Islamic influence. Due to this contact firearms were also introduced (although not in great numbers). This represents a secondary Islamic influence. The second revolution came about due to contact with Europeans by the coastal people on the Atlantic Coast (Van der Waag, 2001).

**Horse cavalry.** Initially horses did not allow for noticeable tactical innovations, but larger horses led to the later introduction of new cavalry techniques and tactics. Certain innovations in the riding gear, weaponry, and armour of the rider and horse enhanced the role of the horse for those willing to integrate the diffusion of these innovations. Cavalry subsequently became the decisive arm within the military institutions of some rulers as diseases, terrain and logistics dictated the appropriateness and impact of these innovations and their subsequent diffusion. This implied that some rulers could benefit from the cavalry potential of the horse whilst others such as those in difficult terrain and closer to the coast were initially excluded (van der Waag, nd:6). Horses therefore spurred on certain changes, but initially did not supplant the foot soldier as the dominant arm of battle. The introduction of larger horses, however, allowed for heavy cavalry to be developed and by the 14<sup>th</sup> century they eventually supplanted foot soldiers as the dominant arm (Law in Karsten (ed), 1998:118-119). Concerning the diffusion of horses, certain innovations point to a cavalry capability for the open plains, heavy infantry for the densely forested coastal belts and mobility over water for smaller coastal states of West Africa (Van der Waag, 2001).

**Firearms.** The diffusion of firearms had taken place by the end of the 16<sup>th</sup> century. This diffusion first originated from the Ottomans in the Middle-Eastern region across the Sahara to West Africa. The greater impact, however, only came about as larger numbers of firearms flowed from the Afro-European contacts on the Atlantic Coast. This led to both infantry and cavalry being equipped with firearms and each developing new tactics such as firing from horseback or riding into battle, dismounting and then fighting on foot (van der Waag, n d:9). Firearms very slowly diffused from the coastal regions to the Savannah states as the latter were deemed a threat and

more antagonistic. Denial of firearms to these Savannah states was seen to be in the interest of the coastal regions (Law in Karsten (ed), 1998:122). Firearms, however, over time also diffused to the Savannah states of West Africa. Both foot and cavalry forces were equipped and by the 18<sup>th</sup> and 19<sup>th</sup> centuries firearms dominated warfare in the forest and Savannah states of West Africa (Law in Karsten (ed), 1998:123). Earlier indications by Kea (in Fage, Gray, Marks and Oliver (eds), 1971:207-208) also identify infantry musketeers on the Slave and Gold Coast by 1620-1630 as becoming dominant and pushing out traditional archers, swordsmen and spearmen. Although the use of firearms in a military role feature quite prominently, White also points out its more economic role for protecting crops and hunting (White in Fage, *et al.*, (eds), 1971:184).

### **3.4.2 The diffusion and impact of new military ways and means**

These military changes and the implicit acceptance or rejection of the diffusion of new military means resulted from a number of factors. The diffusion of firearms and horses played their role, but the resultant integration assumed particular African features. Particular ways and means how these African military institutions operated and interacted are visible in the following adjustments.

In the Savannah regions warfare took on a cavalry-infantry mix with firearms largely replacing other missile systems (Thornton, 1999:20, 45 ; Kea in Fage, *et al.*, (eds),:1971:207). Military organisations were adapted to adjust to the impact of firearms and their use in battle (Kea in Fage, *et al.*, (eds), 1971:211). Tactics and formations changed as the availability of firearms increased and using them for skirmishing was introduced. Formations were adapted for greater protection against firearms, although specific responses are difficult to locate. It appears that massed type of formations of the European kind did not materialise or were adapted to minimise the effect of the opposition's firearms (Thornton, 1999:46 ; Kea in Fage, *et al.*, (eds), 1971:208-209). Fortifications were adjusted in order to facilitate the use of firearms from within these enclosures and attackers constructed elevated positions to enable them to fire into fortified positions (Thornton, 1999:50-51). Opening up of forests by roads to enhance military contact and movement in dense forests that previously obstructed the use of horses and firearms was another development that allowed new technologies to play their role via parallel innovations (Thornton, 1999:73).

At the politico-strategic level changes in the basis of recruitment took place in that a broader base of citizens became available in comparison with only selected groups of earlier times. This in turn facilitated larger armies and eventually a more centralised and state controlled military system in some of these African states (Thornton, 1999:66-67, 70). Merchant soldiers and European mercenaries followed in the wake of the arrival of European trading settlements on the coast and

their later diffusion into the hinterland (Thornton, 1999:69, 150). The state-military symbiosis increased as the rulers of states or kingdoms assumed greater responsibility for obtaining and maintaining the means for conducting war. This closer state-military interface resulted from the ever-growing imperative for rulers to control the means of war in order to pursue new ways of fighting future wars. The fragmented system of earlier could not bear the cost and responsibility for obtaining, maintaining, training and controlling the new means of war so instrumental to the ways how future warfare came to be conducted (Kea in Fage, *et al.*, (eds), 1971:210-211, 212).

### 3.4.3 Southern Africa and the Zulu way of war

In southern Africa the military system of the Zulu Kingdom featured prominently and a dangerous war fighting capability developed in spite of the absence of definitive external influences as found on the Atlantic Coast. The Zulu achieved political dominance in the southern African region via a superior predominantly indigenous military system. Different innovations and change gave rise to the military effectiveness of the Zulu fighting system, but faltered when confronted by a way of war infused with European styled innovations and diffusions that had its roots in the earlier European MR.

Much of the innovation and diffusions observable in the Zulu military system has an internal origin. According to Laband the local innovations of Shaka were successful and the pressure to change it arguably would have had to originate from further a field for almost all conflicts were with surrounding African societies (Laband, 2001a). The horse-firearm introductions as found in West Africa are quite absent in this case whilst contrary to West Africa, the destruction, subordination and assimilation of neighbouring tribes and kingdoms was a primary objective of Zulu warfare.

The changes in southern Africa, as becomes visible in the Zulu way of war, is not to be viewed in terms of the European style MR, but more as indigenous innovations and their diffusion (Laband, 2001b). This implies that changes that did arise most probably derived from within this African domain. Although the introduced innovations did not have a foreign origin or elements thereof, they still effected total warfare in southern Africa. Shaka most probably fused existing elements of military systems into a single superior military system via innovations such as the stabbing spear, shock tactics and the way the military system of recruitment and sustaining manpower needs were conducted. These particular military changes were quite indigenous as they appeared and influenced military events before real exposure to European influences.

Although diffusion of horses and firearms eventually did appear, these technologies were merely added to the *status quo* as a further means of fighting. It did not alter the way that Zulu military

forces operated and were thus more peripheral in kind (Laband, 2001b). As the Zulu way of war was closely related to its socio-political system, dramatic changes to the former implied shifts in its socio-political make-up before dramatic Western or other innovations had the leeway of any introduction (Laband, 2001a). Although a matter of conjecture, it can be inferred that just as military innovations and changes were opposed from some quarters during the MR in Europe, Zulu customs and traditions were no different. They probably did not allow for the radical embracement of outside influences that could dramatically change Zulu ways and means of conducting war. Those that were somehow allowed were dropped into existing structures without organisational change. This practise of merely introducing new technologies was bound to ameliorate their true effect - a restrictive matter also emphasised by Moelker (Caforio (ed), 2003:401) concerning the technology-economic and political power relationships that shape the impact of introducing new technologies.

An opposing outlook on this view is found in a 1978 article by Bourquin and published in the South African Military History Journal. Bourquin suggests the probability of the Zulu military system to have originated from individual Zulus observing early colonial warfare in the Cape Colony (*circa* 1806) that introduced ideas of using compact bodies of men under appointed leaders to wage battle. This, it is argued, led to refining the later Zulu regimental system under the leadership of appointed leaders (Bourquin, 1978). From this earlier diffusion of European colonial military practices, it is argued, arose the innovations that Shaka later perfected and pointed out by Laband. Under Shaka's guidance the entire Zulu male population was called up for war and a military system set in place by introducing the following innovations.



War and fighting became a way of life as it opened avenues towards prosperity, privileges or its denial to the soldier. Regiments and garrisons were set up to organise the manpower into fighting structures and furnish a supply and commissariat system to keep the army stocked during operations. To wage war became integrated into the Zulu warrior's way of life. Extreme discipline and formal training were used to introduce new ideas about waging war. Use of the shield, assegai and *knob kerie* during battle and battlefield tactics such as the steer's head deployment during battle to fight fellow tribes were integrated into training and eventual battle. However, the Zulu system did not become subsumed into a centralised system as the individual regiments had to be self sufficient in their war materials. The Zulu king assumed very few responsibilities to equip his regiments from state resources for the purpose of war, but held command over the use of Zulu military forces to wage war (Bourquin, 1978). This focus upon force utilisation to the possible detriment of force preparation or fracturing of the latter in the Zulu military system possibly explains why diffusion of innovations appears marginal and did not truly materialise during battles.



In meeting the European challenge, Zulu innovations were bound to be insufficient. Certain adjustments in tactics, such as skirmishing, were introduced to lessen the impact of concentrated rifle fire. However, minimal change and rather resistance to change by not introducing battlefield tactics of hit-and-run, harassment and pursuit of a retreating enemy eroded their military efficiency. Introducing European technologies received little attention and the extent to which it was made use of, represented a mere nuisance factor. This lack of innovation and its proper diffusion with systemic adjustments led to the defeat of the Zulu military system by superior European innovations and diffusion of tactics and technology (Bourquin, 1978).

#### **3.4.4 Changes to the African context of war**

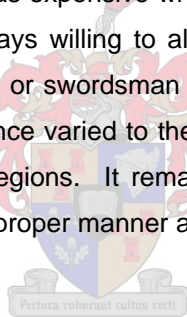
The context of war in West Africa did shift, but not as a mirror image of those changes observable in the European MR and neither did it follow similar time lines. Furthermore, although European influences are visible, their presence is not sufficient to explain all changes. Some primary agents of military change were exposure to Ottoman and European military technologies (Thornton, 1999:66). This exposure resulted in a cycle of wars for slaves to be bartered in turn for firearms and other technologies as well as own domestic needs of African rulers - not excluding military needs. These European connections seemingly reinforced the economic aims over those of politics (Law in Karsten (ed),:124-125) and the diffusion and assimilation of certain technologies contributed to this.

A further contextual matter is the formation of alliances with European traders and their (private) militaries as well as the introduction of European mercenaries to assist in fighting opponents (Thornton, 1999:45). The former two developments are probable agents of change that contributed to the diffusion of new ways and means into conducting African military operations. The interface of military technology and political organisation accounts for further changes as horses and firearms are judged to have promoted matters of centralisation or decentralisation within early African political systems. These military artefacts represented expensive outlays for rulers - even if the payments were done by bartering slaves - for resources were to be obtained in order to gain access to these new and sought after artefacts of war (Law in Karsten (ed), 1998:126). In part, political systems became more militarised as adjustments were made to accommodate growing military needs. This also accounts for the increased closeness or contiguity of political and military organisational matters that transpired (Kea in Fage, *et al.*, (eds), 1971:210-211).

As changes interacted - larger horses and better firearms within a responsive political system - its politico-military impact increased. Firearms, in terms of quality and quantity, flowed to Africa as

surplus stocks became available due to new technologies and termination of other wars. According to White (Fage, *et al.*,) Britain and France alone shipped 23 million firearms to Africa, although the exact period of this flow is unclear. These firearms were destined for trade and military purposes (White in Fage, *et al.*, (eds), 1971:183). Selected or professional forces became less dependable as a result of rising costs and the state had to step in to direct this process and fill the void. Firearms and horses also changed recruitment systems as its needs shaped conscription and larger armies were created. This shift or state intervention also led to a process of African bureaucratisation of military affairs (Thornton, 1999:67). Obtaining horses and firearms, their maintenance and proper training as well as administration demanded more resources of a kind that compelled political rulers to increasingly become the custodians of the means of war.

Firearms did not have a decisive impact upon African warfare. On the one hand, it is a false assumption that those with firearms are to be victorious over those not having such means. The impact of firearms also declined as tactics were adopted to counter their effect. Using firearms effectively required skills training that was expensive whilst traditionalist African soldiers skilled in traditional fighting tactics were not always willing to allow the introduction of technologies that undermined their status as a spearman or swordsman (White in Fage, *et al.*, (eds), 1971:174). Firearms played a role, but its prominence varied to the extent that it was not a linear pattern of increased dominance in all states or regions. It remained a question of whether the reigning military culture allowed it to diffuse in a proper manner and to be exploited or not (Kea in Fage, *et al.*, (eds), 1971:212).



In the case of the Zulu military system, as opposed to West Africa, the diffusion of firearms and horses had a negligible effect. Bourquin argues for an earlier European organisational diffusion and subsequent Zulu innovation of organisational matters. The extent of external diffusions and Zulu integration, however, remains limited. The Zulu military system held to its traditional ways and means that were quite effective against their traditional peer competitors, but was found wanting when they clashed with opponents containing European innovations - the British in particular (Bourquin, 1978). This represents the opposing outcomes of merely adopting the diffusion of innovations or allowing such diffusion to take effect and subsequently change for the better. In the case of the Zulu kingdom, military change from innovation and its diffusion was forfeited or entrapped in the reigning system to favour the *status quo*. This traditionalist shield in part most probably contributed to its eventual defeat.

### 3.5 MILITARY INSTITUTIONS: ORGANISATIONAL CHANGES FOR THE FUTURE

The imperative to change keeps military institutions in pace with probable demands of the future. As can be observed from the above discussions, change can enter along different pathways. Absorbing change is important for national military organisations can escape neither the imperative to change, nor the difficulties it implies for the organisation itself. Military institutions thus have little leeway to elude this difficulty and its ambiguity. It is, however, possible to highlight significant areas of difficulty such as organisational and strategic culture, uncertainty and innovations during peace and war as well as that of technology.

#### 3.5.1 The challenge of organisational change

Military change is the outcome of innovation, its proper diffusion, subsequent acceptance, and adjustments by military organisations through integration and utilisation. The dangers of innovations and change are contained in the rejection and subsequent stasis or the radical embrace and future inappropriateness of changes as their diffusion and integration become either neglected or impossible. Diffusion of technology and ideas in the civilian sphere are currently limited by few factors and it is possible to assume that its military derivative is exposed to this scarcity as well. Consequently, the probability of military modernisation increases. One important concern that disrupts this view is the matter of organisational change. As diffusion and modernisation increase, pressure is placed on military institutions to filter, accept, or reject innovations and their future utility. Military bureaucracies of all countries - developed and developing - in their efforts to modernise their military forces (Isaacson, *et al.*, 1999:2) face this challenge.

Information technology is a fast-growing sector and its impact is diffuses to politics, economics and culture at a rapid rate (Rossouw, 2002:30). Military institutions upon which societies depend for their defence and future security can barely escape this information revolution as are reiterated by the Tofflers and their adherents. Information and related technologies are innovations that diffuse rapidly. It furthermore permeates the very society from which military institutions draw their manpower and within which they are embedded whilst preparing for conducting war at some future point in time. Diametrically opposed to this is a return to the messy battlefield where low intensity conflicts result from societal decay and rise as an alternative wave of future warfare (Van Creveld, 1991:207). Subject to both these futures is how military organisations are structured henceforth to fulfil their future role (Mahnken, 2000:40). As military organisations are deemed a product of the social system of the Middle Ages and changes in the former cascaded into the latter (Gilbert in Paret (ed), 1986:13), the impact of current societal changes can hardly be ignored.

Military revolutions of the past did not leave military organisations and their cultures untainted. According to Mahnken, similar future changes will require substantial adjustments in service culture. In order to exploit innovations and be able to fight in future, service cultures will have to be receptive to change. The extent to which Information Warfare becomes dominant in contemporary military forces (23 are deemed able to conduct Information Warfare) they have to face the challenge of service culture changes (Mahnken, 2000: 42). In a study on military modernisation by Demchak (2000:5) she identified 68 developing countries intent upon modernising their military forces along information technology lines. This shift in focus by so many military institutions is to be understood against the backdrop of it also tying in with other challenges that are currently facing military organisations and service cultures such as the following:

- A less central place for the military in society and thus less attention and resources for their role and function. Military organisations will have to adapt to this secondary position of standing second in line for human and financial resources.
- Changing boundaries of combat as combatant and non-combatant lines become fuzzy. These two spheres are increasingly overlapping in spite of efforts to keep them apart and conduct battles on clinically defined military battlefields.
- The domain of those supporting the fighting and war fighters are fading as well. Fighting is taking on an expanded format as information warriors and cyber fighters are entering the fighting domain and traditional fighters are decreasing in numbers or fading in importance.
- The composition of armed forces also stands to be altered. New Military Revolutions impact upon existing norms and structures of military organisations and challenge that which became accepted as the norm over extended periods of time (Mahnken, 2000:42-43).

New warfare domains arise along the above shifts and existing ones are adapted or even closed down as their relevance fades. Post-modern outlooks quite convincingly posit this rise in new roles that compete with preferred or past roles as traditional and non-traditional preferences meet (Kummel in Caforio (ed), 2003:431-432). This process understandably promotes organisational resistance as new military elites arise, others decline and new military arms take shape to further threaten existing structures and cultures. As new classes of soldiers - information knowledgeable soldiers - are drawn into military systems, new weapons and forms of fighting stand to be introduced (Mahnken, 2000:43-44). A less spectacular futures outlook is that of soldiers as street

workers, policemen and diplomats as portrayed by Kummel. Earlier adjustments, however, evolved in similar ways when those holding new or open views about how to fight in future overtook traditionalist outlooks on employing fighting resources (Gilbert in Paret (ed), 1986:1, 14). Change can therefore be viewed as a constant companion and director of the future for military institutions.

Particular shifts in the *status quo* of different services need to be attended to as well. In the case of the USA for example it is one of adjusting the Army away from heavy armoured operations, for the Navy to move to littoral warfare and away from huge fighting platforms at sea whilst the Air Force has to shift towards and accommodate unmanned aerial vehicles and enter space operations (Mahnken, 2000:45). In the case of South Africa it is the difficulty of adjusting service cultures of the SANDF to new less glamorous missions. In its newly formulated mission priorities traditional military roles for its services are pushed onto the periphery with softer post-modern roles featuring more prominently. Simultaneously the military power base is relegated to the bottom rung of the ladder in the pursuit of national security objectives (Department of Defence, 2001:xiv-xv ; 2-1). New non-traditional roles now have to be accommodated and balanced as stated by the Chief Director Strategy and Planning (SANDF) (Gibson, 2003:2). Such shifts contain elements that challenge vested service and organisational interests and are bound to invoke opposition.

### 3.5.2 The difficulty of strategic and organisational cultures

Contemporary defence preparations have grown in complexity due to the extension of the battle space to include space and the electromagnetic spectrum over and above the land, air and maritime dimensions. This extension and the distinctive forms of conflict entering the scene are severely testing the boundaries of change allowed by military organisations (Gray, 2000:4-5). One matter that is crucial to understanding organisational change in national military forces is strategic culture. This phenomenon is generally not well understood, but still regarded important in terms of military institutions and their actions.

- Although service culture is often referred to as the specific phenomenon in need of attention, Gray (2000) rather points out the relevance of strategic culture that he defines as “... *both the assumptions that lie behind strategic behaviour and the manifestation of such assumptions in behaviour.*” - a view shared by Lantis (2002:106).
- Research by the RAND Corporation (Isaacson, 1999, 19) avers that strategic culture is about states having distinct, consistent and persistent patterns of thinking about military force and that different states will react differently to strategic realities of the strategic environment.

Thoughts on the use of coercion (also military coercion) thus filter to those activities undertaken in response to realities emerging from the strategic environment.

Strategic culture provides the context for events and behaviour found within military institutions (Lantis, 2002:108). This implies that military change is also a product of strategic culture. At the minimum such change is a dependent variable that is influenced by strategic culture as defence decision-makers struggle to make rational choices inevitably reflecting values, attitudes and preferences that refine and adjust the information for making decisions and choosing future alternatives (Gray, 2000:29). Soeters, *et al.*, (Caforio (ed), 2003:239-240) draw the boundaries of this difficult domain more clearly by pointing out the preference for the Integrative perspective to preclude organisational myopia within the military and direct the organisation and its parts in the same direction within an assumed cultural homogeneity. This closed culture is, however, bound to change when fully confronted with the need for constant reorganisation and adaptations in search of new directions to cope with 21<sup>st</sup> century demands (Soeters, *et al.*, in Caforio (ed), 2003:253). This ought to allow for the more flexible and permissive differentiation and fragmentation perspectives to enter military culture and contribute their explanatory value towards the presumed diversity and uncertainty that future military institutions are bound to face concerning warfare.

The organisational culture of the military also includes views within a given military organisation on the use of force. It stands close to the military belief system and worldview, but is influenced by civilian variables as political culture and the domestic distribution of power play their respective roles as well (Isaacson, *et al.*, 1999:20). Both influence the changes resulting from innovations and diffusion as they filter out those innovations they will not allow. This process is glaringly visible in what is transpiring in the SANDF (to be discussed more fully in Chapter Six) with the changing political culture and their world outlook enforcing a particular new or perhaps dual role upon the SANDF and simultaneously an adjusted military culture.

Military change is most successful if embraced in a corporate manner, organised internally and driven at either the individual or collective level (Evans, 2001:5). From a futures point of view the establishment of an organisational culture to pierce the future and effect the necessary change is a preferred option. Von Seeckt's way of inculcating a study of future warfare in the German officer corps before the Second World War is a case in point. Through dedicated committees he promoted a military institution with a much more institutionalised approach to future war than that of its contemporaries. The idea of a coalition of actors or a network of support and interests mobilised behind the cause of change is thus the preferred pathway for innovation and eventual military change. This is reflected in the view that ... *New thinking is likely to be institutionalised*

*in policy only if innovators can back up their ideas by organisational power* (Evans, 2001:6). In order to relate this to the military domain more closely, a brief discussion is presented to promote understanding of future military change within war and peace.

### **3.5.3 Innovation in times of peace: The longer term imperative**

Military defeat, or, a perception of a possible decline or loss of power, are catalysts for innovation and change. On a more cautious note, however, past wars are liable to reflect little about how to direct future warfare, innovations and change. Civilian intervention is an alternative catalyst for innovation and change by making use of so-called military mavericks to spur on change. Civilian intervention by itself is difficult for it is either vague or viewed as interference by military professionals. Furthermore, vagueness remains as it is about a future matter that has never been done before (Rosen, 1991:10-11). In conjunction with military mavericks, civilian intervention only partially explains or achieves peacetime innovations such as the influence of Mitchell and Arnold on independent air power and Rickover's contribution to nuclear powered naval vessels (Rosen, 1991:12).

A third catalyst for innovation and change during times of peace is located within professional militaries themselves. Evolving views on fighting and winning future wars and their general advancement are fundamental to how militaries innovate and change. Crucial to this is a new theory of victory, what the next war will look like and how fighting for victory is to take place (Rosen, 1991:20 ; Freedman, 1998-1999). These matters are advanced by gaining control over promotions and advancing careers of officers supporting the new outlook or even paradigm of war and victory, new missions and allowing those judged as competent and experienced, whether civilian, maverick or a co-officer, to promote and institute innovations and change (Rosen, 1991:20-21).

Military innovation and change during peace is curtailed by having to cope with the uncertainty about future warfare and the *status quo* outlooks of decision-makers (Rosen, 1991:8). The extent to which longer time frames for innovation arise during times of peace, Murray and Millet, argues that more scope arises for evolutionary innovation. It furthermore allows leeway for an evolutionary path to bridge many of the difficulties that plague military innovation and change (Murray in Murray and Millet (eds), 1996:309). Murray points out institutional barriers to innovation and doctrinal rigidity as two important promoters of failure to innovate. They can shut down alternative pathways to future ways of functioning by not allowing for feedback and adjustments that opposes conventional thinking. Time to work around such obstacles presents itself during periods of peace when the imperative for solving an immediate need is not as pressing, but this advantage is offset by limited resources and tight financial control over military

spending. The SANDF is finding itself in exactly this dilemma as its transformation agenda is to be matched with severe budgetary cuts and an evolving outlook that severely questions its need and future role (HANSARD, 1995:3124 ; HANSARD, 1996:902, 2318). Examples of prominent innovations during times of peace are observable and can be illustrated as follows:

- Amphibious warfare over the period 1905-1940 (US).
- Carrier aviation 1918- 1943 (US)
- Air defence 1916-1940 (British) (Rosen, 1991:6).

A less technological adjustment, but of greater scope, more difficult and holding a true futures implication, is the peace time adjustment towards a post-modern military facing contemporary military institutions. This calls for innovation and diffusion in order to effect changes that are encompassed in current defence restructuring as demanded by post-modern military forces. According to Jelusic (Caforio (ed), 2003:351) peace time restructuring and its diffusion is characterised by reduced defence spending, internal restructuring and to ensure effective defence at a lower cost. This involves placing the armed forces and its military identity under severe pressure by expecting it to shed some of its classic military functions and assume some new, but lesser military functions. It asks from the military to cope with greater scepticism and lack of interest from the public (Jelusic in Cafario (ed), 2003:359) as their justification embedded in interstate violence tends to be chipped away by a range of modifications spanning all walks of life.

#### **3.5.4 Innovations in time of war: The short-term imperative**

Innovations and change during wartime encompass shorter time frames, more resources and more immediate clarity about changes demanded by a visible war and its needs. Much shorter time horizons are thus applicable whilst the need for innovations and change are accelerated by casualties and destruction. Organisational learning by the military under combat conditions subsequently becomes the acid test (Rosen, 1991:22-23). Organisational learning, is judged to be possible for military institutions as they are professional and recognise their responsibility and the need to provide security to their societies (Isaacson, *et al.*, 1999:18).

Although wartime innovation and change are judged to evolve from wartime learning, it is not always successful and often very difficult. : Innovations and change during war lack the clarity of previous experience to guide it and an element of ambiguity remains. Learning during wartime is contingent upon it taking place within the context of existing military missions for the sake of analysis and feedback (Rosen, 1991:27). Reforms during wartime in many cases preclude innovations and change as mere adjustments seem to solve difficulties. Collecting the correct



intelligence is a further difficulty whilst developing and implementing these innovations during the same war implies a limited impact from such wartime innovation (Rosen, 1991:p38-39).

Although revolutionary innovation is not excluded from that during peacetime, the need for quick results and the top-down approach by grasping both the technical and conceptual aspects of the need, forge a close relationship with innovative wants during times of war. As less time is available for convincing and bypassing institutional cultures and cultivating support, strong leadership to direct the process towards its outcome seems more applicable. Although Murray (in Murray and Millet (eds), 1996:306-307) indicates that revolutionary innovations are scarce and their impact felt widely, it has a significant peculiarity. The need for determination to see it through has relevance to innovation during times of war when conditions demand strong leadership and guidance by intelligent senior decision-makers. Innovations during time of war do take place and it is illustrated in the following:

- Jungle warfare 1942-1943 (US).
- Jungle warfare 1939-1944 (British)
- The tank 1914-1918 (British)
- Submarine warfare 1941-1945 (US)

### 3.5.5 Technological innovations and military change

Moelker demarcates technology within a triad that includes the following ideas. Technology can refer to different human-made artefacts such as things, utensils and apparatuses. Technology can also be understood as human activities and human labour connected with using it. In a broad and abstract sense, it is also about a higher level of knowledge - the totality of knowledge necessary to generate new solutions. She also accentuates the matter that technology is not the only factor influencing change, but for technological innovations and their diffusion to interface with power and organisational matters in order to reap its true contribution (Moelker in Caforio (ed), 2003:387).

Technological innovation is not only about building machines. The relationship between own and enemy forces also becomes altered whilst simultaneously introducing scientists and their ways into military decision-making. It furthermore invokes the difficulty of the future impact of a weapon yet to be produced (Rosen, 1991:40). This difficulty is visible when newly derived technologies do not support the operational concepts developed by military theorists or leaders (Murray in Murray and Millet (eds), 1996:342). Although ambiguity exists as to what drives technological innovations, knowledge or intelligence about the status of the enemy's military technology and a cost-benefit analysis are two important considerations. Information is currently becoming all the

more available to determine the status of Research and Development between opponents, although this process remains clouded by difficulties of its own (Rosen, 1991:44-45).

Innovation and change via technologies and a cost-benefit analysis also depends upon information about the enemy - the extent to which new systems are required and how soon. Contiguous to this features the idea that technological changes are easy, but their applicability and utility depend upon management and logistical systems that ultimately make their future application possible and lasting. Both the Japanese and the Germans found to their peril during WW2 that they lacked the capacity to operationalise technological innovations through sufficient numbers and operational effect. In contrast, the USA had a seemingly limitless capacity and ability to innovate, operationalise, and sustain their effort (Murray in Murray and Millet (eds), 1996:348). As the information domain remains murky, so does the cost-benefit analysis and subsequently the whole matter of technological innovations and subsequent change (Rosen, 1991:44-46). Examples of technological innovations are, however, observable and in the past took shape as

- guided missiles 1918-1956 (US);
- electronic warfare 1938-1945 (British); and
- centimeterwave radar 1930-1942 (US) ; 1938-1942 (British)

(Rosen, 1991:6).

### 3.5.6 Managing uncertainty within technology and military change

Uncertainty about what to expect has been plaguing defence decision-makers for centuries (Beauman, 1997:40). Narrowing down this uncertainty is a practice long pursued by military theorists seeking to demarcate a scientific or technological solution to uncertain futures. The Tofflers for example point out that breakthrough technologies that cause socio-economic change also impact upon the character and goals of future warfare. Pre-industrial warfare was focussed upon seizing and controlling territorial assets whilst industrial warfare was/is about destroying the means of production and the third wave, in turn, is to control and deny data, information and knowledge assets to the opponent (Henry and Peartree, 1998:122-123). These focus areas were not always visible or as predetermined as one would have thought or preferred. Doubt concerning the future opposition and the cost/benefit of new technologies subsequently cluttered the route of innovation and diffusion to address these concerns.

Difficulties increasingly came to be seen as obstacles and technology a way to address the uncertainty. Moelker calls this outlook *technological determinism and the paradigm of control* that needs to be debunked. The idea is that reality is controllable via technology and when war

ensues, the military can keep control via new or emerging technologies. It is this fallacy of control and victory via technology that needs to be reviewed by raising the importance of other factors that can detract from the optimism surrounding the technological imperative (Moelker in Caforio (ed), 2003:388-389). This latter argument is subsequently addressed more comprehensively.

If abundant resources are available (as in the case of the USA during early stages of the Cold War) pursuing the technological option becomes easier. If resources become scarce - as they did and still are - other approaches need to be considered (Rosen, 1991:243). If an optimum strategy that accounts for all contingencies is possible, the solution is obvious in terms of the innovations and change required for these alternative military futures. However, if only some of the contingencies are to be addressed, then flexibility and living with uncertainty (as suggested by Gray 1993) become inevitable and a single best pathway towards the solution more complex.

Living with uncertainty and being flexible could be addressed by pursuing alternative pathways to tone down the level of uncertainty. In terms of technologies a system or systems that cater for uncertainties such as multipurpose systems or a system per presumed contingency are alternatives. One or multiple systems applicable to most contingencies is one option, but the rise of multiple events may cause its eclipse. As a result, the actor becomes vulnerable to running out of alternatives or the preferred option could become prohibitively expensive (Rosen, 1991:243-244). Resources and limited utility therefore point to the need for other approaches to be considered should this somewhat optimistic outlook fail.

An alternative to the above is to lower the uncertainty by shifting the decision away from committing resources to a specific future system. This approach implies probing alternatives concerning the need and what is on offer to address it, but to stagger commitments towards some future point in time. By doing so it becomes possible to lower longer term uncertainty by working towards shorter term clarity. Buying information on alternatives that are being developed reflects the latter and could possibly address future needs. Resources are therefore spent to assess which alternative best suits the future need. Production only commences once more clarity is obtained and a specific known system is procured to address the need. Long-term uncertainties are thus compressed towards short-term requirements when the need and the system to address it become more apparent. Procurement and institutional commitment and change are thus extended to a point in time when some uncertainty is shed and innovation and change can follow a less cluttered pathway to address the need (Rosen, 1991:244-245).<sup>16</sup>

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<sup>16</sup> Military decision-makers deal increasingly with the technology imperative by borrowing technology or having it to diffuse from the private sector (Goldman and Eliason, 2001:12-13) – an approach embraced by the US Army Chief for rapidly fielding forces in future operations (US Department of Defence, 2005:Sec 4-19).

### 3.5.7 Managing complexity

A third approach is to bring about organisational change to cope with a further variable influencing future uncertainty - that of complexity. The need for adjustment in the past tended to direct military decision-makers to handle future ambiguity as linear views of change and complexity, past practices and extended time frames of change. This outlook is becoming increasingly irrelevant to future complexities. Emergent technologies such as brilliant, nano- and biotechnologies, artificial intelligence and robotics are looming and for military organisations the complexities of their diffusion and impact are potentially disruptive. Complexity and short time frames of exponential change feed upon each other and demand extraordinary changes in kind and degree from military organisations and their resistance prone organisational cultures (Nigren, 2002:88-89).

The complexity of new ideas and innovations that diffuse to military organisations challenge existing structures for two reasons. First, individuals, even those found in military institutions, cannot cope with and fully understand the new complexities and therefore the subsequent need for collective and trans-institutional kinds of organisations to cope with future complexity. Second, these developments challenge traditional military organisational structures and culture as existing structures are pressured to accommodate the increasing rate of future innovations (Nigren, 2002:96). This accommodation currently also unfolds against a backdrop featuring new a paradigm against which the professional military is to be judged and in particular that of new missions supposing new training and education of the soldiers (Nucor in Caforio (ed), 2003:73) and the matter pointed out by Moskos - goal displacement.

Nigren (2002:95) offers several alternatives to cope with complexities. First, it demands cultural changes from the military. Change is exponential and fast as opposed to the slow response patterns of military bureaucracies to the need for change. The effectiveness and value of the new innovations are contained in their proper overall integration into strategy, doctrine, tactics, training and posture. This in turn raises the imperative of continuous transformation to cope with a continuously changing future (Nigren, 2002:95). Such a continuous transformation process requires an entirely new approach to thinking about and improving military effectiveness and meeting the theory of Manigart (2003) of an open-ended military in constant interaction with its surroundings. This outcome is to achieve synergism towards a greater overall increase in effectiveness. It is the demand for synergism that underpins the movement from rigid traditional structures and individualism to integrated collectivises able to deal with a higher level of innovation and complexity. It also once again asks of military institutions to become learning organisations. This is in turn fostered by increased professional military education to provide for

the intellectual component of coping with rising future complexities (Nigren, 2002:86) and posited in the futures outlook of Moskos of military professionals rather being soldier-scholars and diplomats to cope with this (Moskos in Moskos, *et al.*, (eds), 2000:19).

### **3.5.8 Some theoretical outlooks on gaining clarity on military change**

Uncertainty resulting from a future of which the outlines or parameters are unknown is a condition and not an obstacle for defence-decision-makers (Gray, 1993 :173). The challenge is thus to make proper decisions in spite of the reigning uncertainty. Such decisions about the future and defence activities to be undertaken is either threat driven or uncertainty pulled. The former is well known although with the demise of the Cold War its agents all but disappeared to allow for the rise of the latter (Gray, 1993:112). However, a strategy for all contingencies is just not feasible and therefore a detailed future history impossible (Gray, 1993:113, 172).

Military change and military futures are closely interconnected for it is acknowledged that the process of military change is mostly long and tedious. Defence planners, according to Gray (1993:94) know what they need to know regarding some elements of military futures. They do not however, always understand the potential key elements of what they know. It is therefore important to narrow down future uncertainty for those involved in military change. The following broad framework of future trends that can contribute to clarity is suggested by Gray (1993:98-99) and Mandel (1994:36-37, 58-59) as well as Buzan (1991).

Extraordinary dangers or threats to security do arise although they are rare and thus quite unpredictable. The tendency is to handle such threats as routine events until they manifest as threats demanding a non-routine response. Buzan (1991:140-141), however, points out that the danger here is that such vague threats could become overwhelming before a sufficient response is taken.

Some dangers demand a hard response for not all threats can be deflected or soothed away whilst prior success, in turn, can breed overconfidence in the face of future dangers. This approach holds the danger that all threats are judged to demand a hard response and therefore a potential drain on resources and a paranoid outlook upon such matters. Non-linear threats are not common, not easy to identify and even more difficult to bring to the attention of responsible decision-makers. The danger of this difficulty is that a threat can rise to unmanageable proportions before decision-makers are convinced to act (Buzan, 1991:140-141).

According to Mandel (1994) uncertainty concerning military matters is growing for the domain of military security is under increasing pressure. He offers six hypotheses to clarify or at least foster a better understanding of growing uncertainty and complexity in the future military realm:

- As military power increasingly diffuses through the international system via the spread of arms and technology, the security of nations and that of the international system declines.
- As defence decision-making is decentralised within and across nations, enforcement of collective arrangements tends to become more difficult.
- As nations become more dependent upon external defence, perceptions of vulnerability and loss of control tend to grow.
- As resources are reallocated away from military defence, disagreements about how burden sharing should take place tend to increase.
- As ambiguity about threats and enemies rise, military preparedness tends to fall and public resentment of defence spending rises.
- As war becomes more unconventional and multi-sided, success in outcome, prevention and management tends to become more difficult to determine and promote (Mandel, 1994:58-59).

For the military decision-maker the future is therefore tied up in known and unknowns. Evans (2001:19) concurs on this matter by positing that the known are very broad for its focus is systemic clarity of the future strategic environment awaiting military establishments. In part, this refers to a choice between the certainties represented by military service traditions and culture and that of future change and its uncertainty. For Evans some of the known of the future emanate from the following conjectures. Bad times follow good or, as pointed out by Blaine in *The causes of war*, cycles of war and peace follow one another, but the cycles of war receive disproportionate attention and are thus much more visible. Enmity, amity and alliances are not forever as became visible in the period after the Cold War with contemporary alliances being more functional and short term and to lapse when the need dissipates (Mandel, 1994:56). At the dawn of the 21<sup>st</sup> century this is illustrated in the quite cohesive War on Terror coalition as opposed to the faltering Coalition of the Willing for forcing Iraq to come clean on the issue of weapons of mass destruction.

Under conditions of uncertainty learning from the past can tell what could happen. Past assumptions do not become invalid because they are old. Although devoid of mirror image detail, the kinds of problems tend to recur in a modern cloak and function as indicators of what to expect. Demarcating enduring matters in the face of uncertainty is thus possible, although detail has to be added. Such detail is obtained by probing the future for elements of certainty or starting

from where you are as opposed to the impossibility of starting with a clean slate (Murray in Murray and Millet (eds), 1996:313, Visser, 2001).

### **3.5.9 Predicting innovations and military change in a changing environment**

Military changes are not only brought about by the technological imperative, but by changes in the wider strategic environment as well. The eclipse of the ideological and political showdown at end of the Cold War, the rise of globalisation, the drop in significance of the military policy option and smaller factors such as the revolution in attitudes towards the military (RAM) (Mandel, 1994:24 ; Black, 2001:9) are non-technological shifts impacting upon military change. The rise of resource conflicts as perceived elements of future war and new frictions due to expanded demand, rising shortages and contested ownership further complicate matters (Klare, 2001:23). Add to this the sub-national and cultural matters that drive conflicts in the developing world and one can list a plethora of new causes of war. However, it remains difficult to isolate technology in an increasingly interdependent, changing and technology driven strategic environment.

As technology diffuses to those in need of or merely wanting to modernise their armed forces, it is to be expected that military innovation and change are to be visible along these lines. This is not a linear process as all countries are not equally endowed to promote military modernisation via innovation, diffusion and change. Countries of the developing world have a particular problem in following through on the process of integrating innovations and effect desired changes to their national military institutions. Military innovation and change also demand reorganisation of command structures, introduction of new doctrine and tactics, improved support and adjusted training techniques. Although difficult in kind, these are particularly difficult integrative practices for developing countries to cope with (Isaacson, *et al.*, 1999:viii), although the challenge faces all who embark upon this pathway.

To promote an understanding of innovation and change requires gaining some insight or feel for future military innovations and change. Research by the RAND-Corporation (Isaacson, 1999) on this need investigates alternatives or a combination of alternatives to promote some clarity on the matter of future innovation and diffusion. In this research by RAND different theories and their utility to delimit the need for innovation and change were used. This comparison is illustrated in Table 3.3.

The comparison in Table 3.3 indicates different explanations for countries and their military institutions embarking upon a pathway directed by innovation, diffusion and change. The civil-military connection is obvious and it is this connection that paves the pathway to new futures. In

the following section the ways in which middle powers such as France, the United Kingdom and Germany pursued this avenue is briefly illustrated in a comparative way.

**Table 3.3: Theories and Indicators of the Need for Military Innovation and Change**

Perspective	Need	Indicators
Structural-realist. What kind of external security environment for the state?	States having an innovation incentive to compete militarily.	<ul style="list-style-type: none"> <li>▪ External threats.</li> <li>▪ Competitive international relations.</li> <li>▪ Revisionist ambitions.</li> <li>▪ Exposed geostrategic location.</li> <li>▪ Resource constraints dictating innovation types.</li> <li>▪ Imitative or asymmetric innovations.</li> </ul>
Societal. What relationship between the military and its host society?	Cohesion between the military and society required to facilitate innovation.	<ul style="list-style-type: none"> <li>▪ Cohesive societies promote and divided societies hinder extraction of resources for innovation and change.</li> <li>▪ Credibility of cost-benefit process to society.</li> <li>▪ Co-operative or competitive civil military relations.</li> </ul>
Organisation theory <ul style="list-style-type: none"> <li>▪ Institutional (non-military) view of external influences on the military.</li> <li>▪ Professionalist (military) view of internal influences guiding the military.</li> </ul>	Organisational factors to facilitate innovation.	<ul style="list-style-type: none"> <li>▪ Champions of change.</li> <li>▪ Career paths for reformers.</li> <li>▪ Impact of recent failure.</li> <li>▪ Organisational well-being advanced.</li> </ul>
Cultural* <ul style="list-style-type: none"> <li>▪ Strategic culture - how does the state think about the use of force?</li> <li>▪ Organisational culture - how does the military think about the use of force?</li> </ul>	How does organisational culture shape the outcome of innovations and change?	<ul style="list-style-type: none"> <li>▪ The interplay between political outlooks for the military and the military's outlooks upon their future role.</li> </ul>

\*Cultural perspective deemed too weak in its explanatory value of future military innovations and change.

(Source: Isaacson, 1999, 11, 12-13, 14-15, 17-18,19-20 ; Glenn, Howlett and Poore (eds) 2004:49-51)

### **3.6 FRANCE, THE UNITED KINGDOM AND GERMANY. COPING WITH FUTURE NEEDS AND THE SCOPE OF MILITARY CHANGE**

The above arguments on innovation and change are observable in how national military forces are adjusted in order to remain relevant for alternative futures and cope with goal displacement by stringing new goals and force postures together. France, Britain and Germany are three middle power countries that had to introduce military changes by shifting their paradigm on the future structure and role of their national military forces via innovation and diffusion. The relevant changes took place (and still are) amidst existing cultural preferences, technological challenges and the difficulty of resource constraints, but with longer time frames and without the immediate threat of war. All three countries, however, had to redirect their military institutions towards an



uncertain future that rebelled against their traditional military service and strategic cultures. In the brief discussion below of a study on change by the Commonwealth Institute on military change in the armed forces of France, the UK and Germany (Unterseher, 1999) elements are observable of the above theory in a contemporary setting. The discussion is enhanced by relevant references taken from a parallel study by Moskos, *et al.*, (2000) and the National Defence University (USA) on these countries and them shifting their military institutions into the post-modern era.

### 3.6.1 France

In France, the changes towards a future role for the French military became entangled in shaping the future force and its outlook within the constraints of French strategic culture of nuclear status, independent French military thinking and actions. Although the French have the *Loi de Programme* with 2015 as the planning horizon, and conscription (a very emotional issue for the French) was forfeited in favour of an all-volunteer professional military, adjusting to a new strategic environment remained difficult. The French Defence White Paper (*Livre Blanc*) set out how the French were to adapt to the new strategic environment and made use of 6 future scenarios - later collapsed into three and based upon the following: Major conflict calling for French military commitments as part of NATO, or the Western European Union within or outside Europe, multinational actions under an UN mandate and national or multilateral intervention in the Middle East or Africa (Boëne and Martin in Moskos, *et al.*, (eds), 2000:54-55). Defending the interests of France, constructing Europe, contributing to internal security and a global definition of defence led on to certain tasks: deterrence, power projection and protection. In order to make this possible the French ground, air and naval forces had to be adjusted away from an in theatre ground threat to that of power projection and crisis response with a strong element of home protection included (Unterseher, 1999). This was to severely test the organisational and resource capacity of French society and its military institutions to achieve:.

The difficulties experienced by France centred on their nuclear arsenal that was kept in place for purposes of prestige and international stature (a deep cultural matter) and this was not negotiable. The shift in focus via the White Paper and new missions and priorities remained vague and thus insufficient to guide French military structure and modernisation. As entrenched ground, air and maritime preferences seemed to maintain their status, modernisation for new roles and missions and its diffusion were further impeded. In conjunction with fiscal restraints, technological modernisation remained marginal as slow downsizing of personnel persistently slowed down technological integration. French ambitions to reform rapidly outpaced its resources and only became feasible to the extent that the official budget was exceeded. French defence expenditure dropped 10 per cent over the period 1985-1997 with a further 10 per cent shrink in

real terms over the period 1999-2000. What remained particularly difficult was to allocate the desired 45 per cent of all defence spending towards future modernisation (Unterseher, 1999).

Unterseher argues that restructuring and simultaneous modernising became a non-option. In conjunction with this, the technological modernisation programmes remained arduous as the French clung to French products and technologies. The strategic culture of status and French independence contributed to the French organisational difficulties to shift its military ways and means according to the futures oriented policy outlooks held by political decision-makers. As pointed out by Boëne and Martin however, the Chirac administration's new policies managed to erode the stark French and national outlook to allow for an European defence identity, a realisation that first lines of defence are now distant features, that nuclear deterrence had to be downplayed and the need for smaller less expensive, but more flexible forces to tackle future commitments (Boëne and Martin in Moskos, *et al.*, (eds), 2000:59). These latter shifts forced a break with former cultural straitjackets to introduce innovations and their diffusion that could take France along alternative routes to military futures:

- Becoming a key agent and proponent of a European revolution in Military Affairs (RMA).
- Adopting selective RMA technologies and co-operate with allies to towards common projects activities and operations.
- Promote legacy systems for survival of its industries and assume prominence in the low-intensity conflict environment (Laird and May, 1999, 1/21-2/21).



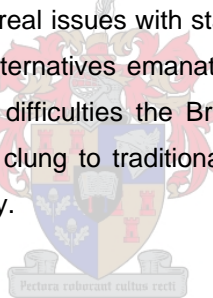
### 3.6.2 United Kingdom

The UK undertook a Strategic Defence Review (1997/98) and a Ministry of Defence Long Term Costing outlook that projected defence matters 10 years into the future to help pave a futures pathway. From this UK decision-makers formed the dictum *Prepare to go to the crisis and make the world a safer place*. In this vain six future tasks were defined: Peacetime security, security for overseas territories, peace support and humanitarian operations, regional conflict outside Europe, NATO regional conflict and a strategic attack upon NATO. These tasks imply a wide spectrum and a demanding nature as it attempts to encompass the uncertainty of the future strategic environment with a military institution downsized by about 30 per cent (Dandekker in Moskos, *et al.*, (eds), 2000:33).

In order to support this new outlook, Britain also maintained its nuclear perspective and forces and then set about the problem of conventional power projection. Although the joint imperative was realised and the futures outlook became penetrated by strands of RMA thinking, the foreseen roles were so divergent that it remained a dilemma. As the focus on manpower

persisted and clarity of what contingencies to prepare for remained ill defined, procurement of proper technologies for modernisation suffered and systems remained outdated. This ambiguity is visible in the view by Dandekker (Moskos, *et al.*, (eds), 2000:33) of the British clinging to traditional defence roles. This resulted in forces for general war, permanently committed forces and national contingency forces making up a *golf bag* of forces to meet future contingencies and fight at various levels of intensity. It is the latter *golf bag* of forces that demands innovation and its diffusion in order to cater for the implied diversity.

British defence decision-makers had to cope with severe domestic criticism of the military - social expenditure gap. Unterseher reports that British defence expenditure declined by 22 per cent over the period 1985-1997. In 1996/97 defence expenditure reached between 2,8 per cent and 3 per cent of the GDP, with a projected 4 per cent of GDP in 2001/2002. Within these confines the wide nature of tasks and fiscal constraints left the UK with few options. It has to decide on intervention after hostilities or stabilisation beforehand and structure and procure accordingly whilst these very roles were not very convincing to gain public support - a rising post-modern dilemma confronting military institutions. However, their US and NATO links, nuclear status, strong ground forces and not matching real issues with status issues, continues to cripple British military change towards those future alternatives emanating from its Strategic Defence Review (Unterseher, 1999). In spite of these difficulties the British assumed noticeable post-modern features to cope with new futures, but clung to traditional notions that resulted in Dandekker's notion of an overstretched British military.



### 3.6.3 Germany

The German endeavour towards military change is being hampered by two post-Cold War and post-modern difficulties: first, the German unification and second, the taxing effect of the extensive social welfare system on German financial resources. This implies for German military change to take place within the ambit of relative scarcity. Although defence expenditure shows a one third decline since 1985-1997 and only 1,55 per cent of GDP was spent on defence during 1998/99, increasing pressure was placed upon the German military by a tough austerity program. It nonetheless pushed through the most comprehensive reform in its history (Fleckenstein in Moskos, *et al.*, (eds), 2000:80). Germany broadened its risk assessment towards broader security tasks and less nationally oriented ones for the Bundeswehr as allies and partners now surround Germany. This marked improvement in its geostrategic situation (according to Fleckenstein) allowed Germany to assume a more post-modern outlook. Protection against political blackmail and external threat, supporting humanitarian disasters, military stability and integration of Europe, defending Germany and its allies and serving international peace as per UN charter all became part of the German future outlook. The Germans thus opted for strong

elements of war avoidance and international stability in their future outlooks on using military coercion (Unterseher, 1999), a posture reflecting strong post-modern features.

The German military change in favour of a trustworthy partner with a close interest in the security of its regional neighbours and subsequently geared itself for military operations outside the NATO/European region as well - a major shift in German military thinking. As the latter is much dependent upon jointness, it clashed with German service cultures of severe protection against encroachment. This held obvious difficulties for German ideas of joint command for power projection and the austerity programme concerning finances. For power projection the Germans are currently restructuring towards quick reaction forces for out of area operations, but to also maintain a large core force with an appropriate growth potential. Their futures outlook, however, tends to be directed by a continental strategy with a heavy emphasis on ground forces that seemed quite incompatible with the idea of light and quick reaction capabilities.

Within the German outlook of light forces for crisis response, a heavy force to punish aggressors if necessary and being able to participate in all ranges of operations authorised by a supranational organisation, it soon became clear that all these capacities are not sustainable. Within Germany the discourse on the RMA and Information Warfare also featured to refine crisis response forces. German procurement plans, however, still reflect heavy fighting platforms and not the light systems and information systems as per RMA-thinking. This inconsistency also took place against the background of no clarity as to what future scenarios the German military had to prepare and thus structure for as it shifted from an importer to the export of security for other actors (Fleckenstein in Moskos, *et al.*, (eds), 2000:85). The division of its defence expenditure could thus not be adapted sufficiently to reflect the very modernisation and adaptation that was projected to be 25 per cent in 1999, 28 per cent in 2002 and 30 per cent on the longer term. As personnel expenditures and a lack of clear futures continue to confuse the structure of defence expenditure towards change and modernisation, German military change remains vulnerable to service culture rivalries and an inability to implement the changes towards new tasks set out for the Bundeswehr. Given the Bundeswehr's movement into a post-modern future, the pessimism of Unterseher needs to be balanced with Fleckenheim's judgement of it having quite successfully entered the complexities of a post-modern military (Fleckenstein in Moskos, *et al.*, (eds), 2000:100). However, in dealing with the RMA, German armed forces face the following alternatives:

- Current planning realities point towards a moderate RMA capability in future. No grandiose German RMA-capabilities are seen to be forthcoming.

- An extensive RMA modernisation towards the future is to involve a national commitment to its pursuit - something not judged to be forthcoming as the financial impact is too great.
- European integration and transatlantic co-operation are to be pursued in order to establish and maintain a future balance in the use of German armed forces (Laird and Mey, 1999a:11/12).

### **3.7 SUMMARY: MILITARY CHANGE FOR MILITARY FUTURES**

This chapter deliberated military change, whether revolutionary or more evolutionary, by investigating the following agents and manifestations:

- First, military innovation and diffusion with its accompanying challenges to effect the desired adjustments.
- Second, historic incidences of military change in Europe and two African regions concerning the context as well as the conduct of war.
- Third, inherent difficulties in effecting change and its partial manifestation in contemporary French, British and German efforts to accomplish desired and unavoidable changes in order to pursue appropriate alternative military futures.

Military change is predominantly directed or applicable to the ways and means of future war, but does not materialise as a simple, predictable and linear process. In spite of alternative military futures to be considered, their ends remain rather fundamental and therefore quite resilient to change. The ends of war are therefore not reckoned to change in the foreseen future. Changes concerning the ways and means (military fighting systems and strategic concepts for using them) are necessary in order to prevent military stasis whereby national military forces become ineffective, inapplicable and questionable instruments of national power. Military innovation, diffusion and change frame the future use of military force and therefore become instrumental towards sustaining the future role and continued utility of armed forces.

Military change materialising from processes of innovation and diffusion take on different forms. In broad these changes can be substantial and revolutionary, more limited and evolutionary and occur during times of war or peace. Dramatic revolutionary changes introduce the notion of a shift in the paradigm of war as it is generally held in Western outlooks. A shift of sufficient magnitude represents a dramatic change in the outlook upon the conduct of war and in theory may even touch upon the assumed robust and enduring ends of war, although this remains a matter of debate.

Military change is furthermore liable to be impeded by how military institutions respond. Military bureaucracies are structured and function in a way that tends to oppose change. They subsequently become gatekeepers of the diffusion of innovations that are to effect military change. As the custodians of legitimate violence and inclined towards proven ways and means to conduct warfare, it is dangerous for the responsible decision-makers to allow for undirected change to take effect and promote undue complexity. Adjacent to this dilemma feature latent views about military and service cultures as major obstacles to innovations that are bound to propel military institutions down different future pathways. Getting it wrong, however, holds the potential of failure and the spectre of destructive military futures.

The presumed institutional inertia against military change, of which the detail and longer term advantages or impact are admittedly murky, unfortunately limits essential changes as well. Whilst it contains both positive and negative consequences by filtering out the diffusion of potentially disruptive innovations and subsequent change, this inertia simultaneously promotes lost opportunities if the military culture is one of general and not selective opposition. Military change is thus rarely a quick shift, but rather characterised by opposition, co-existence, and competition for money, time and energy to effect desired changes towards appropriate alternative futures.

Military organisations are complex organisations and bringing about change is not simplistic for it is to unfold amidst the intricacies of the military as an institution. Changes that do materialise take place at the strategic, operational and tactical levels as the context, procedures and techniques become subject to military innovations and diffusion. It is argued that changes in the strategic context of war are the most difficult to fathom and eventually adjust to. Its impact furthermore cascades down to the operational and tactical levels as well, whilst the opposite is not necessarily so. Coping with this uncertainty is preferably to be aided by not searching for grand theories of innovations and change, but to rather pursue the matter as particular smaller innovations and their diffusion that eventually effect desired changes.

Innovation needs a futures outlook for it to be accommodated or rejected; diffusion's value is tied up in its creation of images about what opponents are about to do and accordingly, what the future may represent. Neo-realist, power transition, organisational and defence-offence theories clarify military diffusion in that it becomes apparent that although military technologies and practices diffuse, it is not linear and predictable in kind. Neither does it reflect uniform diffusions as posited by neo-realist outlooks. Diffusion is more erratic and unpredictable as explained by theories on power diffusion, offence-defence, and organisational readiness. This ambiguity and unpredictability once again underlines the difficulty of what to expect of military futures and it only affords glimpses of such futures.

The futures outlook of military organisations becomes the responsibility of and is undertaken by either an individual or futures oriented officer's corps. The preferred way to identify the need for or appropriateness of innovations and change is to have a futures oriented officers corps that is educated and inclined to understand and discriminate rather than oppose all innovations and change. This achievement or preference, however, remains subject to or in competition with the military culture of upholding simplicity and order in the chaotic and unpredictable war fighting environment or that of undirected political preferences. The combination of educating an officer's corps to accept the fluidity of change and promoting those who understand and support a particular futures outlook underpins efforts to direct armed forces via innovations and their diffusion towards selected alternative futures.

Different explanations are offered as to why decision-makers accept or deny military innovations that present themselves via diffusion. An organisational readiness to compare advantages and disadvantages and allows for diffusion and acceptance of military innovations, available national resources to reallocate to defence spending as development increases and cultural preferences to accommodate or reject new innovations all feed into facilitating or opposing diffusion. The extent to which ideas and technology are opposed by military bureaucracies cannot be ignored, but contemporary globalisation and information flows, interconnectedness and the lack of control over communications are bound to rather promote than hinder the diffusion of innovations towards and within the military domain.

Military change is observable in history as it represents a particular historic field of interest. The MR denotes a view on how past innovations and diffusion effected military changes that gave rise to military forces and their governing structures as we now know it. These changes had a lasting impact in that it changed the future context and art of warfare, although it did not originate from a deliberate futures intention or outlook. From the strategic level of contextual change, the MR fostered the state-military integration and the rise of professional armies as a legitimate instrument of state power. This represents a deep and enduring shift away from the loosely structured mercenary and feudal type armies of earlier.

At the procedural and hardware levels new military technologies and subsequently the ways that armies were used underwent deep change via new weapons technologies and their integration with tactics, innovations concerning fortifications and siege warfare and how military forces became organised and used for offensive and defensive purposes. These changes, as discussed in Section 3.3, are summarised in Table 3.4.

In the quest for new territories, European military changes diffused to other parts of the globe where it interacted with local military practices and became integrated, merely added or rejected. In Africa, a continent where the study of warfare tends to be marginal and viewed differently to that of Europe, the diffusion of ideas, horses and firearms played a discernible role in the rise of new and innovative ways and means to conduct war. As in Europe, not only the procedures and techniques changed, but the strategic context as well. Politico-military systems became symbiotic and more bureaucratised or centralised to gain control over the use of military forces and in particular to organise and sustain new ways and means to wage war.

**Table 3.4: Changes in the Context of Warfare and Warfare Proper**

<b>Changes to the context of war.</b>	<b>Changes to warfare proper.</b>
Rise of the state from the conduct of war.	Gunpowder-driven changes to firearms and artillery.
State-military integration and rise of professional standing armies under state supervision.	New tactics and drills to effectively employ increasingly destructive firearms during warfare.
Bureaucracies as ordering devices to manage military forces.	Entering drills and discipline to adjust existing practices to the needs of new weapons.
Mass politics allowed public opinion to enter military matters and contributed to swelling the size of armies.	Changes in fortifications to oppose new siege tactics and optimise the use of new firearms and cannons.
Ideology to direct decision-making and fuel the commitment of those doing the fighting.	Shift in offensive and defensive strategies as a result of new military technologies.
Improved destructive power of weapons.	Structured training, equipment and supply of armies to fight more effectively.
National economies to provide the resources and finances to conduct, sustain and finance warfare.	Capacity to conduct combined arms operations.

**(Source: Own Compilation)**

Although quite visible in West Africa, diffusion of innovations and its integration into existing military systems were not universal. The Zulu military system in southern Africa was less influenced by modern technologies, in spite of its diffusion and Zulu exposure. The Zulu rather added, than integrated, firearms and horses to their ways and means of conducting warfare and so held on to their traditional or indigenous format of military operations and tactics. Diffusion



thus did take place, but integration and changing the military *status quo* was not a universal and smooth process. It had to face and compete with deeply entrenched strands of opposition via the Zulu military culture. No organisational changes were truly allowed to accommodate new European technologies. In Africa innovations and diffusion were embraced by some and obviously rejected or marginalized by others.

In order for military change to take place, strategic culture and service cultures in particular need to be turned. Although strategic culture is difficult to define, it is generally agreed that whatever its profile, it is difficult to change or bypass. The promotion of difficult changes necessitates some clarity about what the future holds for those having to decide about it, but these decision-makers are in turn constrained or influenced by their strategic or military service cultures. Military services, however, also need to gain some degree of clarity on what they need to do in future. Debates take place within military organisations about what future war is to reflect and how to gain victory should it become necessary to fight. The primary way for promoting and ultimately effecting it is through the selective promotion of those understanding and supporting the future outlook of the military on how these future wars are to be fought and won.

Military change remains plagued by difficulties promoting uncertainty and this matter is to remain - whichever way one argues the topic of changing towards alternative military futures. The MR indicates that dramatic military change is possible, but over time incremental or follow-on changes are more visible than revolutionary once-off shifts that eclipse a contemporary paradigm of war. The symbioses between state and the military remains a rugged feature and change in either one is judged to affect the other. Uncertainty is therefore to remain a feature of studying military change and future warfare as is illustrated in the discussion of French, British, and German efforts.

France, Britain and Germany have modern military forces in need of adjustments to meet the new strategic environment as perceived and outlined by their political masters. The shifts preferred at the politico-strategic level does not accurately fit the reigning French, British and German military cultures. In combination with the resource restraints experienced by each, military changes amidst a period of peace were not explicitly opposed, but the similarity of difficulties experienced by each illustrates the pitfalls of changing a reigning military culture towards new and challenging alternative military futures. This trio of states are, however, in the midst of also embracing post-modern military establishments that in part are unfolding upon their future operating environments. None, however, completely left the traditional mould or paradigm to embrace radically new military futures.

The argument that military change is a durable feature of warfare enables one to presume that a next round of dramatic changes to warfare and its future conduct is possible. It remains difficult, however, to accurately delimit and refine changes that are to structure the character of future warfare and in particular the alternatives that decision-makers will have to contend with. It appears from this chapter that much of it is retrospective in kind and reflects some coherence between technology, change, and complexity as variables directing the future. This connection calls for a futures outlook as it also promotes insecurity and resistance to change. In order to adjust the inherent disequilibrium, the matter of military change and its agents of change and inherent difficulties are to remain in question. Efforts to minimise the factors causing difficulties and resistance to innovation and diffusion and the resultant uncertainty to change are currently contained in a more forward-looking debate. This debate, however, remains the topic and focus of the following chapter.



## CHAPTER 4

### MILITARY FUTURES: REVOLUTIONARY OR EVOLUTIONARY ALTERNATIVE MILITARY FUTURES

#### 4.1 INTRODUCTION

In Chapter Three military change was analysed in terms of particular agents of change - innovation and diffusion. It was concluded that military change could take place during war or peace and be dramatic and revolutionary or slower and more evolutionary. These outlooks were traced back to the historic debate on the Military Revolution (MR), innovations during peace or interwar years and during times of war. Furthermore, changes in the ways and means of conducting future warfare also reflect a technological imperative. The resultant changes manifest at the strategic, operational and tactical/technical levels of war from where it feeds into and affects alternative views on evolving alternative military futures. This process of change, however, is shrouded in uncertainty and subject to different outlooks and military preferences as to what will be allowed.

This chapter builds upon the conclusions on innovation, diffusion, and the resultant change addressed in the previous chapter. Changes resulting from innovation and diffusion within the military domain bring about adjustments and even transformation within national military forces. The extent to which agents of change are deliberately futures oriented, they are prone to cause substantial and even paradigmatic shifts. Although undertones of an evolutionary versus revolutionary debate are visible in the literature on military change, this chapter presents military change within the reigning debate of a Revolution in Military Affairs (RMA). In strict military terms an RMA involves a paradigm shift in the nature and conduct of military operations. This shift either renders obsolete, or, irrelevant, one or more core competencies of a dominant player or, creates one or more new core competencies in some new dimension of warfare or both (Hundley, 1999:xiii).

The concept of an RMA rose to prominence during the last decade of the twentieth century. This debate is current and multi-faceted whilst being somewhat perplexing as it is directed by limited accepted theory and consensus on its future outcome and contributions. It is deemed to be a distinct pathway towards alternative military futures in some circles, whilst for particular reasons ignored in others or judged not to be revolutionary in kind. Although challenging *status quo* thinking, the RMA-thought has yet to supplant dominant ideas and paradigms in military thinking about preparing and using military forces in future. It represents a current dominant, but

admittedly contested, concept concerning military futures and is viewed as the military pathway to the future by some and opposed or deemed inapplicable by others. The RMA does, however, constitute a dominant debate on the future conduct and outcome of warfare.

The MR, as a potential harbinger of the RMA, is used as an introductory argument and followed by a conceptual exploration of the RMA-concept. As the RMA is not yet anchored by an accepted theory, the concept is delimited by presenting different schools of thought underpinning its current status. The more recent idea is then addressed of the RMA as a driving force behind much of what is to be expected of alternative military futures by elaborating upon its possible manifestations amongst some primary state actors. The dominant RMA debate is then challenged by introducing the *Debate Outside the West* and arguments concerning countries from the Developing World. Both the nature of the debate as well as its meaning for those countries not able to fully exploit its potential are discussed. In order to balance the acclaimed view of an RMA, criticism of, and opponents to this route towards alternative military futures are presented. The chapter is concluded with a summary of revolutionary and evolutionary military changes directing eventual military futures.

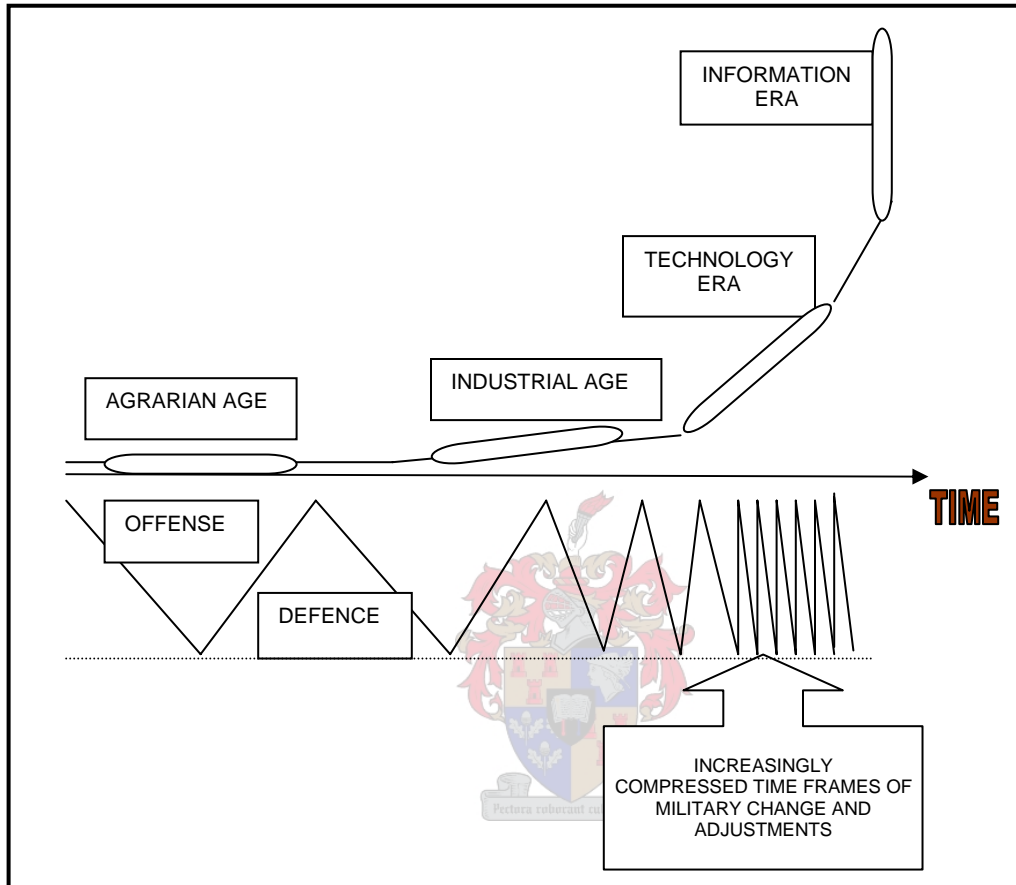
## 4.2 MILITARY REVOLUTIONS: A HARBINGER OF REVOLUTIONS IN MILITARY AFFAIRS

### 4.2.1 From retrospection to conjecture

Concepts of a MR and the RMA both address matters of future war, although only the RMA is deliberately futures orientated and less retrospective than the MR. For decision-makers the futures outlook of the RMA holds sway with the ways and means how military forces are to be prepared, deployed, and employed for future military operations. Whereas it is possible to look back and identify revolutionary leaps in adjusting, preparing and using national military forces, such an outlook contains a fallacy. Contemporary developments are just too complex and rapid to depend on mere retrospect and incremental adjustments. This is illustrated in Figure 4.1 that portrays how changes to keep up with new and revolutionary military technologies interact and compress time frames.

The need to accurately define future war emanates from the current demand on military forces to do more and more whilst entering a strategic domain that is increasingly unclear and challenging to their existence. In theory it allows less for incremental steps into the future but rather a deliberate shift to move towards a desired future (Hartley in Thomas (ed), 1997:180). However, preparing military forces for future war invariably implies that the past has to be catered for and

this makes the process cumbersome (Hartley in Thomas (ed), 1997:180). In essence, it is also about the necessity to think about future war as the Americans, Australians, Chinese, and Russians have been doing and are still actively pursuing (Welch in Thomas (ed), 1997:30-31).



**Figure 4.1: The Rate of Societal Change and Military Adjustments**  
(Source: Dunn in Thomas (ed), 1997:60)

Builder (Thomas (ed), 1997:22) maintains that the future for military forces is not only about whether they will be necessary or not, but rather one of whether they are going to like what they see or what is expected of them. The real RMA, as opposed to the preferred one, may therefore not be in congruence with what national military forces are looking forward to in terms of their perceptions of future warfare. Influences are not to be only technological, but also about how roles need to be adapted with the adjacent organisational and doctrinal changes as is observable during the earlier MR period discussed in Chapter Three. One conjecture in this regard is that military forces might be moving towards warless futures as opposed to war fighting futures expected or propagated by interested parties and thus the need to prepare for a dramatic different military future and roles for military institutions (Moskos in Caforio (ed), 1998:513).

#### 4.2.2 Military Revolutions and Revolutions in Military Affairs

In response to a question on whether or not it has become fashionable to nowadays cast all military change into a revolutionary mould, Kotze, (former professor in Military History at the SANDF Military Academy) responded that Western thought tends to portray an historic outlook on the matter of military revolutions. A proper understanding of military change necessitates clarity on what the changes represent in order to oppose or balance the tendency to categorise all military change as being revolutionary in kind (Kotze, 2000).

The historic antecedent claimed by Kotze is quite visible in the literature on the RMA as theorists and observers active in the RMA domain use the earlier MR as either a departure or a regular metaphor. Different innovations judged to have effected past military change are a common departure in studying and demarcating arguments for an RMA. These are observable in the thoughts of Hundley (1999:12), Builder (in Thomas, 1997:8-9), McKittrick *et al.*, (in Schneider and Grinter (eds), 1995:67) and Galdi (1995:4-5). They all list phenomena like the introduction of the longbow, the machine gun, carrier warfare and *Blitzkrieg* (amongst others) as illustrative examples of historic and more recent breakthroughs that affected a core military competency of the time and changed the outlook on future warfare. It is thus an accepted or preferred departure to embed arguments about a possible RMA in historic events with a similar strand. This is, however, not only confined to Western thinking. Russian thought on the RMA also has historic ties as illustrated by Pinter in Paret (ed), 1986:355, 357, 362, 365). The revival of Russian military art by Suvorov (late 18<sup>th</sup> century), Muliutin's reform programme, (middle 19<sup>th</sup> century) and Bloch's work on *The future war in its technical, economic and political aspects* all refer to earlier Russian MRs on future preparations and employment of the Russian military.

A research paper by the US Centre for Strategic and Budgetary Assessments (CSBA) (1999:1-2) aligns the MR and the idea of an RMA by emphasising the revolutionary nature of events found in both phenomena. The CSBA merges the MR-RMA concepts by outlining the MR as a major discontinuity in military affairs brought about by changes in relevant military technologies, concepts of operations, methods of organisation and/or available resources. The CSBA paper (1999:1-2) traces the MR back to the rise of the battlefield chariot (18 BC) , but demarcates the past two centuries as reflective of the greatest rate of change as six of the eight prominent military changes are found in the latter period. These changes, as briefly presented below, portray shifts in the ways and means of how war was conducted henceforth.

- A socio-political revolution emanating from France transformed war and in particular organisational changes in how armies came to be recruited and organised for the purpose of war.

- Commercial development of railroad, telegraph and the breech-loading rifle changed the strategic movement of armies, command and control and tactical fighting on the battlefield.
- The dreadnought/submarine revolution at sea by moving to steam propulsion and metal construction in ships. The Dreadnaught outgunned any other surface vessel whilst the submarine not only challenged the supremacy of the battleship, but the naval strategy of surface warfare as well.
- Armoured warfare / air superiority that combined technology and doctrine to promote a superior future way of warfare. Combining land and air power technologies into new operational concepts and organisations gave future warfare a new dimension (war of movement) in terms of speed and its two-dimensional shock effect upon the opponent.
- Naval air power extending the reach of naval power by solving technical-organisational difficulties to undertake sustained large scale carrier operations at sea. Solving technical-organisational difficulties allowed naval forces to extend their destructive reach beyond that of ship based armaments.
- The nuclear revolution that brought strategic reach and effect closer to reality and changed the future paradigm of war to deterrence rather than that of war fighting.

(CSBA, 1999:1-3)

This outlook by the CSBA extends the MR of early modern Europe in particular in an evolutionary way to the middle of the twentieth century in order to outline presumed revolutionary styled intermittent breakthroughs in the ways and means of war. These breakthroughs, if analysed more deeply, involve a range of changes at multiple levels of war (from the strategic through the operational to the technical/tactical levels) and include both the military as well as civilian domains.

Military theorists of the People's Republic of China draw a more rigid distinction between the MR and that of an RMA. The Chinese view contends that an RMA is a collection of systems that use machine intelligence to process information, to give command, control, communications and control systems a near real time capability to operate along with advances in doctrine and tactics to use the new capabilities in war.

A MR, in the Chinese view, is a more fundamental reordering of the military. They further argue that the diffusion and integration of RMA-type shifts can lead to a MR (Butler *et al.*, 1998:2). The Chinese therefore do not view the MR and RMA as two follow-on phenomena, but as interdependent to understand and re-order contemporary military changes.

This MR outlook implies the benefit of hindsight by using the past as prologue to the future. It is furthermore used as a backdrop or departure to investigate the contemporary debate on the RMA. It is thus acknowledged for the purpose of this chapter that MRs represent a fundamental departure for understanding revolutionary military changes. As such it also serves as an entry point to investigate the current debate of whether an RMA is in the making and of a kind prone to fundamentally alter military forces and their future use.

#### **4.2.3 The difficulty of demarcating an RMA**

Before arguing the presence or absence of an RMA two further phenomena that tend to compete or overlap with the RMA need to be clarified. They are the notions of a military technical revolution (MTR) and that of a revolution in strategic affairs (RSA). The MTR evolved from Soviet identifications of the dramatic impact of technologies on military change and the discontinuity it held for the conduct of future war (McKittrick, *et al.*, in Schneider and Grinter (eds), 1995:65). These discontinuities were termed military technical revolutions and originated from a series of papers by Marshall Ogarkov of the former USSR (Metz in Thomas (ed), 1997:43). In the Marxist fashion change was understood to arise over time from revolutionary advancements. Galdi (1995:4) outlines the Russian outlook on fundamental military change of the 20<sup>th</sup> century as that of technological breakthroughs of First and Second World War fame. He extends this view towards their more recent expectations of future military change to emanate from microelectronics, sensors, precision-guidance, and automated control systems. In part this reflects the earlier idea that developments in weaponry and military equipment directs strategy and tactics. Gareev (Kipp (ed), 1998:47) acknowledges that this assumption (inserted by the Marx-Engels thesis) is not feasible in contemporary thinking and that military science, as the study of future warfare, is to rather direct strategic, operational and tactical needs and consequently future armament requirements.

US theorists acknowledge that the Russians were the first to note and conceptualise possible military changes that were to transform future wars and in particular the idea of an engineered revolution. They also recognised that the Soviet emphasis on technology did not capture the full scope of changes that loomed. Analysts in the US began to refer to these changes as revolutions in military affairs in order to also reflect the organisational and operational (non-technical) dimensions (McKittrick, *et al.*, in Schneider and Grinter (eds), 1995:65). The difficulty arising from the RMA term is confined to how the expression is used to describe or explain. Referring to revolutionary technology as a driver of change is only one perspective, whilst revolutionary adaptations by military organisations themselves represent another. A third outlook is to understand it as a revolutionary impact on the outcome of military conflicts (Galdi, 1995:5).



These three alternative interpretations indicate the potential for misunderstandings, as well as the need for an extended cognition of the RMA.

The above difficulty is more refined in the arguments of the late Builder, senior analyst of the RAND Corporation. Builder contends that an RMA is more than a military technical revolution (MTR). Only when these MTRs combine and are integrated with changes in concepts and doctrine, an RMA begins to take shape. This view can be further developed in two ways. A narrower perspective by merely drawing the contours of the conduct of future warfare or the wider notion of it directing the way the world fights or is to fight in future (Builder in Thomas (ed), 1997:7). These two alternative strands of understanding the RMA is important for it also touches upon the difficulty of a distinction between what the military does (wants to do) and what the state does (wants to do) with its instrument of military coercion. As it becomes increasingly difficult and even impossible to have a restricted view of military events and dynamics, the notion of an RMA cannot be contemplated only within its military war fighting confines.

It is, however, not rigidly accepted that the RMA has to be set and viewed in a wider context. Sentiments regarding an RMA can be restricted to a military domain or more inclusive as becomes visible in the following two definitions (Builder in Thomas (ed), 1997:9):

**Watanabe:** *"An RMA is a revolutionary change in the conduct of warfare (i.e., how wars are fought) brought about by the combination of technological, doctrinal and organisational changes".*

**Morton:** *" [An RMA is the] innovative combination of new technologies and tactics [that] can on occasion, give an overwhelming advantage to a fighting force. In response to such changes, all others must either try to master the same tactics and technologies to develop counters. In doing so they revolutionise the way the world fights."*

The second definition is more inclusive and allows not only for more than the strict military domain and technologies, but also for the outcome of technologies and tactics by depicting it as the way the world fights and how others react to the changes implied. This divide and different preferences by theorists and decision-makers is the essence of the difficulties experienced. Some would prefer to keep it as simple and military as possible. Others strain to expand the concept and its intricacies to be more responsive to the scope and rate of change facing military forces and their future roles. This latter outlook tends to tie in with the view that the restrictive military concept should be broadened to be more inclusive.

A second competing concept that is bound to broaden the RMA paradigm is that of a Revolution in Strategic Affairs. By casting the RMA net wider, the lesser the military imperative becomes as other variables enter and compete for recognition. This is the gist of views held by Freedman to acknowledge the role of non-military variables and that the scope of what is estimated to be emerging, is rather present at the strategic level and less confined to the military-strategic. In this line Freedman contends that the revolution is on the strategic level as it has to do with the broader concept of military affairs and the interplay between the political and military spheres - the realm of strategy (Freedman, 1998:9-10). Warfare, according to Freedman, is less confounded or dictated by military technologies than the complexities and uncertainties of the future strategic environment, the type of threats and opponents to be confronted by future military forces (Freedman, 1998:76-77). RMA-styled futures are thus less likely to be outlined in strict military terms by military decision-makers only.

Such competitive concepts play their role in a way that either tries to narrow down or broaden the RMA and its dynamics. These are, however, not the only contestants as different views permeate the very idea of an RMA. Competition and duality are constant factors in studying and demarcating the contemporary debate on the RMA. It is thus accepted in the arguments presented below that the RMA is a developing concept that needs to be understood in a more confined or a broader sense for reasons characteristic to the actor in question. It is also presumed to be more beneficial for some actors to narrow down their understanding whilst others seek wider advantages by accepting a more inclusive outlook on the phenomenon. What remains central to this dichotomy is that the higher the level of inclusivity, the more complex the RMA debate is bound to become.

Moeller collapses the meaning of the above into a hierarchy by linking the MR, MTR and RMA to practical levels of influence in order to keep them apart in some manner. Towards this end, Moeller proposes the hierarchy as portrayed in Table 4.1 (Moeller, 2002:4).

**Table 4.1: Establishing the RMA Hierarchy**

Theoretical level	Term	Practical level of influence
Grand Strategy	Military Revolutions	Economy, industrial structure Demography Strategic culture
Strategy	RMAs	Services, Army groups, fleets
Operational Art	RMAs	System of systems, Corps and Armies
Tactics	MTRs	Weapons logistics, Systems, Troops.

(Source: Moeller, 2002:4)

Although not rigid and exclusive, Table 4.1 manages to structure the debate and uncertainty to some extent. It presents a hierarchy to link concepts to outcomes and levels of decision-making. It thus creates a sense of order in a debate prone to be hampered by centrifugal forces threatening to erode all meaning from what is transpiring and visible in a burgeoning list of literature and politico-military debates on the international scene.

#### 4.2.4 Exploring different views on the RMA proper

In an effort to address the question of an RMA in the making, a number of interviews were conducted to obtain some authoritative opinions on the phenomenon. In the interview with Kotze, (2000) he argued the important matter of how absolute the revolution seems to be. Do we find that a previous revolution and state of affairs are absolutely overthrown and is this documented or achievable at all? In essence this implies establishing which paradigm was overthrown. According to Kotze (2000) an increase in offensive capabilities of states is a feature of such a military revolution and is it is therefore necessary to establish some criteria against which to measure the presence of the claimed RMA.

In addition to the above view of Kotze, Barnett posits that the RMA is about how advanced countries will fight wars in future, but as evidence to consider this is absent, the debate is rather useless and in particular for viewing warfare between poorer countries (Barnett, 2001). Williams of MIT (2001) is also sceptical about the notion of an RMA. She argues that the RMA is to be challenged by extreme expectations, costs and the tendency of reigning military culture to maintain the *status quo*. Williams also points out the fallacy of not starting out with what the military should be able to do, but to become blinded by technologies assumed to have revolutionary potential.

None of the respondents, however, denies the phenomenon. They all nonetheless question its utility in explaining or predicting future warfare as taking on a particular character in terms of its ways and means or that such dramatic changes as found in the past are to once again transform future warfare in some revolutionary way. These views represent part of a wider difficulty about the credibility and validity of the RMA as a vehicle containing the elements or catalysts of future warfare. It is therefore necessary to first construct a framework for understanding the phenomenon in a more structured way for in the words of Gray (2000:247): "*This a case where everybody is right and wrong.*"

#### 4.2.5 The RMA: Emerging schools of thought

As the RMA is not yet underpinned by an accepted or mature theory, arguments reflect preferences that arise from distinctive ideas on the matter as constructed by particular countries. This is in opposition to a general crosscutting theoretical debate that creates some epistemology and ontology concerning the phenomenon. In the following section certain approaches that are deemed to inject some measure of an epistemology into the RMA debate are presented. Two schools of thought reflecting a wider view of the RMA and five more focussed lines of thinking about its military scope are offered.

***The economic determinist school.*** Changes argued under the guise of dramatic military change result from shifts in ways of civilian economic production. These changes also impact upon the military modes of war, although Biddle argues that economic transformations are quite rare as the Agriculture and Industrial Revolutions are the only two antecedents (Biddle, 1998:7). This school judges the civil information revolution to be crucial evidence of an emerging RMA. As the third wave economic production paradigm is replacing the mass based production runs of the previous era and such shifts have induced military transformation in the past, it is presumed that a comparable military revolution is in the making (Biddle, 1998:8).

***The contingent innovation school.*** This school posits for revolutions to originate from particular innovators that perceive opportunities in new and emergent technologies and then innovate by creating new organisations and military doctrines to exploit them. This is much more than mere changes for the innovations need to be of extraordinary scope and speed - insignificant updating is not acceptable (Biddle, 1998:9-10). Recognising that the character of conflict has changed dramatically over a brief period, it requires radical changes in military doctrine and organisations to exploit or manage it (Biddle, 1998:10).

***A revolution in security, political or strategic affairs.*** The revolution is certainly not only about military affairs and its means. The revolutionary imperative facing military institutions is what is transpiring from the dynamics driving conflict, the ability or inability of the state to deliver security and events at the military-strategic interface. Strategic affairs are much more senior to and influential than mere technological advancements and military adjustments. It is in fact strategic affairs that demand from military institutions the ways and means to achieve political purpose when so desired. What is therefore to transpire at the military level is not to be independent from or ignorant of strategic demands (Gray, 2000:252). The RMA is thus not a military objective in itself, but rather about military ways and means towards strategic ends.

**Cyberwar or strategic information warfare.** Proponents of this school argue that future warfare is ultimately directed at the control of cyberspace - the global information infrastructure. Although a probable strand of future warfare, it is cluttered by much uncertainty such as having some clear conception of responses to expect from opponents being attacked in this way (Gray, 2000:248). It is a quite optimistic view of a bloodless and non-lethal form of future warfare and also part of the economic-information line of thinking about warfare at some future point in time.

**Information led warfare: The radical vision.** How future military forces are organised to do battle need to reflect the crucial importance of information. This perspective raises the question of how best to arrange military ways and means if the central focus and target(s) are in the information domain. The traditional outlook and structure of military forces stand to be dramatically changed in terms of the *status quo* or their preferred futures. Such radical vision of information at all costs does, however, contain its share of risks. It demands major changes to the military *status quo* towards adjusting and facing a new future paradigm on the conduct of war (Gray, 2000:249). This alternative argues for geography and topography to decline dramatically as information dominance and the theatre of future warfare is becoming deterritorialised as it shifts into further abstraction in cyberspace (Moeller, 2002a:8). The locus of the battlefield is thus to shift into some future cyber or semi-cyber domain. In essence this represents a paradigmatic shift in how military futures are viewed.

**Information-led warfare: The digital overlay.** The digital overlay implies that the *status quo* concerning warfare is largely kept intact and no radical changes are introduced. It also acknowledges the sunken costs of existing systems and conservatism and emotional attachments within the military fraternity that are ignored at the risk of painful changes. This school approaches future warfare by way of the middle road as the safest and most probable way to achieve information dominance without rejecting the conventional military outlook. It does, however, contain the inherent risk that the true solution lies at some other end of the spectrum. To adjust and run the gauntlet is to commit errors, but errors to which adjustments are possible. Refrainment is to allow opponents to gain on you and effect defeat because adjustments become impossible (Gray, 2000:250). According To Moeller, this is the least radical version as it views information technologies as force multipliers by means of radically improved intelligence (Moeller, 2002a:7). The digital overlay therefore leans towards a more incremental infusion of dramatic changes into military futures.

**Airpower is the real revolution.** If airpower is gaining full maturity, this is the real RMA. Strategic airpower in its full context, however, remains chained to its long evolutionary path and that its strategic effect and revolutionary clout remains vulnerable to other contenders (Gray,

2000:250). Air power thus remains a theory and at most one of the means to effect dramatic outcomes in future warfare along the RMA pathway. Moeller, nonetheless, contends that the more surgical air power becomes through the information revolution, the more acceptable it is bound to feature. Difficult wars entice military involvement, but demand no collateral damage and casualties amongst own forces in particular (Moeller, 2002a:7). The difficulty of this strand of thought was, however, once again illustrated during the 2003 Second Gulf War when the surgical element of air power failed to materialise in a satisfactory manner.

***Space power is the real innovation.*** The interdependence between information dominance and space power - to dominate space, having platforms in space and protect them - is a major shift in thinking about future warfare. As information grows in its role and dominance, space power grows concomitantly for the latter makes the former possible and untouchable. From the MTR approach space power is the most dramatic view and in combination with information thought and air power has true revolutionary potential if harnessed and integrated correctly. This, however, does not proceed in a vacuum and parallel military-cultural, institutional and doctrinal shifts are imperative as space power is no generally accepted way to conduct future war (Gray, 2000:251). It also challenges traditional military outlooks on land, sea and aerial warfare as it interlinks with the information domain, another new or ambitious military concept.<sup>17</sup>

The above schools of thought represent a theoretical ordering of RMA-thought that brings some sense of order to an admittedly complex field of military theory. It, however, also has to do with politics and grand strategy as well as strategic culture. How decision-makers (or keepers of strategic culture) in different countries conceptualise and pursue these changes and the forces or competition they have to contend with is equally important (Lantis, 2002:106). It ultimately interacts with the evolving theory to have a particular format of the RMA eventually transpiring.

### **4.3 PURSUIT OF THE RMA: AN INTERNATIONAL PERSPECTIVE**

Although the different schools of thought compiled by Biddle and Gray, with some inputs by Moeller, bring some order to an admittedly complex field of theory, it is necessary to also circumscribe how it is perceived and preferred by those states entering its realm. The USA seems to be the most prominent proponent, but other states and even regions have their views as well. In the following section the US, Russian, European Union's and Chinese views are set out. As for the USA and China, the outlooks are relatively structured. For Europe and Russia, it is more difficult to demarcate particular lines of thinking for or against a particular version of the RMA.

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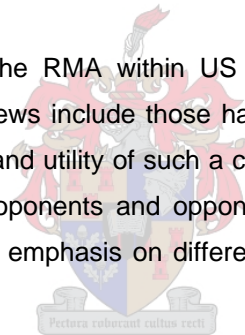
<sup>17</sup> These views of Gray (2000) are Jordaan augmented by that of Metz who posits the importance of robotics, artificial intelligence, nanotechnology, biotechnology, psychotechnology, and nonlethality (Metz, 2000:35-37).

### 4.3.1 The USA: Leading the quest towards RMA-based military futures

Empirically the difficulty of outlining the US quest to master the RMA is embodied in the plethora of information from the literature and opinions on the matter. The US debate even reflects images of a post-RMA debate as observers begin to contemplate what is to follow in the wake of the RMA. Change in the US armed forces is also less tied down by crippling resource constraints and disruptive infighting as found in other cases. This allows the US debate to flow and become quite extensive as it covers a time line of more than 20 years (Owens, 2002:56). This debate is divided into a chronology in order to define its workings and activities. Its beginning is depicted as the period immediately after Vietnam, the middle period commencing at the end of the Cold War and the thermidor phase round about 1998 as the US-debate began to settle. In order to gain some insights into what this debate involves, some US outlooks on the RMA is first presented before moving on to outline particular endeavours to embed it in US military institutions.

#### 4.3.1.1 The RMA debate in the USA

Cohen, a prominent proponent of the RMA within US defence circles outlines different US perspectives on the RMA. These views include those having little doubt about its presence as well as sceptics about the presence and utility of such a concept and its body of thought. These competitive perspectives held by proponents and opponents all point towards harnessing the advantages of the RMA, but with an emphasis on different elements judged to bring about the desired effects.



***The system of systems disciples.*** This outlook propagates the application of information technologies to warfare as the RMA that dwarfs all previous ones, except that of the nuclear revolution. The USA is furthermore the only actor seemingly able to exploit this line of thought within the full range of opportunities (systems). The challenge is to exploit new potential by constructing and interconnecting new or sunrise systems and also integrating it with existing capital stock or so-called sunset systems as termed by Berry in Australian research paper. This constitutes a technocratic outlook on how the future US military needs to be organised for achieving future military superiority (Cohen, 1997:2). Galdi, in a report to the US Congress, structured this system of systems approach by modelling it along the notion of 13 intelligence, surveillance, and reconnaissance systems. These he combined with thirteen command, control, computer applications, communications, and intelligence processing systems to optimise precision force by means of 13 deliverable ordinances. According To Galdi, the acme of skill is to orchestrate the smooth interaction or networking of all these capabilities (Galdi, 1995:7).

***The uncertain revolutionaries.*** This group of defence analysts agrees that revolutionary changes in the conduct of war are at hand, but differs in some way from the system of system disciples. As the maturation of the RMA is judged to culminate at some future point in time, uncertainty remains. The future is not to unfold in the simplistic technocratic way proposed by the system of systems proponents. Institutional barriers to a smooth transition towards some viable information architecture are bound to obstruct such a technocratic futures outlook. For these uncertainties to be addressed the fostering of experimentation and innovation within the US military needs attention; this is to weed out uncertainties and friction from how the future is to unfold and to find the most appropriate models (Cohen, 1997:4).

***The Gulf War veterans.*** Periodic military changes are a given, but those relevant to the future are now taking place or had already taken place. For these veterans the future US military is about the exploitation of sophisticated military technologies by means of highly trained soldiers. The way in which the US military had already dramatically adjusted its personnel and training doctrines as well as the introduction of cutting edge technologies to augment properly recruited and well-trained soldiers had gone a long way to address the future need for sophisticated military forces. It now remains necessary to sustain an appropriate defence budget to uphold these achievements and to consistently modernise. This, according to the Gulf War veterans, is the way to uphold US military superiority in the face of future competitors and challenges (Cohen, 1997:6).

***The sceptics.*** Sceptics opposing the RMA paradigm consider it to be misplaced and dangerous. Historians in this group are not inclined to side with the quick-fix pattern they are observing. Drawing upon previous time frames of revolutionary military changes, they oppose the brief time frames argued or presumed for RMA-type adjustments. Important sceptics, such as Colin Gray and Ralph Peters also do not believe in technology related quick fixes and that the human element can be subordinated as is currently being contemplated. Gray (2005) is particularly sceptic as to the impact of technologies and the RMA and it bringing about dramatic changes and quick solutions to the conduct of war. These sceptics argue that cultivating the warrior spirit amongst the soldiers and not allowing it to be eroded is critical. In addition, keeping up a general readiness for a variety of threats (as the future cannot be predicted) is more important than a sophisticated future military that is only ready to fight within a narrow band of conflicts (Cohen, 1997:8).

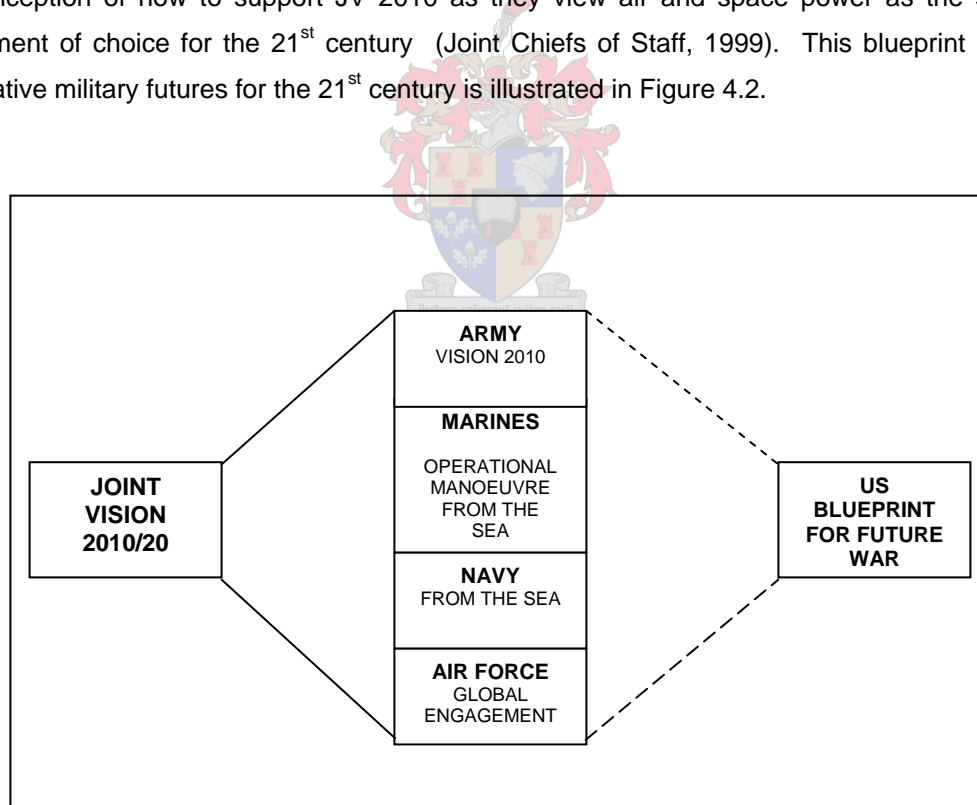
#### 4.3.1.2 Specific RMA efforts: Taking the RMA to US military institutions

The Joint Electronic Library (JEL) of the US Department of Defence dated August 1999 contains electronic documents explaining the US outlook upon future warfare. It includes the notion of the



RMA, but directs attention to the service hierarchy found within the US Armed forces. This structuring represents an important facet of how the general notions of the RMA are perceived and to be integrated into different military service domains of US military forces.

Joint Vision 2010 (JV 2010) (superseded by JV2020 since) outlines how future American forces are judged to fight on land, at sea and in the aerospace environment. It is a template to guide technology, vitality and innovation towards joint operational capabilities of the four Arms of Service through four concepts: Dominant manoeuvre, precision engagement, full dimension protection and focussed logistics. The Army's *Vision 2010* is a conceptual template how army forces, as the land component of the joint war fighting team, will contribute to JV 2010 through new levels of effectiveness by conducting prompt and sustained operations throughout the entire spectrum of crisis. For the Navy and Marines *Operational Manoeuvre from the Sea* is their image of using naval forces at the operational level and focus their effort on the enemy's centre of gravity. For the Navy in particular it is about shifting its focus away from war fighting at sea to power projection from the sea. The Air Force's *Global engagement. Vision for the 21<sup>st</sup> century* is its conception of how to support JV 2010 as they view air and space power as the strategic instrument of choice for the 21<sup>st</sup> century (Joint Chiefs of Staff, 1999). This blueprint outlining alternative military futures for the 21<sup>st</sup> century is illustrated in Figure 4.2.



**Figure 4.2: A US Blueprint for Future War**  
(Source: Own Compilation)

The US military reflects a lively debate to draw upon and adjust to RMA-type futures. It covers the full spectrum of thought from an utter reliance upon hi-tech systems to those preferring a mix to cater for future uncertainty. The latter acknowledges sophisticated technology married to sophisticated human capital as a superior solution. This opposes indulging in the man and his fighting spirit whilst casting a wary eye towards techno-warriors as the way of the future. Irrespective of the context, however, Owens concedes that the RMA is now in a slow-down phase and in order to reap its benefits, some acceleration is necessary to match the rate at which new era and future threats arise (Owens, 2002:60).

### **4.3.2 The Russian dilemma: From RMA theory to practice**

Examining contemporary Russian military change is to also acknowledge the parallel debate on the Russian struggle to modernise its military forces for the future. Bringing about change directed by the idea of the RMA holds the greatest challenge for the Russian military since World War One (Cohen, 1996:1). As to the US having to decide which RMA alternative to pursue and to what extent, the Russian case is vastly more challenging. It is furthermore difficult to identify different schools of thought directing the Russian military and RMA-futures for it rather reflects individual views than that of a collective memory. Individual Russian thinking and not formal schools of thought therefore directs the following discussion.

#### **4.3.2.1 Entering the Russian RMA-debate**

For the Russians to enter the RMA domain is to first create or restructure relevant institutions to foster and maximise RMA ideas that have relevance or utility to future Russian military outlooks. This, in turn, compels Russian military thinkers to develop new visions of future war and design new operational concepts for those futures (Blank, 2000:3). They have most probably mastered the technological side of the RMA in some experimental way, but not that of sophisticated organisational technology to accomplish both the RMA and its military implementation (Blank, 2000:3).

Russian RMA-thinking tends to originate from an extended time line. This is portrayed in the *Evolution of Soviet Operational Art, 1927-1991* (Chapter Five), that points towards the 1960-1964 RMA. During this period operational art tended to shift the then Soviet focus of an RMA from the conventional to the nuclear level of strategy. This also coincided with the Russian operational outlook that changes were increasing the possibility to conduct military missions and to achieve outcomes previously inconceivable. Not only were new military means reckoned to improve combat means as well as the nature and methods of conducting combat operations, but also the operational role and significance of different services (Golovchiner in Orenstein, 1995:287).

From this it appears that a specific RMA conception in Russian military thinking displays a time line dating back to the early Cold War.

The Russian military that survived the collapse of the Soviet Union inherited certain military theories on contemplating its future. As to the late 1980s one particular Russian outlook that straddled the Cold War - post-Cold War was the belief that war was to undergo further revolutionary changes of a post-nuclear type. These changes were considered to eventually foster a dramatic shift in military-technical ideas and views, doctrine as well as military construction (Kipp, 1995:4). As to these changes a number of Russian senior defence members, Ogarkov (former Chief of the General Staff), Gareev (former General of the Army) and Kokoshin (former Deputy Minister of Defence) and a small collection of military theorists form a small nucleus of proponents for a future Russian military with an RMA edge.

These military theorists viewed the RMA and its closeness to military art and science as a new qualitative leap in the development of military affairs. Their views became closely connected with both nuclear as well as conventional weapons - especially the leaps made with respect to modernising and refining the latter (Kipp, 1995:4). The Russian debate on future war became quite extensive, but disintegrated into a myriad of views. This disintegration was sustained by its cognition within the Russian community and economic matters (financial in particular) contributing to the difficulties and making its diffusion and integration close to impossible.

Contemporary military theory about the Russian military and the RMA needs not only to contend with the above inherent difficulties. Future army stability, war prevention, geopolitics, and conflict management in the near abroad further clutters the debate on Russian military futures and the viability of RMA-based change (Kipp, 1995:6). These challenges are not technocratic in kind and neither is their solution. More sophisticated organisational change or transformations to promote more futuristic and modernising ideas are a necessity. These deep and difficult changes are crucial if one views the difficulties facing those wanting to transform and modernise Russian military forces.

- A weak Russia that collapsed as a military power and is now more fragmented than before (Cohen, 1996 1).
- The rise of new states on former Soviet territory of which some are inherently unstable and conflict prone and demanding of immediate Russian military attention (Cohen, 1996:2 ; Garnett, 1996:3).
- The collapse of Russian conventional power allowing for the nuclear option to regain a foothold in Russian strategic thinking. The ineffectiveness of Russian conventional forces is

displayed by events in Chechnya and often cited as a picture of general Russian military degeneration (Cohen, 1996:2).

- Tight financial austerity arrangements on the military preventing reform and modernisation and thus exacerbating existing difficulties. Russian military personnel need to be cut back, but no funding is available for such a program. Maintaining its officer corps and their support and knowledge base is considered crucial, but this seems equally impossible (Garnett, 1996:4 ; Kipp, 1996:14).
- The Russian military became increasingly fragmented between numerous security and quasi-security services and domestic security agencies. Fragmentation and acute infighting within the security establishment and between services are corrupting its management and transformation. This makes its modernisation close to impossible as no single military need is easily identifiable (Kipp, 1996:10, 12-14).
- A budget crisis that has a ripple effect towards training, procurement and deployments and ultimately poor combat performance. This is reflected in unjustifiable Russian casualties in Chechnya. The extent of the Russian decay became glaringly visible when Russian forces were compared to an armed rabble by a most senior Russian general officer, General Lebed, who had to broker a cease-fire and the withdrawal of the Russian forces from Chechnya (Kipp, 1996:11).

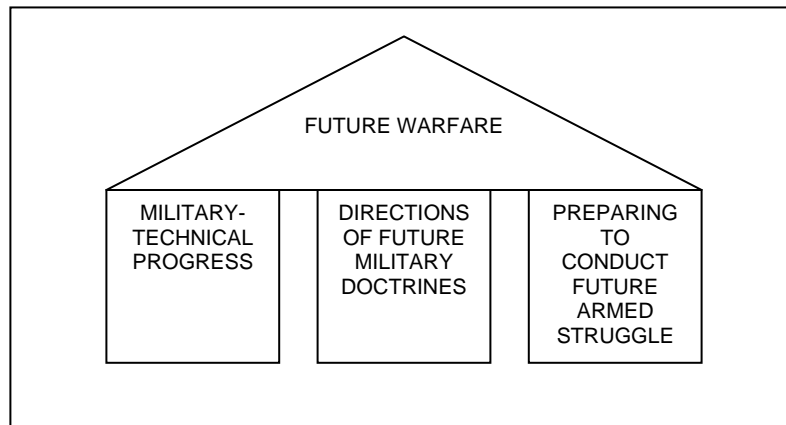
Reforming Russian armed forces is closely related to the issue of war in the future with two important matters coming into play: transforming Russian military forces and that of military reform - a more inclusive process given the scope of security services found in Russia. It is against this backdrop and the difficulties outlined above that substantive Russian thinking about the RMA is forced to take place.

Kokoshin, former deputy defence minister and scholar of military theory, sought to save the high-tech sections of the Russian military-industrial complex and redirect it towards future RMA needs (Kipp, 1995:7). The Russian MTR emphasis is also visible in the Council for Military-Technical Policy created in 1993 by the then Defence Minister Grachev and headed by Kokoshin (Fitzgerald, 1994:178). These views are furthermore underpinned by ideas about force modernisation based on the MTR, although Fitzgerald points out that future Russian ways and means to conduct war are more prone to be brute force than surgical and selective (Fitzgerald, 1997). This implies that the Russian ideas about RMA empowerment are suspect, or that Russia's military is to enter the information domain without any clarity about when such empowerment is to transpire as commented by London of the Hudson Institute (London, 2002). It is doctrinal adaptation and structural adjustments to properly use technology that are prone to remain problematic. The Russian technology base and theories are quite sound, but taking it

further than concepts and the experimental phases remains challenging. According to Fitzgerald, Russian military technology, and the MTR remain central to Russian thought on future warfare. As a first imperative, it does, however, need to be properly revived within the Russian military industrial complex (Kipp, 1995:12-13 , Fitzgerald, 1994:167, 179).

Gareev acknowledges the difficulty of using foresight to demarcate the future and the RMA, but persists that it is the only way to lower future mistakes and offset preparing for the wrong future war (Kipp, 1995:14). The danger is to search for and isolate the single breakthrough technology or the exact type of future war - a matter warned against when using the future or probing it (National Defence University, 2000:2/10). This is a complex matter that also tends to tilt towards the single factor fallacy and distortion of the forecasting process. Gareev also argues for clarifying the possible sources and causes of future wars as they represent the context for the RMA that has to be understood and that the alternative of bloodless war in the future is but one alternative (Kipp, 1995:16).

Gareev builds upon his views on future conflict to advance military-technical progress and its impact upon the nature of future armed conflict. He outlines three domains within which technical, doctrinal and more strategic future military changes are to be either understood and/or effected. This to ensure a viable military policy option for the pursuit of national and international Russian interests (Fitzgerald, 1994:178). This triad of domains for the pursuit of a viable future military pathway is illustrated in Figure 4.3.



**Figure 4.3: A Russian Domain-triad for Future Warfare**  
**(Source: Gareev, 1998:48)**

These three domains identified by Gareev, as the more contemporary factors or fields in need of close attention, are further extended in the three sections below.

### ***Military technical progress***

- Information processes to rise in importance as well as weapons systems with increased efficiency and combat capabilities. Reconnaissance and electronic communications, warfare and automated control systems of troops to become the focus.
- Perfection of precision weapons and their offensive mode of use.
- The strategic triad of submarines, strategic aviation and long-range cruise missiles is to receive special attention.
- Survivability of own weapons platforms and systems through concealment, conventional and electronic fires upon the enemy and increased manoeuvrability and mobility of combat means.
- More sophisticated combat training facilities for combat training purposes to lower training budgets.
- Optimal integration of weapons systems and the means for destruction of the opposition's information space.

(Gareev, 1998:49)

### ***Future directions of military doctrine***

- The non-use of nuclear weapons and if necessary only as a restraint upon the opposition.
- Movement away from open confrontation between individual or groups of belligerents to more co-operative and partnership type approach that is to result in scaling down the imperative to prepare for war.
- Sustaining ready armed forces to operate in one or several local wars within coalition or other groupings if the peace is broken.

(Gareev, 1998:83).

### ***Features of future armed struggle***

- The content of armed actions is to become compressed as simultaneous actions are undertaken at the strategic, operational and tactical levels through the application of long distance fire.

- The influence of nuclear weapons to pursue strategic objectives and pursue a particular outcome is to remain and even increase in importance.
- The spatial scope of battles is to increase as well as that of delivering consecutive and simultaneous destruction upon opponents. Concepts of front and rear are to become eclipsed as even remote bases are liable to come under attack by technically skilled opponents. All bases will be exposed to attack thus diffusing ideas about having a front and rear.
- The imperative to co-ordinate all branches towards their joint application, including new and diverse weapons systems. This is to make future battles extremely complex, but is judged to create new opportunities in their use. This modernity and complexity is to also consider less advanced opponents and their levels of modernisation and its implications of asymmetric confrontations.
- Fire destruction is to receive special attention within the combat triad of fire, strike and manoeuvre. This is to prevent battles of attrition to overcome the opponent and suffer heavy casualties. Battles will be fought three-dimensional with fire and electronic strikes in depth over the enemy with visible fronts having no continuity as strikes are delivered from any horizontal as well as vertical dimension.

(Gareev, 1998:103-104).

As for the RMA, Gareev does not argue for the deconstruction of the Russian land, air, sea and rocket forces, but their adjustments to the RMA realm and to raise strategic non-nuclear forces from new breakthroughs in military technology and operational art (Kipp, 1996:19-20). Neither does he propose radical revolutionary change as continuity in military art at the strategic, operational and tactical levels are quite enduring. The process leading to the future is judged not to progress along radical leaps because of technology leaps as enduring matters will or tend to adapt more slowly (Kipp, 1995:21-22). The direction of the RMA for Russian needs is judged to be as follows:

- Information processes.
- Perfection of high accuracy weapons and their offensive strike potential.
- The offensive triad (land, sea and air) and in particular their mobility, survivability of weapons, personnel and sophisticated training to master complex future operations and sophisticated systems.

- A particular focus to disrupt the opponent without destruction by attacking their information space and communications.

(Kipp, 1995:18).

Arbatov viewed the Russian difficulty of moving its military institutions into the future as the result of it being left to fend for itself within a society undergoing profound change. It had to increasingly formulate its own role amidst insufficient political guidance. Unfortunately attempts to prepare for all possible contingencies and a pattern of crisis management of the military ensued (Kipp, 1999:18). In spite of this, however, the Russian military hierarchy understands the RMA and its potential. They nonetheless realise they need to dedicate disproportionate resources to its pursuit (Fitzgerald, 1997).

Arbatov acknowledges that the lack of military reform caused Russia to fall behind in important military systems currently available to Western powers (Arbatov, 2000:6). Russia is particularly vulnerable to naval strikes with precision-guided systems without having a credible counter or posing a similar threat to the aggressor (Arbatov, 2000:8 ; Gareev, 1998:96-97). This is exacerbated by the Russian defence allocations of 80 per cent to maintenance (personnel in particular) and only 20 per cent to modernising the Russian military - a dilemma similar to that faced by Britain, France and Germany as explained in Chapter Three. This implies that RMA modernisation remains marginal and, in spite of views to the contrary, compels the use of nuclear responses as a fall back option. This impasse emanates from the lack of credible conventional alternatives empowered by RMA-type technologies to act as a future substitute for the nuclear alternative. This void became obvious in the Russian fighting in Chechnya which degenerated into attritional combat operations with high material and personnel losses and no signs of sophisticated ways and means to make the fighting more clinical and promote quick victory (Arbatov, 2000:20). The Russians could thus assess the threat and formulate policy and doctrinal responses at the RMA-level, but have insufficient innovations or a climate for innovation to have it diffuse to their military forces.

Both the *Russian Federation Military Doctrine* (Approved 21 April 2000) (Appendix A to Arbatov, 2000) and *The Russian National Security Concept* as approved 10 January 2000 (Appendix B to Arbatov, 2000) acknowledge the RMA factor in threats and the information domain in particular. This, according to Fitzgerald, relates to two further matters. First, that the West has this advantage and it constitutes a credible military threat to Russia. Secondly, the Russians view the nuclear option as an alternative in the face of this asymmetry they are experiencing. According to Fitzgerald Russia therefore tends to interpret the RMA in terms of their vulnerability and to protect themselves in lieu of their inability to keep in step with the Americans in particular (Fitzgerald



1997). Their policy documents do, however, remain vague about the Russian response to introduce RMA changes into the Russian military. This is perhaps a function of the marginal nature of financial commitments to modernise Russian military forces and a fragmented or disrupted policy-strategy-structure interface in current Russian military affairs.

#### 4.3.2.2 *Quo Vadis* for the Russian military forces?

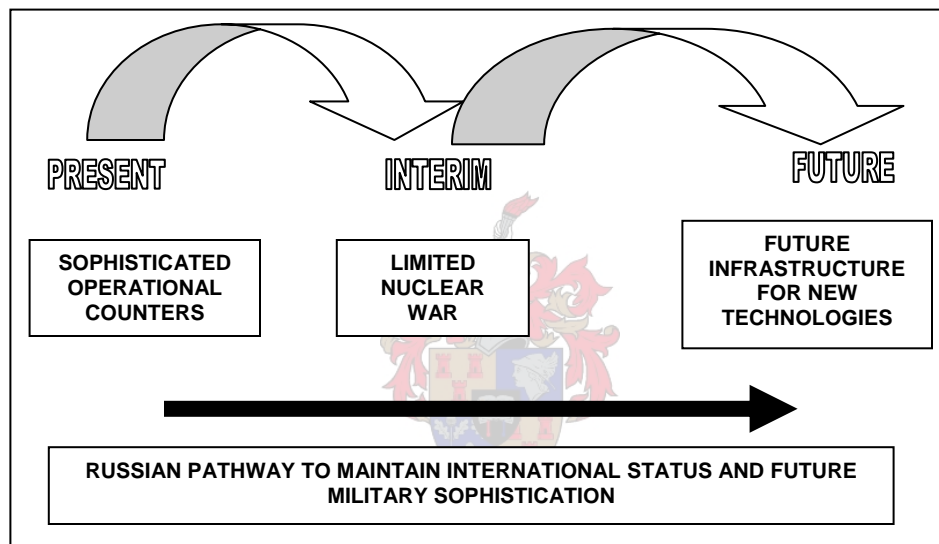
For Russia to master the RMA and its diffusion is fraught with mastering current difficulties. One, it has to exploit the current benign security environment to stop its demodernisation. Two, it needs to maintain its proven ability to think and act upon its ideas of future war by engaging the political leadership that left it in the lurch. This combination is imperative for moving into the RMA domain and should not be surrendered to sectorial factions pursuing their own agendas. Three, the matter of future war, and the RMA gist should once again be fully vested in the Russian General staff to address its current fragmented nature. Although Russia's latest Military Doctrine of 2 November 1993 calls for cutting edge technologies, achieving it remains outside the foreseen Russian capacity at both the nuclear and conventional spheres. However, if the Russian state remains incapable of assuming its responsibility, the Russian military cannot transcend the divide to a big-power military in the absence of solid political, social and economic pillars (Blank, 2000:10 -11 ; Fitzgerald, 1994:177-178).

In spite of the Russian views on future war, sixth generation war and third generation nuclear weapons and their incorporation into the new Russian military doctrine, Russian thinking still only displays a partial or fragmented view of future war and the radical restructuring of their military forces along RMA-lines. The Russian outlook on future war nonetheless reflects a particular outlook or pattern on how to operate in the near and longer term futures. For the longer term the Russian General Staff continues to plan for future war. In spite of limited resources, much of the available defence budget is to be focussed on infrastructure for creating the capacity to expand production in required high-tech domains when required. The Russian outlook continues to tie its international standing to military power and MTR levels and a shorter term goal: to defend Russia with sophisticated counters to immediate threat technologies at the operational level. For the interim phase it depends upon limited nuclear war to create transition space to its longer term outlooks of having a dependable future RMA capacity (Fitzgerald, 1994:179). This can be illustrated as a continuum as depicted in Figure 4.4.

#### 4.3.3 Europe and the RMA: Keeping up with the USA

Although the RMA debate shows a developmental time line in both previous cases, the European debate is somewhat underdeveloped. During an electronic interview with Professor Colin Gray,

author of *Modern Strategy* (2000) on the seemingly low-profile European RMA-debate he concurred that there was no real European debate worth mentioning (Gray, 1999). When approached on his opinion about the matter, Professor Bosch of the Royal Military Academy of the Netherlands concurred with the view that the European debate on future war is somewhat underdeveloped. He commented at the time that it was quite difficult to demarcate the European view on the matter (Bosch, 1999). A further view posits that it is difficult to trace the RMA-debate in Europe as coping with the changes arising from the Eastern block is quite overwhelming and it seems to take precedence over the RMA. This perceived void represents a dilemma and it is thus necessary to trace the RMA-thinking that in actual fact exists in the Western European domain.



**Figure 4.4: A Russian Continuum of Moving towards Future Warfare**  
(Source: Own Compilation)

During June 2000, an *Occasional Paper* of the Institute for Security Studies of the West European Union addressed this issue in more detail. This paper transpired from the Kosovo Campaign and divergent views held by European observers on conducting such future interventions along sophisticated (RMA-type) lines. Although the paper acknowledges the European backlog (as compared to the USA) it also points out the advances made and alternatives contemplated in order not to remain out of step with the RMA (Grant, 2000:2). From this paper it is possible to infer some Eurocentric view on the RMA.

#### 4.3.3.1 Structure of the European debate

The European debate is unique in that it is both a national as well as a regional (Western European Union) debate with the US-factor as an unavoidable consideration. This triad of national - European - US interdependency can be construed as an enduring factor in this ongoing debate. Although prominent RMA strands are visible in the dominant German, French and British defence debates, these strands are also a function of events and decisions flowing from collective European bodies on military matters. European debates do not all argue RMA related futures for the European community. Part of the argumentation, however, maintains that advanced technologies and its use are to be considered applicable to future missions and scenarios demanding European attention (Grant, 2000:3).

An inevitable factor directing the European debate is that of future co-operation with the RMA-type forces of the USA and not to be found wanting when this need transpires. This is one driver of the European debate, but as acknowledged by Grant, not a definite planning contingency for all European partners. All European countries also do not display a clear inclination to redirect their defence policy and doctrine towards RMA capacities and neither do they have vested interests or commitments to kick-start this process (Grant, 2000:12 ; Mey, 1998:316-317). Entering the RMA-domain of precision, integrated information systems for battlefield dominance and command and control or even fighting a future cyber war are at the most a developing debate.

#### 4.3.3.2 Entering the RMA domain in European defence thinking

Certain European countries such as France, Britain, and Germany in particular are, however, addressing the RMA matter. Although seemingly only in terms of the technology required to operate in some sophisticated way, the organisational and doctrinal challenges for them to enter the RMA domain receive attention in defence policies and doctrine. As pointed out by Grant, the RMA is for example addressed in both the 1998 UK *Strategic Defence Review* as well as the French *Model Army 2015* by envisaged adjustments to ready them for future military contingencies. Although less clear, Unterseher points out that an RMA debate did develop in German defence circles. Its focus was to how RMA-thinking can assist in refining thoughts on the dual issues of a traditional military and that of rapid crisis responses (Grant, 2000:12 ; Unterseher, 1999). Therefore, crisis management and intervention, in addition to collective defence matters now feature prominently in key missions of the Bundeswehr (Szabo, 1999:2).

Holger-Mey draws the attention to the importance of mastering the intellectual side of the debate (when resources are scarce) in order to exploit these ideas when opportunities arise. The European drive towards more autonomy in European matters also come into play and implies that

the US and its RMA capacities are possibly to fade as the WEU idea of European Defence and Security Policy grows (van der Ham, 2000:vii, 2). The European partners realise their current inability to confidently plug into RMA capacities of future operations when the US participates. This in turn compels European countries to seriously consider the RMA and its meaning for future European military matters as all realise that it is to persist into the future. This outlook is particularly clear in a transcription of the address by the NATO Secretary General to the Brookings Institution on NATO transformation dated 22 October 2002. He clearly emphasised the Europe-US bond and moral coalition to have a sophisticated standing military capability at hand to face future contingencies (Robertson, 2002:5-6, 8).

European thinking about integrating the RMA into its military establishments is not very prominent. Although Unterseher (1999) in his analysis of the defence policies of Germany, France, and the United Kingdom identifies the RMA imperative in their defence outlooks, it is not generally portrayed in European thinking. Laird and Mey (1999:1-6) aver that military issues are not a European priority to be considered by them. They have to compete with several challenges of which Europeanisation is but one major issue. National and regional ideas about the matter therefore do not automatically fuse or integrate. RMA-type technologies and systems are, however, visible in the capabilities and weapons systems projected and acquired by European countries as set out by Grant (2000:13) and Robertson (2002:8). Robertson, for example, emphasises US assistance to Europe to master the technology gap that is obstructing European efforts. It is nonetheless the low-key debate about the diffusion and integration of RMA innovations that is problematic and tends to be eclipsed by non-military considerations.

One reason why the debate appears marginal is the limited defence resources in spite of European technological proficiency in certain sectors. Europe had to redirect its military organisations and culture away from the East European Cold War threat to new European and adjacent military contingencies. In this regard the Germans had to bear a particularly heavy burden in order to shift and adjust at both the conceptual and structural levels of using and integrating the military policy instrument (Szabo, 1999:2). To simultaneously furnish German military forces with RMA capabilities implies an intricate and abhorrently expensive undertaking (Grant, 2000:15).

An RMA military future is also not the dominant view held by European decision-makers. Their set priorities of force transformation and force projection to conflict zones do not ultimately depend upon RMA-type forces. This is rolled over to the NATO Defence Capabilities Initiative of 1998 that, in turn, implies a degree of US dependency as pointed out by Robertson. The only prominent RMA domain that is to receive special and continuous attention by the Europeans is

that of command, control and communications and the information artefacts and doctrine to properly exploit it (Grant, 2000:15). Traditional as well as future less traditional (or peace-type St Petersburg missions) operations and organisational arrangements are bound to be much dependent upon high levels of battle space information and accordingly this particular emphasis (Grant, 2000:17). European thoughts on this matter, nonetheless, need to be balanced as they risk underscoring on RMA capacities and therefore the following matters need to be considered.

#### 4.3.3.3 European options for RMA capacities

To be a mirror image of US forces in future is unnecessary and given the European limitations in resources and primarily a regional player, just about impossible. European decision-makers, however, acknowledge that they need forces for US-led as well as less sophisticated own (European) missions. Allowing for less sophisticated forces is to detract from co-operation with the Americans in future operations or to partake in those missions, but be more vulnerable in such low-tech missions that are more dangerous and casualty prone. Less sophisticated military forces furthermore point to either less European participation or their restriction to particular tasks in future military missions calling for RMA-type forces. In the face of risking to be overwhelmed by innovations and diffusions of RMA-tied technologies and practices, the co-operative potential and niche capabilities are not to be underestimated (Grant, 2000:20). In this regard, Mey (1998:316) points out the importance of keeping alive the intellectual debate on future war and RMA-type capabilities, in the face of restricted resources to implement the artefacts and the parallel changes it requires.



The RMA debate in Europe is increasingly characterised by a number of more recent developments. Although much of the debate is about whether Europe can keep in step with US means of conducting RMA-type operations, European countries also progressed in putting organisational structures in place to take care of such future contingencies. With a focus on the European region they are working on rapidly deployable expeditionary forces to act as a military backbone to future European military diplomacy (van Ham, 2000:2-3). This door was opened during the St Malo meeting of 1998 that became the watershed for the Europeanisation of defence in a future Europe (van Ham, 2000:5-6). In conjunction with the diplomatic pathway towards a European hold on defence outside the US-NATO paradigm, the European initiative also noted the imperative to develop its own sophisticated means to back up their politico-strategic outlook. In this way, they could limit their utter dependence upon US capabilities by assuming more responsibility for their own defence (van Ham, 2000:8).

More independence implies credible European military forces to back up autonomous European expeditions. This outlook is supported by pan-European defence mergers as European

producers of sophisticated military technologies and military systems merged to form huge conglomerates capable of producing the very RMA-type systems required by the new European outlook (van Ham, 2000:24 ; Mathiopoulos and Gyarmati, 1999:68). European countries began to create a European bedrock for RMA technologies to face future threats. Together with the French and UK's quite sophisticated and forward-looking defence strategies and doctrines, it represents a cradle of future European RMA-capacities.

The Swedish outlook on the RMA complements the Europeanisation of the matter. The Swedes intend focussing on network-centric forces, uninterrupted information flows, integration of new systems towards network type organisations and on appropriately skilled personnel to staff their future military structures (Swedish Ministry of Defence, 2000, 1-2). Mey, however, points out that German military-strategic thought is not as developed and forward-looking as it should be. What is present, however, is a conception of the technological imperative and that future European military operations demand from German military forces to be modern and technologically up to date. It is an imperative for Germany to be able to co-operate with the US and fellow European partners and not be found in disequilibrium (Mathiopoulos and Gyarmati, 1999:68 ; Mey, 1998:316).

These optimistic developments are not without danger as the European outlook carries the risk of decoupling itself from the US-transatlantic commitments (NATO Press Communiqué, 1999:2-3). Having the Europeanisation of the military option to fail and the US RMA cushion removed as well, represent a high-risk future scenario for Europe. It was and still is in the interest of the European community to uphold the US link through NATO (van Ham, 2000:32). The European debate on the RMA is therefore taking place on three levels. At the national level where governments and defence institutions need to transform their military institutions and defence industries to deal with new future contingencies. Regional, between European partners to present an all European military capacity for European military interventions and at a third level, between Europe and the USA in order not to estrange the latter whilst Europe's RMA home is not yet in place. To cope with European military futures entry into the RMA domain is required. This implies that these matters need to be pursued in conjunction with very difficult and even out of phase options facing European decision-makers: Increased defence spending, moving to volunteer forces for long-distance operations, overcoming vested political and military interests in maintaining the *status quo* and the military integration of Europe alongside a US-sphere of dependence (Mathiopoulos and Gyarmati, 1999:75-76).

Unlike the Russian RMA dilemma, the Europeans have several options concerning their future military modernisation. They have a moderate domestic capacity or can rely on the growing US

RMA-capacity to assist in addressing matters of strategic lift, sustaining their forces in a theatre, their protection and the necessary command and control and information capacities they might need (Mathiopoulos and Gyarmati, 1999:73). The Europeans furthermore have the option to share the RMA-burden. This can materialise along lines of those partners capable of pursuing RMA-capacities doing so, whilst others outside or peripheral to this fold make up the mix of less sophisticated military means in the European Union's military capacity building for future conflict contingencies (Grant, 2000:18-19). For the AEU, the RMA is thus an option - whether in its Europeanisation or pursued through their US ally and its established RMA capacities - as it is an acknowledged future military matter in need of close attention.

#### **4.3.4 The People's Republic of China (PRC) and the RMA: Going it alone?**

Aside from the US, the PRC is one of the most vocal and dedicated proponents of moving its military forces into the RMA domain. According to Hawkins, (2000:1) Chinese military analysts, as opposed to traditionalist thinking in the People's Liberation Army (PLA), have also been keeping themselves busy with future high-tech war. One school of thought opposing the traditionalists and People's War proponents is that of the military revolutionists. This school posits that China now has to harness the inherent benefits emanating from the RMA and its technological aspects in particular. In China the debate is characterised by the RMA school having to compete with those opposing it, rather than alternative views of the RMA itself being offered. The scope of RMA attention is also reflected in five books and numerous articles by Chinese theorists that appeared during 1997 (Pillsbury, 2000:160). It is thus a visible theme in Chinese military thought.

##### **4.3.4.1 Chinese dilemmas and RMA-thinking**

The Chinese are faced with dilemmas of scope in order to bring about the required changes. For the purpose of this discussion, it is yet more important to note their advances and the level of the RMA debate in the PLA and peripheral research at academic institutions. In a paper presented at the Australian RMA conference during 2000 in Canberra, Ji asserts that the RMA became a primary challenge to Chinese economic and military development as the states most active in pursuing the RMA, are in actual fact China's direct or potential future opponents (Ji, 2000:1). This perception of RMA empowered future competitors is a primary accelerator for the Chinese preoccupation with the RMA. How the PLA is to exploit the RMA is not the sole issue, but also how it threatens the PRC and thus the credibility of China's deterrence. It is also obvious from Ji's paper (2000:1) that China invariably views the RMA in terms of big power politics and a future clash or showdown with an RMA-empowered opponent.

Chinese RMA-thinking is characterised by a deep and broad intellectual debate. According to Pillsbury, (2000:145) about 50 military officers now involve themselves with publishing about future war and the RMA whilst institutions such as the secretive Academy of Military Science (Pillsbury, 2000:188-189) dedicate their efforts to its study and advice to decision-makers. As Chinese defence decision-makers are aware of their potential inferiority as to this specific capability, they inadvertently adhere to the argument by Mey (as to the European debate) that in the absence of sufficient resources it makes good sense to master and get ahead in the conceptual debate. It is therefore visible from the literature by Pillsbury in particular, that RMA-thinking in the PRC is underpinned by a debate that is directed towards understanding and even Sinifying the RMA. As Ji (2000:4) states "[the RMA] *propels the military to make theoretical breakthroughs to accommodate these new developments in technology and combat operations.*"

#### 4.3.4.2 Particular Chinese views

Chinese outlooks portray a notion that the USA does not hold a monopoly on the future direction of RMA developments and exploiting it in future is also not linked to access to the largest defence budget. The US military is judged not to have the incentive to innovate radically whilst all nations have access to information technologies that are reckoned to become indispensable in the pursuit of RMA capabilities. Some developing nations also began to participate in the RMA competition that further intrudes upon the idea of exclusivity (Pillsbury, 2000:9), although this particular matter is addressed towards the end of this chapter.

From the PRC outlook, advanced technology is to remain important and an MTR is in process (Pillsbury, 2000:9). Information is to shift to centre stage in the conduct of war as well as its instruments by making them more intelligent to match the emphasis on information (Pillsbury, 2000:10, 89). Air power is viewed as the RMA-trigger and the way to conduct the type of future operations that is to be executed. Information warfare is acknowledged as a dominant way of future war and crucial for the future modernisation of China's military forces (Pillsbury, 2000:13-14). The computer, it is acknowledged, is the key to war in the 21<sup>st</sup> century and as information forces are foreseen by 2040, the Chinese judge information as a future theatre of war. Future war, in terms of the RMA, is also judged to be a war of concepts. This raises the imperative to master and order the future domain and new possibilities by first thinking through and constructing the appropriate concepts (Pillsbury, 2000:14). Considering the Chinese point of view, an elaborate investment in the intellectual mastering of the RMA debate is alive and well in the PLA.

Illustrative of the vibrant Chinese RMA debate the following scope of matters form some image of the Chinese effort to master the debate before claiming to have innovations and its diffusion bring



about an RMA structured and combat ready Chinese military. The analysis by Pillsbury (1997) of Chinese thinking about the RMA: Part Four (Revolution in Military Affairs) of the publication, *Chinese views of future Warfare* contains 89 pages of detail on Chinese RMA views. Although an analysis of literature, its focus is on the RMA and it covers a substantial field:

- Weapons of the 21<sup>st</sup> century.
- 21<sup>st</sup> Century naval warfare and the military revolution in naval warfare.
- 21<sup>st</sup> Century air warfare and the military revolution in air power.
- 21<sup>st</sup> Century land operations.
- Information warfare.
- Future trends of modern operations.
- Future trends in stealth weapons.
- Developing concepts and tactical studies.
- The third military revolution.
- Military conflicts in the new era.
- Nanotechnology weapons on future battlefields.

The Chinese debate on the RMA is intellectually perhaps further developed than that of any future competitor. It not only views its offensive character and features, but the defensive side as well. The PRC debate acknowledges the lack of resources to master both the intellectual as well as structural demands for implementation of RMA-thinking and to effect this concerning opponents and own ideas about future warfare. There was, however, a vigorous debate to master the conceptual issues of RMA to speed up or facilitate the transition to a military future that is characterised or directed by information age military ways and means.

#### 4.3.4.3 A Chinese policy framework on the RMA

Recognising the tumultuous changes implied the Chinese Central Military Commission put forward the following policy framework on the Chinese Military Revolution. Chinese military forces must be prepared to win local wars under high-tech conditions. Such wars may even be information based with no real or recognisable combatants (Pillsbury, 2000:83). Future war within the RMA context also asks for considering intangibles entangled in calculation capability, volume of telecommunications, reliability of information and a real-time reconnaissance ability to judge the future. Numbers and hardware only represent one dimension and it is insufficient to focus on tangible hardware and systems instead of software and elevate the present to the detriment of the future. Future war is to take place along RMA lines and what needs to be done is to shift Chinese military structures accordingly (Pillsbury, 2000: 82-83).

Restructuring the PLA, Haiyuan (in Butler *et al.*, 1998:3) comments, calls for the PLA to pursue the RMA pathway in a two-pronged manner. The first is to downsize the Chinese military towards a smaller higher quality organisation and secondly to fuse it with the 21<sup>st</sup> century era of high technology research and applications. This assumption is underpinned by the notion that the RMA is to impact in the following manner:

- Operations space: Integrated fighting space of land, sea, sky and space.
- Military strength: Joint and multiple (combined?) fighting by multiple services.
- Command style: Information and horizontal integration.
- Operations style: Information war, long-range precision strike in whole depth.
- Operations effects: Paralysed operations and information superiority.

(Butler *et al.*, 1998:4)

From the above it becomes apparent that the RMA is viewed as a pathway or vehicle for Chinese forces to move towards the future and, in particular, the information domain. They therefore pay close attention to the information sector in order to address information weapons, the information battlefield and information force. Information weapons refer to precision guided weapons as well as software. The information field is the electromagnetic frequency spectrum whilst information force is the new structure of network-type organisations to fight future wars (Butler *et al.*, 1998:6).

#### 4.3.4.4 Chinese risk factors and options

Their inability to be competitive in instituting the evolving RMA-thinking signifies to Chinese decision-makers the risk of future defeat. They have therefore put in place a definite vision of entering the future RMA domain. Although RMA-thinking only represents one school of thought, it is apparently the one most forward looking of the competing views as addressed at the beginning of this section on Chinese views on future war. The Chinese are deeply involved in first mastering the intellectual debate by studying the RMA amongst their potential future competitors as well as its Sinification to harness it when deemed appropriate. They also isolate cardinal information matters to access the RMA and its importance in future conflict. According to Gill and Henly, Part Five (1996:2) the emerging RMA in the PRC tends to lean towards two sectors. The tools of war implying technologies and that of behaviour implying changes in organisations and thinking that are deemed the most critical aspect of the Chinese RMA movement. What transpires in these two sectors is to indicate the Chinese pathway to fighting future wars.

Chinese decision-makers face the daunting task of moving the largest and perhaps most stratified society from the agricultural, industrial and early technological periods towards and into the information domain. Even if only attempted in a partial manner, the scope of this shift is enormous. The first step of mastering the intellectual debate is finished and the Chinese military is perhaps intellectually ready and understanding of stepping into the sophisticated and information realm of military futures. They do, however, need to compete with the traditionalists and simultaneously confront the cultural and resource constraints on doing so. At most, the Chinese are intellectually ahead in the RMA debate. They are, however, still desperately lagging in its diffusion and absorption into the Chinese military to claim information or even RMA based Chinese military organisational structures and capacities. It is furthermore not only Chinese military culture that has to be overcome, but Chinese cultural structures of modernisation versus traditionalism as well.

#### **4.4 THE DEBATE OUTSIDE THE WEST: DEVELOPING COUNTRIES AND THE RMA**

It is not only Western or those actors aspiring to big power status that need to or are contemplating matters of future warfare and the RMA as a dominant strand of a future military posture. Developing countries are also increasingly entering this debate as is portrayed in contemporary RMA literature. This shift becomes visible in the emergent views concerning the RMA, as it is increasingly debated by Asian countries, Middle Eastern states and to a lesser extent, even in Africa. The debate is quite recent, underdeveloped and in need of further scrutiny. In the following section, certain features are outlined that tend to characterise the debate before introducing a number of views concerning the RMA and the developing community of states.

##### **4.4.1 The RMA in the Developing World: A quest for theory and understanding**

In Chapter Three it was concluded that it is wrong to presume that military innovations automatically diffuse to other actors. It was furthermore argued that certain preconditions determine whether innovations that do diffuse are liable to be integrated into systems of the host. For developing countries to pursue the RMA hold risks and in particular if its sophisticated format is viewed as a quick fix for their military difficulties. These risks and difficulties require from developing actors a balanced outlook upon the RMA debate, as there is no single RMA-solution or silver bullet as a cure all. Different threats to and requirements by developing countries are to stimulate a need for elements of the technological, organisational and conceptual triad that underpins RMA-thinking (Sherman, 1999: 18).

Developed countries are inclined to view the developing world as the future theatre of war where admixtures of military forces will clash or developed actors might become drawn into some future conflict they might prefer to avoid. Such outlooks by developed countries tend to border on military colonialism towards the less developed world for it assumes them to merely subject to it. However, these very actors upon whose territories future conflicts are judged to manifest should not be viewed as mere bystanders or victims. Their views on important military matters such as the RMA are admittedly vague and not unlike the West, even somewhat skewed. Certain developing actors nonetheless pursue the debate in some manner whilst others prefer some elements or islands of future military sophistication.

#### **4.4.2 What developing countries should know about the RMA debate**

In spite of the technological emphasis by certain RMA-proponents, decision-makers in developing countries should note that it is not only about gaining access to modern technologies. Failing to absorb and integrate emerging technologies or becoming overwhelmed by its glamour holds the potential for devastating consequences and strategic failure. Both Iraq and Libya are prominent examples of developing countries that gained access to new technologies, but were unable to exploit it properly. The same is perhaps to be said of North Korea with their pursuit of military sophistication probably ties into the famine and poor socio-economic conditions of that country (Buzan, 1991:242, 286). Technology fallacies are not only about the inability to absorb and integrate, but also of not understanding or an incapacity to uphold the full spectrum of military changes necessary to gain the desired outcomes. Biddle and Zirkle (1996) present compelling arguments on this matter as to why certain developing countries master new technologies and systems integration and others fail. It is, however, necessary to first address some theoretical perspectives on RMA-thinking and developing countries before returning to the research findings of Biddle and Zirkle.

According to Hasim (1998:5) the outcome of the 1991 Gulf War impressed upon many countries the challenges and their inability to shift towards high-tech militaries to exploit some sectors of the RMA. Hasim (1998:1) also points out some fundamental and challenging policy questions that developing countries have to consider.

- Do they have the technology infrastructure and financial resources to dedicate to developing high-tech military forces?
- Do their military forces have the flexibility to revamp their organisations, military culture, and doctrines to allow exploitation of RMA-thinking?
- What alternatives to the RMA do developing countries have?

In addition to the above that rather reflects matters of defence policy, Metz (2000) infuses some detail by outlining the deeper implications of concepts used to master future warfare along RMA-type developments. These are particular challenges to be considered by decision-makers of developing countries when contemplating the utility of RMA-type changes to move their military forces into the future.

Metz posits that in spite of the progress supposed by the RMA, war is to remain subject to dangerous relationships between passion, hatred, reason chance, and probability. This is so much the more applicable to the types of conflicts expected in the developing world whilst RMA-ways and means are not sweep this from the future strategic landscape (Metz, 2000:80-81). These are difficulties, according to Gray, (2000) that are unlikely to change in the near future. It furthermore augments uncertainty for entering the RMA domain is to also enter that of second order and mostly unforeseen effects concerning one's own military establishments (Metz, 2000:100). Difficulties of this kind apply to developing countries in particular where military balances and threat perceptions are more fragile or vulnerable to changes in military ways and means and thus hold potentially deep effects for this tier of states.

#### **4.4.3 Particular RMA complexities facing developing countries**

Speed of decision-making and reaction is a defining element of the RMA and crucial for gaining an advantage over opponents. Speed is to emanate from information technologies and its use for maximising own advantages and minimising those of opponents by reacting first to opportunities (Metz, 2000:81-82). Following in its wake is faster decision-making about future military conflict situations; a matter not all that simple in many developing countries with their complex security challenges and misuse of military coercion as found in Africa for example (Metz, 2000a:6). At the meta-level speed is even more fundamental. It is about rapid organisational and conceptual adaptation to new threats that defy existing paradigms. Countries need to develop strategic entrepreneurship to adjust to new threat/conflict environments and this calls for a true military futures outlook (Metz, 2000:84).

Although precision is prone to be understood in terms of weapons technology and perhaps tactics, Metz adds a further important dimension for developing countries. Precision has multiple facets and needs a broader understanding. In addition to physical precision, psychological precision is equally important (Metz, 2000:86). War is a psychological struggle as well and to be successful, psychological precision should complement physical precision for developing countries do not always have recourse to the latter. As the use of the military option becomes increasingly questioned, psychological precision is to increasingly feature alongside decisions

about military operations. It remains to be seen if developing countries are exempted of this imposition.

Strategic precision is a third dimension. This entails to structure or compose and prepare military institutions to accurately reflect a country's strategic situation: strategic culture, level of technological development, threats etc. Determining strategic thresholds - what types of military responses are possible and ethically acceptable - form part of strategic precision (Metz, 2000:88-89). Strategic precision is a crucial contemporary issue as military forces and their functional relevance and moral justification are under growing pressure. This is prominent in present day South Africa and the ongoing transformation of its military forces to defend South Africa and simultaneously contribute to the African continent's security in its widest sense. Strategic precision is encapsulated in the South African view expressed as "*Our security forces have to contribute to democracy, peace and stability on our continent as a whole.*" (Department of Defence, 2001:2-12).

Reorganising operational concepts and organisations are judged to underpin successful future militaries. This applies to developing countries as well. Human capital, private-military blending, hierarchy-network competition, arms of service *versus* conflict specialisation and new services for new futures all enter the organisational and operational concept scene (Metz, 2000:91 - 93). In essence the question is posed whether existing paradigms are compatible with new threat environments and changes in the strategic environment. Failing to master this transformation towards a future military need is to risk defeat through irrelevance. For developing countries it implies difficult decisions as to whether they should enter this debate, only partially or ignore it.

To effect deep changes as implied by the RMA entails operating within a supporting pattern of civil-military relations. According to Metz (2000:94) countries contemplating the RMA will be forced to examine and adjust its relationship with civil society. For the future it implies balancing the drive for military sophistication and efficiency with civil outlooks upon the military. Adjusting the relationship is furthermore to be challenged by the types of future conflicts or roles military forces will have to assume and their sanctioning by civil society. This is important at both the civil decision-making level about the military as well as the psychological level concerning the image of the military held by society. Patterns of civil-military relations, according to Biddle and Zirkle (1996) also determine the mobility of military forces to adjust and reorganise according to new concepts, new roles and skills and thus the dynamics or stasis reflected in its thinking and operations.

#### 4.4.4 RMA-thinking and its pursuit in developing countries<sup>18</sup>

The above theoretical perspectives represent an outlook upon certain challenges that decision-makers wishing to contemplate RMA-capabilities need to keep in mind. In the following section an overview of matters that developing countries need to face are set out to indicate challenges and even the inappropriateness for some to follow the RMA alternative.

Being wired or information conscious is one aspect facilitating a pursuit of the RMA. According to Demchak (2000:1) the increased diffusion of information technologies to developing countries is a cause for optimism as their share of using the internet rose from 11 per cent to 33 per cent over the period 1995-1998. This rise implies a growing capacity to understand and use information and networked systems. Inter alia such networking also promotes its eventual diffusion to the military realm. Access to information technologies is also becoming cheaper and more readily accessible by military institutions and accordingly their determination to modernise along electronic lines as well (Demchak, 2000:2).

In a survey by Demchak (2000:5) of countries planning modernisation, 68 countries were identified as being developing countries aspiring towards having smaller more sophisticated and information intensive future militaries. Such modernisation became the presumed key to both effectiveness as well as prestige amongst some developing countries. This is portrayed and argued by Cordesman concerning the flow of modern arms to the Middle East and Persian Gulf States in particular (Cordesman, 1999:1). This outlook and its pursuit take place amidst no real sophisticated threats as well as pressing economic problems for some (Demchak, 2000:6). Competition in keeping up with neighbouring actors plays a role as well. However, the institutional challenges of such shifts for developing countries display critical parameters. Modern weapons systems and the information domain are not exclusively military and not dependent upon military support only. The civil-military intermix implies access and durability, but raises further needs in order to remain effective or competitive (Demchak, 2000:8) as such new capabilities are only valid as long as the new owners are able to sustain and use them in a proper manner.

Partial entry into the RMA-realm is to render benefits as well as difficulties. Benefits can be disproportionate to the actual investment or entry level achieved. Long reach and disruptive potential contained in a moderately effective implementation and mastering of RMA, capabilities need to be noted. It remains marginal for developing countries to achieve these capabilities over the general spectrum of its military forces, but the potentially disproportionate benefit to deter

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<sup>18</sup> See Vreÿ, 2001, Military futures of developing countries: Images of alternative futures for the South African Military,

attracts developing countries towards obtaining a selective RMA capacity (Demchak, 2000:8). It is, however, bound to promote undue threat perceptions within neighbouring countries.

According to an assessment by Cordesman (1999) threat perceptions do play a role. In countries of the Persian Gulf this factor operates in two ways. First, the perception of countries like Iran and Iraq of the USA and its RMA-capabilities drove their military procurement to some extent. Subsequent to this smaller Gulf States purchase major weapons systems in order not to be left out in the cold. According to Cordesman (1999:50) this cycle is not so much about harnessing the RMA, but rather offsetting an opponent that has entered its domain. Acquiring modern systems does not automatically imply the ability to use them in an integrated and collective manner or in dramatic new ways as demonstrated by the 1991 Second Gulf War. Gulf States are not effecting revolutionary shifts in their military organisations and doctrines in spite of the high glitter factor in their arms purchases. At the most it will imply tactical improvements or a tactical RMA (Cordesman, 1999:50-51).

The extent to which a developing country manages to master military modernisation along RMA lines (if only partially) also raises certain difficulties. Electronic and information type modernisation increases capabilities disproportionately as to larger and stronger adversaries. Raising its information capacity can also be less costly to the new entrants making it a lucrative option to such actors. It furthermore extends strategic reach and creates vulnerabilities in opponents that were previously inconceivable. Such reach holds the attraction of coercing your opponent whilst remaining out of his reach and not becoming involved in an attritional style military conflict. This threat is multiplied for those not able to make the transition towards exploiting some elements of the RMA (Vreÿ, 2001:42, 46 ; Demchak, 2000:5).

#### **4.4.5 Some hard realities for RMA pursuits by developing countries**

Counter to the above optimistic view of developing countries and the diffusion of RMA-type capabilities, some theorists present a more pessimistic outlook. These difficulties point to the dictates of realities - what is theoretically desirable, but ultimately affordable and therefore probable.

Hasim puts forward a very pessimistic opinion on the presumed ability of developing countries to master the RMA or elements thereof as they lack certain competencies. Developing countries, for example, do not have the scientific and technological base to produce major weapons systems - high-technology systems in particular. Neither do they have the high-technology information industries to produce RMA-type information technologies (Hasim, 1998:5).



Countries outside the developed sphere are also judged not to have the financial resources and human capital to construct the desired infrastructures. They are furthermore not accomplished in waging war in a joint and integrated manner. Their systemic inability to use air and naval forces effectively and in conjunction with land forces results from a poor culture of inter-service co-operation and co-ordination. Operating in a joint manner demands the very organisational flexibility and decentralisation presumed for RMA-type militaries, but found wanting in the military forces of most developing countries (Hasim, 1998:6).

It is possible as well that some countries will remain ignorant about the RMA for they do not rate it as important to their future security. If not exploited by its neighbours or potential foes it also remains optional to pursue this new line of thinking. Furthermore, the asymmetric option, as a burgeoning parallel debate to the RMA, becomes a viable option to oppose those actors and potential foes immersed in the pursuit of RMA capabilities (Hasim, 1998:6). Potential victims of the RMA are therefore prone to turn to the asymmetric option to counterbalance their inability to compete with or offset RMA opponents. Another option - like in the case of South Africa, is to redirect policies and military posture away from any future conflict where it is to face such war fighting type challenges as the latter is deemed an unaffordable luxury.

Biddle and Zirkle (1996) argue a strong case for the disruptive impact of improper civil-military relations upon mastering military complexities. Disturbing patterns of civil-military relations in developing countries are prone to erode the military's ability to acquire the skills and expertise to integrate and operate advanced systems (Biddle and Zirkle, 1996:199). This includes integrating supporting systems and creating an officer's corps that can operate expert-like in an advanced and complex military environment. Denying foreign contact for political expediency is a further impediment for the expertise to operate acquired military systems, nowadays lies with the foreign party. Modernising militaries also need to optimise their combat power. Technology and organisational readiness are crucial to this in terms of being able to operate and maintain it, as well as organisational adjustment to its needs. If this symbiotic relationship is disrupted by political interference, the coherence between organisational readiness and modern technology becomes unravelled (Biddle and Zirkle, 1996:173-174).

Case studies by Biddle and Zirkle on Iraq and the former North Vietnam substantiates the above views. The more harmonious interaction between Vietnamese civil-military parties as opposed to that of contemporary Iraq led to different outcomes in spite of neither having general access to technologically skilled human capital. These differences can be reconfigured and illustrated from the comparison done by Biddle and Zirkle as illustrated in Table 4.2.

As both Iraq as well as North Vietnam had access to quite similar human capital it is tenable to argue that disrupting or facilitating balanced civil-military relations played some discernible role. From the comparison done in Table 4.2 it appears that of the five factors used by Biddle and Zirkle, Iraqi civil-military relations score an unqualified high negative on all seven factors. Opposed to this the North Vietnamese score of a low negative on two and positive on the remaining five. Judging that the Vietnamese achieved most success in mastering complex technologies it is possible to argue for civil military relations being an important variable concerning the complexities of future warfare. For those aspiring towards mastering complex, integrative and technology driven militaries of the future, civil-military relations are to become an important facilitating condition. As in the case illustrated above this applies equally to developing countries.

**Table 4.2: Differential Patterns of Civil-Military Relations followed by Iraq and North Vietnam**

Civil-military factor	Iraq	North Vietnam
Purges and executions.	Yes, frequent purges.	Yes, but infrequently.
Politicisation of promotion.	Yes, heavily.	No, only marginally.
Political surveillance.	Yes, heavily.	Yes, but less of a military focus.
Absence of military influence at highest levels of political decision-making.	Yes, exclusive for Ba'th party members.	No, close political-military integration.
Inhibition of military initiative.	Yes	No, lateral communications and exchanges possible.
Multiple lines of command.	Yes	No, a single chain of command.
Politicisation of training.	Yes	No, professionalism and foreign exposure promoted.

(Source: Own Compilation from Biddle and Zirkle, 1996)

#### 4.4.6 India: Integrating the RMA into a second tier military

Although Sherman (1999:20) avers that nations developing RMA forces are those that require them, it is not very simple for developing countries. Even a leading Third World country like India is considering entering the RMA domain, but struggles with dire problems in this pursuit. Although attempting to enter those areas within which it is judged to have a comparative advantage, other pressing factors come into play as well (Sherman, 1999:20).

The Indian RMA debate has some conceptual underpinnings for it is also pursued from an academic level through research at the New Delhi based Institute for Defence Studies and Analysis. This is observable in the paper on *The Revolution in Military Affairs. Fourth dimensional warfare* that expands upon micro-revolutions, decision-making, time and space and fourth dimension warfare from an Indian perspective (Singh, 1998). The practical side of this debate is, however, more difficult in spite of Blank (2005:18) arguing that the Indian outlooks upon future war now parallels that of the United States.

In a study on India and the RMA Mahnken and Hoyt (2000) isolate current difficulties faced by India. There is a hierarchy of threats competing for attention and resources: from insurgency in Kashmir to facing the Chinese over the Tibet border. Each is challenging the allocation of resources with no single pressing threat driving force modernisation and stimulating RMA-thinking within the Indian military (Mahnken and Hoyt, 2000:68). These threats force Indian decision-makers to divide their attention to pursue either a manpower intensive force for domestic security or that of a modern technology based future military for regional and global contingencies (Mahnken and Hoyt, 2000:70). It is fair to presume that the latter, rather than the former alternative is more demanding of an RMA futures outlook.

Indian strategic culture is not fully directed towards a pursuit of the RMA as it still lacks the will, resource allocation and institutional capacity to pursue an RMA based military. Proponents of a paradigm reflecting a robust Indian RMA-military and its adherents are furthermore quite embryonic and small. Ideas about the RMA is also not supported by Indian budget allocations as defence remains a low priority at less than 3 per cent of the GNP. Although the 2000-2001 budget showed a marked increase (raising the defence budget to about 3,3 per cent of the GNP), much funding is dedicated to sectors not supportive of building RMA capacities. Increasing shortfalls even in inexpensive and unsophisticated sectors and maintaining or replacing existing systems tend to erode the rather small Indian defence budget. This leaves few resources to move the frail RMA debate into the realm of military capacities (Mahnken and Hoyt, 2000:71-72).

The Indian military bureaucracy constitutes a further obstacle. Inter-service rivalry is a major problem and possibly eroding the important need for jointness in order to enter the RMA domain. Pursuit of a nuclear triad is to further inflame the inter-service rivalry whilst siphoning off funding from conventional force modernisation and new military systems. The civil-military standoff and domination of procurement and budget decisions by the civil servants exacerbate this. Such rivalry and the subordinate role of military inputs to pursue RMA related capabilities preclude real progress to future military sophistication (Mahnken and Hoyt, 2000:72). However, Blank (2005)

provides an updated view on Indian progress. The September 11 attacks upon the USA, the US response towards Afghanistan and Iraq and its proximity to India shifted perceptions. India is gaining gradual access to cutting edge American technologies and weapons systems. This growing Indian access pertains to systems directed at conventional, as well as insurgency styled threats against India (Blank, 2005:83-84).<sup>19</sup> It can be argued that greater access to American RMA-styled systems can only benefit the Indian quest to move sectors of its armed forces into the information era.

Defence production and research are rather focussed upon domestic sufficiency and less on obtaining or seeking competitive advantages. Its spectrum of both high-ended technologies and research as well as low-end technologies furthermore has to be kept in equilibrium, but its space and information industries are important for RMA purposes. Although RMA niches are observable in the 2000-2001 budget, internal barriers to exploit the RMA domain (Mahnken and Hoyt, 2000:73-74). India is aware of and reflects some indicators of speculation, experimentation and to a lesser extent implementation of the RMA debate, but is simultaneously faced by challenges leaving defence decision-makers little choice but to rather grapple with day-to-day military threats and vulnerabilities. However, as displayed by the updated views outlined by Blank (2005) a more optimistic picture unfolds. Strategic realities and greater access to RMA-styled technologies and co-operation with the US forces provide new opportunities to move Indian armed forces into the information age.

#### **4.4.7 ASEAN: A collective effort towards the RMA in developing countries**

The Indian case merely illustrates the spectrum of difficulties that a developing country has to grapple with. Another example of how developing countries might tend to approach the potential utility of the RMA can be observed from a conference paper by Mak (and a noticeable number of participants from the Asian region) at the Australian RMA conference during May 2000 in Canberra entitled *The RMA in Southeast Asia. Security and external defence*. Mak refers to the members of ASEAN in particular when he argues that no deliberate attempt towards an RMA is visible in the region. Domestic threats and regime security are more pressing whilst comprehensive and non-military defence matters are judged on an equal footing with military defence (Mak, 2000:3). ASEAN members view existing limited military means to deter weak neighbours as sufficient although they spend 3-4 per cent of their GDP on defence and Indonesia even up to 6 per cent (Mak, 2000:7). However, the gist of security thinking in the ASEAN region tends to lean towards a tendency of the disutility of military power and militarily unambitious states (Mak, 2000:6).

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<sup>19</sup> See Blank (2005, Chapter One1) for detail on the range new technologies on offer to India.

Although pointed out by Mak that the RMA is not high on the security agenda in the ASEAN context, other factors are also important. Military institutions in Southeast Asia are not the cradle of innovations and modernisation any more. This has shifted to the civilian sector where, according to Mak, the potential for an RMA can be observed, but remains untapped. This view is supported by Shen in a paper on RMA challenges to existing military paradigms (Shen, 1997:14) and published by the Singapore Ministry of Defence. The RMA is judged not to be the answer to the key security problems in the region and therefore remains obscure. Some ASEAN members such as Myanmar, Cambodia, Laos and Vietnam also lack the IT infrastructure to steer RMA capacities as outlined by Shen (1997:7) to achieve information dominance for compressing future complexities. In this regard the Institute for Defence and Security Studies of Singapore feature with an active futures/RMA perspective that contributes to the debate. There is little if any indication that ASEAN military decision-makers are contemplating dramatic new ways or using IT and information against potential enemies. Such a will, culture and expertise is absent and even information to explore this matter is hard to come by (Mak, 2000:10). Although according to Mak an RMA consciousness is observable, its pursuit seems very low key in this region.

#### **4.4.8 The RMA potential of developing countries**

In a study by Demchak, she researched the RMA potential of three developing countries: Botswana, Chile and Thailand. These countries are democracies, do not have vast resource capacities and immediate threats compelling them to focus on new ways to modernise and use their military forces and face competing demands from other sectors of society (Demchak, 2000:3). In the case of Botswana, modernising its military is a case of mere positive social construction. The decision-making elite is opting for it although no real drivers or threats are visible whilst decisions seem to be rather personality than needs driven (Demchak, 2000:16). However, human skills, education and IT familiarity, given the socio-technical level of the population and infrastructure, point towards a marginal future RMA capability for Botswana (Demchak, 2000:23). In the case of Chile, it is judged that an average receptivity for an RMA enabled military is visible. As opposed to Botswana, Chile has a fast growing IT sector and computer literacy that augur well for Chile master some niche or partial RMA capability in its armed forces. Thailand, as in Chile, has a good communications infrastructure and growing computer familiarity in its society. Drives for economic development and democracy and technical familiarity amongst the modern section of Thai society bodes well for partial RMA capacities in the near term and even more robust capacities on the longer term (Demchak, 2000:25).

For Africa, the outlook remains less optimistic and it is questionable as to whether RMA war fighting scenarios should be considered at all. In one of the rare research papers on the RMA

and Africa, Van Vuuren (1998) attempted to construct and narrow down the RMA-African interface. Although the types of future military conflicts do not match the preferred outlook associated with RMA-type preferences, it is possible to isolate some important arguments concerning the African domain. Readiness and great flexibility to fast changing contingencies are imperative. The need for high-tech as well as low-tech military capabilities within brief time-spans is to be expected. Very little infrastructural support exists and thus the need for self-sufficiency. The expected grey area of warfare is to demand information, its verification and availability to military forces, but not for the use of sophisticated hard-kill technologies. The need for RMA capabilities is not for conducting sophisticated military operations in the future African strategic environment. It is judged to rather constitute force multipliers for reacting upon accurate information and tone down the uncertainty that is expected to clutter future African military emergencies (Van Vuuren, 1998:62-63). Although modern military systems are present and probably to be introduced into the region, harsh African conditions and the profile of future conflicts are bound to limit using it in dramatic new ways (Van Vuuren, 1998:60).

In reflecting upon this, Malan (1998) avers that the RMA is not for Africa. Although the military option remains visible in African conflict resolution, no indicators exist for the transplant of RMA capabilities to Africa. Day-to-day activity traps make it close to impossible for African armies to peer into the future and contemplate the RMA-option and its potential benefits to peace. The risk of such capacities being created and then used for the wrong reasons or even an incompetence to use the artefacts if obtained, is a further impediment. The RMA option is to remain marginal as those who have some conception of it is not interested in Africa. Africa, in turn, has a very limited ability to harness RMA capacities without substantial foreign support. It is prone to remain a marginal issue in the African realm as it has to compete with humanitarian disasters that is bound to eclipse its importance - if deemed important at all (Malan, 1999).

An interview with Van Vuuren drew a less harsh outlook than that held by Malan. Van Vuuren expressed the opinion that Africa is to reflect future islands of high technology. To integrate RMA capacities through these islands into military information systems is to enable decision-making based on superior information and this holds certain advantages. Cutting edge technologies in Africa and its impact are not to be equated to how it is viewed in the debate outside the developing world. Neither should brilliant technologies be confused with African thought on the RMA. Its utility is to remain marginal and expectations of technologies assisting in achieving set objectives are not to be overly optimistic. Much is to be achieved by older but more user-friendly and known technologies that are perhaps more conducive to African conflicts. The technology focus needs to be adjusted to include matters of insecurity outside of the traditional war fighting environment - that of conflicts where soldiers, refugees, and criminals intermix. Its

operational environment is therefore more complex than the clinical outlook held by most RMA-theorists (Van Vuuren, 1998).

#### **4.4.9 The RMA and developing countries: Some refinements and propositions**

Military modernisation and even RMA-thinking generally seem to be quite idealistic for developing countries. However, it is not about mastering it or having nothing. For less developed countries it is a question of the level or preferred niche of the RMA domain wished for or it is empowered to enter. Indicators, acting as a yardstick to measure or weigh the futures military profile of developing countries, are displayed in Table 4.3.

Table 4.3 can be refined by some further observations from the literature about the RMA and developing countries. Manpower and physical health (Sherman, 1999:18) remain a challenge for moving towards RMA forces, unless narrowed down to selected and specialised categories. Aspirations, however, need to be balanced in order to remain viable and tolerable (Sherman, 1999:20). Organisational adaptations remain crucial even if only selected technologies are opted for and a partial RMA force is pursued. It becomes an obvious option for developing countries to pursue a partial or even marginal RMA capability as sweeping RMA changes remain questionable. Appropriately scaled expectations and capacities and an RMA tailored to a specific need is more probable. Pursuit of those domains where comparative advantages seem apparent are to receive dedicated attention (Sherman, 1999:20). Aspiring to overcome operational and strategic challenges by ways and means that defy conventional solutions is a further matter - such as offsetting demographic and geographic weakness through RMA-type innovations and its integration (Mak, 2000:9).

In closing on the developing tier and the RMA, the above views need to be balanced by some realism. Defence is not a well-developed policy area in many developing countries. Little in the sense of policy, strategy and doctrine therefore directs proper defence planning. Developing countries could also reflect the need or preference for limited military power and no elaborate military spending that is bound to sap economic strength and spare capacities. Law and order as opposed to grand designs of war are more important in some developing countries and necessary for regime survival. Much attention therefore is diverted towards the non-military segment of security (Mak, 2000:6).

**Table 4.3: Promoters and Impediments of RMA Capabilities in Developing Countries**

Promoters	Impediments
Non-interventionist civil-military relations.	Political bickering on military futures and systems.
Subduement of internal political threats.	Potential threat of RMA capacities to neighbours.
Drive for democracy.	Slow economic growth and static defence budget.
Stated policy for technological modernisation.	A stated desire not to use the military option as a policy instrument
Scope for challenging entrenched views during change.	Absence of or an unmet, but pressing military threat.
Developed civil-military sectors to support RMA capabilities or niche capabilities.	Severe competition of future military demands with non-military domestic needs or demands.
Manpower downsizing and technology substitutes.	Absence of pro-military and modernisation block in domestic politics and civil society.
Drive towards smaller professional military.	Military opposition to deep changes in order to move towards RMA capabilities.
Islands of technology and information services.	Absorbing new systems and technologies into old structures and doctrine.
Shift in focus away from land forces.	Absence of a prominent futures debate within military circles and decision-making.
Inclination towards defensive early warning type and preventative military ways and means.	

(Source: Vrej, 2001:48).

The extent to which the armed forces of a country are in any way on the road to pursue some RMA-option, can be measured along the following lines.

- **Speculation.** Publications on new methods of combat, establishing groups to study lessons from recent wars, intelligence collection requirements dealing with innovations in the external domain.
- **Experimentation.** An existing organisation to contend with innovation and experimentation, establishing experimental organisations and testing grounds, field training exercises to explore new warfare concepts, activities to explore new warfare areas, .experimenting or testing new combat methods during wartime.
- **Implementation.** The presence of an existing transformation strategy, new units arising to arise or oppose new mission areas, revising doctrine to include new missions, establishing new branches and career paths, changing the curriculum of professional military education, field training to refine new concepts.

(Goldman and Mahnken, 2002:5)

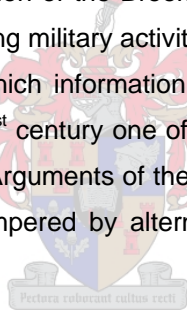


## 4.5 A CRITIQUE OF THE RMA: REVOLUTION OR EVOLUTION IN MILITARY AFFAIRS?

The above developed and developing outlooks on the RMA portray that its utility and influence upon what military futures are to reflect are not a forgone conclusion. It is not to unfold or diffuse its innovations along a linear and uninterrupted profile, as many tend to believe. It is liable to criticism concerning its apparent voids. Thermidor and vector change is one, albeit a softer way, to explain the voids that still plague the pursuit of the RMA (Metz, 2005:2,4). Harsher critique of the RMA can be placed into two broad categories. First, a critique of the reigning views and arguments concerning the RMA and second, critique that represents alternatives to the RMA. It is therefore possible to discern proponents and opponents of the RMA and its themes and ideas about how future warfare is to be conducted on the strategic, operational and tactical-technical levels of war.

### 4.5.1 A critique of mainstream RMA-thinking

*Beware the RMA'nia* by Michael O'Hanlon of the Brookings Institution warns against the idea of sweeping and unchecked changes driving military activities into glamorous new futures. Although it is acknowledged that the pace at which information and communications technologies have been advancing can make the early 21<sup>st</sup> century one of dramatic discontinuity for military forces, they alone do not constitute an RMA. Arguments of the new RMA sweeping through established military paradigms are increasingly tempered by alternative views on how military futures are bound to unfold.



McCabe in the *Counterrevolution in Military Affairs* is also critical of linear outlooks on the RMA. Ignoring the opposition it is bound to meet is dangerous. According to McCabe's counterrevolution the thesis of an RMA based upon information superiority, battle space dominance and weapons superiority contain weak links that can be exploited by high and low technological counter measures.

- McCabe posits that disrupting information superiority is possible. This is achieved by clouding the minds of decision-makers by disrupting accurate information flows on all three levels of war. The sources from which dominant information flows, are presumed to be vulnerable to disruption and if so, the assumed comprehensive view of the battlefield becomes questionable..
- The integrative and joint imperative to have all systems merged towards a final outcome presumes that synergism and coherence are not disturbed. However, McCabe states that

disrupting command, control, communications, information (C3I) and weapons for deep attack is to disrupt two of the cornerstones for dominating the future battle space.

- Precision, a third cornerstone of the RMA thesis, is corruptible by lowering vulnerability to such munitions and thus the effectiveness of precision guided munitions (PGMs). This becomes possible by toning down detectability and hardening facilities to reduce vulnerability. If PGMs cannot acquire their target, distinguish friend from foe, overcome natural interference, and have a near perfect man-machine interface, their precision-value is lost.

(McCabe, 1999:2-7)

O'Hanlon also questions how exactly the pace of military progress now differs from Cold War periods. It is questionable whether current emerging technologies are of greater significance than previous technologies whilst their evolution have been underway for so long that their final effectiveness is rather evolutionary than revolutionary. Computer information systems and the difficulties experienced by information systems during the Gulf War of 1991 point towards limitations on the revolutionary impact of these machines and the information it is deemed to manage. O'Hanlon warns that the expectations about breakthroughs in information and sensor systems are undue and unwarranted. The impact of these new military means have a marginal application and utility (O'Hanlon, 1998:6).

Claims as to what is possible in the near future are not always or nearly backed up by declared technological means. Much of the professed technologies simply progress in slow incremental ways. Missile defence technology, engine and rocket propellant efficiency only show incremental progress. Biological detection systems and armour progress equally slowly. Neither did detecting sea mines in shallow waters become easier. Announcements on new technologies do not constitute breakthroughs whilst claims in other cases rest upon partially mature or even premature technologies. Unless robustly tested, it is not beyond doubt that they will function according to plan whilst they have to run the risk of effective countermeasures as well (O'Hanlon, 7-8 ; McCabe, 1999:8-9).

A further RMA matter that is severely criticised is the technocratic versus the human outlook that tends to subordinate the human factor or will to that of technology. Both Hoffman as well as Blaker refer to this interface between human skills, proficiency and technologies that needs closer scrutiny and careful consideration for the idea of an RMA to be considered viable (Blaker, 1999:84 ; Hoffman, 1999:90). This criticism is reinforced by Biddle's thesis that the dramatic outcomes of the Gulf War of 1991 emerged from the human skills - technology interface in the coalition forces. This interface empowered soldiers to operate sophisticated systems and exploit

the opposition's mistakes in an unprecedented manner. This is in opposition to the views of technological superiority and Iraqi incompetence as dominant explanations (Biddle, 1996:139).

A further criticism is that future warfare is not to be understood solely as the RMA - hi-tech connection. The changes are not about the impact of technologies, but about how the nature of war has changed. Berry, avers that as foreign invasion and the spoils of war became eroded by new conflict trends that reinforce political borders against military aggression, new roles for military forces emerged / are emerging. It is within this pretence that revolutionary changes are to be sought where amongst others, technology plays a role to effect the shift from so-called sunset to sunrise military systems and may redirect the conduct of future war.<sup>20</sup> It is the ascendant military roles and how technology fits into and supports these new roles that are important (Berry, 2000:1-2). It is thus not an all out or nothing war fighting role that is to unfold within the military futures domain.

#### 4.5.2 Alternatives to RMA mainstream thinking

As argued in Chapter Three, armed forces constitute institutions not prone and very open to revolutionary change. Military culture is rather conservative and disposed towards slow and incremental change. Military professionals are inherently uncomfortable with revolutionary change for militaries are complex, tradition-prone, and difficult to change. Transformation interposed between revolutionary and more evolutionary change is one outlook to balance the extremities of vulnerability from military stasis versus dangerous disruption by revolutionary military change (Blaker, 1999:85, 86).



Essential continuity represents an alternative view in that 21<sup>st</sup> century warfare is to be depicted a continuation of a century old increase in human skill to manage military complexity (Biddle, 1998 :12). This continuity, rather than a revolutionary break, rests upon the following five arguments which question the somewhat skewed view that the RMA is to operate unimpeded. One, effective military technology is dependent upon human behaviour and the counters employed by the target. Two, available counters are difficult to implement properly and tend to become very expensive. Three, military organisations differ in their ability to manage the difficulties inherent to the counters to oppose increasingly lethal weapons. Four, rising complexity widened the gap between those able and those unable to cope with the resultant intricacies. This resulted in increasing vulnerabilities amongst some actors. In the fifth place, these intricacies that slow down the rate and depth of change are not set to substantially change any time soon.

<sup>20</sup> See, Jordaan, E.; Vreÿ, F. 2003, Ideas on the revolution in military affairs and the nature of low-intensity conflict, *Strategic Review for Southern Africa*, Vol XXV, No 1, May.

The essence of the argument, slow as opposed to rapid revolutionary change, is embedded in certain military related qualities that change very slowly - if at all. According to Biddle, weapons generally struggle to overcome the difficulty of destroying targets, they cannot see in some manner. The extent to which cover and concealment further confounds this difficulty is important as the technology imperative to overcome it grows rather slow. Diffusion and integration of counters show an equally slow curve as using them becomes complex. Their use demand detail planning and execution right down to technical levels as well as increasing battlefield systems integration and the need to effect quite intricate organisational adjustments to obtain the required outcome (Biddle, 1998:27-28).

A second argument about slow and incremental change pertains to design trade-offs in weapons design. All properties for the optimal performance of weapons platforms cannot be simultaneously applied or integrated. Maximum performance in one domain implies vulnerability in some other domain(s) and combining arms to compensate remains a necessity (Biddle, 1998:28-29). This incompatibility feeds into the requirement to combine systems that in turn promotes complexity because of this unavoidable combination or systems integration (Biddle, 1998:30).

The above points to incremental and not revolutionary change in the conduct of future warfare. As opposed to revolutionary shifts (according to RMA theories) the trend is rather to display an incremental extension of ongoing and longstanding trends. When applied against less skilled opponents, mastering incremental increases and managing the adjacent complexity point towards increasingly one-sided outcomes of war. Against skilled opponents such dramatic one-sided victories are not forgone conclusions. Skilled militaries that can absorb growing complexity are able to lower their exposure and vulnerability to modern weapons. Less skilled militaries will find their vulnerability to have increased if they struggle to cope with and integrate the means to lower their exposure and vulnerability to modern weapons in the hands of skilled opponents. Although the operational matters of using forces with new systems are to be different, the outcomes of battles and the war are not to reflect an equally revolutionary outcome. Superior forces will still have to impose their will upon the opponent - in spite of new ways and means of doing so.

#### **4.6 SUMMARY: REVOLUTIONARY OR EVOLUTIONARY CHANGE TOWARDS ALTERNATIVE MILITARY FUTURES?**

The RMA as a dominant evolving theory to direct the nature and conduct of future warfare is the central focus of this chapter. RMA-theory is, however, not the sole theoretical angle on dramatic changes in the conduct and outcome of future war. It competes with or is influenced by outlooks based upon the Military Revolution (MR), Military Technical Revolution (MTR) and the Revolution

in Strategic Affairs (RSA). The impact of these concepts upon the idea of an RMA tends to either broaden or contract its scope. It subsequently becomes a matter of how inclusive or exclusive the RMA concept is to accommodate matters that are deemed to be important to the unfolding of future warfare.

The RMA is more forward-looking and predictive than the MR in that it deliberately leans towards the domain of future warfare. It is also more inclusive than its forerunner the MTR and its more confined technological focus. As for the RSA the RMA is judged to be less inclusive by not encompassing the broad spectrum of military affairs argued for under the strategic banner. However, the RMA is less extensive in its impact than the MR and it is reckoned that a number of RMAs could eventually give rise to the scope of changes that comprises a MR. It can be argued that RMAs present in different ways as burst revolutions (intermittent brief and longer term changes), evolutionary, or permanent adjustments and change.

The debate about inclusiveness as to exclusiveness also features in the plethora of definitions about the RMA. Different definitions reflect different patterns of a confined military focus or a broader one that tends to include more than mere military strategic and -technical matters. This conceptual and definitional refinement of the RMA is concerned with theory building about the RMA and its acceptance or rejection. Competing concepts and definitions form part of this debate to uphold or shift the RMA paradigm. It is after all about challenging the *status quo* outlook on the future of warfare by introducing an alternative outlook or even paradigm.

The gist of the dominant arguments about the RMA does, however, tend to place it in the more restrictive military technical domain. This domain pertains to the use of new technologies and their possible merger in dramatic new ways to effect revolutionary future outcomes. The status of the debate allows for parties and their decision-makers to interpret the RMA in a way that suits their needs or even reject it. The state allows in the last instance what is affordable and applicable and disallows what is not. The risk, nonetheless, remains of making the RMA so inclusive that its meaning and utility to explain and direct matters of future warfare become lost. It furthermore risks shedding its scientific utility to explain and test developments about matters of future warfare by infusing it with technical matters that once again places it beyond the reach of the developing tier of states.

The uncertainty and challenges regarding the concept of an RMA is ordered by the different schools of thought. How to structure and explain RMA views are contained in the broader economic and technological explanations of Biddle and the more focussed ordering of information and strategic matters by Gray. These more ordained lines of thought assist in viewing the

dominant themes along which the RMA debate is taking route. This once again creates opportunities for interested parties to select that pathway of themes along which they judge or prefer their future military needs and institutions to progress into the future.

Particular state actors find themselves on different planes concerning the RMA. The US has embraced the RMA and its outlook is not about whether or not it is applicable, but rather which version, or, which RMA concepts and artefacts to include in outlooks concerning future American military forces and their use. The US military accepts that RMA-type military changes are to characterise their way of preparing for and waging war in the future. Such changes are being deliberately introduced to US ways and means for conducting joint future operations on land, sea in the air and outer space.

Although the Russian outlook is quite sophisticated and instrumental in the rise of RMA-thinking, its current dilemma is to cross two major obstacles. One, the scope of change confronting the politico-military realignment of the Russian security forces and their organisational adjustment away from the current fragmentation of the Russian military. Two, obtaining the resources to match their substantial MTR thinking with the diffusion and integration of such innovations into the future Russian military establishment. The Russian decision-makers have an immediate, medium term and longer term strategy in place to harness their MTR outlook and defence-industrial capacities, but institutionally and resource wise they are incapacitated. At present the diffusion and integration of the Russian MTR/ RMA outlook is disjointed, as it becomes glaringly obvious from events in Chechnya. Here the Russian forces are fighting a drawn out attrition type air-land war that reflects no RMA/MTR type thinking or procedures to lessen destruction of property and human life - including those of Russian forces.

Reconciling different levels of responsibility and not inviting a double collapse by offending the USA is a central tenet of the European RMA debate. This involves balancing numerous issues simultaneously without snubbing any one party and not so much a lack of understanding the necessity to integrate RMA capacities into European national and regional military forces. For Europe it is about keeping everyone aboard as they redirect their military policies and resources to address a new, but vastly different threat environment with an European capacity as well as one interfacing with RMA-type US military forces. Such competing matters necessarily contract the intellectual and resource space for RMA-thinking and its diffusion as the focus on information systems reflects. The Europeans are thus caught up in opting for RMA levels that suits their needs and to interface with the high-tech American forces, but gambling to leave behind some of their WEU allies to do the dirty work. This holds the risk of causing the WEU and Europeanisation of security to become unravelled at some point in time. Accordingly, we do not

find a vibrant and visible RMA debate in Europe. Competing matters tend to subordinate forward looking military outlooks to that of socio-economic threats arising from European responsibilities towards events flowing from the collapse of Russia and its overflow into Eastern and Western Europe. Leading European countries, nonetheless, include the RMA in their defence policies and doctrines. It is furthermore a focus of the European defence industries to pool and up their capacities to produce RMA-type artefacts. The real issue becomes one of scope rather than an inability to innovate and diffuse RMA qualities into future European military establishments.

The RMA debate in China is mature in both its depth as well as breadth and could even be seen as a Sinification of the debate. Chinese military theorists in the PLA have succeeded in mastering the intellectual debate concerning the RMA school of thought. This school has to compete with the traditionalists arguing for modernising the People's War concept, but the former is judged the most forward looking on the conduct of future warfare. The Chinese RMA vision acknowledges that integrating information with appropriate military means is to be central to how Chinese military forces will have to fight in future. China also acknowledges that its future opponents (peer competitors) are those currently involved in pursuing RMA capabilities. The Chinese debate therefore deals with just about all the RMA aspects it may confront and acknowledges its vulnerabilities and voids or shortages in this domain. It is embarking upon a program to downsize its manpower-intensive military machine and to introduce RMA related capacities by focussing on the information domain and informationising their military systems. They are, however, hampered by the vastness of this undertaking and the need for colossal organisational and resource adjustments to effect and sustain it.



No sustained RMA debate is visible in the developing world. Elements of such thinking are quite fractured or nationally centred. India's pursuit of the RMA struggles to reconcile it with typical Third World difficulties. An automatic diffusion of the RMA debate and changes to developing countries is also not to be assumed. Some arguments suggest that the developing world just does not have the capacity to enter the RMA for the technological infrastructure, finances, organisational change and the external threat environment to institute and sustain such a dramatic shift are insufficient. Developing countries do, however, have the alternative to opt for elements of the RMA as those capacities they deem important and achievable with their limited capacities. This outlook is visible in that a substantial number of countries are intent upon electronic modernisation of their military forces. Developing countries might also opt for a more extreme alternative such as acquiring nuclear weapons, turn to irregular warfare and to project power through terror links.

In the developing world some pursuit of the RMA holds a threat as even marginal RMA capacities stand to upset power balances and create vulnerabilities to those accomplishing some RMA-domain. However, strategic precision, psychological precision and speed as well as organisational adaptation - including appropriate civil-military relations - need to be mastered. These are admittedly difficult shifts for most developing countries as portrayed by India and the Gulf States. Although certain pointers such as computer and Internet connections tend to paint a more optimistic picture, non-technical matters confound the difficulties. As in ASEAN there are regions that just do not deem it necessary to direct much energy and resources to the RMA due to the absence of threats warranting such a pursuit. In Africa, competing humanitarian crisis or threatening environmental disasters act as a conduit to detract from RMA matters as policies and strategies about the former tend to usurp strategic attention and resources. Military modernisation is not high on African security agendas. Only by tying in some RMA capabilities to the non-traditional conflicts and military futures that are prone to dot the future African strategic landscape, the RMA-profile of African military forces stand to be raised. It is a matter of counterfeiting the African version of the RMA through the lenses of the USA or even the PLA on how future wars are to be conducted with RMA empowered military forces.

The RMA debate is not settled and grounded in an accepted theory. It is therefore open to criticism and alternative theories or even rival paradigms that are bound to upset the precarious themes and ideas on future warfare. On the one hand the particular outlooks or schools of thought and how particular states and decision-makers prefer to order it, is one strand of criticism. This angle is about objecting to or refining particular aspects, but not to radically upset the *status quo*. This line of criticism warns against being overwhelmed by a phenomenon that is not substantiated by sufficient proof of its foundations. In this regard the undue emphasis on technology is judged not to be as spectacular, mature and battle tested as is being assumed or portrayed. Secondly, RMA systems are not invulnerable and can be countered in various ways by the opposition. As such the foundations of precision, battlefield dominance, superior information and focussed logistics to conduct future warfare along RMA lines are vulnerable.

The extent to which human factors are sacrificed for technological solutions is a further criticism. New and brilliant technologies do not constitute an RMA. It should be placed or viewed in conjunction with the human skill factor and that technology also needs to be interfaced with changes in the rules that govern and direct warfare. These two catalysts rather direct the success of new technologies as a means to an end than technology being a self-explanatory and independent variable in the RMA debate.



The other plane of criticism judged to radically upset current ideas and themes on the RMA emanates from the evolutionary outlook proposed by Biddle. Whereas the RMA paradigm is presumed to be about rapid change and modernisation of the means of war, Biddle's evolutionary alternative counters this outlook. Biddle's outlook essentially challenges and undermines the revolutionary RMA-paradigm. The argument for slower evolutionary changes flows from theories supposing that responses to technologies and its diffusion and absorption are not to inspire the deep and rapid changes implied or supposed by the RMA.

The different domains that are presumed to undergo dramatic and rapid shifts to change the conduct of future wars embody a developmental line that stretches back in time. These domains are currently going through another phase of change. It is not a sudden dramatic leap if one keeps in mind how long important developments for conducting warfare have been forthcoming. The ways and means of future warfare are therefore judged to be different from the present, but not to the revolutionary and dramatic extent professed by the RMA adherents. Technologies, skills and human capacity as well as military cultures are rather more disposed and receptive to slower change than the rapid revolutionary and disruptive kind implied by the RMA outlook. These dynamics do not operate independently as they are intensely influenced by the evolving strategic environment. The strategic environment, the topic of Chapter Five, greatly influences the manifestation of military change and the rise of revolutionary or evolutionary alternative military futures. Before turning the focus to South Africa and the SANDF in particular, this important backdrop to alternative military futures is addressed as the catalyst to South African alternative military futures.



## CHAPTER 5

# THE EVOLVING INTERNATIONAL STRATEGIC ENVIRONMENT: THE IMPLICATIONS OF ALTERNATIVE MILITARY FUTURES FOR SECOND TIER COUNTRIES

### 5.1 INTRODUCTION

The previous chapter outlined thoughts on future warfare along the lines of the Revolution in Military Affairs (RMA) as an influential, but incomplete theory. In spite of being labelled as imperfect and not devoid of criticism, the RMA nevertheless also directs the thinking of strategic decision-makers on the future use of their military institutions. Subsequently, countries pursue selective versions of the RMA or, in some cases, refrain from its pursuit. Such pursuit, or its absence, takes place with due consideration of the current and future strategic environment. This future environment acts as the context within which a particular military institution has to function. However, different actors view the evolving strategic environment differently for formulating defence policies towards preparing and employing their armed forces. This causality raises the imperative to also scrutinise the future strategic environment that is to influence the preparation and employment of future military forces.

During the late 20th and early 21st centuries the strategic environment became characterised by fundamental change and subsequent challenges to traditional outlooks upon the use of military coercion. A plethora of literature subsequently appeared about the new strategic environment, new security trends, and changes in threats and vulnerabilities. Adjusting to change became a cliché in deliberations about the future strategic environment and topical in the outlooks and policy papers of governments contemplating the future use of their military policy instruments. From here, it subsequently filtered down to their military institutions as the most coercive policy instrument of the state that, in spite of the early 21st century optimism about its decline, remained prominent (Black, 2001:1). This focus upon preparing and using military coercion remains an acknowledged and demarcated phenomenon in the field of security studies and is encompassed in the term strategic as used in this chapter (Shultz *et al.*, (eds), 1997:3).

If the argument is maintained that the challenges of the strategic environment and posture of national military forces need to be in equilibrium, changes in the strategic environment elicit or even demand military changes. If not, national military institutions stand to forfeit much of their utility as a policy instrument. The challenge is thus one of narrowing down the strategic

environment by accurately mapping out changes and its future profile to compress the scope of alternative futures and responses facing national military forces. This outlook, however, is increasingly refocused by broader questions on international stability and the more difficult question of how to use military coercion in conjunction with politico-economic strengths (Freedman, 1999, 1-3 - 2-3).

This chapter initially sketches some outlines of the evolving strategic environment within which military forces are judged to execute their future role and function: to place the opponent in an untenable position through the use of coercion or the threat thereof in support of political objectives; or, as stated by Gray: "*the use that is made of force and the threat of force for the ends of policy.*" (Gray, 2000:17). The focus is then shifted to the military dynamics and responses by the Second Tier Countries (Developing World) and Africa in particular, to the evolving strategic environment.

The strategic environment, as a concept, is used to open this discussion. Following this is an overview of the macro-level changes that are judged to be reconfiguring the global security environment, as well as the strategic environment. The operation and impact of certain trends or forces of the evolving strategic environment are addressed on three different levels, each containing a number of themes. The first is to reflect a primarily First World or Developed World outlook of changes directing the evolving strategic environment within and for which national military forces are to be prepared. The second theme is about the strategic environment and the dilemma of the Developing World (Second Tier Countries) and in particular strategic challenges posed by the evolving security environment holds. The third theme has the African strategic environment as its focus. Both the negative or pessimistic, as well as the positive or optimistic futures concerning the African strategic environment and transformation of its security sector are addressed. This latter focus also serves as an interface with the next chapter of this study on the South African outlook upon the future use of military coercion and its concern with Africa. In conclusion, a summary is presented of alternative military futures in a changing strategic environment.

## **5.2 THE CONCEPT OF A FUTURE STRATEGIC ENVIRONMENT**

Strategy, as a concept, has been increasingly eroded by the recent tendency to downplay the military option, but, nonetheless, maintains some (perhaps-adjusted) utility in contemporary and future security matters. Delimiting the concept strategic is therefore appropriate before moving on to address other matters pertaining to the strategic environment. In the section below, the strategic-security interplay and nuances are briefly pointed out and strategic as it applies to this chapter, is demarcated more closely.

### 5.2.1 Why strategic environment?

The concept strategic environment needs to be delimited for it risks being subsumed by an ever increasing and limitless debate on security and insecurity. For the purpose of this study, the term future strategic environment is chosen as strategic, in its traditional sense, has to do with the interplay of military and closely related matters. It is thus a preference to confine the focus of this chapter to the military domain of security studies and, in particular, the response to emergent military affairs.

Baylis and Wirtz contend that as conflicts continue after the end of the Cold War, the use of force has remained prominent. Strategy and strategic studies therefore maintain their relevance as a way to study and comprehend the strategic environment (Baylis and Wirtz in Baylis *et al.*, (eds), 2002:2). As long as war (in all its current permutations) remains present, matters of strategy will retain a foothold. Military coercion therefore continues to be important and so too the study of strategy within the larger ambit of security and international relations (Baylis and Wirtz in Baylis *et al.*, (eds), 2002:2). This bias admittedly reflects a realist perspective, but the more contemporary outlooks of neo-realism and liberalism, postmodernism and dependency that oppose or strive to tone down the military emphasis and its national competitive features in particular are not disputed. The term strategic is thus preferred to support the military strategic focus of the study, but not in opposition to the political-economy school and humanitarian response community as emergent explanations for understanding and responding to challenges of the future strategic environment (Bellamy, 2002:26-27).

The future strategic environment is to be understood as emanating from the causes of instability, conflict and war, the threat, use and management of military force and closely related topics. These causes do not all portray a stark military character and in particular not during contemporary times where security became a more inclusive concept. What remains evident is that as a policy instrument, military power is judged an important arbiter by decision-makers (Kaysen in Brown *et al.*, (eds), 2000:461). This persistence upholds two further strategic dilemmas for decision-makers. The defence dilemma, as well as the power-security dilemma, both operates adjacent to the strategic domain of preparing and maintaining instruments of military coercion. Fear of war stimulated by the nature of military means and fear of defeat from the use of military means in the hands of others depict these two dilemmas (Buzan, 1991:295). It is quite probable that resultant fears are to be sustained for as long as military coercion remains closely tied to the future strategic environment.

According to Shultz, *et al.*, (eds), (1997:2-3) a strategic perspective with its military slant reflects quite accurately how state, sub-state and trans-state actors (even after the Cold War) approach

security matters. Although the security environment is closely related to strategic, the latter is preferred due to its more accentuated military connectivity. In adopting this approach, it shields the discussion from being subsumed into the wider security debate and the fuzziness of its boundaries after the Cold War (Shultz, *et al.*, (eds), 1997:3 , 7). Metz (1997:1) however, warns that peering into the future is a difficult endeavour and in particular when it demands military adaptations or changes.

### **5.2.2 The future security environment**

The above preference for strategic matters or pointers should also be placed into context with the security environment. From a general perspective, the contemporary field of Security Studies became saturated with new matters and concepts being mobilised onto the security agenda of states, regions, and the world. This follows from the operation of threats and vulnerabilities as typified by Buzan (1991:112) that combines and interacts to result in national insecurity for states and ultimately the state system. National insecurity points to states having their ability threatened to maintain their independent identity and functional integrity (Buzan, 1991:116).

Buzan distinguishes five threat sectors - military, political, economic, social, and environmental. The importance of the military sector, as identified and elaborated upon by Buzan (1991) and later by Mandel (1994), is noticeable. This sector is placed at the apex of the threat sectors and judged to represent a threat domain that impacts upon all components of the state - the physical base, institutions, as well as the idea of the state - and filters down to social and individual security interests (Buzan, 1991:116-117). Security, however, become a preferred concept to the perceived military connection of strategic as non-military matters and peace-thinking gained prominence and challenged the preoccupation with military means (Buzan, 1991:10). This shift does not represent the demise of the strategic domain, but rather a need for its adjustment and a more collective or collaborative character and utility to oppose an extended threat spectrum. The military-strategic option is not a cure-all policy instrument and less so as the future security landscape stands to be flooded by an ever-increasing range of vulnerabilities and threats to which military coercion is but one option - albeit in a new way.

### **5.2.3 The defence - future strategic environment connection**

Governments need to interpret their future strategic environment properly by identifying and evaluating applicable matters for assuring their security. Currently, as opposed to the Cold War period, this became quite challenging as the close connection between military power and the security of the state began to unravel. The military option not only became relegated as an instrument of policy, but its funding became a prime focus of attack by sceptics of the politico-

strategic and military-strategic domains. This practice is glaringly visible in, for example South Africa, with its prominent guns *versus* butter debate as well as in the lingering European intransigence bolster defence budgets (Trainor, 2002 ; ISN Security Watch, 2002:1-2). Current military forces, as instruments of coercion, increasingly need to contend with this enmity in their futures outlooks, preparation, and employment. As the military option becomes accepted as a very last resort to address new matters of insecurity, it raises the imperative to master the future strategic environment correctly as less political space and resources deny experimentation with alternatives.

Defence decision-makers need to narrow down and interpret the politico-strategic and military-strategic connection correctly. This shift is visible in how the Australian Ministry of Defence, in response to their delimitation of the future strategic environment towards 2020, reoriented the Australian Defence Force towards key military capabilities that includes the RMA and knowledge warfare (McLachlan, 1997). The Swedish outlook of *A Changing World - A Reformed Defence* reflects the improved European security environment. It furthermore posits Sweden's determination to be able to cope with threats to Sweden and Europe and contribute to international security by how it prepares and structures Swedish military forces in the light of a changed future strategic environment (Swedish Ministry of Defence, 1999:1,3,5).

It is not easy to adapt to the post-Cold War international security environment, but for defence strategists it has become imperative to substitute their existing paradigm with a post-Cold War paradigm. International society faces the problem of new wars that defy the familiarity of Clausewitzian industrial-age warfare (Bellamy, 2002:25). They have to recast their thinking in terms of the future strategic environment and according to Alexander and Garden (2001:509), it remains challenging even for developed nations of the world to successfully make this conceptual shift as the future remains unclear. Some reconfiguration is necessary to fit alternatives such as a future warless society and building new theories about how military forces adjust to and perform roles in such a future society (Moskos in Freedman (ed), 1994:135).

If the need or imperative is to recast thinking and outlooks towards a future strategic environment, it presupposes that this environment, how difficult it may seem, has to be demarcated in some way. Only then can applicable innovations, diffusion and military change be introduced. In the subsequent section, some delimitation is attempted of the future strategic environment to be faced by military decision-makers is suggested.

### 5.3 THE FUTURE STRATEGIC ENVIRONMENT: A LANDSCAPE OF CHANGE

Only at the risk of facing the destructive potential of the defence dilemma can military planners and decision-makers plan the preparation and employment of their military institutions without considering the future strategic environment. It is, however, easier to predict the security environment in some way than to narrow down its particular military implications for policy makers. Connecting the future strategic environment to appropriate current policies is therefore the real difficulty for defence decision-makers (Gray, 1998:190). The degree to which new phenomena and trends in the security environment stand to impact upon national interests, gives rise to conflict, its intensification or draws in other actors. This accentuates the importance to keep abreast of the evolving strategic environment. New dangers and unfamiliar threats arise and tend to compete with traditional military-strategic outlooks and raise a crosscutting theme for contemporary professional militaries to cope with. This environment can be illustrated or constructed in different ways, each reflecting an outlook on what is directing the evolving security and subsequent strategic environment.

#### 5.3.1 Widening of substantive security dimensions

Mandel (1994:35) refers to four interconnected and substantive security dimensions to which states need to respond. Commencing with the military security sector, the economic, resource/environmental and political/cultural domains are also defined. As each of these sectors includes both traditional as well as non-traditional facets and operates at both the national as well as international levels, they represent a framework of elements shaping the eventual strategic environment. The said dimensions compete and interconnect to raise security concerns that are liable to eventually invoke a military response. This conflict potential spreads from the dangers and underlying tensions illustrated in Table 5.1.

The military-strategic context of these substantive dimensions is underpinned by it remaining a first and primary context developed by states to protect their vital national interests. This bias is made more robust by the fact that not all states have the breadth of non-military policy instruments to choose from and, as argued by Kaysen (in Brown *et al.*, (eds), 2000:462), those having this breadth remain a powerful minority. This skewing of policy instruments inherently allows the military alternative to remain prominent and it broadly operates as illustrated in Table 5.2 .

**Table 5.1: Threat Dimensions of Security Domains**

Dimension	Primary danger	Underlying threat
Military	Proliferation of Low Intensity Conflict (LIC) and Weapons of Mass Destruction (WMD).	Interstate strife vs subtle ambiguous strife.
Economic	Drop in domestic control of industry and rise of skewed interpenetration.	Global / transnational management vs national economic sovereignty.
Resource / Environmental	Resource depletion and environmental depletion with a human inability or unwillingness to adapt.	Clashes due to environmental limits, inequality of natural resource distribution, national growth and development aspirations.
Political / cultural	Fragmentation and disintegration of governmental authority and societal cohesion.	Global/regional directives clashing with national autonomy of state units.

(Source: Mandel, 1994:44)

**Table 5.2: Operation of the Military Security Dimension**

Level	Goals	Tensions	Change
National level	Wage and win military war.	Proliferation of WMD. Lesser relevance of war making institutions.	Switch to Low Intensity Conflict. Less about brute destructive strength <i>via</i> firepower. Smaller flexible future militaries. Differential planning for variable future contingencies.
International level	To maintain effective alliances and achieve arms control.	Moving from national to joint or multilateral force engagements.	Burden sharing and jointness across arms and boundaries. Declining defence budgets. Importance of regional and global military security.

(Source: Mandel, 1994:36-37)



### 5.3.2 Forces for integration and disintegration

Another outlook on the evolving strategic environment is to outline those trends that are considered as independent variables at the macro level and not to delimit particular spheres of activity. Rosenau (1995:194) reviews three forces that normally sustain the global system and are now judged to be under attack and thrown into turbulence and insecurity by increased complexity. The equilibrium of the system results from the operation of the distribution of power (how key actors respond to one another), authority relationships (how large collectives are linked to individual citizens) and the skills citizens possess to respond to events. Forces for integration and fragmentation simultaneously confront the dynamics that are judged to keep the international system in equilibrium and include the pressures listed in Table 5.3.



**Table 5.3: Pressures Challenging Equilibrium in the Global System**

Sustaining parameter	Transformation	Trend	Fragmentation
Power distribution	States and their power not supreme and unchallenged any more.	Power hierarchy of states and their hold on power to be shared with new competing entities.	States have to compete with counterparts as well as new relatively autonomous non-state actors.
Authority relationships	Relocating authority away from vested traditional criteria to that of performance. Quantitative rise in levels of authority.	State-subject hierarchy interfered with. Subjects now demanding efficient state performance in turn for loyalty.	Automatic acceptance and compliance withheld if proper performance is absent.
Skills of citizens	Increased skills and competence of citizens to relate to events or to oppose and discriminate.	Education and exposure empower citizens to assess their position and needs in a more articulate manner.	Articulating personal interests as well as preferences more independently, from that of the state.

(Source: Rosenau, 1995:194, 195,196)

The above challenges to traditional parameters that keep the global system in equilibrium mirror some salient factors effecting fragmentation of the cohesiveness of the global system and subsequently promote future conflict potential. The factors outlined above are elaborated upon in the following discussion by extending their future impact.

***Proliferation of actors and fragmentation.*** At the individual level the world population has increased to the extent that its volume and demands have begun to overwhelm the functioning of the global system. It not only impacts upon the issues to be managed, but raises threats as well. This becomes visible in famines and other intractable public issues such as the scope of the HIV/AIDS pandemic for example. The number of collective participants also increased. The presence and impact of a dense collection of collective actors (state, above and below state level) need to be accounted for by the global system (Rosenau, 1995:196). These dynamics furthermore push for fragmentation as centralisation is challenged by this increase in participating actors - each having their own agenda and competing with forces vying for integration.

***Dynamic technologies and fragmentation.*** New technologies narrow down the social and political space, bring people into closer contact and heighten interdependence. The latter is reinforced by the future significance of the communications and knowledge domains. As these technologies increasingly defy traditional borders and divides, they infuse both the individual as well as the collective with new competencies whilst also promoting fragmentation (Rosenau,

1995:197). The idea of the state having control over the flow of information in a wired and increasingly wireless future society is under pressure. As this overflows into the developing world and also challenges autocratic regimes, centralisation and control remains debatable (Rosenau, 2000:24). An example of this dilemma is the Chinese (PRC) acknowledgement of the information domain and still attempting to control access to information at the dawn of the 21st century.

***Ascent of interdependencies and centralisation.*** A new scope of threats and vulnerabilities has materialised that defies state efforts to address them. These challenges call for more than state resources and its jurisdiction or diplomatic clout. Current and pressing challenges of this kind manifest in the advent of environmental pollution, currency crisis, the drug trade, terrorism, AIDS and the flow of refugees. They readily flow across all divides and become common to most or some collection of actors. Such interdependent issues promote centralising efforts and capacities to deal with them, but also the idea that states are no longer ultimate problem solvers (Rosenau, 1995:198). These threats lie at the heart of insecurities that need to be prevented and addressed in a collective manner. This adjustment or reinterpretation was pointed out by the UN High Commissioner for Human Rights Mary Robinson and the Secretary General of the UN Kofi Annan as it is now collective global interests that are at stake (Jane's Defence Weekly, 1999).

***Weakening of states and restructured loyalties.*** States and their capacities as primary actors are under increasing pressure from forces challenging this assumed primacy. These forces impact upon the state-subject relationship *through* the erosion of the state's legitimacy and ability to provide or ensure security to its subjects. Whilst the argument for the decline of the state seems prominent, as argued by Van Creveld in *The Rise and Decline of the State* (1999), Rosenau is apprehensive about the real tangible indicators to measure this decline. Van Creveld, however, relates the decline to particular shifts: the state's decline from waging major war, the retreat of state welfare due to its inaffordability, the rise of technology and it bypassing the state as mediator, threats to international order that defy state efforts and the withdrawal or waning of faith in the role of the state to the benefit of its subjects (Van Creveld, 1999:337). Adjacent to this and in concert with the latter runs the loyalty matter that is not beyond doubt any more. This shift in loyalty and its questioning the cure-all ability of the state has its own deeper impact upon the global system and some fundamental assumptions about its equilibrium (Rosenau, 1995:198). The rise of transnational organised crime, drug cartels, gangs and warlords as well as private military companies (PMCs) are new threats also found in Bunker's categorisation of non-state threats. This plethora of threats contributes to the erosion of the role and credibility of the state and loyalty to it as a facilitator of security (Bunker, 2002).

***Subgroupism and national fragmentation.*** This phenomenon, also referred to as cultural vs political identity by Mandel (1994:97) further erodes the affinity of people towards the state. It even raises images of hostility, although it is not necessarily about redirected nationalism. Redirected affinity also stands to develop towards associations, organisations and subcultures as circumscribed by Bunker and referred to in the previous paragraph. The extent of this shift promotes decentralisation as it manifests in new and different political as well as non-political strands of allegiance of which the impact upon the *status quo* cannot be underestimated (Rosenau, 1995:199). Kaldor, for example points out the danger of particularistic identities as objectives of new wars. They tend to become all the more accentuated when objected to by those opposing this reactionary behaviour to state dominance in the international strategic environment (Kaldor, 1999:69-70).

***Globalisation and state economies.*** Markets for capital, production and labour, are increasingly integrated into the world economy and solidified by the communication and information revolutions. This integration further tones down the jurisdiction of the state by promoting the supra-state level and complicating the institution and maintenance of state control or even mere influence over economic matters. As the global economy grows, it increasingly impinges on national economies and makes them subservient to the expanding world economy. The established role of the state and its hold on its economy did not come through this unscathed. State centralisation became challenged by the higher order global centralisation of economic and financial matters (Rosenau, 1995:197). Realist, local competitive perspectives were forced into trade-offs with idealist, global and co-operative perspectives in the orientation of economic policy, global production and exchange (Mandel, 1994:63).

***The wider effect of globalisation.*** Although Kaldor states particular effects, Annan points to the central tenet - that of globalisation redefining state sovereignty (Jane's Defence Weekly, 1999). The difficulty of this shift is perpetuated by not having conceptions of national interests following suit and adapting policy instruments accordingly. Wider, rather than narrowly defined national interests are necessary to interface with globalisation and international co-operation. Its absence subsequently promotes disequilibrium. Narrow competitive views as opposed to collective efforts towards more global engagement still remain in stark contrast and a dire challenge when the state opts for criminal behaviour. Globalisation thus not only offers exploitation avenues for benign economic and financial purposes. Vulnerabilities also exist in its exploitation by actors with dark intentions. These vulnerabilities lurk in the globalisation of the trade and financial systems, telecommunications and transportation networks as well as global diasporas and transnational ethnic networks (Williams in Bunker (ed), 2002:x-xi).

**The conflict potential of globalisation.** Globalisation is less of a new phenomenon on the international scene if its rise is carefully mapped. What is new, however, is the rise and impact of technologies concerning communication and information (Kaldor, 2000:71-72). These technologies, as argued by Kaldor, impact upon and deepen the dynamics of globalisation in a way not yet fully understood, although its conflict potential is not denied. This conflict potential is fuelled by uncertainties residing in the following shifts.

- **Change in the techno-economic paradigm.** The way that production is structured in order to meet the demand changed significantly. It is now less about physical production and more about less tangible economic matters based upon differentiation and specialisation. These aspects impact upon both the national and international structure. This shift assumes previously unknown proportions whilst in order to survive and remain in business, adapting to this level of change became crucial to national economic outlooks and survival (Kaldor, 2000:72).
- **Transnationalisation and regionalisation of governance.** Non-state actors increasingly compete with the sovereignty of state governance. This competition challenges state control and regulation as other state and non-state agencies encroach upon the conduct of state affairs. Governing activities thus become regionalised and internationalised into partnerships below and above the state (Kaldor, 2000:72-73). The governing function, traditionally reserved for state governments, is therefore confounded by the vertical extension of governing structures to the regional and global levels as well as to predominantly non-political sub-state entities.
- **Transnational informal networks.** Featuring alongside the gist of change in governing structures, the involvement of non-state actors is increasingly drawn in wider contours. Non-governmental organisations entered the scene to practice their trade at a level and for needs previously judged to be domains of national governments. From this resulted competition with government or augmenting government through an ever-increasing spectrum of networks. Such networks infiltrate patterns of state relations in order to make the global system work by also addressing issues and matters defying state capacities or due to mere ignorance (Kaldor, 2000:73). These networks reflect both positive as well as negative contributions as they do not all always pursue the best interests of institutions and individuals whilst their organisational parameters have a debilitating effect of their own.
- **Organisational impact.** An important organisational facet of globalisation is the movement away from hierarchical towards networked organisations. Seniority now becomes subject to

technical and financial know-how and the introduction of new ideas without having much control over what eventually transpires (Kaldor, 2000:74). Governments aspire to emulate this move by shedding control centralising in a hierarchical structure. It does, however, remain a major stumbling block to shift the hierarchical and bureaucratic mindsets and institutional culture of governmental departments towards networking. This is a much-debated topic in contemporary military circles as the compatibility of major strands of future warfare and traditional hierarchies are questioned (Metz, 2000:11-12). National militaries are obliged to also revisit network thinking as it takes networks to fight networks and those first mastering network warfare is to gain the advantage (Ronfeldt in Bunker (ed), 2002:xvi-xvii).

- **Social structures.** Blue collar workers and their skills were overtaken by information workers in industrialised countries and, according to the Tofflers (1997), the significance of this points to a movement from industrialised to informational thinking. This shift furthermore results in the export of blue-collar work opportunities to other venues. Accordingly, the ascent of information workers, those working in transnational organisations and holding service jobs began to characterise the social structure of particular countries. Emanating from this stratification within societies a further stratification between societies is on the rise: those states able to exploit their technological capabilities and the rest - those caught up as victims of the global economy and unable to participate as producer or consumer (Kaldor, 2000:74-75). This stratification contains a dual conflict potential. On the one hand, it raises potential divisions within countries; on the other, divisions between states competing and able to enter the globalisation domain and those frustrated by their exclusion.
- **Joining or opposing globalisation.** Emerging from the scope of protest actions in the US, Canada, Europe and South Africa since 2000, it appears that globalisation is no panacea for the difficulties faced by so many developing countries and non-state groups. Not all view themselves part of the globalisation fraternity or believe in its goodwill and advantages whilst some are even directly excluded. The pro-globalist community is, however, hardly politicised and organised to form some deliberate new form of political power. Individualism and anomie remains rife and control or influence remains a marginal feature. In opposition to this, those opposing globalisation and the state with particularistic identities are perhaps the threat. They stand in opposition to the globalists and their efforts to address matters and solve problems as a transnational society (Kaldor, 2000:75-76) and it is within this clash of globalisation and anti-globalisation cultures that a future danger is smouldering.

## 5.4 A MILITARY RESPONSE TO THE FUTURE STRATEGIC LANDSCAPE

The dynamics of the future strategic environment are charged with promoting prosperity, development, and optimism. It is acknowledged to also contain severe pressures for conflict that defy traditional state responses and their recourse to policy instruments. In order to prevent these pessimistic factors from upsetting the desired optimistic future strategic environment, the military response needs to be considered and adjusted in order to remain a credible policy instrument. In the section below this refinement and alternatives for the military policy instrument are scrutinised.

### 5.4.1 Strategic thinking: Future challenges and responses

Although much is written about the future security environment, its military strategic side is not well-developed and articulated in contemporary security literature. A number of reasons for this observation can be traced. The current prominence of competing security sectors relegates military futures to some form of obscurity. Gray's criticism (2000) that no real strategic thought and theories rose to prominence during the twentieth century indicates a further impediment to address an already constrained policy option. The paradigm of the Cold War also tended to delimit and frame the danger faced by countries and thus moulded strategic thinking. This is opposed to the open and less dangerous contemporary world order and the leeway it allows for multiple outlooks upon threats and vulnerabilities from different security sectors.

The above poses a dilemma in that a new security agenda is pursued within which the strategic domain is challenged and stifled by it having to compete with adjacent non-military sectors. In this competition, military security receives less attention except for those matters related to reducing its footprint upon the security landscape (Hyland, 1993:12). According to Pfaltzgraff (in Shultz *et al.*, (eds), 1997:172) this competition is also about maintaining capabilities (military means included) whilst simultaneously contributing to reducing threats. This has left strategic thinkers and defence decision-makers with a new dilemma: How to introduce new defence thinking to uphold a credible military posture in a strategic environment where it is perceived to no longer have a clear or unambiguous prominence and need?

Contemplating military responses in the future security environment embodies a further difficulty - that of the post-heroic age. The idea that countries will not make military sacrifices disproportional to the stakes involved seems a sound argument, but not indicative of no military commitment at all. What becomes necessary is to devise military instruments for new challenges. This requires new attitudes towards addressing turbulence in regions within a new paradigm of interests or responsibility (Freedman, 1999). This implies the responsible use of

military coercion by restricting its destructive and collateral ripple effects. From a futures point of view it is to move towards a presumed different and more constructive role for the military. As the security environment allows for movement from a war fighting towards an envisaged future warless society as presumed by Moskos, military institutions are taken along by adjusting them appropriately.

Evans accentuates multilateralism for conducting campaigns against future terror threats and subsequent threats that might arise. According to Evans internal conflicts, state on state wars, proliferation of WMD and even weapons of mass disruption from cyberspace constitute elements of future threats (Evans, 2001a). This outlook touches upon the heart of the military security debate of whether military-strategic affairs amongst states should be directed by a national competitive or global co-operative security paradigm. Considering this outlook, Pfaltzgraff (in Shultz, *et al.*, (eds), 1997:173) argues that the use of military force is to adjust to its governing environment. Factors promoting conflict and war will therefore promote or uphold the saliency of military coercion. Their reduction will mitigate the latter's prominence, but to achieve such reduction nowadays also requires the use of military coercion in new ways. In this regard collective and common security represent some guiding theory to direct or influence the unilateral or multilateral use of future armed forces.

Deterrence, as opposed to its functioning during the Cold War, lost much of its impetus and military thinking had to adjust from nuclear to conventional deterrence. Current threats demanding a military response are less deterrable with the state becoming compromised by parties immune to nuclear and even conventional deterrence. Such non-deterrable threats are judged to be a permanent feature for future military forces to cope with. One strand of the future strategic environment is unambiguously set in responses to conflicts where the state on state profile is corrupted by one reflecting non-state parties as well (Pfaltzgraff in Shultz, *et al.*, (eds), 1997:177).<sup>21</sup>

Future military responses require a new frame of mind for it raises the matter of preparing forces to respond to an unfamiliar strategic environment. In combination with the introduction of new technologies, war as a policy instrument to deal with the future strategic environment, stands to be transformed - whether to wage war at the low or the high end of the conflict spectrum. This shift towards non-traditional uses of military power, according to Guertner (in Shultz, *et al.*, (eds), 1997:206), is to remain contentious. Brady, in commenting on Pfaltzgraf (in Shultz, *et al.*, (eds), 1997:196), however, claims that the future military response is to rather assume different cloaks than to disappear. New theories on the use of military force or invoking established ones

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<sup>21</sup> See Manwarring, M. (ed), 2000, *Deterrence in the 21<sup>st</sup> Century*, Frank Cass, London for updated view on deterrence.

are to be used to explore new uses of the military policy instrument and enter domains previously deemed out of bounds. Civil-military peace making, peace-enforcement and peacekeeping are prominent roles already being debated and refined. A further adjustment is to meet the uncertainty *through* capability based thinking and by following this route, rather shape than respond to the future security environment and its strategic demands (Brady in Shultz, *et al.*, (eds), 1997:199).

In addition to the above it has to be noted that not all actors happen to view the military option as a last resort. Conflict is rather welcomed and a way of life in some cases (Guertner in Shultz, *et al.*, (eds), 1997:202). This reality defies the assumed rational logic on using the military option as a last resort or only in a constrained way. Although its use is viewed to be declining, this does not mean it will never be used (Maynes, 1993:13). People are prone to find reasons to fight and it is unlikely that all countries are to follow and remain on the benign democratic route. The use of the military instrument during 2002 in actual fact supports the argument that war is definite policy option for both developed as well as developing actors (Black, 2001:4-5) and was further reinforced with the controversial 2003 Second Gulf War.

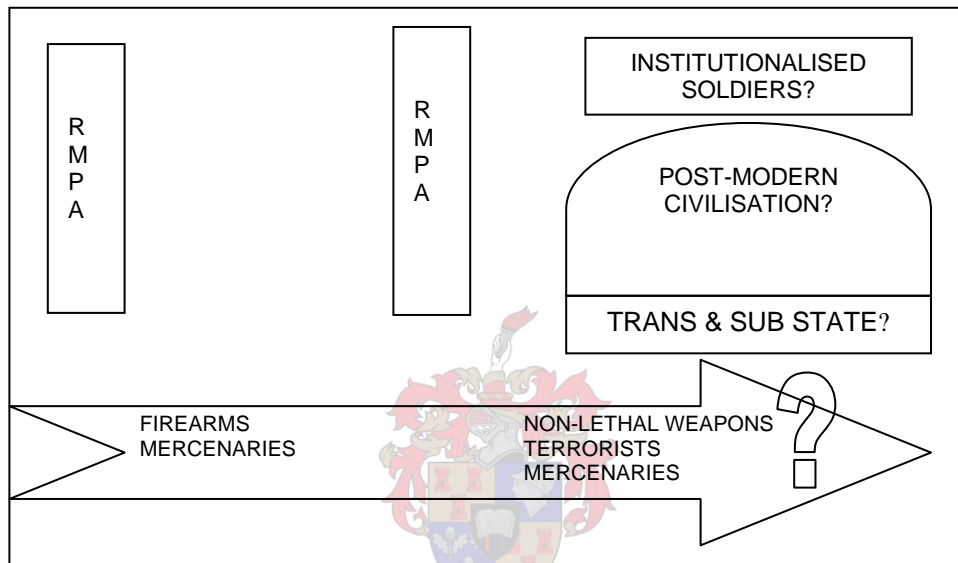
#### **5.4.2 The decline of civic militarism and rise of future militaries**

Other shifts also play a decisive role in influencing the objectives and conduct of military operations and the profile of military institutions (Black, 2001:9). This becomes visible in the term a *Revolution in Attitudes towards the Military* (RAM) that depicts how particular societal dispositions towards military forces are modified. Lesser willingness for, and overall costs, caused conscription to become questionable. New waves of societal preferences and public interests broke upon and influenced traditional military outlooks. This caused the latter to lose some of its previous privileged and protectionist cocoon (Black, 2001:11). Bunker (2002:xxi-xxii) also points to the matter of context in that Revolutions in Military and Political Affairs (RMPAs) rather than RMAs bring about so-called epochal change in the use of military coercion. Social and political contexts of change function as directing backdrops for the future use of military coercion. As the military-strategic domain of security concerns contracts under the influence of changes in its foreign and domestic domains; those having overly invested in or relying upon it are likely to find some of their bargaining power being eroded (Maynes, 1993:12).

The above briefly illustrates how civic militarism has receded since the end of the Cold War and seems to remain on the decline. This decline, however, has been offset by the rise of military professionalism towards smaller standing armies. In addition, the evolving strategic environment has eroded the need for large standing armies and its adjacent concerns (Black, 2001:14). This trend became reinforced by the increase in machine and technological advances and operational



concepts that increasingly chipped away at brutish and mass manpower driven military institutions. Its interface with the evolving strategic environment is embedded in preparing military forces for diverse future wars. Black and Evans (2002) are of the opinion that future war is to assume a range of warfare types that military institutions will simultaneously have to contend with. Its diversity is to challenge the preferred and carefully constructed politico-military interface pursued by states (Black, 2001:82). This outlook is illustrated in Figure 5.1.



**Figure 5.1: The Shift to Future Military Diversity**  
(Source: Own compilation from Bunker (ed), 2001)

### 5.4.3 Alternative military futures

Metz (1997) of the US Army Strategic Studies Institute relates the domestic structural and external strategic context to the new security environment. He presents a futures outlook upon the strategic environment towards 2030 by harmonising it with alternative future military alignments. The research by Metz draws upon the currents or trends of change judged to characterise the future security environment and possible alternative strategic implications from their operation. In part, the changes discussed by Metz coincide with the discussion on security presented above, but it narrows down their possible future military implications. Metz utilises currents of change and sub-divides them into two categories: First, overarching currents and secondly, more specific currents and their features. He argues that their impact is liable to contain conflict potential that is judged to call for military responses at some future point in time. Table 5.4 illustrates the future impact of the currents of change identified by Metz.

**Table 5.4: Currents of Change and their Future Impact**

Current	Features	Impact
<b>Overarching currents</b>		
Interconnectedness	Accelerated electronic and physical linking of entities.	Heightened potential for economic and political interdependence.
Compression of time	Acceleration of the decision-action cycle by closing the gap between obtaining information and decision-making.	Lifespans of ideas and institutions shortened and a need for constant innovation by governments and non-governmental actors.
<b>Specific currents</b>		
Demassification	Fragmentation and niche specialisation to cater for specific needs - not one-fits-all.	Potential political fragmentation and individualism promoted against the idea of collective or communal belief systems.
Technological	New technologies and new uses thereof appear at a previously unknown speed. Possible merger of informational, mechanical and biological revolutions.	Change in how military power is applied. Shaping the future battlefield. Accentuates differences and resentment. Impact of immature or dangerous technologies.
Economic	Continued transnationalisation. Knowledge based economies. Geographic shifts of industries. Networked corporations. Niche markets and firms. Outright collapse of some formal economies.	State-economic power and impact eroded. Violent opposition to economic change. Economic collapse causing state collapse. State struggles to offset powerful non-state economic entities.
Political	Continued devolution of power away from the state. Demassification of security. Overextension of capabilities.	Declining ability of states to control and provide security. Security monopoly to shift away from the state. State power and legitimacy eroded.
Socio-demographic	Population and urbanisation growth. Criminality trends. Challenges to self-esteem and status from superfluous population segments.	Population pressures to spark or exacerbate conflict. Resource scarcities. Unrest due to state incompetence to cope with pressures or demands. Organised crime merging with or supplanting political insurgencies. Militarisation or re-militarisation of the state.
Ethical and psychological.	Search for personal identity and social meaning amidst deep change. Favouritism versus resistance to the pace of change, interconnectedness and globalisation.	Turn to new fundamentalist, nativistic ethnic or tribal nationalism. Rise of violent fringe groups and transnational ideological groups. Radicalism from fringe group spectrum.
Military currents	Heterogeneity between armed forces. Impact of the RMA. International hierarchy of military force. Civil-military blur in ways and means.	Outbreak of war is kept in check. Military modernisation or stasis or even degeneration. Patchwork of state, sub and supra-state military forces. Military-civil-police type or preferred identities collapsed and interfaced.

(Source: Metz, 1997:v-vi)

The above trends or currents towards stability or instability are compiled into five alternative futures with their military strategic implications and adjustments concerning the future security environment being demarcated for each alternative.

- **Alternative future: A state-based balance of power system.** This system supposes that the nation-state is to persist and maintain its hold over organised violence in the form of

military organisations pursuing national interests (Metz, 1997:18). State on state war is to remain, but the wider the alternative futures foreseen by or imposed upon these actors, the greater the range of military capabilities to be prepared for future employment. The balance in this system is maintained through shifting coalitions to contain powerful actors (Metz, 1997:19). War fighting is to remain the primary mission of armed forces with due consideration of military posture and profile in order not to offend other partners.

- **Alternative future: A trisected security system.** This alternative is judged to contain several co-equal sources of conflict. The extent to which currents such as interconnectedness, demassification and time/space compression are influenced in dissimilar ways, results in a differential impact upon different world regions. Different tiers are expected to materialise that is no different from the past when civilisation, religion and economic profiles and outlooks were used to reconfigure the international system (Metz, 1997:25). In this future system Metz argues for three evolving tiers.
  - A first tier of stability, prosperity and the integration of economic, political and military outlooks that is to portray an aversion of violence and extended expensive military excursions (Metz, 1997:25-6).
  - The second tier is to consist of states hovering on the brink of entering the first tier. This aspiration is to direct their functioning as they battle to enter, but are intermittently incapacitated by individualistic and competitive drives. These cause them to slip back and redirect their focus to handle more primitive threats such as authoritarianism, secessionism and guarding over fragile sovereignty. The use of military coercion is thus to be pursued for legitimate national interests under certain conditions (Metz, 1997:26-7).
  - The third tier is to display features of economic stagnation, ungovernability and violence. This tier will be either linked to the first tier through extraction, or be cannibalised by its own rulers and their henchmen. The use of violence in pursuit of interests is to be more readily visible as opposed to the first and second tier outlooks, but tainted by personal and brutish features for questionable interests (Metz, 1997:27-8).

The military implications of the rise and operation of such a tiered system are illustrated in Table 5.5.

**Table 5.5: A Future Tiered System and its Military Implications**

Tier	Military implications
First Tier	No traditional wars against each, other but occasionally against Second and Third Tier competitors/enemies. Modern and sophisticated ways and means via brief burst operations to avoid casualties. Shifts in civil-military relations as fighting and killing become outdated by managing and applying military coercion over a distance.
Second Tier	More traditional use of military coercion. A higher tolerance for casualties. Less sophisticated and more inclined towards sustained costly operations whilst remaining vulnerable to information-type attacks. More traditional type civil-military relations with civilian control, but a civil-military divide in society.
Third Tier	Unstructured military bands co-existing with official armed forces. No clear war-peace distinction and no real or institutionalised restrictions on the use of violence. Personal appeal and charisma to tie supporters to military leaders. Little civil-military distinction to guide the use of military coercion within this tier.

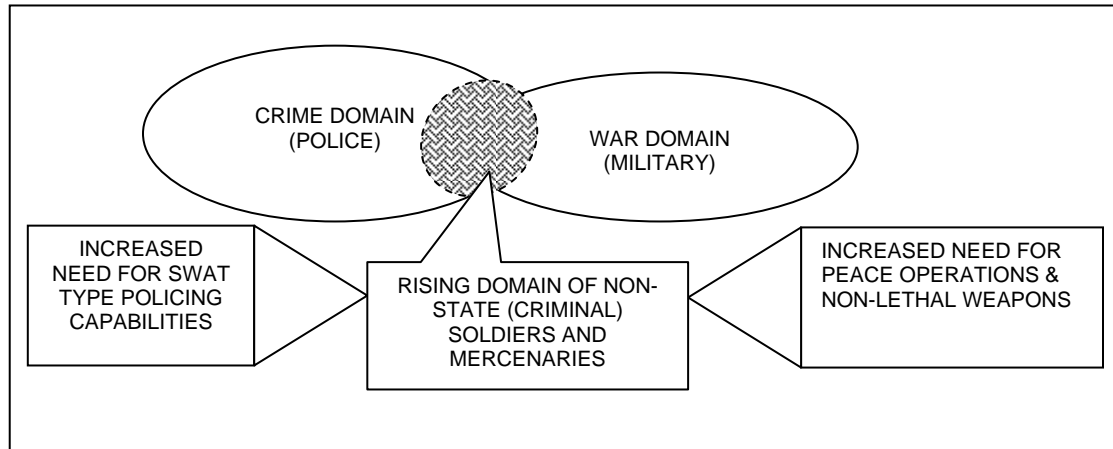
(Source: Metz, 1997:32-35)

- Alternative Future: The renaissance of ideology.** This alternative posits the return of belief systems that offers some form of coherent solutions to economic and political difficulties. It does not, however, constitute a mere return to the globalist / anti-globalist or portraying traditional Cold War ideologies. Expectations are for it to be more primitive or modern economic preferences and new nationalisms driven by religion and protectionism (Hyland, 1993:13). The resultant divisions also represent the fault lines along which future military conflict is expected to occur, raising images of the Huntington thesis on *Clash of the Civilisations* positing that cultural fault lines represent fissures along which future wars are to break out. War along these lines reflects a spectrum and as the emotional parameters of war increase, the more violent it is expected to become. This is to be reinforced by military forces showing significant differences and outlooks entering the fray. The rigidity of these systems is expected to ameliorate the role of diplomacy with a corresponding slant to using military coercion. This alternative promotes rigid military planning and a lesser need to plan for and develop an extended range of future military contingencies and military means (Metz, 1997:36, 41).
- Alternative Future: Internal collapse.** This alternative has to grapple with what transpires amongst different domestic parties in conflict in so-called community wars. This conflict could be sub-state or state against sub-state and may well occur in the Developed Tier as well. This is not to be ignored by any state as Van Creveld refers to it as a matter promoting state decline (Van Creveld, 1999:401-402). The extent to which state on state war becomes surpassed by internal disorders and state collapse, compels governments to calibrate and adjust their military institutions to address the resultant vulnerabilities and threats. One example is that this alternative presupposes a heavy emphasis on ground forces and technologies for operations in a low-intensity conflict environment. The difficulty for military

coercion here not only lies with adjusting to a changed threat, but also with the operational domain becoming domesticated. The domestic operational domain is to test and distinguish different armed forces by how restrained they operate and their ability to temper brute violence with new technologies and attuned operational concepts. In this system, state on state war is rare, but tensions between neighbours and spill over of internal conflicts promote intervention (Metz, 1997:42, 46).

- **Alternative Future: Economic warfare.** This future outlook is fuelled by resource and market competition and resultant conflicts that turn violent (Metz, 1997:47). In addition to this, there is the new outlook that power and wealth has less to do with a mighty arsenal and more with mastering economic power and modern technology. Closely linked to this is the paramount importance of having access to the resources that actualise such economic power (Klare, 2001:7). Furthermore, as long as resources are not equitable in their distribution, countries allocate disproportionate military resources to its protection (Klare, 2001:222). By linking economic and national security in an inextricable manner, assured access to strategic resources is bound to be a prominent feature of the evolving strategic environment. This not only features in the US thinking (about the Middle East and oil), but also in China (Spratley Islands), Japan (importation of raw materials) and Russia (concerning oil deposits in Chechnya) (Klare, 2001:11).

The measure to which strategic issues become econocentric, the imperative for resource protection increases. The military means to effect this protection either remain in the hands of governments for the benefit of commercial corporations or the latter owns or hires security forces from government or private enterprises to serve this function (Klare, 2001:14). According to Van Creveld (1999:407) the intrusion of private military means (whether legitimate or criminal) to serve this purpose is a growth industry. As commercial entities develop interests separate from the state or not in tandem with what the state is prepared to defend, military capabilities parallel to the state are expected to arise. A wide-ranging spectrum of tasks is bound to arise - ranging from sophisticated and informational in kind to brutish and primitive - depending on the client, the need and the coercive institution itself. This divide is also visible in the conceptual Private Military Company (PMC) and Private Security Company (PSC) stratification where provision of security and that of coercive military services are used to operationalise this somewhat new phenomenon (Adams in Bunker (ed), 2002:56). The result is a strategic environment where threats emanate from opposing forces that seem to occupy the middle ground between society oriented police services and the war fighting forces of traditional military institutions. This intrusion and competition with regular military ways and means is illustrated in Figure 5.2.



**Figure 5.2: Blurring of the Military Paradigm by Crime and War**  
 (Source: Bunker in Bunker (ed), 2002:xxi)

## 5.5 THE FUTURE STRATEGIC ENVIRONMENT AND FUTURE WARFARE: ALTERNATIVE VIEWS

Examining the general literature, as well as official views, held by governmental or defence institutions can pursue different ways how future warfare may manifest. Divergent factors, influences and views as to what is to transpire and how military coercion is to be used, underpin the use of military institutions in a future strategic environment. There is no single debate on this matter<sup>22</sup> and in lieu of keeping in line with the Futures Studies outlook, some alternative propositions concerning future war are addressed.

### 5.5.1 Peer-styled, non-traditional and information warfare

As a point of departure Barnett (1996) uses the gap between current predictions about future war and how humanity develops in the next twenty years. He admits to the limitations of not knowing the time, location, and precise purpose of future warfare as well as the hesitancy by present day military institutions to embrace change and recognise new possibilities. Pfaltzgraff (in Shultz *et al.*, (eds), 1997:188) acknowledges this and warns that a balance needs to be maintained between what is to become known about the future and what will remain shrouded in uncertainty when considering the future use of military power. Barnett (1996) nonetheless categorises future warfare into different categories of opponents and activities in order to create some structure amidst the uncertainty.

Future opponents are anticipated to assume the profile of peer and niche competitors. A future peer competitor is capable of fielding sufficient numbers of emerging and current weapons systems and developing an innovative concept of operations for its use. Such a competitor is able to defeat its opponents militarily and in the past took the shape of the USSR, Germany and Japan as far as the US is concerned. A niche competitor, according to Barnett, is an actor combining limited numbers of emerging technologies with a robust stock of current weapons systems to develop an innovative concept for employing this mix. For a country like the US for example a niche competitor implies a military inferior opponent, but one raising the costs of a response in some distant region. Iraq and North Korea (and perhaps Iran) represent niche competitors to the US. These competitors employ civilian space networks for surveillance and communications, pry the international arms market for precision-guided low-observable missiles and information specialists to utilise the domain of information warfare (Barnett, 1996:Introduction, 1-2/6). They therefore represent dangerous future opponents to any single or combination of actors bent upon acting against them.

At the macro-level the nature of future war assumes three general categories of activities. The first is the refinement of traditional combat. This refers to the future conventional battle space that is to incorporate new technologies directed at high-tempo destructive capabilities and the massing of fire rather than forces. Automation, compressed time frames and flat non-bureaucratic organisational forms to facilitate information and decision-making is to be expected (Barnett, 1996:The nature of future war, 1/3). This traditional combat outlook seems to remain prominent in the sub-consciousness of contemporary military decision-makers as it acknowledges known ways and means for conducting war. It accordingly remains at the forefront of how countries still prepare their military forces and tend to use them. This became glaringly obvious by the dilemmas encountered by US forces in Somalia (1993-4) and the South African forces that entered Lesotho (1998) to prevent a presumed *coup*. Experiences such as these resulted in the realisation that traditional and new roles are not automatically interchangeable and need closer scrutiny.

A second category is non-traditional missions embodying low-keyed military activities. The essence here is to adapt or use collateral utilities inherent to the military to assist in or address the mix of post Cold War needs. These are not always profoundly military in kind, but can only be addressed by the military (Du Toit, 2002). Barnett also points out the difficulty of this activity spectrum and the challenge posed by using the military-strategic instrument in a changing security environment. This domain of military activity is furthermore challenged by the duality of

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<sup>22</sup> See Bunker (1996) who argues that the academic debate on future warfare is primarily directed by three different theories: fourth generation warfare, third-wave warfare, and fourth-epoch warfare.

internationalism in achieving security and stability through the strategic domain and parochial clashes arising from certain regions. International legitimacy is to direct future operations in this sphere by means of coalition type activities and so much the more as UN-views about global peace, interests, and co-operation enter the debate. This does not accurately fit the state on state or internationalist line, but becomes a mixture of mergers and conflict between sub-state, trans-state and criminal actors with the resultant extremities drawing international attention and responses (Barnett, 1996:1-2). This particular merger is also recognised by Galeotti, Sullivan and Bunker, as well as Adams (in Bunker (ed), (2002)) in their *exposé* of transnational crime, drug cartels, street gangs, warlords and modern mercenaries as future threats to be met by traditional or adjusted military forces.

Warfare in the information age is the third category to be entertained and comprises military and non-military technologies in the sphere of information and communications. Vulnerability to a spectrum of new opponents by means of direct information attacks on the homeland without being able to interpose military weapons becomes a distinct future scenario. In traditional combat, the information attack also becomes a threat with its potential to blunt the impact of military operations by corrupting command and control at critical junctures of operations. Kinetic effects of weapons are thus augmented by cyber-based information operations. Entering the information battlefield does, however, demand capabilities and co-ordination of a magnitude not easily mastered. For those contemplating to embark upon this field it implies missions to protect own information systems, attack upon opposing information systems and to leverage own information capacities to gain a decisive advantage in the future battle space (Barnett, 1996:3/3).



### **5.5.2 Future warfare and future force structure**

The imperative to move from a mindset of cure-all military forces to specific needs emanating from future opponents is a topic addressed by Barnett and Gaffney (2000). They argue that these changes hold sway with alternative visions of the future strategic landscape and they address the very topic of specific military needs for alternative military futures. Their views are not set and exclusive, but rather tailored towards viable forces for different contingencies amidst a future strategic environment remaining clouded by alternatives subject to incremental changes.

***The systems level vision:*** This outlook is primarily about the Northern Tier of countries and their advanced power relationships. This long-term vision favours air forces, less war fighting and local involvement. It portrays a preference to rather manage military coercion over a distance and keep the international system - the bigger picture - stable as the Kosovo Campaign perhaps



illustrates.<sup>23</sup> An informational vision with the aim to interlock all great powers of the north and prevent warfare between them substitutes the nuclear umbrella. It furthermore argues for policing and effectively criminalizing warfare amongst actors in the unstable Southern Tier to prevent their conflicts from spilling into and disrupting the equilibrium of the international system. Interventions in local conflicts are to take place over a distance and preferably by smaller advanced military forces tied into the northern tier (Barnett and Gaffney, 2000:5/8).

***Rogue states upsetting the aspired stability in the system:*** This vision favours naval forces and quick deployment forces to deal with rogue states. The need for coalition type arrangements is judged a necessity to augment this military effort. Coalitions are particularly important to cement the legitimacy and future staying power of interventionist forces that operate in difficult future post-interventionist theatres to establish and uphold the peace. This outlook implies a semi-permanent presence to monitor and keep certain rogue actors in line when deemed necessary (Barnett and Gaffney, 2000:5-6/8). The Afghanistan Campaign of 2001 and the 2003 Second Gulf War are illustrative of this alternative and also the difficulty of performing contemporary coalition type operations for the sake of legitimacy and staying power.

***Sub-national or sub-state vision favouring ground forces:*** This view represents a response to the anarchy and messy state of affairs expected to arise from countries in the developing world. These instabilities reflect a need to quickly swell ground forces and for co-operation with UN peace keeping missions and constabulary type forces as well as non-governmental and private organisations. In spite of opposition, contracting PMCs to assist in opposing the surge of insecurity from this domain is on the cards (Adams in Bunker (ed), 2002:57). This strand of future conflict is judged to call for an increased mix of military coercion, policing and civilian assistance to cope with a conflict domain that is arguably less responsive to traditional military ways and means. In effect it is an outlook and reconfigured military coercion to prevent a future known as *The Coming Chaos* and to keep the problem “over there” (Barnett and Gaffney, 2000:6/8).

### **5.5.3 Future warfare: New enemies**

Williams (in Bunker (ed), 2002) expressed the matter of future war as "... *the world has changed fundamentally and there is a new security environment populated by smart enemies.*" In this shift, new enemies make up for a lack of robust fighting power by fighting smart or by avoiding battle and relying upon co-option and corruption as opposed to confrontation and conflict. This new environment is characterised by emergent realities concerning how future wars are to unfold

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<sup>23</sup> This argument posits the use of, for example, air power for projecting force into a distant theater and thus remaining aloof of the ground-based dangers and intricacies of current volatile theaters.

and calls for innovative responses based upon new security mechanisms and instruments. These realities need to be factored into the preparation of forces for future wars and is to probably emerge along the following lines:

- ***Attention and effort need to be distributed between states and sovereignty free actors where the latter have increasing power and resources to influence and hurt states.*** This is a definite profile towards which the future strategic environment seems to be heading (Ronfeldt in Bunker (ed), 2002:xx-xxi). Some salient features of this shift are that of fourth generation warfare with ideas and terrorism directing it and its futurist modes of non-trinitarian war, transnational organised crime, the new warrior class, net wars and fourth epoch war slanting it towards the Low Intensity Conflict (LIC) spectrum (Ronfeldt in Bunker (ed), 2002:xxiii).
- ***The distinction between foreign and domestic has broken down and withered away.*** Identified by the Tofflers as a major influence for states to contend with, the rise of the intermestic domain also has a future military implication (Toffler and Toffler in Ronfeldt and Arquilla (eds), 1997:pp xvi-xvii). Capabilities and skills to operate and police domestically and to fight foreign wars therefore become quite blurred. This results in both military establishments and policing forces or services becoming somewhat ill-suited to function in their demarcated operating environments (Ronfeldt in Bunker (ed), 2002:xx-xxi). Policing and military roles subsequently overlapped or assumed blurry boundaries that began to characterise future conflict and gave rise to publications such as *Policing the New World Disorder: Peace Operations and Public Security* edited by Oakley, Dziedzic and Goldberg.
- ***Threats and countering it revolve less around states with the dangers of state-on-state warfare being only one threat calling for military attention.*** Future war is also to be less about strong states embarking upon war, but rather emanating from weak states that cannot prepare a military capacity to deter quasi-military threats and keep their territories safe from criminal-military fused networks. Terror and criminal networks and non-state entities thus have much leeway to enter and influence the future strategic environment that military forces have to operate in (Ronfeldt in Bunker (ed), 2002:xxi).
- ***Facing new future enemies is what states are to prepare their military forces for.*** Such future opponents, also typified as smart enemies, imply that traditional military thinking needs to be expanded. They are network based, transnational, highly flexible and adaptable - even when severely damaged. The dark side of globalisation allows much leeway to new and smart enemies for plying their trade. Latching onto the global flow of information and money,

smart enemies exploit this phenomenon to promote their activities. They are able to embed themselves in social and financial institutions in ways making them quite invisible. In conjunction with the flow of technology and expertise in an open and globalised world, it affords new smart enemies the means they need. It simultaneously increases the vulnerabilities of governments and causes the future strategic environment to be much more formidable than one typified by hard military threats. These shifts are new and give a different meaning to knowing your enemy. They furthermore require a reassessment of traditional institutions concerned with facing this new strategic environment (Williams in Bunker (ed), 2002:xviii-x).

#### **5.5.4 Future warfare: Asymmetric responses and strategies**

Asymmetric strategies arise as certain actors gain unprecedented sophisticated military ways and means and less sophisticated future opponents are compelled to counter this superiority (Freedman, 1998:38). Freedman acknowledges the visibility and slant towards the RMA. Asymmetry, however, is a growing feature and future strategy of certain actors, while Alexander and Heal (in Bunker (ed), 2002:132) argue that the September 11, 2001 attacks on the USA embody the arrival of asymmetric warfare on the strategic landscape. The asymmetric option is not only a strategy according to which the weak are to offset the superiority of the strong, but also threatens sophisticated militaries that contemplate a shift into the RMA domain.

For modern and even RMA or partially based RMA-militaries their vulnerabilities stand to be exploited by weaker opponents through asymmetric pathways. The imposition of pain rather than winning battles, gaining time rather than concluding the conflict, and targeting the political base of the opponent, in addition to military targets, feature prominently in asymmetrical thought. Intolerance to casualties and civilian suffering, in turn, are important impediments in the make-up and employment of sophisticated Western military means. This results in the stronger (Western) military powers preferring rapid battlefield victories as opposed to the weaker that are more willing to draw in the civilian domain and avoid open battle (Freedman, 1998:41). Peters further warns that before a peer competitor arises, the USA and its sophisticated military forces stand to be challenged by other competitors and much of this holds for other actors and their traditional outlooks and potential opponents as well. These non-peer (asymmetric) competitors, according to Peters, will embark upon miserable wars reflecting incisive capabilities or an unprecedented will to violence. Such wars stand to be fuelled by collective emotions, sub-state interests, and systemic collapse, with hatred and emotions rather than strategy guiding operations (Peters, 1997:4/7).

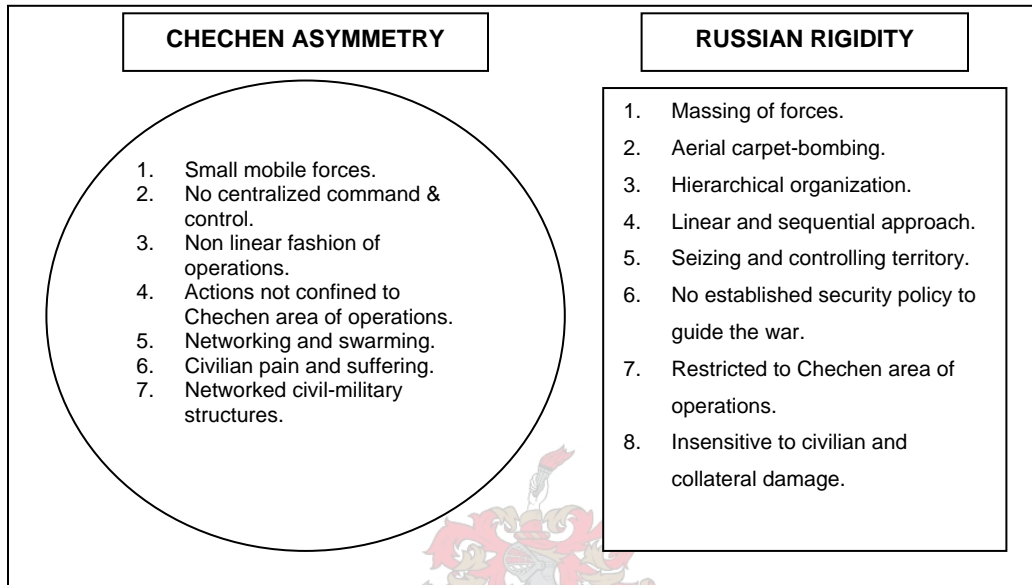
In order to offset the superiority of sophisticated military forces through asymmetry, different outlooks are pursued. One is to raise the cost of the war to the point where it outweighs the political gains (Freedman, 1998:40). Moving into zones with a high potential for destroying human and material resources is one option as fighting in cities (Peters, 1997:4/7) is where the future of warfare is to reside. As urban centres increasingly become future hubs of power, they also become the nightmare of sophisticated military forces. The urban shift threatens to collapse the structural integrity of how military forces are organised for war and in particular machine orientations *versus* soldiers. Urban centres accordingly become an ideal asymmetric battlefield for future opponents and even non-combatants (Peters, 1996:2/6). Integrating or locating military assets close to highly populated areas and threatening WMD or even environmental destruction (as illustrated in both Gulf Wars of 1991 and 2003) are employed to oppose modern military ways and means and blunt their efforts through asymmetry (Freedman, 1998:40).

A case in point of the asymmetric approach under modern conditions is observable in the first Chechen conflict (1994-1996) between Russia and the breakaway southern republic of Chechnya. Russia entered this conflict within the ambit of quite rigid military strategic and operational thinking. According to Arbatov (2000:22-23) this traditional and conventional outlook soon faltered. The reason for this was asymmetry, which blunted Russian military power through the organisation and tactics of the Chechen forces, as explained in personal interviews with Chechen commanders and key officers (Dilegge and van Konynenburg in Bunker (ed), 2002:171-172). According to Arquilla and Karasik (1999:208) it is noticeable that mobile and networked Chechen forces used the concept of swarming to exploit Russian rigidity and massed military means of the hierarchically structured Russian forces. The Chechens employed a range of military and non-military tactics to which the Russian military and diplomatic responses were unprepared and slow in responding (Arquilla and Karasik, 1999:209). Bulky Russian formations had particular difficulties to adjust to and cope with the networked bands of Chechen fighters (Arquilla and Karasik, 1999:211). The Russian difficulty in reconfiguring its posture for coping with a new-styled threat based upon networking and swarming by the Chechens, is a reasonable explanation for the Russian defeat (Arquilla and Karasik, 1999:212). This asymmetry is portrayed in Figure 5.3.

#### **5.5.5 Future warfare: Information warfare (IW)**

Information warfare is acknowledged as a distinct form of conflict and has received formal status as it is reckoned by most modern militaries to be an influential or independent way of conducting future warfare. Arquilla and Ronfeldt point out that information has gained new meanings and possibilities as a message. Its production, storage, transmission, reception, and physical properties now all embody information (Arquilla and Ronfeldt in Arquilla and Ronfeldt (eds),

1997:144-145). IW warfare becomes much more than computer warfare as it not only calls for the adoption of new technologies, but also needs to account for the foundations of military organisation, doctrine, and strategy (Arquilla and Ronfeldt in Arquilla and Ronfeldt (eds), 1997:156). As a future way of war, information therefore implies overpowering the enemy through information overload (Arquilla and Ronfeldt in Arquilla and Ronfeldt (eds), 1997:158).



**Figure 5.3: Chechen and Russian Asymmetry**  
(Source: Own Compilation)

Freedman acknowledges this form of warfare and its underlying theory of changing the future battlefield from fog, friction, and uncertainty to that of clarity and certainty. He nonetheless warns that the arguments for clarity and certainty have a downside in that the very ways and means for acquiring it are vulnerable (Freedman 1998:54). For Freedman the more immediate utility of information is vested in it being a force multiplier where decisive battle and overwhelming force tend to lose their meaning. Future operations against militias, terrorists and criminal opponents as a dominant future trend of warfare are arguably where the greatest challenge resides for using information to wage successful future military campaigns (Freedman, 1998:64).

Although much propagated, IW is not an ultimate option to negate the Clausewitzian trinity of fog, friction, and uncertainty. Information operations, as a way of future warfare, reflect some difficulties as well. Black (2001:85) outlines the difficulties to be faced as its co-ordination under battle conditions and uncertainty about how the flow of information at unprecedented rates is to effect decision-making. Visualisation of massive quantities of information remains ambiguous. Whether it is to have commanders knowing everything to direct battle or to furnish soldiers at the

lower end with an unlimited view and grasp of their battle surroundings remains unclear. The fallacy of the latter posits that IW only requires technical difficulties to be taken care of.

McPherson, however, holds a more fundamental criticism of IW. She points out the societal impact of IW and its clear shift to the civilian realm concerning its origins and envisaged future application. As military and civilian needs for and views of information and technologies become increasingly blurred, the distinction between military and civilian targets turns obscure (McPherson, nd, 10). As for future wars, its informational ways and means are to further collapse the civil-military realm as the traditional military domain of controlling violence and its exclusivity becomes compromised. This future's outlook, however, contains two further considerations to be noted. First, that of civilian vulnerabilities in a future war as civilian industries now form the hub of the information capacities of certain military forces. Secondly, the alternative perspective that IW is to contain the very means to preclude civilian targeting and facilitate compliance with the growing legal requirements to distinguish between combatants and civilians in future (McPherson, nd:17-18).

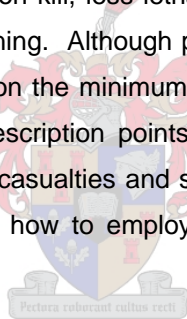
#### **5.5.6 Future warfare: The non-lethal option**

The non-lethal notion challenges the foundations of a firepower military that uses objects or machines to replace human lives and posits that in some forms of future conflict traditional military forces will experience severe limitations. One matter that remains important, however, is efforts at minimising the loss of human lives. Whereas Pfaltzgraff outlines dramatic increases in lethality as part of the military-technical revolution, non-lethal weapons covers the exact opposite domain - an effect or outcome without lethality. Although primarily an American alternative it increasingly also became pervasive and prominent in other countries as the clarity of interests justifying taking human lives began to fade in the late 20<sup>th</sup> century (Alexander, 1999:x). This outlook is perhaps well portrayed in the phrase by Alexander and Heal: "*The future of conflict is small, smart, fast, precise, and unconventional and death is optional.*" (Alexander and Heal in Bunker (ed), 2002:121).

The moral dilemma of taking a life has also steadily overflowed to include the lives of opponents as killing the enemy begins to raise islands of moral opposition. However, as society evolves, the demand to restrain or stop people and actors such as states from taking lives through wars is to persist. One response is to use the traditional idea of deadly force while the non-lethal option is to replace the use of deadly force through the development and use of non-lethal weapons. Alexander, a proponent of the non-lethal option, acknowledges the necessity of traditional deadly weapons to coerce stubborn enemies, but adds that the cycle of violence seldom offers long-term solutions (Alexander, 1999:203).

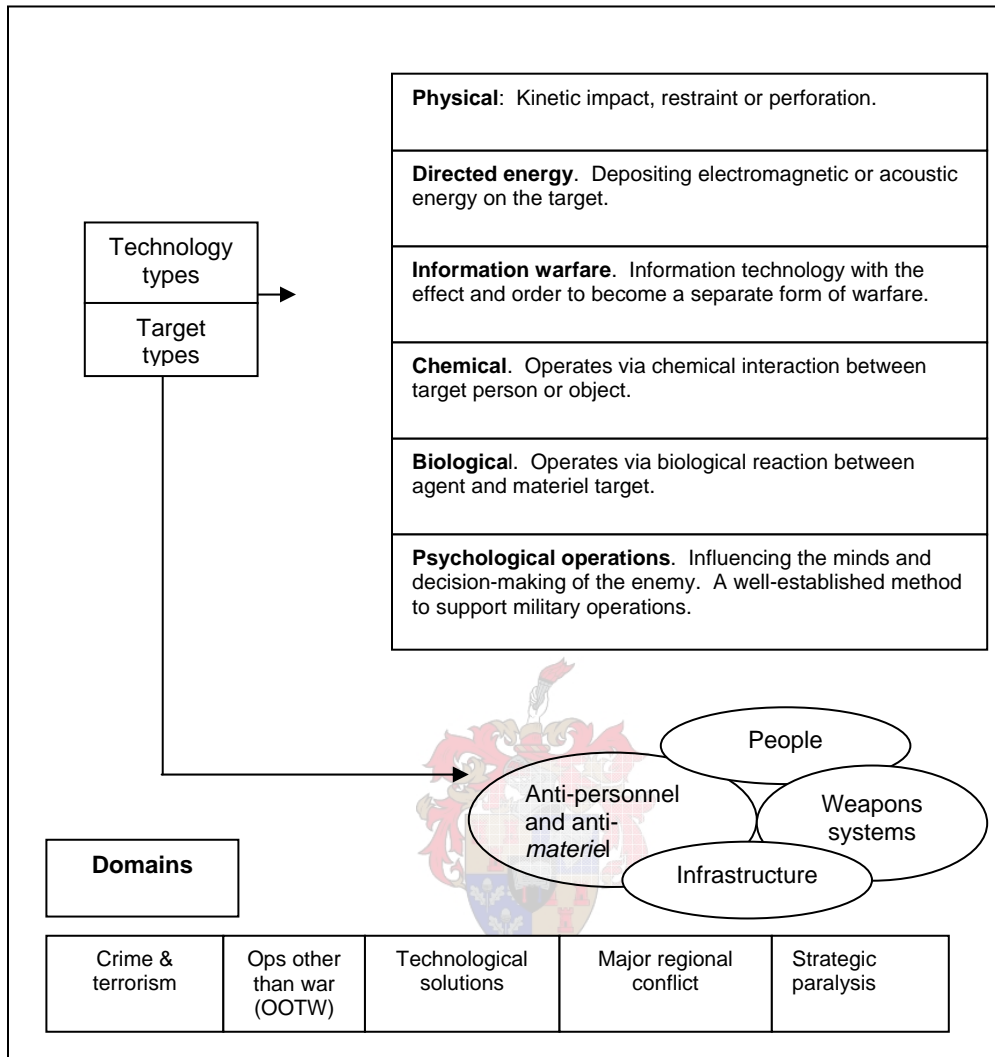
Distinguishing between the non-violent and non-lethal domains is important as well. Non-lethal weapons may still contain elements of violence (Alexander, 1999a). Alexander further argues that the evolving future security environment's demands upon the strategic instrument points towards the incorporation of non-lethal systems that are designed to limit physical damage (Alexander, 1999:5-6). This adjustment demands a proper understanding of alternative military futures. For military commanders this is about confronting circumstances calling for a variety of options to use force (Alexander, 1999:9). These options are to arise from some features the future may hold: geographical dispersion demanding rapid deployments, fighting enemies under undesirable circumstances as in cities and at short distances, fighting an opponent that defies accurate identification and changing missions of the military that tend to upset their traditional war fighting posture (Alexander and Heal in Bunker (ed ), 2002:122-123).

The concept of non-lethality is not about replacing the traditional option, but rather augmenting it for a future with increased demands upon military means. While it is easy to ascribe non-lethality's utility to security shifts, some delimitation is needed. Non-lethal, as a concept, went through a defining mill of soft kill, mission kill, less lethal, worse than lethal and eventually non-lethal in pursuit of demarcating its meaning. Although possible to quantify it in terms of fatalities and kill probability, gaining consensus on the minimum number of acceptable casualties proved difficult. On the qualitative side its description points towards a degradation of material and personnel whilst avoiding unintentional casualties and serious permanent damage - matters that grew increasingly powerful in views of how to employ military coercion in future (Alexander, 1999:17-18).



In the US the official term non-lethal refers to weapons "... *that are explicitly designed and primarily employed to incapacitate personnel or materiel while minimising fatalities, permanent injury to personnel and undesired damage to property and the environment.*" (Alexander, 1999:5). The debate on its true meaning and its accurate delimitation raised much semantics and consternation through the opinions of legal, academic and political observers. According to Alexander, it is rather a matter of how to minimise the use of deadly force and providing the appropriate means to this effect to circumvent the never-ending debate. To this effect Alexander presents a taxonomy of non-lethal weapons by illustrating the target types and technologies bringing about the desired effect. This taxonomy is illustrated in Figure 5.4.

Although the primary role of military forces has some niche for non-lethal weapons in a future strategic environment, the shift towards non-traditional roles as outlined by Pfaltzgraff (in Shultz, *et al.*, (ed), 1997:186) and Barnett is relevant as they depict it as a rising requirement. The need for



**Figure 5.4: A Taxonomy of Non-Lethality**

(Source: Alexander, 1999:222, 225)

policing - peace missions is a case in point - as the demand has sharply risen in recent years for the UN to undertake such missions. This shift is ascribed to dramatic or deep adjustments in the geopolitical landscape, technological advances and as requirements from the sphere managing peace, not war, began to coincide with more coercive needs and raised the requirement for non-lethal responses (Alexander, 1999:6). This flows from military forces being employed in future operations resulting from human conflict and from natural or man-made disasters (Pfaltzgraff in Shultz, *et al.*, (eds), 1997:187). Such future employment demands more discriminatory military means for they lack the clarity and distinctions about military foes found in traditional military



conflicts. The saliency of new roles for soldiers in the future strategic environment contain a parallel need for non-lethal military means as a feature of future warfare.

### 5.5.7 Future warfare: Patterns of future insurgency

Insurgency wars or wars of low intensity and terrorism are important structuring variables concerning future warfare. One view is that as states are decreasingly able to fight one another, leeway is allowed for the LIC paradigm rise. Metz and Millen (2004:1) argue that as interstate wars fade, insurgency moves from background noise to strategic priority. They furthermore aver that insurgency is reflecting an increasingly dominant profile as the 21<sup>st</sup> century dawns. The LIC domain also presents an avenue for developing countries to establish themselves and ignore the government-people-army nexus of the state. Collins (2002:167) points out that insurgencies are judged the most agile and sophisticated form of conflict as it is based upon opportunistic exploitations of the chaos it creates and without knowing what is to transpire from its activities. He furthermore draws a distinction between classical and new wave insurgencies. In this he illustrates the measure of predictability (established theory) built up over time concerning the former and its voids as new wave insurgencies transpired since the end of the Cold War. The latter wave became infused with religious fanatics (a matter disputed by Sageman, 2004), aggrieved ethnic groups, criminal gangs and other non-governmental groups (Collins, 2002:167-8). Attacks on US embassies in Africa during 1998, the Pentagon and the World Trade Centre during 2001, the Bali bombing during 2002, Madrid in 2004, London during 2005 and (although not proven) the anthrax scare in the USA represent salient expressions of new wave insurgencies.

These attacks and the responses (ranging from standoff missile attacks during 1998 to the commitment of international ground forces in Afghanistan during 2002) define both the threat and military response to a new domain of warfare (Van Creveld, 1991:192). Insurgencies not only create a striking solidarity amongst states, but also constitute a threat to the state and its acquired means of military coercion (Van Creveld, 1991:192). Although described as a *new doctrine of battle* and a *new breed of warrior* by Barry (2001:12) where machine warfare and human intelligence are more closely interfaced than ever before to oppose a new strand of future warfare, these insurgencies remain quite complex and difficult to counter. The global al Qaeda and Iraqi insurgencies of the early 21<sup>st</sup> century demonstrate both the emergent character and difficulties of counterinsurgency that face modern armed forces. Crudely destructive, but effective and difficult to pre-empt, the al Qaeda and Iraqi insurgencies are fast becoming the visible, but not only locus of future warfare and military adjustments to contain it (Raitasalo and Sipila, 2004:250,252).

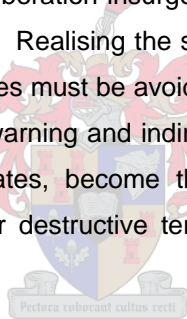
This lower end of the spectrum points to warfare between state and non-state entities with the latter proliferating as the conflict continues. This proliferation is acutely visible in the conflict that erupted in the Ivory Coast during 2002. According to news reports rebel groups appeared like mushrooms with each presumably having a stake in the conflict - and a coalition of government forces and private military companies that are opposing them (SABC News, 2002). These groups are currently rather viewed as mere aberrations to a more preferred view of future war. In Iraq, however, the proliferating insurgent groups became the *de facto* opposition after conventional operations ceased during 2003. The aberration became a major opponent that lends support to the ideas of Van Creveld. According to Van Creveld, a further (longer term) future is located in the state disappearing and such non-state entities (now named terrorists, guerrillas, bandits and robbers) rising to prominence. They are judged to assume more formal titles in future and take over from the state or at the minimum even become peer-type competitors to state entities (Van Creveld, 1991:197 ; Adams in Bunker (ed), 2002:58).

Future insurgency, according to Metz (1993:1-2/2), will reflect two dominant developments. The first is spiritual and grounded in the search for meaning amidst globalisation and modernisation as discussed earlier in this chapter. As insurgency evolves within a particular strategic context, its location will be found predominantly in the Second or Developing Tier of the post- Cold War security environment and be judged to unfold along two strands. Spiritual insurgency is about rejecting a regime and its socio-political and economic system. Such rejection of cultural and economic imperialism is particularly salient in contemporary times and a return to some nativist elements is invoked to guide the process. The latter became increasingly important as universal ideologies failed and allowed for nativistic frameworks to gain a substitute foothold. Some insurgencies reject the regime but maintain political boundaries, while others clamour for secession. This is not all new, but the absence of restraints such as opposing ideologies and wars by proxy as found earlier is apparent. Primal schisms are also accentuated to promote hostility towards others. This cultivation of hostilities between so-called out-groups and in-groups and its volatile interface with religion is the future danger zone of spiritual insurgency (Metz, 1993:2/5-3/5).

The second major strand of future insurgency is commercial insurgency. This differs from its spiritual counterpart by denoting a search for wealth. Some measure of meaning and the search for wealth is accelerated by exposure to what is deemed important: the measure of wealth and meaning according to Western standards. It is accordingly valued in a rather unorthodox fashion, which is not quite feasible in most societies. In Second Tier countries the pathway to wealth is readily pursued by also entering the sphere of criminality. From here it assumes a level or merges with some political dimension and its expansion to a security threat against the state

(Metz, 1993:Part 2:3/5-4/5). The extent to which the criminal domain interfaces or merges with the spiritual one forms a coalition that promotes the commercial (financial) need and limits government responses by the popular support such a merger tends to elicit. As such wealth is created and personal meaning fulfilled whilst the regime is opposed and its instruments of coercion incapacitated. This combination fulfils both the material as well as the spiritual need of a new generation of insurgents (Metz, 1993:4/5). It furthermore portrays a growing future threat to which all states are vulnerable and need to note.

In an updated view of the strands of insurgency, Metz and Millen (2004) adjust the above views to rather reflect national and liberation insurgencies as the more contemporary strands. These two strands include the more technical matters of spiritual and commercial insurgencies, but set them within unfolding experiences of the early 21<sup>st</sup> century. Pitting insurgents against national government as opposed to an outside foe or occupier, became prominent in what states have to contend with as the 21<sup>st</sup> century dawns (Metz and Millen, 2004:2). The danger of these strands is their apparent success in tying up major powers that rely upon their military institutions to resolve these insurgencies. In this regard the liberation insurgency now appears to be the more difficult one to face (Metz and Millen, 2004:20). Realising the shift in emphasis, the underlying notion is that involvement in liberation insurgencies must be avoided and the perception shifted to that of a national insurgency. Inherently, early warning and indirect strengthening and stabilisation of the host country, as well as adjacent states, become the focus to deal with this difficult and dangerous threat and its inclination for destructive terror-styled attacks against the perceived occupier (Metz and Millen, 2004:21-22).



Sullivan and Bunker (in Bunker (ed), 2002:40) point to a further difficulty emanating from this end of the future conflict spectrum. New non-state entities and organisational structures such as warlords, gangs and drug cartels can organise into sprawling networks more readily than hierarchical inclined nation-state actors. Future insurgencies are also judged to assume features of network-centric warfare and in its new wave format these insurgencies are bound to include new actors previously pointed out by Sullivan and Bunker. NetWare, as in the conventional domain, refers here to conflict and even crime where use is made of network forms of organisation and related doctrines, strategies and technologies (Ronfeldt and Martinez, in Arquilla and Ronfeldt (eds), 1997:372). Organisational redesign and technological prowess become necessary to master the network format and to integrate variety and small groups to operate in an internetted manner. This takes place through different groups and is directed from multiple centres and integrated through various structural, personal and ideological ties. It is furthermore influenced by the information revolution and bound to attract support from entities

with interests different from that of the state and what its view of what is of vital importance (Ronfeldt and Martinez in Arquilla and Ronfeldt (eds), 1997:369-371).

The Chiapas insurgent movement in Mexico, for example, burst onto the international scene during the late 1990s by making use of networked information media to state their purpose. This information and the extent to which they were supported and assisted by a host of NGOs to sustain their ideas in the face of a government counter-offensive opened a new vulnerability for the Mexican government (Ronfeldt and Martinez, in Arquilla and Ronfeldt (eds), 1997:369-371). The information revolution makes it possible to conduct insurgency activities by refraining from the traditional hierarchical structure and dependence upon other state actors for support. Information technologies and NGOs, as well as networks, excluding that of states, make it possible to conduct a net war to promote insurgent goals and keep them visible in the minds of the world (Ronfeldt and Martinez, in Arquilla and Ronfeldt (eds), 1997:373). These insurgents do not need be state-based or guerrillas, but can be non-state entities or organisations promoting a cause to shape attitudes, beliefs and images about a particular matter (Ronfeldt and Martinez, in Arquilla and Ronfeldt (eds), 1997:374). This latter idea became a reality as al Qaeda effectively entered and usurped the insurgency domain and by 2005 illustrated once again the plausibility of networked insurgents with the London bombings.

#### **5.5.8 Future warfare: The rise of fourth generation terrorism**

One very prominent issue bound to characterise the future strategic environment is the matter of terrorism. Although it can be related to all forms of conflict as a sporadic, partial or even independent strategy, it is here merely addressed in terms of its fourth wave and the future. Warfare in general moved into the fourth generation as technology increasingly reshaped the face of military conflict and challenges societies to adjust (Moore in Bunker (ed), 2002:168-169). This shift did not remain confined to traditional military conflict, but influenced the non-traditional field as well - including terrorism. The contemporary fourth wave of terrorism, according to Rapoport (2001:420) follows in the wake of three previous waves of terrorism.

The fourth wave found its instigation in the powerful role of religion as a revolutionary ethos with the 1979 Iranian Revolution that acted as an accelerator (Rapoport, 2001:421).<sup>24</sup> Religious justification became the crucial ingredient, as opposed to the creation of something secular, such as a state or political party. The religious foundation transcends state boundaries in building the forces, as well as projecting its activities. Hosted by governments, it trains individuals committed to its cause irrespective of their nationality. It strikes at targets in ways previously unknown and, as in the case of Al Qaeda, it not only creates destruction and loss of life at a level previously

unknown, but also an unprecedented resolve for its eradication. History, however, does not point towards unlimited success of this wave. Inspiring causes thrive to both feed, reinforce the fourth wave, and is expected to feed a fifth wave (Rapoport, 2001:424).

The danger and visibility of terrorism as a particular form of insurgency or method to conduct violence recently surpassed that of the traditional insurgent threat. In the 21<sup>st</sup> century, terrorism assumed a particularly important strike capability for insurgents and one accentuating the need for homeland defence (Metz and Millen, 2004:22). This prominence of terrorism sparked a range of national and international arrangements to combat terrorism in all its forms. The resurgence of 21<sup>st</sup> century terrorism is also visible in the twenty publications on terrorism offered in the 2006 edition of *Strategic, Security and Military Studies* catalogue of Routledge. The importance of the War on Terror that was launched in the aftermath of the September 11 attacks on the USA is furthermore reflected in the commitments of the UN and member countries. They adopted resolutions and legislation to oppose terrorism and bring about coercion upon such networks and those harbouring them in any way. This forms part of a broad international coalition and UN sanctioning to bind First and Second Tier countries into the War on Terror with the UN as the legitimising umbrella.<sup>25</sup>

The importance of the War on Terror is viewed as one prominent variable in considering future war. Responding to it became an imperative and is outlined by Raitasalo and Sipila (2004::250) as one important challenge to the paradigm of states preparing their forces for interstate war. A further noticeable response is the foreign military commitments by Germany and Japan. Both countries are inhibited since World War 2 from deploying its military forces outside its national borders (Stratfor Report, 2000a ; Stratfor Report, 2000b). Both, however, began to challenge these constitutional restrictions and are currently deploying military contingents in support of the War on Terror. This reflects the impact of terror attacks and threat perceptions of countries involved in fighting the swell of terrorism at the dawn of the 21<sup>st</sup> century.

Gray connects the growing terrorist threat to the contemporary notion of asymmetry in warfare. According to Gray this asymmetry operates by defeating the strategic imagination possible or impossible threats and which are subsequently to be focussed upon. Terrorism, as an asymmetric phenomenon, functions by default through defying existing conceptions about it as a threat, the *modus operandi* and the politico-strategic ways and means in place to face them (Gray, 2002a:5 ; Raitasalo and Sipila, 2004:250). To this end and to face the uncertainty inherent in asymmetry and terror, the difficult challenge is to identify the terror threat spectrum (Gray, 2002a:6). The costs of deterring all possible acts are staggering while asymmetric threats

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<sup>24</sup> An updated view on the wave theory of terrorism is available in Rapoport, D. (ed), 2005, *Terrorism*, Routledge.

operate in the very spectrum of surpassing the idea of it happening and being successfully countered (Metz and Millen, 2004:24). Keeping the appropriate responses tolerable and legitimate in the face of such extreme uncertainty further complicates the challenge. This requires a degree of clarity about the future strategic environment that is perhaps close to impossible to achieve.

Counters that are tolerable and effective need to be juxtapositioned to the recent terrorism that exposes and confronts defence communities with a new strand within the strategic environment. This environment was experienced by the US after 11 September 2001 and then by the rest of the world as well through the attacks in Bali, Madrid and London. The networked and virtual image of al Qaeda assumed a more territorial profile as the continuing Iraqi insurgency (2003-) unfolded and drew increasing international attention. It also increasingly became the “face” of al Qaeda in the absence of more tangible alternatives. In both cases no solution to either insurgency seems to be in sight, although these two insurgencies became the focus of much literature trying to unravel its complexities.<sup>26</sup> :

Dealing with virtual and territorial insurgencies is the core of the difficulties states need to counter in the future terror domain. It represents a comfort zone for those using terrorism to further their goals and a province to be exploited in order to defeat the opponent politically or to elicit a response that in actual fact undermines and collapses the other party (Gray, 2002a:13). Vague outlines of this are visible in the US-British-Iraqi post-conflict entanglement of 2003 and 2004 where this interface favours the terrorist for it represents a vulnerability and subsequent threat that make military responses crucial, but difficult (Metz and Millen, 2004:25).<sup>27</sup>

### **5.5.9 Probing the future: Network and virtual insurgencies as a future strand of war**

It is possible to suppose that future insurgencies and its terror links are not to remain bound to territorial ambits as the fourth generation already broke from this notion. A subsequent need arises to entertain a networked notion of future insurgency and terrorism in a realm independent from traditional confines defining politico-strategic thinking. Procyschen (2001) extends the more tangible and territorial type insurgency to that of a future network, that breaks with the territorial confines, but clings to the fourth wave conceptual framework of Islamism, global and pan Islamic ideas. A network-based insurgency becomes a supranational arrangement and ignores state guidance and inhibitions on what is possible and needs to be done. It is not restrained by a popular support base like territorial based organisations or accountable to such institutions or

<sup>25</sup> See Du Plessis (2005) on the double-edged security impact of a war on terror on African security.

<sup>26</sup> See Hashim, A. *Insurgency and Counter-insurgency in Iraq*, Cornell University Press, (Forthcoming).

their constituents, but becomes dependent for success upon globalisation's features as found in technology, international transport and global telecommunications (Procyschen, 2001:45-46).

If Al Qaeda represents a harbinger of a future networked insurgency and terror entity, it is also to be understood as one operating in terms of an aspired future support base, which it hopes to attract and represent. Such a network-based organisation ultimately aims at operating as a complex, loose and cosmopolitan network. It avoids notions of accountability and legitimacy and, due to its character, is prone or open to establish its own rules of engagement and Laws of War. In practice, the Afghan Jihad represents one step in shedding the territorial limitations on terror and insurgent networks. The war in Chechnya most probably contains territorially limited features of networking to oppose a visible and tangible opponent or invader. Al Qaeda is, however, pushing the envelope to its future extreme by its networked virtuality. It is shedding all restrictions that may inhibit the type of operation and target selection to promote their cause. It furthermore avoids constraints imposed upon it by being responsible to a virtual constituency and avoiding vulnerability to sophisticated counter-measures by its most dangerous opponents. This all finds meaning by Al Qaeda masking itself behind a networked sanctuary and exploiting virtuality as a sanctuary (Procyschen, 2001:47-49).

Moving away from the traditional and known domain of insurgency, even terrorism allows leeway for extending networked insurgency into the realm of the future. In a virtual world targets become more symbolic than having direct relevance to the war at hand. Invasion or threats take on a totally different meaning for an actor not defined by or confined to borders and a national or international constituency of some sort. Virtual terror groups of the future are bound to define their own criteria for target legitimacy, means to be employed and success. Success therefore also becomes subjective as it remains difficult to measure the success of a virtual group, its objectives and its promotion. Not only the execution profile, but also the human profile is changing. Sageman (2004) illustrates the changes to future terrorists operating in the networked mode. By profiling 400 terrorists, Sageman draws an outline that differs from the traditional cannon fodder and fanatic image of al Qaeda operatives. Educated, middle to upper class and not deeply religious when voluntarily entering jihad-styled organisations, this profile is insightful. The power of an idea (creating the *Salafi* state) augment trans-national and virtual networked features of these future entities. Their sovereignty set or define invasion in different terms than a physical invasion of set or agreed upon boundaries. This virtual sovereignty, values and their invasion are liable to elicit unprecedented responses - such as the September 11 attacks upon

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<sup>27</sup> Blank (2005) illustrates how terrorism became a prominent fixture on the security agendas of states such as the United States, Australia and India. He furthermore outlines how common perceptions on terrorism allow room for strategic co-operation between established and emergent powers on the international scene..

the USA and the subsequent War on Terror, the London and Madrid attacks, and the ongoing insurgency in Iraq.

#### **5.5.10 Future warfare: Privatisation of security and its military domain**

One important development adjacent to the insurgent / terrorist dimension of future war is the role of privatised military means. This phenomenon in actual fact cuts across the spectrum of the lower end of conflict where the military sphere begins to merge with that of the civilian realm and private security and private military domains begin to merge. This once again became prominent in the fighting in the Ivory Coast in West Africa (Die Burger, 2002:6) where Ivorian government forces, rebel soldiers, impromptu rebel groups, mercenaries and French intervention forces all became party to the civil war-like conflict that erupted. The encroachment of military privatisation was further underlined by the 2004-2005 arrest and trials of a number of mercenaries in Zimbabwe and Equatorial Guinea and the involvement of leading British individuals such as the son of a former British prime minister. This prominent case, as well as the ongoing war in Iraq, once again raised the profile of the debate on private military companies.<sup>28</sup>

Privatisation is acknowledged as a future trend of war by Metz (2000), but Mandel (2001:129) draws the general security and military security outlines of its manifestation in greater detail. The fundamental issue underpinning privatisation remains the central question of: "*Who should have the legitimate authority to use physical coercion in the pursuit of security?*" (Mandel, 2001:133). According to Mandel three trends make up the rise of private security: First, the spread of military armaments to the population (or perhaps non-state entities) and that these numbers are challenging the traditional state monopoly on such military means. Second, the unabated growth of private security organisations as governments become unwilling or unable to provide the required security. These organisations take on defensive as well as offensive profiles and also obtain military means in excess of national military capabilities found in some states. Third, mercenaries and their involvement in local wars that implicitly supposes their persistent availability as opposed to the previous couple of decades (Mandel, 2001:130-131). These trends, however, have deeper origins concerning their rise and continuity.

Contemporary cutbacks on the use of military coercion have caused a surplus of military personnel and their skills as the perceived need for large military forces continue to dwindle. New threats from non-state entities as well as new threat sectors also erode the state-centric mode of security by military means. Part of such erosive influences is that traditional military means become incompatible with new threats it is expected to resolve. Private militaries rose to fill this gap and became well suited to address the niche requirements of governments and societies by



providing the services and qualities lacking in national military ranks (Mandel, 2001:132). This breached the division between soft and hard private security as the softer domestic role took on features of hard military security and the conduct of military operations as direct combat support and military advice (Mandel, 2001:136-137). Direct combat support, where private fighting forces and hardware are introduced, is the most prominent and extreme manifestation and perhaps also the most controversial of the privatisation debate. However, as the outlook from Military Professional Resources Incorporated (MPRI) of the US reflects, private military companies are here to stay and do not represent a passing feature on the future strategic landscape (Soyster, 2001).<sup>29</sup> Nowhere is this view more prominent than in Iraq where an array of private security companies are employed. According to Conachy (2004) their numbers are estimated at representing 20 per cent of the US-led forces in Iraq with 35 PMCs having contracts for roles previously accorded exclusively to military forces. According to the World Socialist Website<sup>30</sup>, the scope of private involvement in the Iraqi conflict is staggering with as many as 10,000 private contractors possibly being party to the conflict.

Hartslief (2000) of Gray Security Services Africa (GSSA) agrees with Soyster concerning the security domain and its need for long-term private security services. Hartslief is of the opinion that the non-military security domain in a continent like Africa has unprecedented opportunities to exploit. Although GSSA deliberately avoids the military domain and its political entrapments, Hartslief avers that private security is an indispensable part of the transformation of the security domain. As countries and other trans-state entities have little resources to prepare, employ and sustain formal security apparatus, private security offers a viable alternative to prevent destructive futures. GSSA, however, forfeits the needs and requests from state and non-state political and opposition groupings for military assistance and prefers to focus upon non-military security or at the minimum to interface with needs arising from peace missions. As secondary needs are to emanate from the military strategic activities of the future, it seems that private enterprises such as GSSA will increasingly fill the void. Noting this void is illustrated by a forthcoming high profile international conference in South Africa – *Peacekeeping, Reconstruction and stability Operations in Africa* over the period 27-31 March 2006. This conference includes a perspective on the integral role of the private peace and stability industry to conduct peace operations. In no uncertain way this acknowledges the importance of the private security industry and its contribution to resolve new wars and their legacies.

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<sup>28</sup> Also see Jansen, H. 2006, Special Report, *Rapport*, 12 Feb, pp 1 & 4 on South African PMC involvement in Iraq.

<sup>29</sup> See Singer, P. 2004, *Corporate Warriors: The Rise of the Privatised Military Industry*, Cornell University Press for update of this growing trend.

<sup>30</sup> See <http://www.wsws.org/articles/2004/may2004/pmcs-m03.shtml>. on the scope and particulars of private security involvement in the ongoing Iraqi conflict.

Mandel, however, emphasises the complexities surrounding security privatisation. These complexities pertain not only to who should be the security gatekeeper, but whether to profit from it is tenable or morally correct. This moral outlook reinforces the rights of victims to be secure - even if such security is established by private means. A further question raised is that of government legitimacy if it is dependent upon private security to prop it up and so much the more if introduced from foreign sources. An even more complex issue is that of the right to hire private security forces - who has this right? It seems that legitimacy becomes increasingly questioned as the softer private security - harder private military divide becomes blurred or crossed with the latter encroaching upon the more rigidly held state monopoly on military coercion. Furthermore, no credible or convincing arguments are raised that all contemporary governments are better or more entitled than private entities to manage security means - including its military derivative. Promoting co-operation to reap the advantage of private security has become a contentious matter. The security contract between the rulers and ruled need to be refined in order to address the void filled by private security and its military-strategic variant of late (Mandel, 2001:146-147).

A practical manifestation of adjusting to difficulties and legitimacy is visible in the comments of Soyster on particular questions posed to him during an electronic interview. From an MPRI view, their legitimacy arises from their close co-operation with the US government and its foreign military need. This partnership perhaps reflects a willingness to share elements of the national coercive security domain. MPRI further strives towards being sophisticated in their services and avoid a showdown with their government. It does, however, need to keep a balanced outlook as becoming too large or opportunistic could mean their demise - in particular if tagged as a rogue organisation. Expanding into the air-maritime domain is also risky as these are expensive domains that only governments can realistically afford to enter and sustain. PMCs have to define their market and operate within it as specialisation is needed to survive. Needs are more focussed and esoteric than that of a general fighting force that has to deal with a broader scope of threats (Soyster, 2001). One should, however, keep in mind that a government controlled or influenced PMC like MPRI is probably an interim arrangement between state controlled coercion and independent PMCs that do not answer to a higher authority. Their clientele and identified market segment is important, but they also have the latitude of being more immune to state politics and societal pressures that tends to increasingly seep into the use of military coercion by governments.

As to the future of PMCs, Adams (in Bunker (ed), 2002:61-62) suggests that the lack of strong actions against PMCs results from them playing a positive role in many cases. This observation follows from the difficulty experienced by the UN to muster official opposition and that countries such as Sierra Leone, Angola, the Congo and the DRC use mercenaries in spite of their own laws

forbidding it. The opposition experienced is rather against old-fashioned mercenarism as opposed to contemporary PMCs. The latter tends to have become a useful power multiplier for governments to bring to bear effective military influence in domestic conflicts. It allows for side stepping own commitments and domestic outcries at a time when military resources are scarce and new conflicts tend to make military commitments by governments a high-risk undertaking (Adams in Bunker (ed), 2002:63). It is possible that the UN could also consider this option in future as it faces own difficulties in using scarce UN forces according to complex rules. A controversial example of this is the Indian commander of UN forces in Sierra Leone during the late 1990s expressing a preference for PMCs rather than UN forces to resolve the intricate difficulties of the Sierra Leonean civil war.

## **5.6 THE CHANGING STRATEGIC ENVIRONMENT AND THE DEVELOPING WORLD/SECOND TIER**

### **5.6.1 Origins of the Second Tier: Foundations of insecurity**

Baradat (2000:274) points out that the term Third World is no longer an appropriate referent and that different authors prefer different terms when referring to this tier of states in the state system. Baradat (2000:274) prefers Developing World as it does not imply subordination, but in essence it refers to the Third World, (as it became known in 1952) and its embodiment of countries that remained outside the Cold War power blocks. The term Third World described a particular group of states from Asia, Africa, and Latin America not deemed to be part of the Cold War division and geographically located south of the equator. Initially they were contrasted with the First and Second World in terms of the latter's market and socialist orientations, but later remained in this structural category due to their features and in particular their insecurity (Ayoob, 1995:x).

Particular social, economic and political characteristics set these countries apart from the developed First World. These characteristics came to withstand much of the effects resulting from the end of the Cold War (Ayoob, 1995:12). In terms of power, they also reflect a similarity in that they remain inferior to the Northern Tier in an economic, technological and military sense. This masks a further commonality, that of diversity - one making it difficult to categorise this tier of countries in a simplistic manner. A further difficulty arose as military security matters became infiltrated by numerous non-military variables and raised the need to refocus upon clarifying the politico-military reality of Third World security (Ayoob, 1995:xi).

Developing countries are depicted as latecomers to the affairs of state and prone to share common experiences concerning colonialism and the inheritance of arbitrary borders. Also referred to as Second Tier states, they experience dangerous contours of insecurity with a primarily domestic character that further challenged their fragile statehood. Group, as opposed to

state, loyalties feature prominently whilst regimes experience weak legitimacy with a prevailing preference for authoritarian governments. Added to this are deep problems of political and economic underdevelopment. These difficulties promoted and in and in turn became reinforced by a peripheral role in world politics and a security threat reflecting much stronger internal than external origins (David in Shultz, *et al.*, (eds), 1997:291).

According to David (David in Shultz, *et al.*, (eds), 1997:291-292) the weakness of the Developing World refers to a lack of social cohesion and state capacities. They also possess fewer economic, military and social resources than their developed counterparts. It is therefore difficult (if not impossible) for their leaders to use state agencies in pursuit of national interests. This weakness, as compared to more developed countries in the international system, originates from various aspects of underdevelopment in the building blocks and processes that normally underpins a state's maturity. David lists these as: [1] The absence of interstate warfare and its resultant nationalist and unifying powers - a matter lacking in the rise of the Third World state. [2] This void is reinforced by an insufficient time frame for and success of building institutions to govern and tax society and promote a sense of identification between society, regime, and the state. [3] Exploitative colonialism in conjunction with arbitrary borders to rather fragment than integrated and so reinforced existing weaknesses. These matters promoted a tier of weak states that became known as the Third World in the period following the Second World War and today are referred to as the Developing World or Second Tier.

The collapse of the Second World (consisting of the former USSR and its Eastern European satellites) that coincided with the end of the Cold War, raised the imperative to conceptually reconstruct the world system. Snow (1997:11) proposes two major tiers by building upon the ideas of Singer and Wildavski (The New World Order): a small First Tier and a large Second Tier. The First Tier consists of countries sharing the capitalist and democratic outlook that overshadows any differences that are prone to lead to war. They hold most of the world's wealth, military power and information power, and this places and keeps them in a dominant position as to the rest. War within this tier is deemed inconceivable for as long as the *status quo* is maintained by resisting the attempts of radical and revolutionary revisionists in the Second Tier to adjust or overthrow it in order to gain more security from its operation (Buzan, 1991:306, 309).

The Second Tier comprises the rest of the world. It not only physically overshadows the First Tier in numbers, but with its pronounced diversity as well. Concerning economics, politics and social matters there is hardly a characteristic applicable to all and in order to promote clarity, a further four sub tiers are proposed (Snow, 1997:11).

**A developed sub tier** - Countries in this tier hover on the brink of entering the first tier through their political and economic adjustments towards democracy and open market systems. This tier is at the moment represented by a small group of countries such as Brazil and South Africa for example.

**A partially developed sub tier.** Countries reflecting a lack of democratic tradition or movement and having segments of their economies remaining primitive. Pakistan and countries in South America fall in this category.

**A developable sub tier.** This is the largest group and includes most of Africa. A few are moving towards partial development but most of them remain at an abject level of economic development and subsistence agriculture. This sub tier also reflects the most violence and instability in the international system as becomes visible in large parts of Africa and Central to South Asia.

**A resource rich sub tier.** Countries possessing and exploiting great natural resources as its foundation of wealth, but have no other elements or sectors of development. The oil rich Middle Eastern countries are representative of this tier.

(Snow, 1997:11-12)

From A Third World perspective, Ayooob (1995:1) points out the vulnerability and weakness of the Third World (as the term preferred by him) irrespective of the viewpoint used to describe its dynamics and features. The weaknesses and subsequent insecurity are found within the individual Third World state as well as in their functioning as a collective entity. The insecurity results from structural conflict between the developed northern tier of countries and the less and underdeveloped countries of the South. Chase-Dunn and Podobnik (1995) point out that this unequal world structure represents one flash point for 21<sup>st</sup> century warfare as states compete to adjust and gain from this structure.

Ayooob (1995:2) avers that the neglect of issues in the field of political and military security and their marginalisation play a role as well. He accentuates two matters that lie at the root of this neglect: the lack of centralised authority and of centralised power. Competing poles of power in Third World countries do not have equal coercive (military) power, but their popular legitimacy keeps them influential. The triad of balanced coercive power, infrastructural power and unconditional legitimacy is thus lacking. This void cuts in two directions to define the insecurity dilemma of these countries: an inability to establish a legitimate domestic political order and ineffective participation in the international system (Ayooob, 1995:4).

The tendency of Third World countries to fall back upon the military option becomes visible in the domestic role of military forces in the Developing World and the operating costs associated with these roles (Ayoob, 1995:193). The high costs of human resources in playing a domestic role remain a feature of military institutions in Developing Countries. This is further explained by the persistence of high military expenditures by Developing Countries even after the Cold War as the military remains a primary instrument for upholding security (Ayoob, 1995:193). According to SIPRI's World and Regional Military Expenditure Estimates for 1992 - 2001 Africa, Central America, South America, South Asia and the Middle East (all members of the Third World community) all reflect a positive growth in military expenditure (SIPRI, 2002). This is in contrast to the substantial drop in the Developed Tier and can be construed as different outlooks upon the primacy of military coercion and its future relevance. Concerning the future, however, it is the continuing or declining importance of the military policy instrument that is at stake.

In developing countries the military connection remains important as it still commands a substantial proportion of government expenditure (Ayoob, 1995:192). According to SIPRI military expenditure in Africa, for example, rose from just below US \$9 billion in 1996 to just over US \$12 billion during 2001 with sub-Saharan Africa - the poorest region - responsible for the largest proportion of the expenditure (SIPRI, 2002). In addition to this, the military remains an important actor partaking in the political dynamics of developing countries. Such intervention is not depicted as a question of whether it is to take place, but one of how much military intervention in African politics is to be expected (Metz, 2000:6/17). The use of military coercion is furthermore an undeniable factor in state formation - a process still to take place in much of the Developing World, but severely opposed from some quarters. It is therefore difficult to ignore the military presence and its demand for resources when contemplating the security of developing countries. When competing with civil society, the military's access to coercion is much too strong and blatantly unfair. However, as the natural process of building a strong state becomes compressed, the military option to keep things in check gains ground and they remain a prominent *de facto* role player (Ayoob, 1995:192-193).

### **5.6.2 Changing security dynamics for the Developing World**

Although many conflict accelerators reside in the Developing World, the focus of security studies remained slanted towards developed states for much of the post-World War Two period. This slant either ignored or suppressed the unique security concerns of Second Tier or Developing Countries (David in Shultz *et al.*, (eds), 1997:289). From a security point of view this collection of countries became marginalized in this crucial debate and therefore their security (or insecurity perhaps) and its constructs remained peripheral and underdeveloped. This oversight ties in with particular vulnerabilities plaguing this category of states. These weak states have disrupted and

feeble politico-military and socio-economic cohesion. This is reinforced by insufficient time to engage in proper state building, the inhibition by colonialism and economic problems that collectively present a burden to those having to direct these political entities towards future socio-economic and politico-military cohesion (David in Shultz *et al.*, (eds), 1997:292).

Many of the origins of the difficulties indicated above could be traced to the Cold War period. Recently, however, a second wave of developments framed and solidified the security predicament and subsequent strategic environment of these Second Tier states. David (in Shultz *et al.*, (eds), 1997) and Snow (1997:11) both point out that it is extremely difficult to accurately define and delimit this category of states and influences. This also pertains to the range of factors that in actual fact constructs or defines their insecurity. It is, however, possible to explain some contemporary elements promoting their insecurity and framing their future strategic environment.

- **End of the Cold War.** Removal of east-west political rivalry that initially sucked in Second Tier countries also removed the undue importance bestowed upon them. This resulted in removing the military problem judged to lead to World War Three and in which Second Tier states were important pawns (Snow, 1997:11). These global adjustments led to a withdrawal of politico-military involvement and resources from the Second Tier and their relocation to domestic matters in the Developed Tier (Snow, 1997:16). Little of the so-called peace dividend expected or clamoured for by the former Third World countries accordingly materialised. Ameliorating the defence dilemma of cost therefore did not result in beneficial reallocations and investments for Second Tier countries (Buzan, 1991:273). Less restraint for conflicts in Second Tier countries increased as their importance for both the West as well as the former USSR quickly faded and allowed simmering domestic differences to assume crisis proportions. Such disengagement left fertile breeding ground for the rise of Second Tier regional countries as hegemonies or even so-called weapons states (Snow, 1997:19) with their juxtapositioned potential to use military coercion.
- **South-south confrontations.** The assumption that conflict is to remain present in the Second Tier also implies that it takes place within and between 2<sup>nd</sup> tier countries. This is to coincide with threats from non-state actors (Snow, 1997:20). The lingering tensions are prone to erupt into violence between parties with little chance of outside involvement to either stoke or stop the conflict. As for Africa of late, such intervention seems to result from fellow African countries as indicated in a recent STRATFOR update titled *Africa's Web of War*. Insurgent type conflicts against ruling groups are expected to be prominent (Stratfor, 1999). Regional conflicts are also expected with historic rivals battling it out with heavy armaments

of sufficient quantities with the parallel implication of massive escalation of these regional conflicts and the NBC sphere of war becoming all the more probable.

- ***New north-south challenges.*** These challenges are predominantly contained in the character of the north-south debate over economic and political development, but perhaps directed or influenced by the importance of critical and strategic resources to the First Tier. A new category of north-south interaction on trans-state problems involves solutions beyond a single state. These concerns are bound to enforce both co-operation and even antagonisms in North - South relationships. Co-operation is particularly relevant to those cases being prone to invoke violence and having military or para-military overtones such as narcotics and counter-terrorism. The origins of the narcotics and terror threats are found in Second Tier countries from where it spreads towards the First Tier with quite harsh and expensive responses from the latter (Snow, 1997:21-22).
- ***New internal wars.*** New internal wars can be approached from an understanding of internal conflicts and insurgencies that took place during the Cold War. According to Snow, insurgency did not disappear and its utility remains recognised, albeit cloaked in some new operational format and goals as opposed to a previous era. If compared to the views of Shy and Collier, the absence of the vital revolutionary political objective is the single most important matter on the decline (Shy and Collier in Paret (ed), 1986:817 ; Snow, 1997:119). These presumed differences are illustrated in Table 5.6.

**Table 5.6: Cold War as Opposed to post-Cold War Internal Conflicts**

Cold War internal conflicts	New internal wars - post Cold War
1. Gaining political control.	1. Non-political and even criminal objectives.
2. New political construct.	2. Destructive political objectives.
3. Restraint in pursuit of political objective.	3. Incentive for restraint in actions absent.
4. Measures of military discipline.	4. No military discipline promotes atrocities.
5. Rules of war.	5. No rules of war.
6. War towards a future political goal.	6. War and violence become an end in itself.

(Own Compilation)

- ***Contending with new era conflicts.*** New era conflicts, as for insurgencies and its revolutionary fervour in the Cold War era, once again present little solid foundation for its understanding and functioning. This raises some difficulty for those called upon to oppose it.



Angstrom (2001:95) points out a severe lack of consensus to understand present day internal armed conflict. Its historic profile is quite vague or even absent. Subsequently, its origins and future are quite unpredictable or difficult to trace and explain. This view is in opposition to the working proposition of Gray (2002:11) about attending to such unpredictability in times of asymmetry and terror by viewing the past. As no or obscure doctrines and strategies direct these new conflicts, understanding and planning to oppose it, became dangerous and costly. Counter-strategies therefore shifted to forms of neutral intervention to stop destruction and atrocities. The unstructured and even ahistoric character of new conflicts and internal wars in particular, inhibit a proper futures perspective beyond that of identified security features directing the strategic landscape. The French Revolution, *Seven Pillars of Lawrence of Arabia* and Mao's doctrine, for example, have little meaning to intelligently define the anarchic environment of new internal wars as was so graphically displayed by recent civil wars in the Balkans and West Africa (Snow, 1997:118). This difficulty is more clearly illustrated by means of Table 5.7.

**Table 5.7: Dynamics of New and Traditional Internal Wars**

	Traditional insurgencies	New internal war
Type of society.	Revolutionary prone societies.	Vulnerable societies: Failed states and anarchy.
Kind of conflict.	Insurgency: Mobile guerrilla strategy.	New internal war.
Method of countering.	Counter-insurgency: Pro and anti government.	Counter new internal war: Peacekeeping / - enforcement.
Dynamic of intervention.	Outside intervention: Pro and anti government.	Outside intervention: Neutral.

(Source: Own Compilation)

### 5.6.3 The new character of internal wars

The actors and their activities in these new internal wars reflect little resemblance to what traditionally came to be understood under the conduct of military affairs. The arguments by Gray (2000) and Duyvesteyn (2000) both portray the need and perhaps a plea to structure and control military violence within a politico-military framework at all times. Duyvesteyn (2000:108), however, posits that the prominence of non-state entities do not presuppose non-political objectives in the use of military (type) coercion. The irregularity of forces in these new internal wars nonetheless remains a telling matter as their professional maturity in most cases reflect no resemblance to professional soldiering. They furthermore operate within no meaningful military structure and hierarchy that can possibly impose adequate limitations on their conduct. This

unchecked military battle zone necessitated the recent institution of war crimes tribunals as international standards of war and intolerable atrocities of new wars show little convergence with the international clamour for regulating future war. This shift away from the known towards new uncivil wars is, however, not without precedent and contains some identifiable features.

Certain arguments by Shy and Collier on Revolutionary War (1986) are akin to challenges concerning the rise of a different form of warfare. It is therefore quite probable that this also applies to the rise of new internal conflicts. Similar to earlier revolutionary wars, a new type of war is challenging the established mode of thinking about, understanding and opposing or terminating war (Shy and Collier in Paret (ed), 1986:816). The new wave of internal wars once again questions the established parameters of thinking that resulted from studying revolutionary wars as set out by Shy and Collier (Paret (ed), 1986: 817-818). Their political and/or military aims are now even more obscure and difficult to relate to the Clausewitzian politico-military paradigm and higher order grand strategy that informs most military thinking. As First World countries prepare for a particular kind of war at the dawn of the 21<sup>st</sup> century, another strand of future warfare developed - similar to the rise of revolutionary wars after World War Two. This shift towards Fourth Generation Warfare as argued by Bunker (1996) and its character represent a lingering difficulty for the future strategic landscape of Developing Countries.

Although the absence of a clear politico-military connection in new internal wars is often cited, Duyvesteyn (2000:93) and Jackson (2001:66) takes a different view by claiming that political aims, military consolidation and economic opportunities can be distinguished, but do not manifest in a way preferred by observers. What becomes necessary is to distinguish by way of deeper analysis what these seemingly unstructured conflicts pose. It is apparently a case of objectives remaining obscure and difficult to distinguish rather than them being absent. A preference for severing the link between development and war by countries not yet having consolidated its power base and institutions is not impossible. However, if the process to establish the state and consolidate power to protect the state and its citizens can run along the pathway of war (as was the case in Europe) it is an option for actors in the Developing World and prone to feed the prominence of war (Duyvesteyn, 2000:111-112). The spectrum of contemporary internal wars in the Second Tier is therefore judged to bear some testimony to the preference for military-type coercion in pursuit of domestic political objectives (Jackson, 2001:68).

A second matter is the degree of irregularity of forces and militias (Snow, 1997:110 ; ). Although insurgent forces are irregular in many ways, current irregularity seems to be pushing its limits. Some of these extremities were revealed in a documentary on the Liberian conflict (SABC, 2002a). This documentary (as well as Meredith, 2005:562) very graphically illustrate the

undirected rebel activities in this African country and those who acted as fighters (including the phenomenon of child soldiers) to swell the ranks of rebel groups. The individuals, as well as their organisational and material means, showed little congruence with professional soldiering or laws judged to govern acts of war.

A third characteristic is that these new internal wars reflect no military order and discipline. The SABC 2 News programme that commented on the popping up of rebel groups in the Ivory Coast recently and the rebel groups of Congo Brazzaville named after comic strip characters such as Cobras and Ninjas illustrate its undirected and spasmodic features (allAfrica.com, 2002). Opportunism and settling old grievances, as the only ends, are often not far removed from this scenario. A further matter of irregularity and the lack of order relates to the nature of society as it transpires in the case of Somalia where the state itself and strategic culture with its clan identities seem to rebel against orderly military forces (Duyvesteyn, 2000:98). These conditions place a clear question mark over keeping up the politico-military connection amidst conditions persistently challenging it.

Tied in with the above are unacceptable levels of ferocity and atrocities. These outrages seem to become routine in new internal conflicts whilst unarmed and innocent civilians are prone to become the prime and even sole targets. It furthermore seems that such extremes become visible in these conflicts - irrespective of where it manifests such as the profile of genocide in Rwanda and the Balkans (Snow, 1997:110-111). Such atrocities perhaps represent the incentive to ameliorate the apprehension on interventions in new internal or communal conflicts. From being a hands-off domestic matter, soft and universal issues such human rights and its abuse may legitimise external and preferably supranational military intervention in conflicts judged to transgress this blurred line depicting action or inaction (Aspen Report, 1995:11).

The findings of the *Aspen Report* view new internal wars or communal wars as the dominant conflict mode of the future strategic environment, although the line between moral and humanitarian imperatives to intervene or refrain remains unclear. It therefore becomes a matter of peering into the future to ascertain the costs of inaction (as dawned in the case of the Rwandan genocide), when intervention will become an imperative, the availability of forces and resources and who will lead the intervention once decided upon (Aspen Institute, 1995 12-13). The scope of these communal conflicts are so divergent that establishing what the future holds becomes quite difficult. This raises the imperative to set up alternatives for intervention to cope with the uncertainty expressed by the findings of the Aspen Institute Conference on intervening in future communal conflicts.

## 5.7 THE AFRICAN FUTURE STRATEGIC LANDSCAPE

Africa is a region that persistently features in discussions of the security problems of Developing Countries. Ferreira (2002:9) for example referred to the South American instability of late 2002 as a harbinger of that continent becoming a second Africa. This reinforces the impression of Africa being some benchmark for failure and insecurity. The continent reflects a pessimistic security legacy for it not only contains some of the poorest countries such as Mozambique and Somalia, but currently also entertains some of the bloodiest conflicts. In lieu of this, Draman's accusation of the continent being the most violent on earth reflects something about its future strategic environment (Draman, 2001:121). The general outlook for Africa's politico-strategic landscape tends to portray pessimism for it seems to slide into violence and cataclysm at regular intervals as depicted by Meredith (2005). A further illustration is the confluence of the festivities in Pretoria for Africa's total liberation and the carnage of Rwanda and Burundi. These events shared the same international time frame and stage as liberation wars finally came to an end and "... *civil war and internecine strife rushed in to fill the vacuum.*" (Okpaku, 1994:6,8). From a futures perspective, however, and as the trend of working with alternative futures tend to reflect, optimism has to be pursued as well.

### 5.7.1 Pessimism and optimism: Some outlooks for African strategic futures

The future African security environment is influenced by an important strategic shift concerning the use of military coercion. This shift is depicted by non-state threats and domestic wars as portrayed in a special issue of *Small Wars and Insurgencies* (Bunker (ed), 2002). These constitute important phenomena framing the future African strategic landscape. At the heart of this lies the asymmetry between some new military threats and traditional military counters. Non-traditional threats demanding a lesser military but more than a policing response are on the rise and this conundrum defies existing capacities of relevant coercive institutions. Africa and its military establishments also need to adjust to this so-called fourth epoch questioning traditional military roles for future war as the continent is not to be exempted from its challenges (Bunker in Bunker (ed), 2002:xxi-xxii).

Africa, however, has not properly mastered the Cold War and immediate post-Cold War rules of military coercion and is once again confronted by the emergence of a new generation of smart 21<sup>st</sup> century enemies. Dependable, adjustable and professional military establishments to ensure defence against external attack and to consolidate political power remain marginal. These enemies are challenging African governmental institutions and the societies they are to serve and protect. African decision-makers are nonetheless faced with a following wave - to absorb and adjust to challenges demanding revolutionary changes in their fragile military systems and their

future use (Moore in Bunker (ed), 2002:162). Africa is unmistakably severely challenged by the military pathways as mapped out by Moore: wars of efficiency (where society is tested in mobilising its resources) and wars of destiny (where society is tested in its capacity to initiate and carry through fundamental change) for moving into the future (Moore in Bunker (ed), 2002:168-169). The future imperative remains: Which of these routes should Africa follow?

It is easy to construe the African futures outlook in negative terms.<sup>31</sup> It is quite obvious that the military-strategic domain is tightly interwoven with this reigning Afro-pessimism as its share of the international war spectrum looms quite large. Of the 65 significant conflicts identified during 2000 sub-Saharan Africa featured prominently with 26 per cent followed by the Middle East with 19 per cent that also includes a number of African conflicts such as the one in Algeria (National Defence Council Foundation, 2000:7/10-8/10). These statistics represent an obstacle to viewing African futures in isolation of the military security domain.

From a futures perspective it is, however, necessary to investigate both optimistic as well as pessimistic future outlooks. Afro-optimism is encapsulated in the optimistic outlook of the African Renaissance, Millennium African Plan (MAP) and the NEPAD-African Union initiatives. These initiatives, as expressed by Breytenbach during an interview, constitute "*an optimism desperately needed by the continent*". (Breytenbach, 2002).

### **5.7.2 General remarks from the macro-Level on Afro-pessimism**

The UN Secretary General, Kofi Annan, pointed out that African countries need to move beyond their colonial past to effectively deal with the causes of current conflicts (UNSG, 1997:3/25). According to Okpaku (1994) in *Africa in the year 2025* governance in Africa is characterised by quite pessimistic factors with instability the single most debilitating factor obstructing development, peace and progress. Planning amidst the uncertainty and flux it generates presents much difficulty. Instability inhibits tangible and intangible investments and those policies that are set forth become non-events for nobody believes in their sustainability. Medium and long term planning lose all meaning. Even short-term strategies tend to become insignificant. Investments are accordingly deemed a waste of time, money, and other resources. Much disillusionment and despair subsequently reigns amongst many Africans (Okpaku, 1994:9).

The United Nations University Project also points to the void caused by a lack of vision in African governance. This lack is reinforced by those having a vision being hounded, forced out or worn out by the short-term demands of their societies and persistent lack of resources (Okpaku, 1994:19). It is, however, alleged that the most important obstacle to a better future is entrenched

in the lust for power (Jackson, 2001:72). The extent to which this lust is satisfied, it results in much damage being effected by military coups, protracted military governance and even visionary military leaders or the skewed and unstrategic political exploitation and misuse of the continent's military institutions. In part this springs from the fallacy that controlling government is a pathway to wealth which is further bolstered by the absence of developed economic sectors as viable alternative pathways (Metz, 2000a:2/7 ; Jackson, 2001:74)). This perpetuates and even reinforces the poverty cycle and undermines faith in African governments (:Anan, 2005 ; UNSG, 1997 :3/25). The extent and duration of these practices have also created a battered public syndrome with African people seemingly simply accepting bad governance, arbitrary rule, and unrepresentative or military governance. It is the latter and its disproportionate impact that represents the cradle of insecurity and is subsequently addressed in more detail.

The contemporary African security domain reflects a spectrum of typical Second Tier domestic threats and vulnerabilities that underpin the insecurity of African societies. Conflicts are about power and resources (Meridith, 2005:561). It is often masked or painted over by new ideologies, ethnicity, and the unavoidable international swell it generates. These insecurities contain a strong African colour as much of it originates from dynamics that are kept alive or exploited by Africans themselves and so perpetuating their own insecurity (Anan, 2005). These insecurities contain much conflict potential that manifests in numerous ways.

African conflicts tend to take the shape of complex emergencies with multiple actors and issues simultaneously causing or emerging and sustaining it (Metz, 2000b:16). It is within this extremely unpredictable intermix of military, semi-military and non-military issues and their consequences that African military forces have to operate. However, African militaries reflect and bear the added burden of weak and threatened African states that have to face a host of challenges emanating from the past as well as contemporary conditions. This results in weak African militaries having to cope with complex emergencies that in actual fact demand a properly prepared and equipped military institution. The questionable proficiency of the African state is thus transferred to its prominent policy instrument - the African military (Metz, 2000b:12).

### **5.7.3 Extended challenges facing contemporary African military forces<sup>32</sup>**

The challenges that African militaries have to face are numerous and liable to accompany them into the future. They have a tendency to intervene in politics for as long as this domain is characterised by incompetent and unethical civilian political officials. In turn, African military forces cannot proud themselves on their professionalism. They allow themselves to be used for

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<sup>31</sup> See Meredith (2005), Part IV, Sections 25-29.

<sup>32</sup> See Miils and Herbst (2003:21) for an update on these insecurities.

political expediency and internal divisions corrupt their profiles. Training of NCOs and enlisted men are deemed to be poor and linkages between security objectives, the defence budget and operational readiness are absent (Metz, 2000b:27-28). This profile and the challenges of complex emergencies obviously raise images of incompatibility as African armed forces reflect islands of professionalism that is upset by a disproportionate presence of unprofessional and problem militaries (Meredith, 2005:540). This imbalance has to confront a difficult future threat environment as is briefly outlined below.

The African threat environment presents a continent awash with arms and merchants selling their goods and questionable professional services. The unlimited availability of military hardware and support packages to man it or train crews raise the spectre of instant military means as opposed to the traditional military processes of preparing a national military force for future operations (Adams in Bunker (ed), 2002:57, 59). The use of instant military means seems unlimited as they are available for a broad spectrum of tasks in the service of states as well as non-state entities (Metz, 2000b:29-30). Being faced with opponents not fitting the traditional role and mould thus corrupts the traditional defensive role of African armies. Their opponents manifest as mercenary type private military companies, sub-state groups and even other states preying upon fellow African states in exchange for political and economic favours (Stratfor, 1999 ; Stratfor, 1999a , Meredith, 2005:542-543). These matters are further accentuated by not having governments prepared or capable of checking or restraining this slant towards anarchy. The state therefore merely contributes to the slide towards anarchy (UNSG, 1997:2/25). This implies a pessimistic and difficult future strategic environment for African armies.



The facade of unity versus fragmentation is telling as well. In spite of the emphasis on unity amongst Africans, interstate conflicts remain visible on its strategic landscape. The idea of unity to overcome conflict originates from Ghana's Nkrumah and Pan Africanism, but Henk and Metz (1997:10) as well as the UNSG Report (1997, 4/25) and Anan (2005) point out the past and recent spates of interstate wars in Africa in spite of the plea and pan Africanist philosophy calling for unity. It seems to be a philosophy to rather discourage or mask the image of Africans using military force against their fellow Africans as illustrated in the Great Lakes Region (Meredith, 2005:540). Security in Africa, however, remains a phenomenon tainted by regime, group or personal considerations rather than more enduring interests at the national level and this promotes fragmentation. Personal ties and friendships, regional and ethnic as well as religious conceptions determine strategic interests, objectives, and partners on the African strategic landscape. This process is informal and personalised and less concerned with and rigged for formal and structured use of coercive power sources (Henk and Metz, 1997:11). The presence of internal conflict, as well as the move to interstate conflict, as pointed out by Metz (2000b:30-31

; Anan, 2005) and factionalised interests continue to cast doubt on the efforts and credibility of African unity as well as having cohesive military forces to support the state.

Architecture of the African military-security system fell into disarray as Africa's pro-Soviet or pro-Western and non-aligned stances declined at the end of the Cold War ended. This left a void for a new security model for the African continent. Security has to be extended to include more than the regime and the narrow personal/group interests of the past (Anan, 2005). This, however, falters as the state of affairs concerning security and its strategic domain remains disrupted. In a futures outlook about Africa's security issues towards 2010 Thom (2000) presents some pointers as to what is judged to structure and direct the continent's security away from its former unsatisfactory state of affairs. What happens to the continent in future is foreseen to be determined by conquering its intrastate as well as interstate conflict profiles.

- Future security has to do with Africans taking risks to access wealth and loosing patience with ineffective political leaders as well as the inability of the state to promote their safety. This implies falling back upon lower order (sub-state) structures for protection (Thom, 2000:3).
- At the state level Africans have scope to take charge of the continent's affairs as foreign actors increasingly scale down their involvement and become partners and not competitors (Thom, 2000:3).
- Their use of military coercion involves both constructive peace-mission type activities as well as destructive military adventures with the aim to obtain disproportionate benefits from a limited military investment (Thom, 2000:3). It is the latter that needs to be avoided and the former to be promoted as the one augments future optimism and the other pessimism.
- As borders between true guerrilla warfare and banditry become blurred, the norm is set for many citizens that banditry, pillage and murder are normal behaviour (Thom, 2000:5). In some corners, wars may become part of normal life as transnational criminality and war become indistinguishable.
- The messy future strategic environment is judged to demand constant policing. Thom projects that a future security architecture is to emerge consisting of strong and stable regions established around strong and prosperous states or around city-states within countries where national, international and even private forces keep law and order (Thom, 2000:11). This is to give rise to a possible future strategic landscape of multiple military forces dotting a security landscape with islands of stability amidst instability.
- The use of military coercion by African parties is likely to manifest itself in a number of alternatives. First, a small number of strong states rising as dominant military powers. They are presumed to become stronger than most other African military establishments and willing



to use coercion. Secondly, armed insurgency in weak states. Third, regional powers and power blocks intervening to protect vital interests. Lastly, sub-regional military powers willing to engage in conflict to perform counter-insurgency and peace enforcement missions (Thom, 2000:5). This is to lead to forces tailored for a variety of missions, although several generations behind global leaders.

- Continental groupings to augment the OAU (now the AU) and assist in shortcomings: Such groupings are to emerge from ECOMOG for West Africa, SADC for southern Africa, the Intergovernmental Authority on Development in the Horn of Africa, The East African Co-operation Council and more informal groupings such as the Frontline States of East Africa and the Great Lakes Powers. These are to become the future gate keepers for accommodating and regulating changing national interests amongst members and to keep wars from escalating and leaving states or smaller pockets of lawlessness devoid of control (Thom, 2000:6).

Privatisation is well and alive on the African strategic landscape and contains both pessimism and optimism. Although controversial, mercenaries or private militaries will remain an attractive option to beef up African national military forces. Outsourcing security functions, including combat roles, remains visible, albeit controversial. There is, however, more than one party to be considered in viewing this phenomenon: the African partner deciding to obtain a private military competency and the PMC contracting to fulfil the need. For some African governments this is the only option to maintain their own status as their militaries are weak, ill prepared, or even outright hostile (Meredith, 2005:565). It furthermore presents an option to avoid the contamination and stigma from collapsed military forces readily found within Africa and to gain a relatively cheap temporary military strategic option (Adams in Bunker (ed), 2002:59). Conducting affairs of state through these non-state actors further blurs the borders between legitimate/illegitimate military practices and casts a shadow over professional and business-like private military companies (Thom, 2000:8). As more sophisticated equipment enters, techno-mercenaries are to be expected for training and maintenance to introduce new skills (Thom, 2000:9). Elements of these became visible in the recent Ethiopian-Eritrea war with the supplier not only delivering the hardware, but the maintenance and operational crews for fighter aircraft as well. This phenomenon is to increase access to military means for all actors on the African continent and its pessimistic connections. The views of Hartsliel (2000) of Gray Security Services Africa on their non-military stance should, however, not be dismissed. Optimism is vested in the possibility to ameliorate or temper the PMC influence in Africa by normalising security matters through private security on a continent vulnerable to the military alternative.

The difficulty of terminating African conflicts in Africa manifests widely, but is being tempered by recent developments. The end of the Cold War did not remove all dynamics fuelling current internal conflicts on the continent and even allowed old ones to re-emerge (:Jackson, 2001:75). Marley (1997:113) for example argues that Africa will remain more prone to armed conflict or insurrections than other world regions. This futures outlook to equate war and in particular its intricate domestic iteration with the future African strategic environment leads to a further difficulty - terminating these wars.

The idea of armed hostilities being ended by one side achieving victory and conditions being imposed by the victor are rare. This kind of victory as a pathway towards the termination of wars eludes Africa and point to the weakness of governments and their forces of coercion (Marley, 1997:109). Negotiated settlements are also prone to lead to further violence between the very parties agreeing to the settlement (King, 1997:60 ; Meredith, 2005:538-539). Settlements are further impeded by the maximalist objectives that participants strive for and which is prone to exclude negotiated settlements. Finally, African military institutions are judged to be poorly equipped and trained to respond to the insurgency type threats they have to face (Marley, 1997:114). Their contribution - whether coercive or more peaceful - is thus lost or deflated and in some cases even becomes a factor further compounding the particular conflict.

A further complicating matter is the uncontrollable proliferation of factions that exploit the conflict for personal gain. Governments therefore do not know with whom to negotiate as the formal opposition is vague whilst their informal features imply little knowledge about how and what to negotiate about (Marley, 1997:111). King avers that in many cases only the participation of a third or outside party can bring about some form of negotiated settlement in new internal wars. In some cases it becomes necessary to make war unprofitable for those perpetuating it for personal benefit (King, 1997:60, 68) as the pursuit of wealth is lurking in so many recent African wars for example Liberia and Sierra Leone (:Jackson, 2001:75 ; Meredith, 2005:561). This is reflected in the resource wars as acknowledged by the UN in their focus upon unravelling the funding of African wars by resource exploitation and passing resolutions to terminate this cycle (Naidoo, 2000:30 ; Breytenbach, 2000:5). The fact that this is generally argued or viewed to be a futures conflict trait in Africa, implies a perpetuation of these difficulties into the continent's futures realm.

The *de jure* and *de facto* roles of African military establishments are important considerations as they are not always in equilibrium. Internal involvement tends to be quite visible and disruptive to the *de jure* roles they are legally obliged to perform. Tendencies of politicians to view military institutions as personal tools of regime further complicate the matter (Meredith, 2005:534). The civilian control of armed forces and their proper role as a foreign policy instrument are

subsequently eroded (Vreÿ, 1999:12). The mistrust and antagonisms arising from this misuse of the military instrument has knock-on effects concerning the proper training and equipping of African military establishments. It subsequently further disrupts armed forces in preparing for and executing its primary role (Vreÿ, 1999:12-13). In sub Sahara Africa this weakness is increasing and many states will be unable to defend themselves during the 21<sup>st</sup> century as their ability to recruit adequate human material and train and supply them is to remains questionable (Du Plessis in Du Plessis and Hough (eds), 1999:275).

## **5.8 INDICATORS OF AFRO-OPTIMISM: REMOVING THE SCOURGE OF WAR**

### **5.8.1 The institutionalisation of optimism<sup>33</sup>**

The vision about Africa rising from the ashes and Africa shall be at peace and Africa will prosper reflects much needed Afro-optimism about the future. This optimism is also firmly embedded in new political, economic and social outlooks upon the future. The political foundations are to be created upon stable democracies deriving their authority and legitimacy from the will of the people (Botha, 2000:4-5). The economic upliftment of the continent is to be pursued through economic reform to attract private foreign capital and growth in the private sector (to allow the state to withdraw from the economy). The social aspects pertain to freedom from all forms of oppression for African society. This implies to rebel against all forms of exploitation of society and to improve the quality of life for all (Botha, 2000:7-8).

If statements and speeches on the AU and the role of NEPAD are more closely scrutinised, direct or indirect military strategic matters are discernible. The Sirte Declaration of 09 September 1999 in Libya, the Constitutive Act of the AU accepted in Lome, Togo on 11 July 2000 (Articles 3(f) and 4 (d) (f) (h) (j) in particular) (Constitutive Act, 2000), the Lusaka Summit of 2001 to merge the OAU and AU and the Abuja Conference of 26 March 2002 with its focus upon peace and security priorities all in some way concede that peace, security and stability are to be promoted for the development and integration agenda to take effect. The Abuja Conference of May 2000 had very specific outlooks in this regard. [1] Strategic assessments of regions affected by conflict, [2] continental and regional early warning and analyses [3] how to support post conflict construction of civil society, infrastructure, disarmament, demobilisation and rehabilitation [4] preventing proliferation of and tracking small arms and [5] resource mobilisation for the AU Peace Fund. This reflects a realisation that an enhanced capacity is necessary for conflict prevention and eventually dealing with it and its legacies. Accordingly, the emergent Peace and Security Council

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<sup>33</sup> See Mills and Herbst (2003:49) for an outline that promotes optimism and its institutionalisation.

of the AU, regional mechanisms to prevent and manage conflict and the UN Security Council represent key bodies to engage on security matters. (Department of Foreign Affairs, 2002).

The earlier 1991 Conference on Security Stability Development and Co-operation in Africa (CSSDCA) also became party to addressing security and stability as a prerequisite for development and co-operation. It became the directing body on peace, security, stability, development, and co-operation through the Abuja Conference of 8-9 May 2000. The core values of security, stability, development and co-operation were operationalised and made more tangible. Operationalising it found meaning through certain ways and means to remove, manage or prevent the scourge of wars and conflicts. This is visible in the proposed activities to remove specific threats and from which the need for some form of military coercion or collateral military utility derives. Such inferences relate to: [1] Creating a collective continental security architecture that goes much further than the traditional national military outlook, [2] conflicts need to be prevented or solved before they erupt into violent wars that implies some form of early military intervention, [3] regional and continental conflict mechanisms to be linked to global ones, [4] address border problems that threaten peace and security, [5] protocols on preventing and combating terrorism as well as policies to curb the flow of small arms, [6] eliminating mercenarism in Africa [7] preventing the use of landmines and to demine unsafe locations, [8] regional and continental strategies to eradicate criminal organisations and syndicates and establish joint cross border operations (Department of Foreign Affairs, 2002).

Although somewhat underdeveloped and marginal, the military security situation of the moment indicates a potential gap that needs to be closed down in order to contribute to the optimistic African Renaissance vision (Meredith, 2005:678). This strategic gap is illustrated in the 1990-2000 state of military security on the continent reflecting that of the 48 states in sub Sahara Africa, more than 50 per cent experienced military problems of some kind. These military problems included a spectrum ranging from LIC to full-blown conventional war and domestic conflict to interstate wars. By 1998 the 50 per cent count dropped to 25 per cent and rose to just over 30 per cent (during 1999) of sub Saharan states engaged in military conflicts with its resultant insecurities (Botha, 2000:21-22). Of the top ten states tagged as very unstable during 2000 and judged to be conflict areas during 2001, six were from Africa (National Defence Council Foundation, 2001:9-10/10). Given this predisposition towards violence and conflict, preventing such violence is often propagated, but difficult for its asks of decision-makers to act upon future expectations with no or little immediate and tangible interests at stake. African policy-makers are furthermore challenged to detach themselves from immediate day-to-day and short-term problems and deal with designs about the future (Draman, 2001:122).

The Sirte Declaration of 09 September 1999, however, explicitly *states "Eliminating the scourge of conflict by establishing an AU."* and a subsequent African Ministerial Conference on Security, Stability, Development and Co-operation (Department of Foreign Affairs, 2002a). The bulk of attention and energy is apparently directed at collective mechanisms to prevent, mediate, solve and manage wars and other conflicts on the continent as they remain the bedrock of Afro-pessimism and an impediment to the continent's envisaged socio-economic development and upliftment (Constitutive Act, 2000). It is thus probable that military coercion is not to play a role in bringing about the desired changes to move into the future - albeit not in the same way as in the case of early Europe.

### **5.8.2 Bringing about security sector transformation (SST)**

The emphasis on creating peace, security and stability as well as democratic governance in Africa is a refrain repeated at regular intervals in speeches and reports as well as media releases. Although acknowledging the presence of war and its destructive influences, the AU-NEPAD outlooks are woven around the imperative how to prevent and rid the continent of future military violence. The future military strategic environment of Africa is either presented in a very subdued manner or overshadowed by collective structures, mechanisms and resolutions. From this it becomes apparent that for military coercion to contribute to the African Renaissance, the traditional military paradigm is to be adjusted (Mbeki, 2001 ; Constitutive Act, 2000).

The optimism contained in the African Renaissance not only acknowledges that war has become a feature of the African strategic landscape, but a condition to be avoided or moved away from (Prah in Makgoba (ed), 1999:54). This avoidance is to be effected by removing party to party antagonisms and war-termination by victory as well as imposing collective and common instruments and arrangements to prevent wars from breaking out. A subsequent idea was floated of an united or even federal Africa to remove differences that were artificially imposed and cause much of the conflict presently ravaging the continent (Prah in Makgoba (ed), 1999:61). This idea of a United Africa was, however, rejected by a meeting of foreign ministers at Pilansberg in South Africa on 21 January 2003 (SABC, 2003). What remains pivotal is a future vision to remove those factors promoting military conflict. This removal is to be pursued by rather preventing or solving such aberrations through collective arrangements, but not following this route if not absolutely necessary or to adjust it to be less lethal or non-lethal. The challenge is thus to operationalise this futures outlook of the use of military coercion in Africa.

From the above, certain preliminary observations are possible, although much of what is intended remains somewhat obscure. A preference is visible to move from the contemporary African strategic environment characterised by intra- and interstate conflicts and outright war involving all

imaginable actors towards a mature future where the military-strategic environment is harnessed to prevent conflict from interfering with the future development, prosperity and wealth of Africans. This shift is to be primarily mediated in a collective manner with the AU as the catalyst in legitimising it. Its future orientation is that war and destruction on the continent should become a chapter of the past and, perhaps unduly optimistic, not a part of future reality.

Eradicating war supposes more immediate and longer term objectives are identified and programmes set in motion to realise them and this includes creating military alternatives. These future objectives have everything to do with peace, stability, progress and development of the African people. It represents a tolerable optimistic outlook that acknowledges the undesirable impact of war and lesser conflicts upon society. Setting out and visualising quite elaborate and unmistakably collective African ways and means to prevent, manage and resolve these destructive phenomena on the future strategic African landscape, supposes an alternative view on military coercion. Combining past mechanisms with new and typically African bodies, the idea is to bring about a future strategic landscape where the use of military coercion - if and when necessary - is used as a collective instrument to prevent, manage and resolve conflicts. This implies for future military coercion to be used in new ways, but not in the offensive or destructive manner as is presently visible. This raises the question as to what the outlines of this new thinking on the future use of military coercion entail and its implications for the security sector.

Security sector transformation (SST) is an internationally recognised venture to bring the slow-changing defence sector and armed forces in line with futures thinking about their role and contribution to future societal development and prosperity (Gompert, *et al.* 2004:1-2). Focussing upon this debate, SST received attention from the late Dr Williams (2001) who outlined some detail on moving dysfunctional military establishments towards meeting real defence needs. For African countries in particular the following concerning SST were articulated by Williams:

- Both military and civilian personnel should be involved and bring their competencies to bear on the security sector.
- Be cost effective even if it means assuming or opting for more functional but less glamorous defence strategies and military means to execute it.
- Some disruption is not out of the question, but operational readiness should not be compromised whilst the real measure of success is for the institution to maximise its ability to execute its responsibility through different roles and activities.
- Human resources need to be optimised and receive special attention for it is the quality of the personnel that makes transformation successful and underpins its success.

- Threats to interests, sovereignty and internal stability are to remain. In the medium and longer term this dangerous strategic environment is to be faced. The demand for and constructing an ability to execute a variety of tasks during the transformation process is to persist. These tasks are to include a spectrum of secondary tasks for African military institutions.

(Williams, 2001:15-17)

The above theory and its applicability to African outlooks as held by the AU are, however, not all that clear. During 2002 Cilliers (2002) outlined the key issues and outcomes of the 2002 OAU/AU summits in Durban and *inter alia* also touched upon the domain of future military constructs. These observations find meaning in the following developments envisaged as pertinent to security sector transformation.

- Development of a Common Defence Policy for the AU - Art 49(d) of Constitutive Act.
- Peace Support Operations and interventions.
- An African Standby Force consisting of military and civilian components to execute interventions on request or under grave circumstances to restore peace and security as per Article 4(h) and (j) of Constitutive Act (Cilliers, 2002:9).
- Preventive deployment, peace building, post conflict disarmament, demobilisation and humanitarian assistance (Cilliers, 2002:11).
- Draft Resolution for establishing an African Army to one army to secure peace and stability in the AU and avert the outbreak of internal armed disputes as well as to safeguard the sovereignty, security and safety of AU and to deter acts of aggression (Cilliers, 2002:12).
- The idea of a single African Army that was proposed, became eclipsed by an Assembly decision in favour of a non-aggression pact between member countries. This included the following:
  - A decision for a common African defence and security pact.
  - The need for a common African defence and security in the sense of the Constitutive Act of the AU and the establishment of a body of experts to investigate all aspects related to the establishment of a common African defence and security.

(Cilliers, 2002:12 ; African Union, 2004)

The above decisions and desires emanating from the institution and functioning of the AU to establish ways and means to rid the African continent of war implies substantial SST. A work session was held at the South African Military Academy Saldanha 20-22 May 2002 to address the need for SST. Dr Williams (then of the South African based Institute for Security Studies) chaired the workshop to add content to SST in Africa to support the strategic outlook of the AU and

NEPAD. In essence this workshop formulated much of the content of SST that eventually found its way into the security sector debate during the launch of the AU.

In a questionnaire administered to the delegates participating in the work session (of which 26 opted to complete it) on the future importance of African defence forces, the responses as illustrated in Table 5.8 were obtained.

The above responses from those charged with SST within the AU-NEPAD context reflect a definite and unqualified future for African defence forces under the AU. How this future is to be achieved through certain alternatives drew mixed responses. For the remainder of the issues on whether African militaries are to remain a problematic issue and how they should be adjusted, show less consensus with non-responses and apprehension looming quite large. However, in response to a question pertaining to major difficulties to be overcome for a proper future role by African defence forces, respondents pointed out four categories of issues. These responses are presented in Table 5.9.

**Table 5.8: Future Importance of African Defence Forces Under the AU**

Factor	Responses			Total responses
	Yes	No	Unsure / No response	
A real and rising future for African defence forces under the AU?	23	2	1	26
Is it valid or not that African defence forces are rather part of the problem than the solution of insecurity?	Valid (3)	Not valid (9)	14	26
African defence forces should enhance their traditional war fighting role?	12	8	6	26
African defence forces should concentrate on non-traditional future roles?	12	6	8	26

(Source: Own compilation from questionnaire administered on 22 May 2002 to delegates attending the Security Sector Transformation Workshop at the Military Academy, Saldanha.)

**Table 5.9: Comments by SST Delegates on Future African Defence Issues in Need of Attention**

Issue identified.	Comments
Civil-military relations.	Proper civil-military relations need to be put in place and maintained for the future proper functioning of African defence forces.
Adjustment to new roles.	A need to adjust to new challenges with regional and block defences to be put in place. A persistent need for African defence forces in future, but in the face of a need for credible military responses, proper AU guidance is questioned.
Recruitment, education and training.	Recruiting and retaining proper people. Appropriate intellectual education of officers towards professionalism and accountability to be demonstrated. Accountability towards Africa and not national government.
Collectivism amongst African defence forces.	Trust, interaction and co-operation as well as harmonising doctrine. Keep traditional war fighting capacity intact and develop skills to deal with new roles not conforming to the traditional mould.



**\*(Source: Own compilation from Questionnaire administered on 22 May 2002 to delegates attending the Security Sector Transformation Workshop at the Military Academy, Saldanha.)**

The above responses and the views by Williams portray an acknowledged need, the presence of difficulties and the need to cover unfamiliar ground in Africa's SST. These matters are to have an ultimate bearing upon legitimate and effective military institutions as the final arbiter. It is, however, to take place and function according to new collective rules and political supremacy to bring about military coercion or the threat thereof on the future African strategic landscape.

## **5.9 SUMMARY: THE FUTURE STRATEGIC ENVIRONMENT AND MILITARY FUTURES**

This chapter addressed the future strategic environment of national military institutions along four different avenues. First demarcated were the term strategic environment and its connection with military coercion as well as future challenges. Secondly, the future strategic environment and its contemporary as well as future characteristics and role players were outlined in order to create some profile of future military opponents and their military-strategic domains. The anticipated future military sector and responses to these factors were addressed before Third World or Second Tier countries were attended to. Particular attention was directed at unfolding threats and vulnerabilities in the Second Tier future strategic environment as well as the difficulties faced by military institutions residing in this tier. Fourthly, the focus shifted to the present and future character of the African strategic environment. Both pessimistic as well as optimistic outlooks were dealt with. The pessimism is strongly embedded in past and contemporary security matters with its underdeveloped military strategic component not fostering much optimism. The optimism is embedded in a rising futures outlook emanating from the contemporary philosophy of an African Renaissance and its pursuit *through* AU and NEPAD outlooks of fundamental SST in order to effect appropriate military futures.

The term future strategic environment was first delimited and its military connectivity outlined in order to promote conceptual clarity. This clarity is compelled by the challenges of a broadening security agenda that increasingly threatens to have the military strategic connection losing much of its meaning. In this regard strategic was affirmed as the use or the threat of using military coercion for the ends of policy amidst contemporary challenges to constrain or relegate this understanding and its future utility. A lesser affinity for the military option and its use became undeniable. In addition, military coercion, as a policy instrument, needs to be transformed towards more acceptable ways and means for achieving desired policy ends as brute force and destruction lost its appeal. Although it did not disappear as a policy instrument, fierce competition resulted with parallel non-military security sectors and opponents judging it to be outmoded. The

military sector of the strategic environment calls for special attention as it stands to be eroded and subsumed by the wider security debate.

The lower futures profile of the military strategic alternative raises the imperative to get the future right as it is to be afforded less functional space and tolerance for error. The imperative is adjustment to a constrained functional domain also fuelled by indirect forces that are remaking the future security environment and in competition with the future use of military coercion or the threat thereof. For one, forces promoting fragmentation are wearing down the cohesiveness of the international system and are simultaneously changing and contracting the operating environment for preparing and using military ways and means. Amidst these forces for integration and fragmentation both military forces and their opponents are facing challenges and imperatives to adjust their features as well as their activities in ways previously unheard of. Both tend to lean towards a futures realm located between the harsh military and the more malleable civilian domains. As new and smart avenues for using military coercion find expression, they enkindle new thinking on competitive and co-operative responses to oppose future competitors.

National military institutions are compelled to adapt and recast their coercive ways and means in new formats. This allows them to remain in step with new societal outlooks upon the use of military coercion, but without harming the desired coercive impact upon future opponents. Such adjustment is to take place amidst an uncertain future strategic environment and one option is to reconfigure it along future alternatives and the military implications of such futures. Future militaries structured, prepared and operating along traditional and alternative lines now become possible. Included is the pursuit of alternative future war modes in addition to the traditional. These alternatives are the asymmetric, information and non-lethal options as well as networking to oppose an ever-growing spectrum of future opponents. As alternatives, they present contemporary ingredients of what decision-makers need to pursue in developing and fielding future military forces. The major future challenge is to prepare and utilise the military instrument towards opposing non-state threats operating at the lower end of the war spectrum. These opponents are becoming too militarised for police action, but seemingly quite elusive or intangible for a harsher military response and this constitutes a difficult conundrum for future military institutions.

The future strategic environment is to place military forces in the dilemma of having to face a spectrum of competitors ranging from those fitting the military outlook to those defying it. This equilibrium - disequilibrium continuum requires a cure all or a specialised approach *through* multi-mission forces to confront future peer, near-peer, rogue and crude or smart non-state opponents. The latter non-state tier is judged to be most unpredictable and most demanding of appropriate

adjustments by contemporary military institutions. It is within this last tier that a lack of sovereignty, the domestic-external disconnection, a new smartness challenging traditional outlooks and the labyrinth of globalisation raise severe difficulties for traditional military thinking. Military decision-makers, as in the case of revolutionary warfare during the Cold War, once again need to contain a challenge that tends to defy their preferred outlook on the ways and means of military coercion. This challenge is made particularly complex by the vertical extension (above and below the state) of the opponents and the horizontal broadening of the operating domains of future military forces.

The future insurgent type threat and its slant towards post-modern terrorism are judged to hold an unfolding danger and difficulty for responding with the military policy instrument. Their ability to assume a networked profile poses a deep challenge to hierarchical military institutions. The latter finds it difficult to adjust accordingly for networked opponents are but one strand of alternative future opponents demanding radical adjustment to an established organisational mode. This outlook, however, needs to be balanced with the supposition that to counter networked opponents, military organisations are compelled to network as well, but they also have to meet other threats that do not match this network mode. This is made much more difficult by terrorism moving into the virtual domain and simultaneously being a prominent future danger and actor on the strategic landscape.

Privatisation is an important and dualistic new phenomenon on the strategic landscape. Amidst the views of it becoming an enduring feature, deliberate national and transnational efforts are in process to ban or at least contain it. Military privatisation disrupts reigning traditional political outlooks on control over military coercion by the state whilst those actively engaged in limiting or banning it, also partake in utilising it when deemed appropriate. Privatisation also introduces opportunities to the evolving strategic environment. It not only holds the potential to fill the void emanating from the forced contraction of military roles and resources, but also to be a future force multiplier in using military styled coercion amidst increasing complexity and aversion. Although it is deemed that control over military styled coercion should be vested in the hands of the state, the privatisation debate is rather about whether it is malignant or benign. Some wish to restrict it and some want to extend and refine its utility. Just as private security augmented the domestic and even international security domain, private military companies are judged to fill future needs resulting from political and military limitations to address important aspects fuelling future conflicts.

Indications are that the Developing World is a primary arena of future conflict. The rogue alternative as well as the lower end of the conflict spectrum is judged to become and remain

prominent in countries comprising this tier. Developing countries reflect a myriad of features that reflect their vulnerability. If these vulnerabilities are to persist, their attraction of threats and conflict is to become an extended feature. With developing countries being militarily weak and ill prepared to oppose contemporary conflict, for them to also address a complex future strategic environment in some coherent way, remains questionable.

The military option, nonetheless, remains an important alternative as it still commands substantial resources and attention in the developing world. Its focus, however, remains strongly domestic and short-term that adds a further intricacy to defence decision-makers of the developing world. This dilemma remains devoid of proper or adequate progress in creating adequate non-military ways and means to address the difficult threats facing developing countries. These threats are made all the more complex and dangerous as military forces of developing countries tend to rather be part of the problem than the solution. They cannot be ignored, disbanded or banned into obscurity whilst to play their constitutional role of a legitimate and dependable policy instrument of coercion, their transformation and professionalism become crucial.

The single most important future military threat to developing countries is the destructive and often intractable operation of new uncivil wars. These wars challenge the traditional outlook of understanding and establishing strategies to respond to and terminate these wars. Responses of this kind often lack in the strategic outlook of developing countries although they are particularly vulnerable to the threats contained within these new internal wars. The latter encroaches upon much of the military and non-military vulnerabilities of developing countries and depicts national insecurity and thus dangerous future threats. The dangerous risks of these threats are contained in their defiance of the politico-military connection, of assuming extreme irregularity and the scope for atrocity and ferocity with a subsequent leeway for undirected violence against innocent civilians. Under these erratic conditions and their defiance of predictability, neat military paradigms, and traditional outlooks, the utility and place of military institutions become compromised. Responding to these new uncivil internal wars becomes complex undertakings that not only defies the ambit of military competency of Second Tier actors, but also leaves the developed tier of states apprehensive towards involvement to contain its military and non-military ripples.

Africa is judged as a developing continent representing multiple examples of uncertainty, danger, and failure to effectively deal with threats and vulnerabilities of the current strategic environment. A pessimistic outlook is not difficult to be assumed when viewing the recent record of the continent to successfully deal with African security and military-strategic issues. African militaries reflect an inability to effectively oppose the threats to security when they are called upon to

perform their coercive duties and in some cases they constitute the very threat to African societies. This military strategic insecurity, domestic matters and past legacies perhaps best summarise both the difficulties as well as the image of the military incompetence on the African continent. Narrow and personal interests and skewed civil-military relations cause much of the insecurity and weakness of African military responses.

As the difficulties of conflicts in Africa also assume features of new internal wars, (such as irregularity, atrocity and destruction, civilian targeting, privatisation and a politico-military dissonance) they call for particular military insights and adjustments to counter their destructive impact. From a more pessimistic view these insights into military strategic responses by African military institutions remain questionable. The kind of future strategic environment and the military strategic capacity to contain and terminate conflicts is in disequilibrium. It is therefore in need of dramatic forward looking politico-strategic outlooks.

Optimism about the future African strategic environment *through* credible and functional military forces is contained in the futures outlook embedded in the African Renaissance and its AU and NEPAD structures and aspirations. Not only do they portray an optimistic future outlook upon the evolving strategic environment and one devoid of the destructive conflicts currently desecrating it. They also nurture an outlook of how to augment, restructure, and pool African resources to rid the continent of the threats and vulnerabilities feeding the conflicts and fuelling the reigning Afro-pessimism. As a fundamental departure for moving away from the reigning pessimism is a futures outlook with development, progress and prosperity as catalysts to terminate destructive conflicts. What remains somewhat underdeveloped is the role of military coercion in effecting this desired future state of affairs. However, what becomes apparent is the need to have legitimate and effective military institutions that can apply or threaten military coercion in a co-operative manner to support the African Renaissance with means not detrimental to the future of the African continent. Removing military institutions from their destructive straitjacket thus becomes the imperative.

At the root of shifting the strategic domain away from its pessimism is the premise of transforming the security sector. By ordering and restructuring the military policy instrument towards a collective entity to effectively prevent and subdue (if necessary) conflicts that do arise, it is envisioned that destructive and domestically fed conflicts are to be terminated and prevented from once again rising within the future African strategic environment. By rectifying and balancing civil-military relations as well and denying African regimes the leeway to involve their military institutions in domestic matters, it is hoped to remove problem militaries from the African strategic landscape. Preventative and collective structures for the utilisation of armed coercion as a policy

instrument are to become the primary military ways and means in future to avoid problem militaries and skewed interactions.

This disconnection or skewedness lies at the interface of moving the use of national military power in Africa from a unilateral and competitive mode to that of collective and co-operative military security for preventing war and if it transpires, to emerge victorious. The co-operative imperative is quite convincingly set out in the documents explaining the mode of using it in the future strategic African environment. From the responses of those observers working on security sector transformation, however, it becomes obvious that the need for the coercive military alternative is acknowledged, but having it operating in a new or transformed mode reflects marginal insight and consensus. Marrying paper solutions and African conflict realities remains difficult. This matter is, however, addressed more closely in the following chapter on South African advances to give content to moving the military instrument from an established paradigm to one of new defence thinking. Challenging the established paradigm through policy and strategy, and moving towards alternative futures form the central themes of the focus upon the SANDF in Chapters Six and Seven.



## CHAPTER 6

# CHALLENGING THE PARADIGM: ALTERNATIVE MILITARY FUTURES FOR THE SOUTH AFRICAN NATIONAL DEFENCE FORCE

### 6.1 INTRODUCTION

Chapter Five addressed elements of the changing strategic environment that future armed forces of First and Second Tier countries are bound to face. Its thesis holds that although peer and near peer type future competitors remain dangerous opponents, the non-traditional threat domain has grown to a level demanding a future strategic response of its own. Second Tier countries are judged vulnerable to the non-traditional threat domain and this calls for adjustments and a refocus of military ways and means to contend with such events entering their strategic landscape. Military decision-makers therefore have to be futures oriented in order to fathom the rising future domain and alternative ways and means to meet it. Subsequently, military institutions become compelled to adjust or shift their paradigms in order to prevent disequilibrium with the future strategic environment.

Selected matters steering the SANDF down its post-1994 pathway in order to meet challenges arising from the changing strategic landscape are touched upon in this chapter. At the dawn of the 21<sup>st</sup> century, the SANDF is an African military finding itself at the confluence of the very matters discussed in preceding chapters. The future of military coercion, military change, revolutionary shifts in military affairs and coping with a fast changing and post-modern future strategic landscape serve as parameters for this chapter.<sup>34</sup> South African defence officials have to contemplate new futures in order to maintain a politico-military equilibrium in their outlook and decisions for preparing and eventually employing the SANDF.

First presented is a brief overview of the future use of military coercion and its possible outcomes for the SANDF. Changes reflecting politico-strategic adjustments and those upon which the SANDF embarked in an effort to address the more immediate future are then investigated. The focus is then cast further into the future by first outlining political and defence outlooks concerning the SANDF and its longer term arrangements. Included in this longer term outlook are the matter of a future African connection (regional and sub regional) and its intrusion on defence thinking and the SANDF in particular. In summary alternative futures for the SANDF is presented in terms of those developments, forces, and entities infusing and directing them.

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<sup>34</sup> Post-modern here refers to the spectrum of new conflicts discussed in Chapter Five. It views war as becoming characterised by a host of new phenomena deconstructing war in its preferred or known format as found during WW2 for example. Post-modern war is held together by a new system of key ideas within a new discourse on war and being accompanied by constant change (Gray, 1997:170-171 ; 241).

## 6.2 ADJUSTING THE OUTLOOK ON THE FUTURE USE OF MILITARY COERCION: SOME BACKGROUND PERSPECTIVES

### 6.2.1. Major war as a non-option

*Is major war obsolete?* and *The obsolescence of major war* are two recent essays addressing the matter of using war as an instrument of policy. Orme's thesis about prosperity versus war as well as the essay by Kaysen proposing an alternative international system that prefers or opposes the use of war are quite in line with current views maintained in South African policy realms.<sup>35</sup> Although both are relevant, the former with its focus on eradicating war for the sake of future prosperity coincides with contention that drive current South African national outlooks on the future use of military coercion (Zuma, 2003:4 ; Dlamini-Zuma, 2003b:3).

Orme (in Waltz and Art (eds), 1999:428) contends that the pursuit of prosperity became a priority and that war is counterproductive to this pursuit as it brings no material gain. This posits a future where prosperity reigns and the absence of war is enforced, not assumed, or postulated as found in earlier writings in the Field of Futures Studies. War is thus deemed counterproductive and a non-option as an unwillingness to even consider it takes root (Orme in Waltz and Art (eds), 1999:435). This outlook represents an optimistic view that is once again premised upon the preference of a future devoid of war as pointed out in Chapter Two of this study.

A less optimistic alternative to the above is a futures outlook that allows war to re-enter as an option. This supposes an adjustment in values to sanction war as an acceptable instrument to pursue certain objectives (Orme, in Waltz and Art (eds), 1999:435). Although mistakes, blunders, and irrationality are presumed causes of war, calculated rationality and sloppy ignorance by leaders allow countries to drift into war as well. Although not pure bellicosity, as found during World War 1 for example, multiple causes of war challenge the contention established in Chapter Two of humanity being able to direct its future destiny in the absence of war.

Theories for eradicating war do not fully account for wars in the developing world. Orme argues that the idea of future prosperity is only very slowly finding its way into the minds of decision makers of Second Tier countries (Orme, in Waltz and Art (eds), 1999:439). A further observation is that Second Tier countries entering the zone of prosperity realise that their future prosperity and even survival hinges on keeping wars at bay. Contrary to this is 'Fourth World' actors that engage in wars with little to lose and much to gain as they view war as a rational



option for pursuing certain objectives (Orme in Waltz and Art (eds), 1999:430). The contention is that this is not the case for South Africa. The South African outlook concerning the future use of military coercion is premised upon new defence thinking directed at preventing or eradicating war for the sake of future prosperity and human security.

### 6.2.2 South Africa and the future use of military coercion

South African national policy with its embedded African outlook is strongly influenced by the supposition of peace, stability, and future prosperity depicting war an unwanted phenomenon. These influences are not only entrenched in its national policies, but in its commitment to the African Union and its goals as well. However, it is not a question of an optimistic assumption that future war is not a factor, but rather one of deliberately erasing it from the African continent as premised in the endism arguments of Thompson (in Burk (ed), 1998). The persistence of wars in Africa as well as the constant rise of African defence expenditure to \$12 billion during 2002 (SIPRI, 2002) makes its eradication an imperative and a central focus of the AU and, by implication, also South Africa. Military confrontation, from a South African outlook, is not considered a preferred future pathway to promote security (Department of Foreign Affairs, 2003a, Article 4 ). Ideas such as that of Moeller (2003) that the African continent is inadequately armed and thus vulnerable, seem quite out of step with South African future outlooks.

The Constitutive Act (CA) of the AU is very explicit about removing war from Africa's future. Its preamble states: "*Conscious of the fact that the scourge of conflicts in Africa constitutes a major impediment to the socio-economic development of the continent and of the need to promote peace, security and stability as a prerequisite for the implementation of our development and integration agenda.*" (African Union, 2001). This imperative was once again reiterated at the launch of the AU in Durban South Africa when the AU Chairperson emphasised that "*Together we must work for peace, security and stability for the people of this continent. We must end the senseless conflicts and wars on our continent which have caused so much pain and suffering to our people and turned many of them into refugees and displaces and forced others into exile.*" (African Union, 2002).

The aversion to war is closely tied to the sentiment of ridding the African continent of future war for the sake of prosperity. This principle became entrenched in the highest African institutions (such as the AU) that are to direct the future of the continent and to convince all African countries and their governments to toe this line. The imperative of preventing or ending African wars is to preclude war from interfering with the future affluence of the continent and its people. This

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<sup>35</sup> Thompson in Burk (ed), (1998 :92) elaborates upon these theories as "endism" theories as first used by Huntington (1998). Thompson refers to six "endism" arguments that posit the demise of major war at some future point in time.

remains a lingering theme in African futures outlooks and is for example quite explicitly stated in the views of the *Renaissance South African Outreach Programme* by pointing out "... *the waste of resources through conflicts and wars in many parts of the continent.*" (African Union , 2002a) that again deeply questions the utility of war. This apprehension also surfaced in an earlier statement by the South African Defence Minister who acknowledged that high levels of conflict in Africa are usurping public resources through large defence budgets. Accordingly, future peace is necessary to release defence funding for development and prosperity that once again accentuates the competitive wealth and prosperity outlook (South African Ministry of Defence, 2001).

The South African Defence White Paper (1996) and Defence Review (1998) are policy documents that express the future of South African defence as one of war prevention. South African defence policy also inherently terminates military romanticism and the quest for prosperity through war. These defence policy documents, political statements and pronouncements since 1994 clearly state this quest and consistently downplay the role and utility of war. Accordingly, war became effectively relegated to a very last option or for it to be moulded into a more constructive policy instrument (Le Roux, 2000:9-19) and the idea of a dual role military. It subsequently became imperative for the SANDF to keep in step with the pressure for change and the alternative futures they implied.

Since 1994, political decision-makers began to view the role of the South African military differently. As South Africa's relations with African states shifted from suspicion and animosity to friendship and co-operation (Department of Defence, 1996:Ch 4 par 7), it became a harbinger of what was to drive future defence thinking. This shift promoted an attitude of preventing and managing inter- and intra-state conflict by constructive political and not coercive military means (Department of Defence, 1996:Ch 4 par 11). The South African government initially approached this outlook of addressing poverty and socio-economic inequalities by placing the Reconstruction and Development Programme (RDP) at the pinnacle of national policy and, consequently, defence policy had to follow suit (Defence White Paper, 1996:Introduction, par 6). The need for development and progress in South Africa and the wider region thus became juxtaposed, if not superimposed, to the needs of preparing and employing military coercion. Such close proximity of military and non-military spheres within its defence architecture presents the backdrop of the South African approach to the future preparation and employment of its armed forces. It furthermore allows for competitive outlooks upon the future SANDF as a dual role military and those opposing the idea of the military serving two purposes.

### 6.2.3 The SANDF as a dual role military

South African defence policy creates leeway for the SANDF to be utilised in traditional as well as non-traditional ways. This leeway raises the controversial question of a future dual role SANDF. From its outset the future operating domain of the SANDF did not constitute a narrow military-strategic domain or a war fighting profile as becomes visible from the work by the Defence Review Working Group (DRWG) (Edmonds, 1997:8-9, 11). Both the Defence White Paper of 1996 as well as the Defence Review of 1998 contain strong overtures of a twofold outlook and future role for the SANDF. An unmistakable social agenda is also visible in the non-military tasks described in Chapter Seven of the 1998 *South African Defence Review*. The White Paper of 1996 (Chapter Five) in turn, is quite explicit about secondary functions towards supporting the police and broader South and southern African communities with latent SANDF capacities. These explicit and quite detailed policy outlooks and *de facto* roles ascribed to the SANDF reinforce ideas about a dual role military. This alternative is, however, tempered by the primary-secondary preferences of interest groups and their implications.

The dual role alternative for the SANDF is implicitly acknowledged by two authors in an effort to clarify the future roles of the SANDF. Le Roux (former SANDF Chief Director Policy and Strategy) accentuates the dual role in arguing that the broad spectrum of functions is a necessity to defend the country and to shape the future for the primary war fighting role to rise above the clutter (Le Roux, 2000:7-19). He further argues that "... *it is clear that the SANDF could not be an effective instrument of Government policy if it exists only to deter direct aggression against the Republic ...*" or to fight and win the nation's wars in the event of aggression against South Africa. Malan (1997:13) points to the need for all departmental strategies (including defence) to be functionally related to the RDP White Paper of November 1994. It not only became necessary to change perceptions on future war, but also that the role of the SANDF in executing its responsibility is to assume a different profile to support national strategy and a futures outlook no longer formed by the military-state-war fighting triad (Malan, 1997:17). Both views reflect the notion of traditional military coercion being a reduced policy option and within the military continuum itself, a lesser option as alternative military roles are elevated to prominence.

A dual role military fills the void between a traditional war fighting institution and one deliberately redefining its future role towards a softer less-traditional security role. The concept of a dual role military is also purported to reflect some close connection with democratisation and reckoned to perform increasingly diverse roles as a democracy evolves (Ashkenazy, 1994:4). This close connection to democracy is explicitly stated in the gist of South African defence policy 'Defence in

a Democracy' (Department of Defence, 1996, Ch 2, 96).<sup>36</sup> In conjunction with the social agenda, the democratic focus strengthens the dual role argument as an alternative for the SANDF. The preference for or manifestation of this argument is also underpinned by the following reasoning about dual role military institutions.

Arguments for employing surplus capacities of military forces in tasks other than fighting are popular in current times as pointed out in Chapter Three of this study (Wagner, 2003). These less than traditional conflict spheres compete with traditional notions and tend to eventually become acceptable or tolerated operating domains as opposing military paradigms steadily compete for conceptual space.<sup>37</sup> Desch, as well as Le Roux, outline the respective theoretical and practical importance of this competition. Le Roux (2000:18-19) proposes an adjustment of the primary function of the SANDF to include or accommodate less traditional responsibilities whilst Desch frames the rivalry as the encroachment of alternatives upon the future employment of the military policy instrument.

Future military institutions in democracies are set to continue to reflect preferences of the societies they serve. Socially, military forces also have a close interest in the society from which it is to draw and depend upon in times of war and therefore the resultant need for a social agenda (Ashkenazy, 1994:2). One such preference remains its non-military functions (Ashkenazy, 1994:190) and amongst others, to address a tarnished past (Ashkenazy, 1994:191). According to Seegers (2003), addressing the past was a fundamental factor in formulating South African defence policy. The absence of such redefinition holds the further risk of a military institution losing its future societal interface and sense of legitimacy. A more dire risk is that of society at large, politicians and other decision-makers having secondary functions become a hidden *de facto* primary function (Ashkenazy, 1994:191) although this is quite emphatically denied or opposed in SANDF circles (Hauter, 2002) and by South African MPs serving on the Defence Portfolio Committee of Parliament.

New roles for Western military forces also have strong civic and humanitarian overtones (Ashkenazy, 1994:206). The deliberate broadening of what constitutes a security threat had military roles expand in a corresponding manner and other concepts narrowed down to contain some balance (Ashkenazy, 1994:178). Presently, secondary roles also filter up from national to regional and global levels. This migration consequently results in the destructive and constructive use of military institutions by decision-makers. The latter subsequently becomes highly promoted

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<sup>36</sup> This connection in the South African realm can be attributed to the work of Nathan as lead drafter of the 1996 Defence White Paper and his introduction of the democracy-defence equilibrium (Kenkel, 2003 :23).

<sup>37</sup> In South Africa the newly introduced defence paradigm of Defence in a Democracy created the conceptual space for how roles and missions for the SANDF were eventually demarcated and adjusted over time to assume a wider scope than allowed for under the pre-1994 paradigm of Total Strategy and its narrow military confines.

and the former increasingly delimited and constricted by institutional rules ascribed by changing defence policy outlooks (Department of Defence, 1996:3). South Africa is a foremost proponent of this constructive outlook as is reflected in the South African stance on the Common African Defence and Security Policy, Article 11, par 1-3 (Department of Foreign Affairs, 2003a ).

As in the case of using the military in its war-fighting role, the slant towards its societal responsibility raises some criticisms as well. The rush for legitimacy contains some questionable features and so does exploiting another country's difficulties to promote own legitimacy and serve institutional interests. To latch onto the scope of flash conflicts arising on the strategic landscape and thinking up missions to fill the role of opportunism through instant missions and activities draws censure as well (Ashkenazy, 1994:208). In this regard the South African futures outlook with its increasing commitments to African conflict theatres stands in the wake of such criticism, but not utterly defenceless. Kuhlman (in Caforio (ed), 1998:426-427) draws the attention to practices of modern militaries tending to migrate to roles judged to enhance their image with society to maintain themselves in the absence of conditions promoting their legitimacy. For the SANDF this connection is demonstrated by the 2004 announcement to review defence matters in order to enhance the peacekeeping role of the SANDF in Africa (South African Ministry of Defence, 2004).

The security-democracy interface and that strong defensive capabilities and democratic commitments are solid security enhancing phenomena are questioned as well. This outlook promotes extending the roles of military forces to advance certain practices in other countries as well and preferably under the auspices of higher order UN-type bodies (Ashkenazy, 1994:178). The military-social interface is, however, not an optimal solution. The close military-social connection amplifies problems and in particular if the threat or enemy is absent or unclear (Ashkenazy, 1994:187). It, for example, took the September 11 attacks to have the US refocus its future military alternatives upon some defined threat (Barnett, 2003:4-13). However, maintaining the dual role remains an option for the sake of resources, manpower imperatives and to stave off criticism (Ashkenazy, 1994:200). In no uncertain way the SANDF is following this dual pathway through its Defence in a Democracy setting and secondary roles in order to also adhere to the national demands of service delivery in conjunction with other state departments (Department of Defence, nd:2-4).

Dual function military forces have a further darker side. The latter refers to the deliberate political slant of the dual role military. The prominence of such a role gave rise to Indonesian protests during 1998. These protests were aimed at limiting the role of the Indonesian military (ABRI) and its dual role termed *dwifungsi* in particular (Lane, 1998:1). The dual role of ABRI was directed at

having both a defence as well as a domestic political role. During earlier times of turmoil, it seemed laudable, but as the dual role increased it became questioned. As Indonesian democratisation grew after 1998, the dual role became even more questioned and protested. The initial turbulence of democratisation tends to uphold of the dual role, but it is expected to decline as democracy grows and internal stability returns accordingly (Kuppuswamy, 2002:2 - 4). In the case of the SANDF it could well be argued that the fruits of democratisation could over time promote the future decline of the current, although unofficial dual role of the SANDF. This is to create room for the primary role to assume its rightful place. This was the impression obtained from South African MPs as they preferred the SANDF to rise above the secondary-policing type functions to eventually assume its primary role.

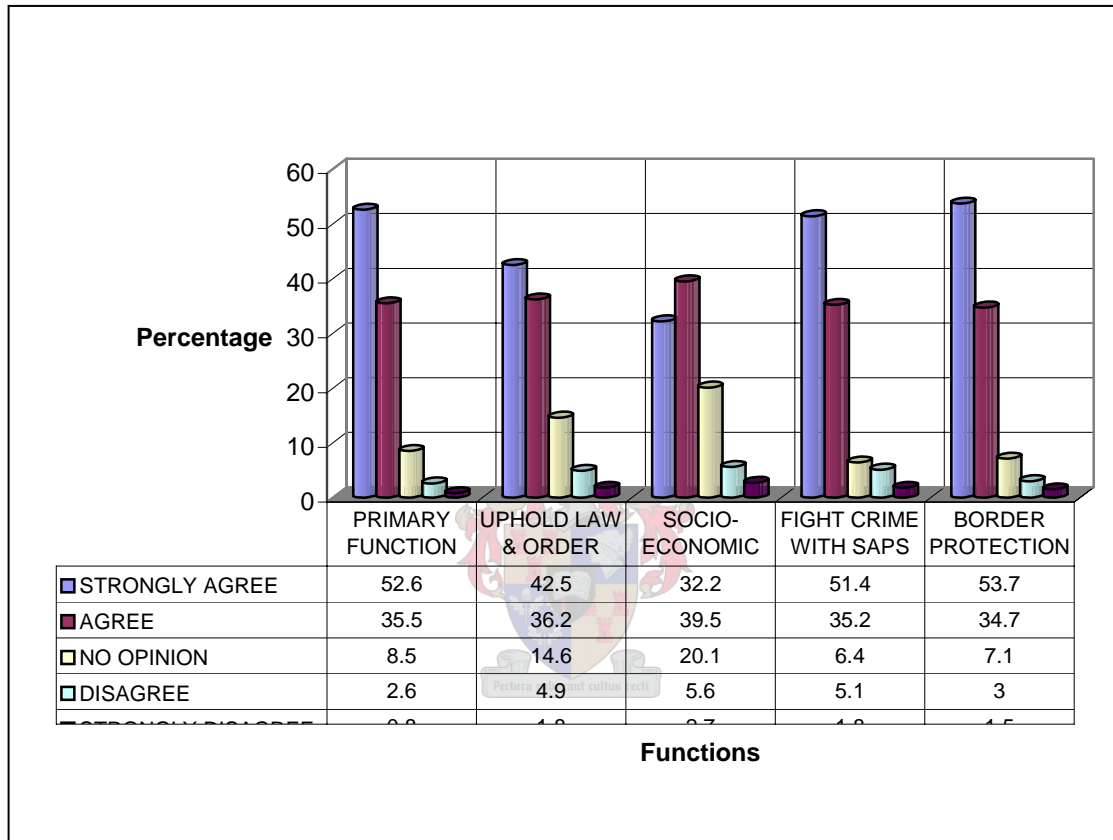
As argued by Seegers (2003), the role of the SANDF reflects a shift in that new realities quickly caught up with the SANDF and its futures outlook. As an instrument of war in an increasingly democratised society that questions its coercive role, the constructive role of the SANDF is becoming more apparent. One possible way of avoiding controversy is for the SANDF to direct its future secondary role increasingly away from the controversial domestic arena to that of collaboration with Africa. The ultimate alternative remains keeping to the primary role, but such exclusivity remains questionable. Within the SANDF however, it appears that a broad spectrum of SANDF members have little quarrel with the role spectrum ascribed to or expected of the SANDF (See Figure 6.1).

For the SANDF military change towards the future is to remain within the realm of a trade-off between less traditional and more constructive imperatives as opposed to the traditional coercive role. This framework of a paradigm shift towards a Defence in Democracy and more extensive primary and secondary roles for the SANDF within and beyond South Africa's borders constitute the futures pathways that are subsequently investigated within its politico-strategic setting.

### **6.3 ADJUSTING FOR THE IMMEDIATE FUTURE: POST-1994 MILITARY CHANGE AND RESTRUCTURING OF THE SANDF**

Post 1994 shifts in South African military affairs fit within the scope of two broad categories of change that originated from domestic as well as foreign shifts. As military policy is sensitive to what transpires in the foreign and domestic domains (Huntington in Horton (ed), 1974), substantial changes in both arguably compelled deeper change within South African defence thinking. First, changes concerning the immediate future were enforced by a stark political agenda to establish an integrated national military institution to keep it in equilibrium with changes washing over the country's policy domains. The second category of change focussed on the longer term of a military institution capable of defending the sovereignty of a future democratic

South Africa, albeit in new ways. The SANDF therefore had to be positioned for the future. To achieve this, civil-military relations had to be adjusted, alternative outlooks upon the security landscape be absorbed, the prominence of socio-economic priorities be accepted and alternative future roles for the SANDF be delimited. The extent to which these shifts contrasted with the pre-1994 SADF and its defence policy, it began to shift the defence paradigm of the SANDF and its policy realm towards dramatic new futures (Nathan, 2004).



**Figure 6.1: SANDF Preferences Concerning Functions**  
(Source: Own Compilation)

**6.3.1 First order changes: Positioning the SANDF for the future**

The 1996 Defence White Paper had defence policy transformation and the SANDF as its overarching theme and according to Williams (2000:109), established a normative framework for defence management in the new South African democracy. The White Paper therefore rather dealt with transformation towards defence in a democracy and issues to introduce and solidify democratic anchors. This transformation rose to prominence as South Africa's foreign relations migrated from an adversarial mode to bi- and multilateral co-operation (Defence Review, 1998:Chapter One). Accordingly, South African defence thinking became elevated from the stark

competitive realm to that of more constructive military futures. This included a strong political imperative to transform the country's military institution towards a different future as reflected in Chapter Two of the 1996 Defence White Paper. This chapter (The Challenge of Transformation) relates to deep and dramatic military change that, although inclusive of the technological imperative, rather pursues a politico-organisational agenda. This agenda aimed at moving the new SANDF away from its *apartheid* legacy, rather than towards a clear alternative military future (Seegers, 2003).

The transformation imperative of the Defence White Paper is set against a futures backdrop that assumed certain factors necessitating change (Kenkel, 2003:11). The new defence outlook accepted a broad futures notion of security and viewed the future role of the SANDF in a similar way. The Reconstruction and Development Programme (RDP) was pushed to the forefront as a strategy of national policy. This move impressed upon defence decision-makers future restrictions in terms of limited future defence funding and stringent adjustments. A future SANDF was to use its limited funding for more than military operations and operate at the international level - Africa in particular (Department of Defence, 1996:Chapter 2). Greater expectations arising from an open democratic system - being demands that do not exclude the defence function - had to be contended with as well (Bonnemaison, 2002). These issues raised challenges of fundamental military change during peacetime (as discussed in Chapter Three) to reconfigure a future SANDF.

### **6.3.2 Changing outlooks upon the security and strategic landscapes: The challenge of multi-level functioning**

The changing strategic environment as discussed in Chapter Five of this study is acknowledged by the Defence White Paper (1996). The White Paper acknowledges dramatic changes in the strategic environment at the international, regional and domestic levels and the lingering potential for conflict and war. A dramatic shift is that South Africa's government envisioned since 1996 the RDP as a conceptual vehicle of national strategy to remove the instability and conflict potential plaguing the country and the region (Department of Defence, 1996, Ch 1, Par 5and6). This developmental and prosperity based focus was to erode and ultimately remove the incentive for military violence as an unjustified and illegal way to settle future disputes. It furthermore represented the first seeds of an optimistic alternative pathway to remove the reigning pessimistic outlook concerning future security and the use of military coercion.

Chapter Four of the Defence White Paper more closely scrutinises the extent of change. At the international level the RSA is expected to play its role in Africa and southern Africa in particular (par 1-3) with no conventional military threat foreseen to challenge this within the next 5 years.



This outlook became reinforced in the resultant SANDF Military Strategy that extended this threat outlook to 10 years as moving beyond 10 years, it is argued, tends to become quite clouded and obscure (Director Strategy Staff Officers, 2001). This period also came to be viewed as being characterised by patterns of co-operation and competition (Department of Defence, 1996:Ch 4 par 4) with a clear preference for promoting the co-operative paradigm. This view of the external strategic environment promoted a defence outlook and introduced certain military changes within the ambit of:

- No immediate future threat allowing leeway for restructuring the SANDF through rationalisation, redesign and rightsizing in a future Defence Review process.
- Core force needs to be retained due to the unpredictability of the future.
- Budget constraints promoting or even compelling future co-operative defence ventures.
- The priority of defence co-operation with southern African states as well as strengthening security and defence forums.
- Defence conducted in accordance with international law and international norms and their bodies and control regimes.

(Department of Defence, 1996:Ch 4, par 6)

At regional level, the shift towards amity and co-operation and promoting security primarily through non-military ways and means urged a futures outlook of conflict prevention, rather than military coercion (Department of Defence, 1996:Ch 4 par 7-10). Promoters of regional insecurity and their impact had a common profile across the region with multi-lateralism and common security featuring prominently in the South African approach to oppose these agents of insecurity (Department of Defence, 1996:Ch 4 par 12-13). Commonalties of insecurity were judged to promote eventual interstate conflict in the region and have repercussions such as foreign interventions and it expanding and intensifying future conflicts (Department of Defence, 1996:Ch 4 par 14-15).

The military contribution by the SANDF to prevent or solve the above insecurities was judged to be different forms of regional defence co-operation such as supportive roles in military as well as non-military domains. Confidence and security building measures (CSBMs) grew in prominence as traditional military coercion increasingly became tainted as inappropriate to the kinds of insecurities that had to be addressed (Kenkel, 2003:22). The envisaged CSBMs were further underpinned by strong co-operative and democratic imperatives for promoting transparency and preventing future conflict. It embodied the following general practices:

- Sharing information on defence matters and threat perceptions that were to ultimately direct budgets, modernisation and force structure.
- A regional arms register on the status of armaments in the region.
- Notification and inspection of military exercises and procedures on dealing with unscheduled and unusual military incidents.
- Verification procedures.
- Communications procedures and a crisis hotline to promote early actions for preventing crisis from escalating.

(Department of Defence, 1996, 1996:14-15)

In addition to the confidence-promoting intentions pointed out above, other ways made inroads as well. Regional co-operation for multi-national peace support operations and the importance of a defensive posture to reflect a non-threatening RSA stance were judged to promote positive relationships in the region. Scaling down the SANDF in terms of size and systems to promote regional disarmament and release national resources for development also featured (Department of Defence, 1996:14-15). The aforementioned became foundations of South African defence thinking and as expressed by Cilliers (2002), representative of shifting from a competitive to a future co-operative security paradigm. This shift presents its own particular challenges to the future use of military coercion by South Africa with its own inherent future agenda. This was founded upon the notion of the SANDF and South Africa being dependable actors in the southern African region and the future of the continent (Edmonds, 1997:5-5). Just as global disconnectedness spells danger for the USA (Barnett, 2003:1-13), for South Africa it defines danger in terms of Africa and southern African in particular.

### **6.3.3 Establishing stable civil-military relations**

The Defence White Paper (Ch 3) as well as the Defence Review (Ch 9) both acknowledge the primacy of the need to adjust civil-military relations in order to promote acceptance of the role of the SANDF. Defence matters and the SANDF in particular had to be aligned with new constitutional and legal realities as well as oversight mechanisms embedded in parliamentary bodies. This notion became grounded in the view that chaining the SANDF to its primary role is a safe route towards stable future civil-military relations. This option reflects efforts to carefully negotiate between alternative futures of a weak interfering military and a strong institution demanding undue privileges (Huntington, 1996:10, Desch, 1996:25).

Notwithstanding the laudable focus of its defence policy, South African defence thinking on civil-military relations stands to be criticised. The extent to which a link between stable civil-military relations and confining the SANDF to a particular primary role triumphed, it was assigned priority.

Stability of the relationship thus became underpinned by delimiting a particular primary role for the SANDF and that any divergence is prone to upset the preferred pattern of civil-military relations. This very assumption, however, became questioned (Williams, 2000:114) and according to Williams (2000:115-116) the flaw in the assumption is that such a primary role is not a principal foundation of stable civil-military relations.<sup>38</sup>

As South African and the SANDF's future African involvement are judged not to conform to the supremacy of the primary role as per the Defence White Paper, reconsidering this connectivity at some future point in time becomes inevitable (Williams, 2000:100).<sup>39</sup> Although Desch warns that new less constricted (and perhaps less traditional) primary roles need to be formulated and accepted as sound foundations for future stable civil-military relations (a view shared by Le Roux, 2003), Huntington and Desch both point out the real danger of the civilian side failing to maintain the contemporary societal expectations arising from the democratic imperative (Huntington, 1996:11 ; Desch, 1996:26-27). This implies that a military future based upon a SANDF prepared, equipped, and employed for its contemporary primary role is but one, and not the only alternative open to South African defence thinking about future defence in a democracy.

Defence decision-makers ought to acknowledge that future roles of the SANDF do not have to coincide with the primary role to forge stable civil military relations. As pointed out by Desch (1996:26-27) and Le Roux (2003) defence decision-makers now have to adjust traditional roles to the perceptions and expectations of society and that assuming responsibility for such roles need not corrupt stable civil-military relations. This also affords decision-makers the leeway to consider alternative future roles for the SANDF and not force it into a constricted future where stable civil-military relations are presumably maintained, but societal expectations as legitimising agents are ignored.

#### **6.3.4 Integration and transformation**

Integrating the former military establishments of the various political parties assumed a shorter term priority as the past image of forces and the economic burden of integration both had to be addressed in order to pursue a more desirable future. This integration referred to former government, homeland and guerrilla forces and their subsequent training towards international

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<sup>38</sup> This matter once again featured in the publication by Williams, Cawthra and Abrahams, (eds), *Ourselves to Know. Civil-Military Relations and Defence Transformation in Southern Africa*, (2003), where Williams once again repeats his critical stance whilst Vale, in *Security and Politics in Southern Africa. The Regional Dimension*, (2003) views this a lost opportunity to shift the defence debate and roles of the SANDF away from a preoccupation with the state, traditional primary roles and an asphyxiation with previous or older outlooks upon using armed forces.

<sup>39</sup> The reality of this argument becomes visible in the 2004 Defence Budget Vote where the South African Minister of Defence acknowledged that the 1996 Defence White Paper and 1998 Defence Review did not accurately foresee the scope of secondary involvement (peacekeeping in particular) by the SANDF. It was therefore revisited by the end of 2004.

standards of competence and professionalism. Integration assumed a strategic priority and politico-symbolic need as one of the strategic issues to carry the South African defence debate into the 21<sup>st</sup> century. Its success preceded eventual transformation and underpinned the seeking out and execution of a future defence policy (Edmonds, 1997:2-11 ; Kenkel, 2003:9).

For Seegers (2002) it was quite apparent (if not imperative) that the SANDF had to concentrate on finalising more immediate matters. Integration, restructuring, rightsizing and refining its policies were judged to be more crucial than early involvement in hard war fighting issues and first deliberating such alternative military futures. The Deputy Minister of Defence confirmed the view of Seegers when she alluded to integration, demobilisation, doctrinal review and procurement, structural transformation and a wider developmental role for the SANDF as the five main tasks allocated by parliament to defence (Department of Defence, 2001a:1-15). Seegers furthermore avers that decision-makers only recently casted one eye forward to truly fathom and address the future role and adjacent matters concerning the SANDF. This constituted two domains: first shape the

SANDF and then secondly, optimise its future employment framework that is to direct and frame its preparation in order to preclude a future strategic mismatch. Normative foundations were therefore first set in place before moving forward to reflect the future co-operative and democratic imperative that became all the more apparent as time went by. Part of this imperative was contained in a futures outlook of pursuing security through socio-economic development.

### **6.3.5 Security through socio-economic development first**

National security and its close connection to the military instrument had to be toned down as pursuit of the former was no longer a mere military and policing matter. No void was to be allowed as a future alternative was put in place with the socio-economic alternative gaining eventual prominence. A two-tracked approach based upon the domestic and foreign spheres became the preferred way to move into a more secure future strategic environment. At the domestic level the consolidation of security won the day. Its achievement was set to be attained through solidifying democracy, social justice, economic development and a safe environment by reducing crime levels, violence and political instability (Defence White Paper, 1996:Chapter 2).

At the international level multilateralism, co-operation and collective outlooks became the designated paradigm as South Africa returned to and committed itself through a co-operative defence policy to international bodies, laws, and relationships (Department of Defence, 1996:Ch 2). This commitment became a recurring refrain in statements and speeches by the South African national leadership. It transpired, however, from international events that the future of international co-operation and multilateralism towards future security was not set and secure. This

void threatened the preferred socio-economic pathway to future peace and prosperity as preferred by South Africa's political leaders (Zuma, 2003:4-4 ; Dlamini-Zuma, 2003b:4-5-5).

The above approach was infiltrated by elements of a longer term outlook to use the full array of national power instruments - including that of the military option. This ties into the recent question by Gagiano concerning NEPAD: "*What future role for the SANDF while politicians get the region on board?*" The future challenge to military leaders arises from establishing military ends, ways and means amidst changed paradigms of threats and the use of military coercion as alluded to in the previous chapter (Gagiano, 2002). Matching military ends, ways and means with the emerging political line and that of social upliftment arose as a central tenet for the SANDF and its decision-makers. Unless directly attacked, the SANDF is not going to fight a conflict along traditional military lines if this decision depended upon its political masters. The future scenario subsequently became somewhat delimited as the South African political outlook embedded itself in first addressing the abject socio-economic conditions in South Africa and the region and stated its intentions not to readily opt for military coercion to settle future disputes (Le Roux, 2000:9-19).

The less romantic or glamorous future role for the SANDF is reflected in the following constitutional underpinnings with the latter five provisions most probably representing the reality of probable future roles for the SANDF.

According to the 1996 Constitution Schedule 6, the following continues to be in force:

- (1) The South African National Defence Force may, subject to this Constitution, be employed-
  - for service in the defence of the Republic, for the protection of its sovereignty and territorial integrity;
  - for service in compliance with the international obligations of the Republic with regard to international bodies and other states;
  - for service in the preservation of life, health or property;
  - for service in the provision or maintenance of essential services;
  - for service in the upholding of law and order in the Republic in co-operation with the South African Police Service under circumstances set out in a law where the said Police Service is unable to maintain law and order on its own;
  - for service in support of any department of state for the purpose of socio-economic upliftment.

The priority of socio-economic matters tying in with the latter five employment options of the SANDF as stipulated above is quite noticeable in the 2003 Presidential address to parliament. The bulk of the speech went to matters of development with no more than 54 references to developmental aspects. Whilst the ten references to matters referring to war all focused on its prevention and inapplicability to solve disputes, the address demonstrated the saliency of non-

coercive pathways in South African defence thinking (The Presidency, 2003). This focus furthermore not only delimits the future role of the SANDF, but also recasts the future roles and functions of the SANDF in a similar vein. This ties in with the perhaps controversial response by Malan (2002) that the activities of the SANDF have in fact shifted to the non-traditional domain, in spite of this not being acknowledged in some official manner, although Wagner (2003) supports this outlook.

### 6.3.6 Delimiting the future roles of the SANDF

The Defence White Paper (1996) clearly accentuates the preponderance of the SANDF's primary task as the very reason for the existence of the institution. This task, as stipulated in the Defence White Paper, states:

*"It is the policy of government that the above functions do not carry equal weight. The primary function of the SANDF is to defend South Africa against external military aggression. The other functions are secondary."* (Department of Defence, 1996:16). According to the CSANDF secondary functions are not the reason for the existence of the SANDF. These secondary functions have a wider and more protective implication that extends beyond the narrow military domain of coercion (Nyanda, 2000:3-10).

The enforcement of the primary task and its dominance in directing defence policy are not accepted unconditionally. The tension between clinging to familiar traditional functions and changing to assume a new roles to contend with contemporary internal - external and military - non-military domains is complex Desch (1996:10-11). For defence decision-makers it represents a dilemma as the preparation and future utilisation of the military institution hinges on getting this futures outlook right, keeping society convinced and satisfied to support it, and the resources to do so.

According to Williams, the SANDF's current primary role is not sufficiently conclusive to guide future force preparation and its ultimate use (Williams, 2000:100). It therefore needs revision as to its symmetry with future strategic reality. Failure to disentangle South African defence policy from the Western impetus on formulating and maintaining the primary role holds a further risk of expensive, but inappropriate South African military forces. This goes for both the kind of primary role articulated as well as trying to emulate how developed countries go about formulating and implementing these matters (Williams, 2000:100 ; Seegers, 2003). Emulating more developed efforts is not a panacea to effect proper congruence in the primary-secondary hierarchy for the SANDF - if such a hierarchy is to exist at all.

### 6.3.7 Official views on demarcating primary and secondary roles for the SANDF

When defence officials working in this domain were interviewed, strong and divergent views were encountered. The Chief Director Strategy and Planning (SANDF) expressed the opinion that the current primary-secondary hierarchy is not to change any time soon. He emphasised that politics are the superior process that is to decide about such policy matters and not military preferences about a primary role for the SANDF (Hauter, 2002). For the current primary role to be eclipsed by secondary roles is possible, but defence decision-makers need to be convinced and this is bound to be time consuming. In his view, the primary role is to maintain its primacy, impact and guidance until adjusted by a different future political reorientation. An indication of such a shift is the statement of the Defence Minister that the vital role of the SANDF in peacekeeping in Africa necessitates a review of the policy decisions that guided the SANDF since 1994 (Ministry of Defence, 2004).

Forfeiting the current primary role introduces a quantum leap for senior military officials as it posits a different threat perception and vulnerability. According to the Deputy Chief Director Army Force Preparation, the matter of preparing for some dramatic new future currently reflects some progress, as well as resistance (Malan, 2002). Allowing the rise in primacy of secondary roles raises a further difficulty - that of focus and resources channelled away from the primary role. The SANDF is expected to fulfil roles it is unaccustomed to. De Jager (2002) points out that role ambiguity stands to confuse the SANDF as to its rightful role and this is dangerous. As the SANDF attempts to accommodate all possible political needs and contingencies sought by its political heads, its reason for future existence becomes compromised and cluttered (De Jager, 2002). This constitutes a state of affairs in need of role delimitation and therefore a revisit of what the future role and priorities are to be - a matter also on the agenda of the Chair of the Defence Portfolio Committee of Parliament (Modise, 2003).

Le Roux (2000) attempted to address this difficult issue during his tenure at the Policy and Strategy Division (SANDF). Although a proponent of the primary function and its future primacy, he concluded that for the SANDF to fulfil its future role of shaping conditions, deterring aggression and fighting and winning a war that erupts, the primary function should be redefined to include the following tasks:

- Provision of credibility to diplomatic initiatives by government.
- Provide capabilities for peace support operations.

- Provide capabilities for military diplomacy and co-operation with other states.
- Provide deterrence through credible war fighting capabilities

(Le Roux, 2000:18-19)

Le Roux's outlook is a tenable effort to address a future strategic landscape demanding much more from the SANDF than an exclusive war fighting role and to preclude preparing for the wrong conflict. This approach is also considered by South African MPs serving on the Defence Portfolio Committee. Interviewing selected MPs over the period 15-16 May 2003, their views pointed towards assuming certain secondary roles in order to also afford the SANDF room to gear itself for a dangerous future role of war fighting.<sup>40</sup> This is a way of avoiding the earlier US syndrome of preparing for a future peer competitor. This approach risks being ill prepared for near term alternatives and then having to struggle to contain intermediate threats (Barnett, 2003:4-13). This entrapment is vividly illustrated in the US embroilment in Iraq since 2003 and the imperative to reconsider seriously the reality of irregular challenges.

## **6.4 MILITARY CHANGE FOR LONGER TERM FUTURES**

The 1996 Defence White Paper provided for a Defence Review to bring about comprehensive longer term planning on matters such as posture, doctrine, force design, force levels, logistic support, armaments, equipment, human resources and funding (Department of Defence, 1998a:1). The first review had to address the future use of the SANDF in a new way with much of the detail unclear or absent at its inception. The Defence Review was a first effort to put into place some tangible aspects as to the longer term future of the SANDF. The intended paradigm shift of 1994 had to be solidified over time by addressing military change for the longer term. Defence planning under conditions of uncertainty, reconciling strategy and future structure as well as particular future needs as elements of entrenching the new defence paradigm and its future direction, are addressed in the sections below to delimit elements of entrenching the presumed paradigm shift.

### **6.4.1 Defence planning under conditions of uncertainty**

In Chapter Three planning amidst uncertainty was touched upon and it was argued that uncertainty in the strategic realm is a given and planning invariably takes place amidst this uncertainty. Planning to direct the SANDF towards the future had to function amidst the very uncertainty acknowledged by strategic theorists and defence decision-makers. Edmonds (1997:3-4-11) ascribes this uncertainty to the Defence Review having to take place amidst great

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<sup>40</sup> These MPs involved two members of the governing party (ANC), one of the official opposition (DP), one of the ACDP and the two members of the IFP - all serving on the Parliamentary Defence Portfolio Committee during 2003.



change and turbulence of parallel political transition whilst the introduction of a new defence paradigm by 1994 further complicated matters.

According to Kenkel (2003:16), uncertainty characterised the initial transition of the defence realm and as premised by the theory on scientific revolutions discussed in Chapter Three, this void is a precondition for the rise of a rival paradigm. Neither the SADF or the soon to be SANDF leadership and advisors had sufficient insight in place to effect a smooth and immediate transition to the future (Kenkel, 2003:16-17). In addition, no clear political policies existed to direct subservient policies amidst limited expertise, antagonisms, and no set hierarchy for clear decisions and implementation. Furthermore, political control was first to be settled and then military-strategic matters thereafter. This disrupted any military agenda for change and the future. Uncertainty therefore dogged both the process as well as the longer term futures towards which the SANDF had to move as a void existed during which no clear defence paradigm existed.

Conetta (*et al.*), 1996) addressed the planning of South African future defence alternatives under conditions of great uncertainty as the country's defence policy evolved. Any calculation of defence requirements was complicated by the fact that, in lieu of South Africa not facing any substantial, clear and present military threat, the future remains uncertain. South Africa is, however, relatively secure from military threats as opposed to its recent past. Unfortunately, the situation regarding non-military threats to its stability is more pessimistic. A variety of socio-economic and environmental insecurities are present in southern Africa. If left unattended, they are prone to find military expression at some future point in time and preventing this seems a sound approach by hedging against uncertainty and insecurity. Disproportionate military insurance against low probability military threats, however, are bound to severely curtail South Africa's politico-strategic outlook and ability to address regional problems that may generate military threats over time (Conetta, *et al.*, 1996).

Future scenarios could lead defence decision-makers down alternative pathways towards defence preparations that are affordable. First, for potential future threats of a large scale, but a low probability, a modest level of military insurance is an option, but decision-makers rejected this alternative during the 1998 Defence Review. A second and complementary way of dealing with extreme scenarios is to adopt a competitive strategy. Should South Africa find itself confronted by a nation or alliance possessing greatly superior military resources, the option is to offset it by competing asymmetrically - (a matter explained in Chapter Five). Adopting a politico-military or politico-diplomatic defence posture now enters as an alternative. South Africa's most valuable security asset and advantage is its current regional and international standing. The combination of a competitive politico-diplomatic strategy and modest defensive military objectives offers an

affordable and sensible dualism to strike a balance to the moot possibility of a large-scale invasion of the region and to conduct contemporary security *real-politick*. This permits South Africa to maintain a smaller growth core for future dangers and devote more resources for solving clear and present, but less warlike problems (Conetta *et al.*, 1996).

#### 6.4.2 The quest for certainty

The latter alternative presented above is not distinct from how the RSA is pursuing its security agenda. It persistently downplays its military power and raises the prominence of its politico-diplomatic status to map out not only the preferred future African domain, but the wider international one as well. Whether this alternative is to remain foremost, remains to be seen. South Africa's visible and tenacious adherence to multilateralism in all interactions, injects some certainty into the future and this is not to be missed by the SANDF-leadership. As government officials align themselves with their policies through their speeches, statements and actions, it infuses further certainty into policy and decision-making about the future roles and activities of the SANDF.

The 1998 Defence Review (Ch 3) addressed uncertainty by the threat independent approach that opts to bypass the difficulty of predicting future threats. Tangible matters such as the locations of the RSA, the sub-region, sub regional defence bodies and regional ties represent some certainty in the face of uncertainty. Proposing certain future contingencies and then ordering them in terms of their intensity and potential impact further delimits uncertainty. This ordering reflects the curious pattern that as the probability factor decreases the intensity factor rises. Subsequently the most dangerous threats become least probable of materialising in the near future. Such is the conundrum at the heart of how the SANDF is to be prepared for its future role and illustrated in Table 6.1.

**Table 6.1: Conundrum of Threat Probabilities for the SANDF**

Contingency	Priority Probability	Impact
Invasion	Low	High impact and dangerous
Limited neutralising attacks	Low	High impact and dangerous
Internal military threats	Low	High impact and dangerous
Blockades	Low	High impact and dangerous
Raids	Low	Low impact but dangerous
Attacks on national symbols	High	Low impact but dangerous
Maritime law enforcement	High	Low and less dangerous

(Source: Own compilation from SANDF Military Strategy, 2001)

The core force concept that was finally opted for from the Defence Review, came about by reviewing future alternatives formulated to address the anticipated or presumed uncertainty that

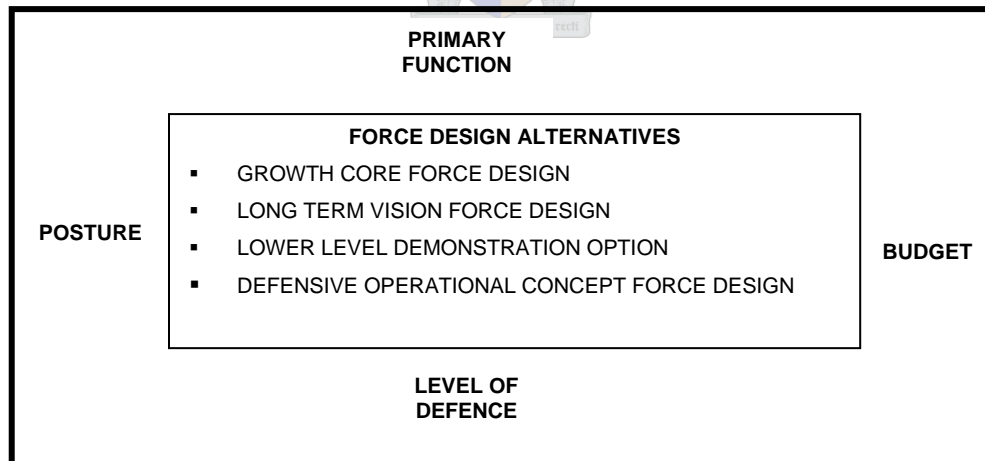
the future strategic environment was thought to entail. These alternatives are subsequently briefly investigated.

#### 6.4.3 Reconciling uncertainty and future structure: The use of alternative futures

Meeting future contingencies with a military response not only presumes some accuracy as to limiting uncertainty, but an appropriately designed force to effect it. Whilst the SANDF Military Strategy narrows down uncertainty by its threat-independent approach and prioritised missions, further tangibility is created in force design options for the future that had to reconcile certain prerequisites. The future force design of the SANDF subsequently took shape by way of four alternatives that were delimited by a certain force design logic as is illustrated in Figure 6.2.

From the force design alternatives and its parameters as illustrated in Figure 6.2, the following future alternatives eventually materialised:

**Growth core force design.** "[it] represents the minimum force level that can be maintained [and]... As a growth core, in accordance with the core force approach [and] without the permanent loss of capabilities. The growth core will enable limited force employment, but will maintain the expertise and technological base for growth when warranted by the strategic or economic situation." (Department of Defence, 1998:36).



**Figure 6.2: SANDF Force Design Alternatives and Delimitations**  
(Source: Own compilation from Department of Defence, 1998:35)

**Department of defence long-term vision force design.** *"This option provides for a broad range of defence contingencies, excluding major interventions by major powers. It is based upon the assumption that reasonable warning would be received for such contingencies to develop and that time for expansion of capabilities would be available."* (Department of Defence, 1998:43).

**Low level demonstration option.** It *"demonstrates the effect of a reduction below the level considered to be the minimum growth core. This force design also provides greater emphasis on the secondary functions."* (Department of Defence, 1998:44).

**Defensive operational concept force design.** This force design is premised upon the same level of defence as the growth core force design. [It] *"excludes defence against contingencies such as invasions and neutralising raids by major powers. It assumes a much more defensive posture excluding all offensive operational concepts."* (Department of Defence, 1998:45).

Opting for a core force design that best addressed the future within the set delimitations illustrated in Figure 6.2 had to contain the potential and surplus capacity to address the much-emphasised secondary roles as well. The dualism of the preferred centrality of the primary role and the reality of secondary roles tend to perpetuate uncertainty and therefore calls for clarification. The core force theory rests upon the notion pointed out in Chapter Three of staggering needs, buying information and only increasing commitment as the future grows clearer.<sup>41</sup> The core force option is based upon its affordability, the surplus capacity for secondary roles, a first preparation for the primary function whilst its affordability tends to draw most criticism. The latter is visible in the controversies surrounding the defence acquisition packages that ended up in the Cape Town High Court during 2003 concerning its legality and financial burden upon the country. The core force, however, remains at the centre of the SANDF structure to address those alternative military futures that are bound to arise.

#### **6.4.4 Strategy, structure and future needs**

Although the Defence White Paper maps out the road ahead and the Defence Review (1998) and the SANDF Military Strategy (2001) refine this pathway, future uncertainty remains. The Chief Director Operations Development of the SANDF infused some clarity into this uncertainty. During November 2002 he addressed time frames and alternative futures outlooks for the short, medium and longer term (Gagiano, 2002). He acknowledged the limited influence of military planners over future events and the imperative of quality decisions to tone down future uncertainty. A further matter pointed out by Gagiano is the difficulty to adapt to political requirements in the short

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<sup>41</sup> The reality of this theoretical outlook materialised in the Defence Budget Vote of 2004 where the South African Defence Minister acknowledged that, as opposed to the 1996-1998 period, the future direction of the SANDF is now more clear.

term - a matter also alluded to by a former Director Strategy (SANDF) (Roets, 2002). It is becoming quite apparent that NEPAD (New Partnership for African Development) injects some sureness into the future uncertainty faced by the SANDF. What remains in question, however, is an appropriate role for the SANDF while politicians get African leaders tied into the AU-NEPAD futures outlooks that is to set the SANDF on a befitting futures pathway (Gagiano, 2002).

The Defence Department's support of NEPAD was also outlined through concrete ways to sustain it: First, building or reinforcing regional capacities to address conflict. Secondly, building national capacities to understand the need for strong civil-military relations and prevent civil-military collapses and civil conflict. Three, proper management of demobilisation to prevent later threats from demobilised mobs. Four, extending military medical services to the region and co-operating with other entities in this regard. Finally, stopping further small arms proliferation (South African Ministry of Defence, 2001). The conceptual outlook thus seems to be one of using South African defence capabilities to assist in removing conflict, its agents and its costs to create room for socio-economic spending. A further contribution is to keep wars from re-entering and reclaiming its destructive and expensive foothold, thus promoting optimistic future alternatives (South African Ministry of Defence, 2001). This conjecture is, however, to be put in place over time as it is not a question of the SANDF being able and ready to effect it other than through the collective and co-operative pathway (Department of Defence, 1996:13).

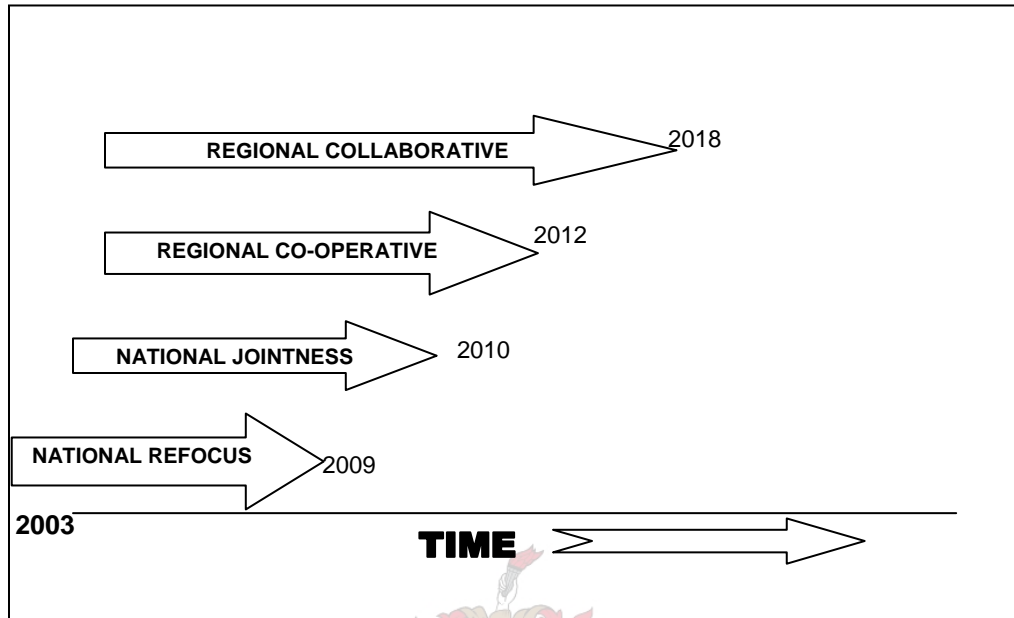
A future pathway for the SANDF's contribution is staggered over time and broadened from a somewhat competitive towards a co-operative and collaborative outcome (Gagiano, 2002). These outlooks by military decision-makers upon the future place and role of the SANDF are sequenced in Figure 6.3.

Figure 6.3 represents a pathway for future SANDF contributions to NEPAD and is to commence by first placing the national house in order. The need for the SANDF is to remain prominent as the resolution of African conflicts raises undeniable military demands in spite of them being wrapped in non-military cloaks. Conflict management is to remain a prime role of the SANDF although the challenge is to resolve or end future African conflicts within a paradigm for co-operative security thinking. This paradigm is taking shape as a safe and secure environment through trust and confidence<sup>42</sup> - as promoted or supposed by the AU-NEPAD vision and its pursuit within the ambit of the following objectives (Gagiano, 2002).

- Prevention, management and resolution of conflicts.
- Peace making, peace keeping, and peace enforcement.

<sup>42</sup> New defence thinking introduced by 1994-1995 to shift the defence paradigm to cope with more than mere military threats and responses included the importance of regional security. In particular it dealt with non-military threats, the relevance of common security and confidence building measures to address multiple threats arising from this level (Kenkel, 2003:13-14).

- Post conflict reconciliation, rehabilitation and reconstruction.
- Combating illicit proliferation of small arms, light weapons and land mines.



**Figure 6.3: Moving the SANDF towards a Collaborative Future Institution**

(Source: Compiled from Gagiano, 2002)

The legal foundation for the above is embedded in the emergent Common Defence and Security Policy and Article 6 of the *Draft Memorandum of Understanding*. This document reflects the South African position by its request that member states "... *individually and collectively, by means of co-operation and assistance, maintain and develop their individual and collective defence capacities.*" to address a spectrum (not just military) of contingencies on the continent. (Department of Foreign Affairs, 2003a: Article 6 par 1). This is a major step towards the future for which the SANDF is to prepare and referred to by Gagiano as the ultimate futures outlook to be upheld. This, however, is the first step towards an alternative future that is aspired to by certain influential decision-makers.<sup>43</sup>

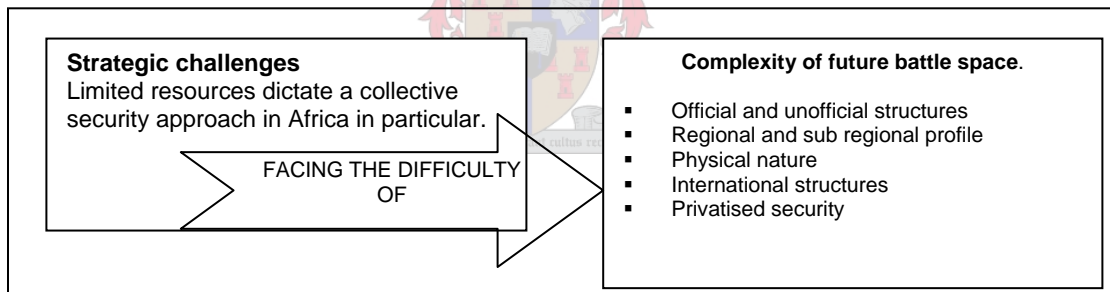
#### **6.4.5 Toning down future uncertainty: The African commitment**

South African politicians are increasingly demonstrating the will to become involved in African issues as the current Burundian, Eritrean and DRC and possible Liberian deployments illustrate.

<sup>43</sup> The aspiration to embed South African armed forces within a collective African framework for dealing with conflicts on the African continent came closer to fruition when the Peace and Security Protocol of the AU was signed in Addis Ababa, Ethiopia during May 2004.

As the political will to enter African conflicts grows, the corresponding military capacity does not increase in a corresponding manner and this promotes uncertainty (Modise, 2003). The potential of a politico-strategic mismatch in military ways and means is hereby increases (Esterhuysen, 2003). The changed threat environment to which the SANDF is exposed furthermore contests traditional military paradigms on establishing military capabilities as information, terrorism, and a struggle for Africa's resources arise. The core of these difficulties are pointed out by Gagiano and illustrated in Figure 6.4.

The future structure of the SANDF is to be considered within the confines of what defence policy prescribes. It also needs to be sufficiently adaptive to political needs or demands for operating within a future African military domain (Ministry of Defence, 2004). This domain does not share the preference for a primary slant, nor the futures collaborative profile envisioned for 2018 by Gagiano. Future adjustments also loom as the AU Common African Defence and Security Policy is set up to counter the rise of conflicts on the African continent and the presumed weakening of the UN to prevent and manage future conflicts (Department of Foreign Affairs, 2003a). The particular military implication that the SANDF needs to note is taken up in the Draft Memorandum of 25 March 2003. Article Six (See Box 6.1) sets the framework for an African future within which the SANDF is to play its future primary and secondary roles.



**Figure 6.4: Strategic Challenges and the Complexity of the Future Battle Space**  
(Source: Compiled from Gagiano, 2002)

One major uncertainty centres on the idea of the RMA as deliberated in Chapter Four and what it holds for South Africa's military forces. Although RMA-theory supposes clarity and pushing back the parameters of uncertainty as alluded to in Chapter Four, this is not universally applicable. Current SANDF-outlooks point towards non-RMA futures, but the question remains one of revisiting the all or nothing dichotomy. This is a major international debate, but quite ignored or underdeveloped in the South African realm as very few officers view the RMA to be influential in

### Box 6.1. Military Preparedness and Defence Co-operation

<p><b>ARTICLE 6</b></p> <p><b>MILITARY PREPAREDNESS AND DEFENCE CO-OPERATION</b></p> <p>1. In order to achieve effectively the objectives of this Agreement, State Parties shall individually and collectively, by means of co-operation and assistance, maintain and develop their individual and collective defence capacities and the Continent's capacity to address humanitarian disasters in order to maintain peace, stability and security on the Continent.</p> <p>2. State Parties shall cooperate in all defence matters and shall facilitate such Co-operation among their armed forces in the following areas:</p> <p>(a) the training of military personnel in any field of military endeavour;</p> <p>(b) the exchange of military intelligence and information in all relevant matters subject to any restrictions or otherwise of national security;</p> <p>(c) the development of military doctrine, also with regard to disaster management, peacemaking, peacekeeping and post-conflict peace building;</p> <p>(d) efforts to increase the compatibility and interchangeability of military equipment.</p> <p>(e) the building of collective capacity and developing of doctrine to address the questions of refugees and internally displaced persons.</p> <p>3. State Parties shall cooperate in security matters and shall facilitate Co-operation between their state intelligence agencies.</p> <p>4. State Parties shall further cooperate in order to establish and operationalise the African Standby Force provided for in Article 13 of the Protocol.</p>
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### Box 6.1. Military Preparedness and Defence Co-operation

SANDF-decision-making.<sup>44</sup> In order to further explore this connection, information was obtained by interviewing Demchak who is researching the RMA-Third World link. In her opinion, the best option for the SANDF is a selective and limited pursuit of RMA-capabilities and one limited to the information domain. The use of the SANDF in a non-expeditionary mode and to aspire towards the RMA as well, represents a form of overkill (Demchak, 2002).

In her response, Demchak (2002) accentuated the information tenet of knowing beforehand as an important skill to be observed by the SANDF. This 'knowing beforehand' is to be high-tech and RMA-driven, whilst responding to this knowledge is set to be on a lower technological level. Rapid responses are, however, necessary as African threats are bound to quickly rise and then imbed itself on the strategic landscape. Subsequently, the scale of future needs implies an appropriately scaled RMA-capacity in the South African case. As it is near impossible to cater for

<sup>44</sup> In a survey amongst senior SANDF officers on their familiarity with the RMA, it was found that although the majority of respondents have heard or have read about the RMA, it did not represent a central or enduring matter in the debate on the future of the SANDF (See Appendix B, Outputs B-22 to B-24).



all contingencies, information becomes crucial - a view strongly supported by Steenkamp (2003) and pointed out as a current void in preparing to cope with future conflicts. Nonetheless, some progress is observable as stated by a former Chief Director Command Management and Information of the SANDF. He pointed out deliberate efforts to speed up and enter the information domain. By funding and structuring the information domain of the SANDF more appropriately and introducing full-time careers for information officers, strides are made to promote the domain of information warfare (Verbeek, 2002).

An alternative is therefore to focus on gaining in-time information upon which policy-makers can act. Information thus becomes a product and South Africa the holding tank of information on African threats and vulnerabilities. Although Demchak refers to international needs, this superior knowledge is probably to be obtained and enmeshed in future AU-structures to support its growing emphasis on early warning to prevent war.<sup>45</sup> Nonetheless, Demchak proposes such a futures pathway for the SANDF in order to contend with future African threats and preclude internal opposition to casualties and extended operations. If anything, information theories are to be gleaned from the RMA-debate and developed to augment alternative future roles of the SANDF.

#### **6.4.6 RMA futures for the SANDF?**

Whilst the full RMA range depends upon institutional capacity to sustain it, African militaries (as Second Tier military institutions) do not have access to such capacity. The slow absorption rate of Second Tier countries also needs to be noted as this prevents strategic surprise to neighbours over brief time spans. Given the unparalleled advantage RMA capacities bestow upon Third World countries and in conjunction with surprise, it places the RMA candidate in an unassailable military position (Demchak, 2002). If South Africa therefore develops a niche RMA capacity, it bodes well for the future as it is bound to place it ahead of its potential future rivals. Whether this is what a future SANDF aspires towards, remains absent from primary and secondary sources explored. On the contrary, future military sophistication above that of other African militaries is not in the spirit of the defensive strategic posture of current South African Defence Policy, unless government promotes a RMA-capacity under the AU and the banner of common defence.

Demchak further warns that the scale and impact of RMA innovations are important. For the SANDF to make a dramatic shift to the peacekeeping role (a non-technological shift) is dangerous as the infrastructure for 'imperial policing' is absent and tough to put into practice (Demchak, 2002). These new alternatives are, however, also influenced by a rising future

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<sup>45</sup> The Peace and Security Council of the AU established during May 2004 is to include a Continental Early Warning System to anticipate and prevent conflicts.

strategic domain - that of Africa and South Africa's verbal and practical commitment to it. In this regard population movements, civil strife, natural disasters and disease feature prominently and for the SANDF it is important to rather contemplate these future contingencies (Demchak, 2002). It is therefore possible that as a Second Tier military, the SANDF's future RMA profile is to be partial and selectively information oriented in order to reap its strategic and operational benefits.

#### **6.4.7 Post-modern futures for the SANDF? Introducing some futures clarity**

At the dawn of the 21<sup>st</sup> century elements of a post-modern future for the SANDF is unavoidable. To survive, the SANDF has to adjust unless government deliberately redirects and funds an alternative pathway for the institution (Heineken, 2003). Post-modernism strongly reflects the military-society interface and that of military institutions being open ended systems that receive and have to process inputs from their societies. Due to its evolving paradigm of Defence in a Democracy, the SANDF in some respect emulates its more modern European counterparts and their adjustments to post-modern futures. Although its compatriots in Africa could well be out of step, the SANDF is adjusting to the demands of higher order societal change and its closeness to the AU is typical of its move towards post-modern futures. Although moving into this domain, it is tempered by resources that limit the extent of this move towards the future (Heineken, 2003).

At the lower military level the SANDF is not only adjusting to play a role in a broader range of issues, but is also preparing its people for tasks they are to perform in future. Their training therefore contends with a broad range of tasks. Although not possible to divorce itself from war fighting, it consistently allocates more time to peace-type roles. It is adjusting, but not forfeiting certain established roles and is rather downplaying some older roles. The SANDF is to assume and play these new roles, but not as the aggressor - not even if it is to shoulder future warlike roles such as peace enforcement or interventions (Heineken, 2003).

On the negative side, the SANDF is committed to new undertakings in the post-modern domain, but without considering the real capacity of the SANDF. It appears that the movements are not all that deliberate, but rather one of compelling events catching up with the institution and its decision-makers as can once again be deduced from the 2004 Defence Budget Vote. Reconciling post-modern futures with demands from the institution in terms of change and resources, might well still be in disequilibrium as far as the response from the SANDF and its future outlook is concerned (Heineken, 2003). Using the post-modern paradigm infuses some certainty into the future domain of the SANDF - even if only to direct and clarify the debate about controversial secondary roles, their unavoidable rise and future importance.

## **6.5 SOUTH AFRICA, MILITARY CHANGE AND ADJUSTMENTS FOR THE AFRICAN CENTURY**

It is not difficult to view contemporary South African thinking about the future assuming a seamless national, sub-regional and regional profile. Although such integration is perhaps a questionable futures outlook as alluded to by Moeller (2003), it is nonetheless a staunch defence outlook for the SANDF. This preference was reiterated by the South African Defence Minister during his 2003 Budget Speech on common defence structures within SADC and its eventual merger with similar continental structures (Lekota, 2003). This viewpoint is supported by the defence and military fraternity and is further debated in the section below. The use of military coercion as a policy instrument is first addressed and followed by investigating the possible shift of the SANDF towards a security force. This brief discourse is followed by arguing the utility of military force and the SANDF outlook upon it, the White Paper on Defence (1996) and Defence Review (1998) and their contributions to change and adjustments. Following these two policy realms, the SANDF Military Strategy is used to expose the ends, ways and means necessary to execute policy. Finally, the matter of alternative military futures posited by these policy and strategic directives are summarised.

### **6.5.1 Military coercion as a policy instrument**

The stance against military force in the speech by South Africa's president during the 13<sup>th</sup> Summit Conference of the Non-Aligned Movement (NAM) during 2003 is not to be ignored. He also explicitly acknowledged the possibility of war becoming a permanent fixture upon the future strategic environment. In no uncertain way his statement also alluded to a threat to the future partnership envisioned for the rise of Africa and the African century. The use of military power by governments (its unilateral use in particular) to coerce an opponent, however, remained deeply questioned in the speech as this constitutes a central tenet to be removed from a future Africa (Department of Foreign Affairs, 2003a, Art 4, par 3 and 4). Multilateralism and global bodies such as the UN is now clearly the preferred pathway to manage the future likes of the March 2003 Iraqi crisis (Mbeki, 2003).

The above anti-war outlook needs to be reflected against the backdrop of a simultaneous speech by the US Secretary of State in Beijing that tied the progress on the Iraqi crisis to the backdrop of military coercion (Powell, 2003). This sentiment was almost simultaneously echoed in Spain by the British Prime Minister during a media briefing on the Iraqi crisis (Blair, 2003). Juxtaposed to that of Mbeki, these outlooks raise the spectre of a post Cold War curtain being drawn between those favouring a future role for military coercion in international crisis management and those opposing it. This division became graphically illustrated by the invasion of Iraq and the strong

anti-war responses it drew from state and non-state entities. Actors arranged themselves in opposing competitive and co-operative camps as to the future use of military coercion. This raised the difficult spectre of military coercion reclaiming its position as a policy instrument to deal with future threats (Schoeman, 2003).

As to this schism, the South African outlook upon the future use of military coercion remained firmly embedded with the anti-war and anti-coercion lobby. This siding was reiterated during 2003 by the South African Foreign Minister. She compared a future world of multilateralism, peace and security to that of rule by economic and military power possessed by the powerful. These words had direct relevance to the US-British Coalition and the March 2003 attack upon Iraq and she expressed a preference to have such affairs presided over and legalised by the UN through multilateral practices and not military coercion (Dlamini-Zuma, 2003:3-4). This message was reiterated in the *New Article* (Relationship with regional mechanisms in the promotion of peace, security and stability and NEPAD) of the Memorandum of Understanding on a Common Defence and Security Policy by the RSA dated 25 March 2003. This theme was further echoed during the opening address by the South African Foreign Minister on 27 March 2003 of the AU meeting on a Common Defence and Security Policy in South Africa. It is thus possible to posit that these multilateral and co-operative preferences set the paradigm for the future role and functions of the SANDF. It also raises some questions about the future of the SANDF as a defence or security institution.

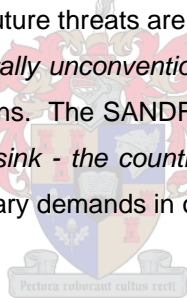
### 6.5.2 A future SANDF: A defence or security institution?

Changes and the challenges from the future African strategic landscape arouse fundamental questions of their own. One question pertains to the future role and functioning of the SANDF as a policy instrument and whether the SANDF is not moving from a defence force to a future of becoming a security force. This question was also raised concerning NATO's shift from a defensive military to a broader security based institution (producing and not demanding security as argued by Moeller) as it increasingly assumed more security-policing than stark and traditional war fighting roles (Tully, 2003:1). This highlighted a further dilemma of allocating resources between these different operational theatres - something akin to the dilemma faced by the SANDF and its future dual role employment.

For South Africa the matter of promoting security and war fighting became interjected by the views of Williams briefly alluded to earlier in the chapter. He questioned the logic of *de jure* traditional defensive underpinnings of the SANDF as opposed to the envisaged *de facto* security related roles and tasks. The undeniable rise of softer security roles, according to Williams, is to compel a revision of the secondary tasks and the concept of threat *vis a vis* the primacy of the

primary task (Williams, 2000:100) and became further accentuated by the view of Le Roux (2003a) that the role definition of the SANDF is in need of serious reconsideration given its migration away from war fighting postures.<sup>46</sup> Such outlooks embody the issue of a SANDF for traditional defence or one to promote security along all other possible avenues in a future strategic environment and under closer scrutiny, one quite closely matched with official South African Defence policy.

During an interview with Malan (2002), this defence-security conundrum again surfaced. Although admittedly reflecting an Army perspective, a futures outlook of creating security is one alternative to traditional defence thinking (Malan, 2002). In his view a futures outlook of a security role as opposed to a narrow defensive one is furthermore bound to be a fundamental shift in thinking about the future role of the SANDF. A wider future role for the SANDF is thus conceivable, but at the risk of over extending available capacity. This implies that promoting southern African security is possible, but effecting it beyond the sub-region risks over-extension and is arguably to become more collaborative as urged by Gagiano (2002). On the matter of the SANDF being allowed to return to a predominant defensive function the outlook is judged to be more pessimistic. According to Malan future threats are not going to materialise as tangible, clear and military in kind, but rather as a "*totally unconventional force*" for which conventional military ways and means hold few if any solutions. The SANDF will therefore have to support NEPAD in every way possible or "*everything will sink - the country and the region*". The different service arms will have to adjust to these unmilitary demands in order to prepare for a dramatic new future (Malan, 2002).



In spite of his contention, Malan as well as Le Roux and Neethling are not for the switch to the security role. Le Roux argues that the fundamental basis for the SANDF is to defend and that the primary role is to be maintained, but adjusted. The defence of South Africa is not merely premised upon fighting to defend the country, but foremost to prevent conflict and war, or to contain it and only fight if necessary. This presumes a fighting role, but parallel roles as well to promote the prevention and containment of conflict as the cradle of South African defence thinking and what the SANDF needs to adjust to (Le Roux, 2000:4- 5). Malan (1997) and Malan (2002) argue the importance of secondary roles, but not to make a dramatic switch as reflected in his 1997 publication. In his argumentation, he further reflects a future SANDF structured, trained and employed along traditional lines, not non-traditional, and therefore rather leans towards the views of Le Roux, than those of Williams.

<sup>46</sup> The military-security divide should also be considered given the security emphasis of South African Defence Policy and the deliberate preoccupation with security - not warfighting - that it contains (Kenkel, 2003:29). This emphasis could be

Neethling also maintains the primacy of the primary role. He argues, however, for better balancing the primary-secondary domains as the non-traditional security areas or grey-areas are rapidly rising and claiming their place in security thinking - including that of the once sacred military domain (Neethling, 1998). The primary role and capacities to effect it can be interpreted as a holding tank of capabilities to deal with future uncertainties and a way of hedging against an uncertain future strategic environment. The primary role and its capacities afford the conceptual space and capabilities to contend with secondary matters and this collateral utility is not possible if the secondary role becomes elevated.

### **6.5.3 The utility of military force: Upholding traditional utilities**

The traditional outlook upon the legitimacy and utility of military force needs some attention as to the gist of this section. It is imperative to realise that legitimate military force is embedded in it serving valid foreign policy objectives. In no unimportant way this holds sway with deterrence through its coercive effect upon an aggressor. The deterrent utility of military force infuses legitimacy and durability into the existence of a military establishment (Bletz in Small and Singer (eds), 1985:79). This deterrent utility and its importance are in no small way reinforced by the growing sophistication of the conventional domain. Blaas and Ferreira (2003) both emphasised this matter as desirable for the future profile and posture of the SANDF as both reiterated the importance of upholding the deterrent effect of the SANDF.

A further utility embedded in military force is a function of the options or choices it affords decision-makers and the more varied the forces, the more options become available (Schmidt, 2003). The absence of such forces removes the deterrent for aggressors not to opt for military aggression against another country (Bletz in Small and Singer (eds), 1985:79-80). Preventing wars is currently a central tenet and the deterrent option for achieving this is not to be ignored. The growing sophistication of conventional forces increases the difficulty to pursue rogue options against sophisticated RMA or partial RMA military forces that can defend themselves by tracing, tracking and hitting what moves on a future battlefield (Morgan, 2000:140-141). Whether South Africa adheres to the latter or the extent to which it builds upon it, is difficult to trace. What is not open to interpretation however, is that preventing future war and not fighting it is a fundamental tenet of South African defence policy and the future use of the SANDF. All possible measures to effect this are therefore relevant to the future.

Military forces furthermore illustrate commitment to allies and opponents if deployed to a particular theatre. It not only shows solidarity with a particular actor, but the strategic importance

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ascribed to the influence of Nathan and the key features of his "new approach" to essentially provide security to individuals.

of a geographic entity as well (Bletz in Small and Singer (eds), 1985:81). Presently this can also take the form of preventative deployments such as the SANDF in Burundi or combat deployments by foreign countries as found in the DR Congo conflict of the early 21<sup>st</sup> century.<sup>47</sup> For the RSA its deployments are concrete proof of its commitment to the future security of the continent within the AR and AU paradigms of preferred futures (African Union News, 2003). These commitments are, however, about preventing future war or current ones from escalating into the future - not about war fighting.

Military advisory and assistance policies play an important role as well. It cements partnerships and reinforces the military option of countries experiencing a weakness in this domain (Bletz in Small and Singer (eds), 1985:81). South Africa's outreach to southern African defence forces through SADC structures is an African example of exploiting this utility, and a tenet introduced to the reigning Defence Policy and its regional aspirations. According to the South African Minister of Defence it is also an important mechanism to enhance security and support NEPAD (South African Ministry of Defence, 2001). The latter became quite visible in the March 2003 gathering of African experts on defence and security in South Africa to debate a common defence and security policy for the continent with the ultimate goal to fuse African military institutions more intimately (Department of Foreign Affairs, 2003).

Such an integrationist outlook is also visible in a line of futures thinking positing that all military resources on the continent belongs to all. It is thus possible to configure a common African defence organisation for African needs (Malan, 2002). This is, however, questioned by MPs of the Portfolio Committee on Defence as to its attainability as this view is strangely enough not shared at the political level. Minne (2003) for example also points out the strategic logic of a Common Defence Policy, but the organisational and operational intricacies of effecting such a future and long-term time frames it demands. However, by eliminating rivalry and suspicion, promoting transparency, strengthening the defence sector and eliminating unnecessary national expenditure on defence (African Union, 2003a:8) it is hoped to achieve some common ground.

Finally, access to the military option is a hedge against uncertainty as the international system is known for its unpredictability and ambiguity. Military coercion acts as a national insurance policy against uncertainty becoming a liability and a subsequent vulnerability by preventing it from escalating to untenable threat levels (Bletz in Small and Singer (eds), 1985:82). The SANDF operates at both levels by being a shield against uncertainty as well as an instrument to fend off military threats. This is contained in the defence policy and military strategy directing the future

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<sup>47</sup> Such deployments were done by Angola, Namibia, and Zimbabwe to the DR Congo during the latter country's war with Ugandan and Rwandan forces spanning the second half of the 1990's and early 21<sup>st</sup> century.

roles of the SANDF towards that of preventing, containing and fighting future wars and is outlined in more detail below.

Although the Defence White Paper (1996) as well as the Defence Review (1998) and the SANDF Military Strategy Draft of 2001 are explicit about the African association, this connection needs to be placed within a futures context. This context derives from the futures notions contained in the primary documents laying down the future direction of South African defence thinking and the SANDF in particular. It is furthermore augmented by higher order preferences about security and the utility of military force as the AR, AU and NEPAD are rapidly shifting from a mere futures vision to institutionalisation for promoting future African peace, security and stability.

#### **6.5.4 The White Paper on Defence (1996): Establishing a new futures outlook for South African defence policy**

The 1996 Defence White Paper is in a way also an official commitment of South African defence capacity to the future African strategic landscape. One aim of the White Paper is to inform Africa on South African Defence Policy and so contributes to confidence and security building as South Africa's relations with neighbouring states become firmly entrenched in friendship and co-operation (Department of Defence, 1996:1, 17). The country's national security policy not only deliberately directs its defence thinking towards promoting regional security in southern Africa but also towards the priority of defence co-operation to this end.

According to the Defence White Paper South Africa views the promotion of common security in Southern Africa a priority. It subsequently advances the view that future defence policies need to be shaped in a co-operative manner through bi- and trilateral relationships (Department of Defence, 1996:13-14). South Africa views itself as having a common destiny with southern Africa and therefore strives to cement this common destiny through co-operation with southern African states and the promotion of peace and self-defence in the region. This partnership is to be further augmented by South Africa adopting a defensive posture to promote confidence and positive relations with its sub-regional partners (Department of Defence, 1996:4).

The White Paper sets the scene for not only South African defence thinking, but also its future commitment to Africa, although the paper is more prone to focus upon southern Africa. It, nonetheless, provides the leeway to consider and design longer term futures matters and the eventual shift from a more confined South African to a southern African preference and an eventual future African focus.



### 6.5.5 The Defence Review (1998): Challenges of refining the futures outlook

The very title of the *South African Defence Review of 1998 - A Determination of South African Defence Requirements: A Vision for 2015 and Beyond* raises the image of an effort to address the longer term at the policy level. The Defence Review also reflects a military input as to the more political-civil one of the White Paper as it has to move the normative cloak of the White Paper closer to size, structure and force design of the SANDF in order to meet the 21<sup>st</sup> century<sup>48</sup> (Defence Review, 1998:3). However, addressing the future is a somewhat unstructured process in the SANDF in particular. Although not blatantly absent or ignored, it is still not a well-trodden pathway to formulate and influence particular alternative futures as can be inferred from the following.

During an interview with Senior Staff Officers of the Director Strategy they acknowledged the difficulty of interfacing longer term futures expressed by different functional military groupings to satisfy their service needs. Futures thinking in the SANDF do, however, contain long-term outlooks, although not always formalised in writing. Its perceived absence therefore does not imply ignoring longer term futures. It is just not always set out in structured time scales and this raises difficulties. Structuring such thinking into more definable time scales is therefore necessary. Such conceptual long-term thinking and mind maps about the future act as soundboards for shorter term decisions and actions of the SANDF. Moving forward is also an incremental process and each cycle contributes to the longer term future towards which the SANDF is moving. In part planning and budget cycles represent planned steps towards a desired future as set out in defence policy, military strategy and SANDF strategic planning (CCS, 2002).

Although not denying attempts to cope with the future, views expressed by members of the Defence Research Council point out some limitations. Although a lack of funding is common, attempts are restricted by the absence of a dedicated effort in the SANDF and responsibility to address longer term military futures. This void allows for shorter term issues concerning systems and technology for example, to be introduced in the absence of proper higher order future outlooks - a difficulty pointed out in Chapter Two of this study. Medium and shorter term matters therefore receive disproportionate time and attention at the senior levels as compared to longer term futures that are supposed to guide this process. Political decision-makers are also

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<sup>48</sup> Being a normative paradigm on defence, the 1996 White Paper was never intended to address military-strategic matters. The 1998 Defence Review interpreted the normative features of the White Paper to add detail on posture, doctrine, force design, force levels, logistic support, armaments, equipment, human resources and funding that served as guidance for the 2001 SANDF Military Strategy. In this way the policy-strategy-structure triad was established for the coherent preparation and future employment of the SANDF.

responsible to indicate the longer term outlook and this is not readily forthcoming (De Jager, 2002).

According to De Jager the SANDF should position itself as an instrument of future security that reflects its distinctive competence - to mobilise military power in the name of the state. The SANDF therefore has to assert itself as a sub-regional military organisation that can execute other functions as well if so required by its political heads. Political needs, however, do not always correspond to the constitutional justification of the defence force and being too accommodating can erode a proper future role by the SANDF. The institution is currently swinging to the security extreme and thus necessitating a future adjustment to return some equilibrium between its primary military and secondary security roles (De Jager, 2002). Its sub-regional focus is also becoming compromised as the African emphasis expressed by the South African Foreign Minister on defending the African continent against future calamities and conflicts grows in posture (Department of Foreign Affairs, 2003). It is thus a matter of balance and true collective and co-operative futures as an undue dependence upon the SANDF is bound to cripple its futures contribution to prevent, contain and fight future wars (Modise, 2003).

Despite the struggle with future periods, the 1998 Defence Review nonetheless strives to address longer term defence requirements into the 21<sup>st</sup> century. Its stated logic is "*... to determine the appropriate size, structure and force design of the SANDF into the next century.*" It is therefore necessary to establish these future tasks of the SANDF as well as the ways and systems necessary to undertake them (Defence Review, 1998:3-4). This futures outlook is directed by particular concepts that act as pathways to direct prospective roles and tasks of the South African military. They represent new strategic perspectives upon the future and are more acutely reflected in the strategy directing the SANDF towards the future.

#### **6.5.6 The SANDF Military Strategy: The execution of forward-looking policies**

The 2001 SANDF Military Strategy (SANDF MS) illustrates the reality of how the SANDF intends to contend with future threats and vulnerabilities. The priorities of missions and tasks also represent a barometer of political requirements and although not altogether military in kind, it nevertheless represents the political intent as the guiding intelligence. This corresponds with views held by the Chief Director Strategy and Planning (SANDF) who maintains the importance of the SANDF following the political line that is to determine an extended or limited future role for the institution. Although the SANDF has a responsibility to present its views, this is only in an advisory capacity. Political policy-makers remain dominant in setting defence policy from which an appropriate military strategy is derived (Hauter, 2002).

Malan (2002) articulates the political line more emphatically by positing a future with the SANDF having to cope with a persistent dual responsibility. This responsibility is to unfold as that of conducting its military missions and simultaneously caring for or assisting civil society where it executes missions. Politico-strategically future roles of the SANDF will therefore have to be responsive to strong political expectations (if not demands) to promote security, whilst plying its trade of military coercion. This political slant features strongly in the military strategy that argues different priority levels for different missions as the strategy is revised annually (Director Strategy, 2001).

The formulators of the Military Strategy acknowledge that revolutionary changing conditions are confronting the SANDF and are encapsulated in:

- The implosion of the former USSR.
- The transition of South Africa and the integration process giving rise to the SANDF.
- Coping with dramatic budget cuts.
- The effect of the RMA debate.
- Movement of the SANDF into the information era.

(SANDF Military Strategy, 2001:1-1)

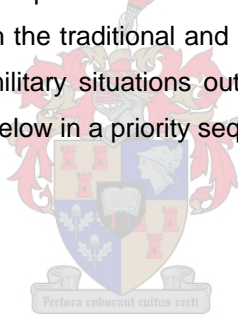
The SANDF Military Strategy further recognises that the military power base is an inherent building block of the national security strategy, but an instrument of last resort. It is formulated to influence a period of 10 years whilst acknowledging that the extended long-term vision of the SANDF covers the period beyond this (SANDF Military Strategy, 2001:x). A longer term outlook is, however, not yet substantially developed and only now being constructed as an Extended Long Term Strategy (ELTS). The inherent uncertainties and unpredictability of the strategic environment (even ten years on) is further acknowledged by catering for strategic surprises with the necessary flexibility being achieved through multi-role preparations, skills based capabilities and reserve forces (SANDF Military Strategy, 2001:xx).

Much of the futures outlook held by the SANDF Military Strategy are directed by the future vision of the department and missions for the SANDF. The focus remains on the defensive posture and an instrument of last resort, as well as keeping the institution a credible future policy instrument to be utilised when all other political options have been exhausted (SANDF Military Strategy, 2001:4-1). As to what the SANDF is expected to cope with in future, the following general military situations are considered:

- Fending off a conventional or unconventional onslaught.
- Fending off a non-conventional onslaught.
- Defensive measures against an information and cyber onslaught.
- Defence against a chemical-biological onslaught.
- Protection of foreign assets and special operations.
- Peace missions through preventative diplomacy, peace making, peacekeeping, peace enforcement, peace building.
- Secondary tasks such as military foreign relations operations, co-operating with SAPS, borderline control, support to other government departments, VIP transport, disaster relief, search and rescue, maritime support operations.

(SANDF Military Strategy, 2001:6-1 - 6-2).

The above sequence ranges from traditional contingencies to those deemed to characterise and upset a future strategic environment by introducing new information type situations as well as the non-traditional domain of future threats. Although threats and missions concerning the general threat environment are prioritised, the important matter is the first priority of threats and missions indicated. These have little to do with the traditional and primary role of the SANDF and threats making up the bulk of the general military situations outlined above. This is reiterated in the SANDF force preparations arranged below in a priority sequence:



- Co-operation with SAPS.
- Borderline control.
- Presidential health support.
- Support military diplomacy.
- Special operations.
- Disaster relief and humanitarian assistance.
- Defence against an information onslaught.
- Maritime support.
- VIP transport.
- Sub regional peacekeeping.
- Support government departments.
- Sub-regional peace making.

(SANDF Military Strategy, 2001:8-4)

In lieu of the priorities set forth by the SANDF Military Strategy injecting elements of certainty about the future, the concepts to address these priorities remain clouded by uncertainty. This uncertainty is, however, to be addressed by the mission-based approach as acknowledged in

Chapter 9 of the SANDF Military Strategy that states: " *A new Strategic Concept had to be developed due to changing priorities and the focus of missions expected of the South African National Defence Force.*" As it is acknowledged that the 10 year window still contains much uncertainty, existing policy documents are used to direct SANDF activities and lower the risk of surprise by unforeseen contingencies (SANDF Military Strategy, 2001:9-1 – 9-2). It thus follows an approach to prepare forces to limit future uncertainty by not trying to hedge for every possibility, but preparing the SANDF for prioritised future missions according to the political direction forthcoming (Wagner, 2003).

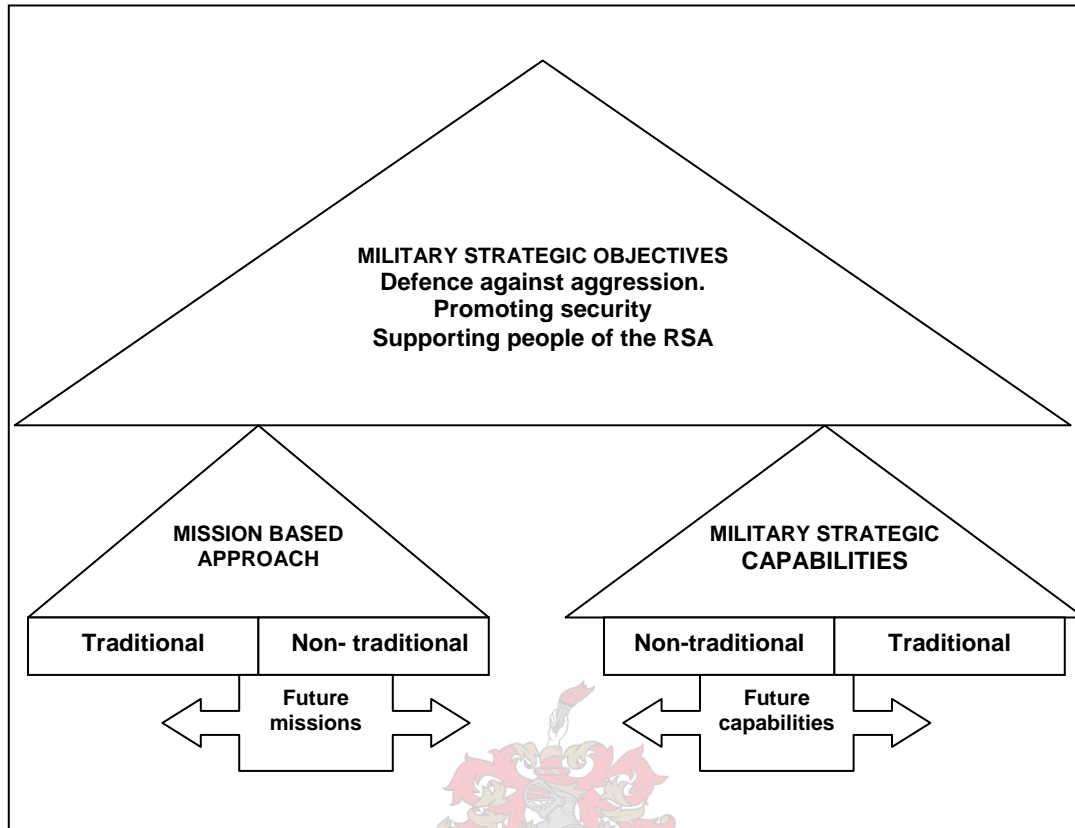
### **6.5.7 A defence policy and military strategy for alternative military futures**

The South African Defence White Paper and the SANDF Military Strategy deal with the future of defence and the role of the SANDF to bring about a desired political future. Both endeavours, however, strive to delimit and prioritise the war making profile of the SANDF and its destructive roles. Whereas the Defence Policy positions the SANDF in a politically subordinate position, the military strategic outlook aims at structuring the ends, ways and means towards a preventative as well as a coercive future military capacity. The policy outlook, as the dominant domain, rightly demands from the military strategic outlook to satisfy the needs and allocation of values and resources as decided upon at the political level. The military-strategic output in turn accommodates these policy demands by consistently splitting its military strategic objectives, mission based approach and military strategic capabilities to accommodate the alternative futures emanating from the policy realm.



The SANDF Military Strategy reflects an ambiguity to cope with an uncertain future strategic environment upon which military coercion or the threat thereof is to be exerted. This ambiguity is illustrated in Figure 6.5.

Figure 6.5 illustrates the reality, but military duality that the SANDF Military Strategy attempts to address. When viewed in conjunction with the futures outlook of Gagiano, it strives to achieve defence against aggression by means of first promoting security in the region and sub-region in a non-military or non-coercive manner. Future capabilities and future missions are therefore expected to shift towards the traditional domains over time. This outlook involves careful and difficult planning to adjust the future military-strategic employment of the SANDF to consistently fit the politico-strategic outlook. This could even imply the possibility of the future traditional role of the SANDF never assuming the professed coercive war fighting profile.



**Figure 6.5: The Dual Role Division of the SANDF Military Strategy**  
 (Source: Own compilation from SANDF Military Strategy, 2001)

Although enshrined in defence policy, the use of military coercion is rarely, if ever, referred to as a possibility. South African politicians consistently use co-operative and collaborative approaches to portray South Africa's disdain of the use of military power or any form of coercion against a fellow African country (Dlamini-Zuma, 2003a). This contempt is illustrated in the national security strategy where the military power base is relegated to the bottom rung (SANDF Military Strategy, 2001:2-1) as a lesser way towards an end in national and international outlooks on security (SANDF Military Strategy, 2001:2-3). In spite of the threat environment as stated in the SANDF Military Strategy (2-4 - 2-5) the use of military coercion remains subdued and if used, preferably only in a co-operative, preventative and restrained manner (SANDF Military Strategy, 2001:2-9). This muted or toned down outlook on military coercion applies to the regional as well as international levels of security in order to heed its future collaborative and constructive potential (SANDF Military Strategy, 2001:2-9 - 2-10).

The consistent preference of political decision-makers to emphasise the secondary roles of the SANDF justifies the bias in the SANDF Military Strategy to balance the primary styled ends, ways and means as well as its underlying concepts with a secondary focus. South African Defence policy is reinforced by policy-makers in their articulation and operationalisation of salient defence policy matters that are deemed important over the medium and longer term futures. This offsets the neutrality of defence policy and indicates to strategists what is of importance in the immediate future and what to relegate to the longer term future. Except for it remaining a political decision as argued by Hauter (2002), uncertainty, however, remains as to what precisely is to invoke the futures alternative of defence against aggression as a military strategic objective and adjusting the mission based approach and military strategic capabilities. Ultimately however, the alternatives are visible and prioritised into some rough futures framework, irrespective of the ambiguity about the accuracy of the time-element.

It is within the above South African outlook upon the limited and restrained use of military coercion and its more pronounced use as a constructive policy instrument that the future role of the SANDF is to be understood. This futures outlook is reflected in the roles and missions and their prioritisation in the SANDF Military Strategy. The extent of a futures inclination and what preferences are visible in the futures outlook of defence officials and military decision-makers also play a crucial role in this regard. Opinions of selected defence officials are subsequently outlined to create some benchmark or indicators of the futures debate in the SANDF.

## **6.6 DYNAMICS DIRECTING FUTURES THINKING WITHIN AND ABOUT THE SANDF**

The above discussions predominantly turned upon literary expressions and interpretations of futures matters and the SANDF. In this section, the intent is to present some indicators and opinions about the futures inclination of the SANDF as collected over the period 2002 - 2003. This effort not only holds the potential to produce questionable outcomes, but is quite difficult as well. Nonetheless, certain indicators of a futures orientation in the SANDF are outlined by presenting opinions voiced by selected officials and considered to corroborate the views expressed in the above discussion.

### **6.6.1 Need and utility**

Outlooks of the CSANDF as head of the military-strategic domain in particular, are indicative of the futures direction to be contemplated. Engaging in new defence thinking in order to address the extended security needs now entering the domain of the SANDF is central to his views (Nyanda, 2000:10-10). This notion rests upon shifting futures defence thinking from a more

confined national-strategic approach to wider security matters less bound by international borders and hard boundaries. The future challenge is roughly demarcated by deterring aggression, promoting security and supporting society, not fighting or threatening military coercion (Nyanda, 2000:2, 10). For the SANDF, these extended strategic concepts call for balancing longer term conventional readiness and shorter term legitimacy in the absence of visible and familiar military activities through new legitimacy building roles.

The future contribution of the SANDF turns upon its ability to operate amidst dualistic futures domains and establish sufficient defence for South Africa and the region. Military support to political ideas such as the AR is premised, but not in a traditional coercive way. Besides, military action without international consent is to be avoided whilst solving future African conflicts with military means is deemed a luxury. Furthermore, preferences to deal with new conflicts and threat patterns along military ways are marginalised as the predict-and-prepare philosophy is bound to consume resources needed for the AR. Confidence building and integrating military ways and means are therefore to become prominent (Nyanda, 2000:8-10). The challenges of this dilemma are nevertheless typical of post-Cold War and post-modern military matters that the SANDF can barely avoid in its futures outlook.

New thinking arising from a new meaning of security compelled the SANDF to adjust defence thinking to address the region as well as the RSA. Deep coalitions where civil-military integration boosts the ability to deal with complex threats are also to be considered. For the SANDF the future lies in balancing unfolding alternatives between maintaining sufficient conventional readiness and those roles keeping the SANDF legitimate in the minds of civil society at national and regional levels. The rethink is thus about how to stagger SANDF roles along a futures continuum of contributions to the alternatives of security, defence and if at all necessary, effective military coercion (Nyanda, 2000:9-10).

Meeting alternative futures is also compelled by the salient democratic imperative. Democracy, however, demands more future clarity than autocratic systems and heightens the responsibility to properly prepare for future military roles (Hugo, 2001). Embedded within this imperative by defence policy (Defence in a Democracy) the SANDF therefore cannot escape the future-democratic nexus. As a policy instrument, the military alternative is not excluded from this want. This is further illustrated in Article 2 of the RSA's position on a Common African Defence and Security Policy that states the responsibility of government to defend and create a future environment that is secure (Department of Foreign Affairs, 2003a:Article 2 par 1 and 2).



Du Plessis links the democratic need to that of building confidence in the region by military intentions, subsequent capabilities and what the future realm is bound to assume. This outlook is also contained in the whole transparency gist of defence policy and to promote confidence by making South Africa's military intentions known to its southern African partners (Department of Defence, 1996:1). The sub-regional focus quickly became usurped by the AU-NEPAD prevision of a future Africa and rapidly brought along the need for the SANDF to thrash out its role in a future Africa (Du Plessis, 2003). The need for a futures outlook is therefore quite apparent, but it remains compromised by a number of obstacles.

### **6.6.2 Perceived obstacles to cultivating a futures outlook in the SANDF**

The need for probing the future supposes that some leeway to do so is forthcoming. For the SANDF of late this seems to be lacking. A deliberate futures focus has been absent in the SANDF for some period and this void is to be addressed by removing senior military decision-makers from the daily activity trap (Jooste, 2001). Day to day issues tend to overpower decision-makers and the SANDF is no exception (Hugo 2001 ; Jooste, 2001). The quick-fix syndrome remains ingrained and this further disrupts investing in future alternatives - if only in intellectual terms (De Jager, 2001). A further obstacle is the staffing of strategic posts such as that of the Chief Director Policy and Planning that remained vacant for an extended period and impeded the SANDF from moving into the future (Hugo, 2001, Edmonds, 1997:5-11).

The role of resources is important as well for as they decrease, as in the case of the SANDF's budget and manpower, the need for a deliberate longer term futures focus increases. Drastic financial cuts and an intolerance of mistakes enhances the need for future clarity (Alexander, 2000) as military decision-makers remain somewhat uninformed for some time of how future war is to unfold.<sup>49</sup> These obstacles contributed to a SANDF devoid of a coherent futures culture and exacerbated by its pursuit being viewed a nuisance factor (Hugo, 2001) or even an impossibility. From this derives the dire need for sound and quality contemporary decisions (Gagiano, 2002) that are judged to have some positive futures utility or impact.

A further need is one of breaking the tendency to think and work within shorter time frames (Du Plessis, 2003) and order complexity even if only how to think about the future. This approach is inherently visible in the outlook structured and proposed by Gagiano (2002) and the ELTMS towards 2030 - both of which rather promote how to think about the future, rather than efforts to pin down specific futures. As deliberate threats remain absent, reading environmental changes

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<sup>49</sup> If compared to the void in *Apartheid* defence policy that afforded the leeway to introduce a paradigm based upon Defence in a Democracy, a void in the SANDF on its military future could forge a similar crisis. Dramatic defence commitments to the African realm for example, can further adjust the paradigm premised upon democracy.

become important and so much the more as limited resources reinforce the imperative of extending the futures frame for the SANDF (Roets, 2001 ; Alexander, 2000).

In spite of concerns and difficulties, the presence of a futures inclination in the SANDF can be traced. Although perhaps not deliberately designed to present the SANDF with a futures profile, certain indicators are nonetheless visible. These indicators on the one hand seem inclined towards deliberately addressing new futures, others are more implicit by exposing selected defence officials to future matters through their development.

### **6.6.3 General indicators of futures orientations in the SANDF**

Hauter avers that SANDF futures are to remain closely tied to political preferences about a particular future role for the institution and whether this role is to grow or fade in the pursuit of political interests. Over and above the political imperative, De Jager avers that the extent to which alternative futures are to receive deliberate attention also depends upon them capturing the interest of senior military leaders. It is furthermore vital to have top officers probing the future and to review policy documents (and presumably academic research documents) directing military futures (De Jager, 2001). For the SANDF future roles are furthermore not to be understood as narrow military roles, but clustered and played out in co-operation with other government departments as SANDF futures are unlikely to remain exclusively military in kind. This goes for collateral roles in particular as clinical military roles for the SANDF are prone to become marginal in future (Hauter, 2003). This opinion is, for example, reinforced in the Defence Budget Vote Speech of 14 May 2002 with the Deputy Defence Minister again accentuating the RDP responsibility by utilising defence resources for development and internal security during peacetime (Department of Defence, 2002:4-9).

Jooste (2001) argues that in order to elevate and properly address futures matters, some entity with access to a wide body of international expertise as well as the ministerial level needs to be visualised. This is to afford alternative futures a proper growth space and for future strategic matters to be considered at the appropriate decision-making level. As time frames become extended the need for a futures focus increases. The gradual extension (although somewhat controversial) of futures time frames through 10 years, 18 years and 20-30 years into strategic outlooks is apparent (Roets, 2001). It is therefore quite important that these longer term outlooks find expression in some articulate way. Project Strategic Vision is one such a pathway to probe the longer term military matters bound to confront the SANDF at some future point in time and together with other outlooks, are subsequently outlined in more detail.

### ***Project Strategic Vision***

The brief concerning Project Strategic Vision dated 25 February 2002 identifies the need for a longer term Military Strategy and the necessity for a vision-type document. This outlook demands some attention to the contents of such a SANDF Extended Long Term Military Strategy (ELTMS). This ELTMS, according to the brief, is to address a period of approximately 20-30 years into the future, outline certain futures through particular focus areas and to propose alternative ways for doing it.

- *Future strategic context for defence.* Doing an analysis that underpins defence policy by making use of recent events and or emerging trends.
- *Strategic capability planning.* A capability based long-range force development process and capability levels necessary to uphold or adhere to government policy directions.
- *Military assessment.* An assessment of developments in military science.
- *Strategic estimate.* A continuous broad estimate of factors that influence the determination of missions, objectives, courses of action. It is to be calibrated with the strategic direction received from national-strategic level.
- *Vision 2030.* A document addressing the need to prepare for the future.

(Directorate Strategy, SANDF, 2002:1)

Although having no official status, this project is about approaching the future and having a visionary document and theory to negotiate it. It is less about the tangible and more about a value driven future and one close to the defence-AU-NEPAD connection. This project is judged to be in line with modern defence trends of having a vision document concerning where to in future and as a democracy, to make it known for the sake of the stabilising effect of transparency. It is therefore to reflect more about how to think about the future than clarifying some longer term future beyond the current shorter 10-year time frames.

A future role for the SANDF is using military diplomacy to get other African countries on board in the pursuit of peace and stability. A longer term futures outlook therefore has to reflect an undeniable African connection (Du Plessis, 2003). This African focus is quite explicitly stated in the sub-problems concerning the proposed ELTMS and in particular how new concepts of future warfare are to be used by the SANDF within its future African operating environment (Directorate Strategy, SANDF, 2002:2). As such Project Strategic Vision is a deliberate effort to deal more constructively with longer term futures and to superimpose these on the African connection of longer term SANDF futures. It assumes a triad profile of the longer term, the SANDF and Africa forming prominent fixtures of the envisioned ELTMS.

**Information and Information Warfare.**<sup>50</sup> The SANDF Military Strategy acknowledges information warfare and countering it as future SANDF missions. The interview with Demchak, as reported earlier, further accentuates this important futures domain for the SANDF. The current and future status of the information domain for the SANDF flow from the civil-military interface at national level and interdepartmental clustering to furnish it with a national-strategic focus as well. The Chief Director Command and Management Information (CMI) (SANDF) is a prominent actor in this regard. Information and information warfare, although not well developed, are also priority one missions for the SANDF to attend to according to the SANDF Military Strategy. The sub-regional focus (SADC) features prominently although the SANDF seems to play the leading if not dominant role in this regard (Brazzoli, 2003). The importance of information is also visible in that a general officer of the SANDF is appointed with the responsibility to develop the information sphere and that of information warfare in particular. The SANDF also created prominent career opportunities within this field as certain senior decision-makers apparently grasp its utility and future prominence. Information warfare is a definite futures consideration with exercises and structures up to unit level taking shape. Although currently more defensive and disruptive in nature, information warfare is to receive deliberate future attention within the SANDF in order to refine its use and funding it in an appropriate manner (Verbeek, 2002).

### **Landward futures**<sup>51</sup>

Malan (1997:18) maintains that only ground forces can substantially alter the future insecurities the SANDF is expected to address. Going about this in a brute and unsophisticated way is not an option as is reflected in a recent survey amongst senior SANDF decision-makers who indicated that unsophisticated future ground forces are to be avoided (See Output B 22-24 ). One way to avoid that South African ground forces become another African military problem (another alternative to be avoided according to the survey) is vested in the recently established Landward Institute (LI). The LI, amongst other matters, has to assist the military practitioner to cope with complexities of the future in a scientific way (Jooste, 2001a:21).

Landward futures and the LI have a close connection although no deliberate Futures Studies approach directed its inception. Jooste (2001) who was closely involved in its origin points out that the LI has mechanisms in place to ensure a futures orientation. He also accentuated that the LI is assisted by the Landward Capability Board of CJ Operations (SANDF) and the Departmental Military

<sup>50</sup> Since 2003/4 the Directorate Information Warfare (DIW) is an official directorate of the SANDF (within the CMI Division) and during December 2004/January 2005 close consultations commenced with the Faculty of Military Science (SANDF Military Academy) to assist DIW through a graduate programme that will eventually qualify IW specialists for the SANDF.

<sup>51</sup> Landward futures became augmented by SA Army Vision 2020 (having commenced on 24 January 2005) during which the researcher presented an introductory presentation on *The Information Age and the Transformation of the Art of War*.

Strategy. He acknowledges that no real institutionalised capacity exists for futures oriented thinking and to promote it as a process. What becomes necessary is to disentangle decision-makers from routine activities to indulge in some futures thinking. Concerning the technology focus of the LI, identified or crucial technologies are to be subsumed into centres of excellence. Delimiting or isolating technology to Africa and what to expect from this quarter is a further focus - something akin to what the ELTMS aspires to deal with. In launching the LI the Chief of the SA Army acknowledged that complexity made it crucial for military and non-military expertise to be merged and that the LI is the centre for such ventures (Jooste, 2001a:21).

Jooste conceded that the RMA readily featured in the rise of the LI and in particular its Africa-version. He acknowledged that alternative military futures could be a proper foundation for the functioning of the LI and it had a definite goal to remove the routine from its primary focus. Concerning the LI-outlook the *status quo* is not to be the norm as efforts and funding are deliberately directed towards new alternatives (Jooste, 2001).

### ***Air power futures***

The South African Air Force (SAAF) is in the process of acquiring sophisticated air power platforms in the near future. This not only calls for tactical-technical solutions, but for a suitable paradigm to use future air power capabilities of the SANDF. Achieving this implies keeping in step with defence and national policy and its African connection.

The call for a new air power paradigm came from Major General Gagiano (SANDF) at a conference on the peaceful application of air power during September 2002. Fundamental to this is the future interoperability of air power elements in order to promote a collective approach (Weyer, 2003:24). For the SAAF it is a matter of advancing air power by adjusting its current domestic focus to that of regional collaboration. Interoperable air power for southern Africa is the first phase and to be followed by its extension to the African region over the longer term. Member states are broadening their interests from national to regional matters, and air power thinking is to follow this political trend in search of commonalities. When matured, collaborative air power capabilities are to present both a future strategic deterrent as well as hard firepower (Weyer, 2003:24-25).

In an interview with the Director Fighters of the SAAF, he acknowledged the need for a longer term futures outlook. He, however, simultaneously indicated organisational obstacles to this. The need is not in question, but rather the organisational structures to effect it. A proper futures outlook concerning the SAAF is therefore lacking and only visible through selected insights as

presented by Gagiano (2002a) for example. A lack of properly co-ordinating SAAF futures or allowing alternative futures to be contemplated is therefore eroded by organisational obstructions (Minne, 2003). In addition the probable interoperability outlook is a sound futures outlook, but its achievement is judged to be very long-term as its pathway is littered with serious incompatibilities in need of reconciliation (Minne, 2003).

Proponents of future air power outside the SAAF hold a more progressive outlook. Technology lies at the root of these external views and the central role of information is highlighted (Roodt and Hurlin in Weyer, 2003:26). For Roodt and Hurlin the development of future air power emanates from mastering and adjusting technologies to local needs and exploiting the information domain. However, Aruasa from the Kenyan Air Force views future air power within the context of the SAAF differently in that its affordability is dependent upon pooled air power resources for military and civilian purposes. These pooled resources and their use are furthermore to be guided by political directions. In Aruasa's views the collaboration element should be extended much further to include training, budgetary and procurement aspects (Weyer, 2003:25), a matter not so explicitly visible in the South African futures views. The latter outlook is rather confined to future collaborative air power capabilities for military purposes whilst that of Aruasa tends to argue for a future dual civil-military utility.

***A naval perspective from the outside.*** Heitman alludes to the SA Navy as being perhaps the most forward looking service in the SANDF in terms of coping with future roles and missions (Heitman, 2002). The Navy also draws upon the Institute for Maritime Technology (IMT) to assist it in introducing appropriate technology and adjacent theoretical underpinnings. According to van der Walt (2001) studying the future and making recommendations to the SA Navy is an IMT responsibility. Future warfare is also addressed by IMT to support the maritime domain in particular.<sup>52</sup> Here IMT enjoys substantial freedom in introducing and promoting new ideas. IMT introduces not only technology, but its management and promotion as well. Van der Walt avers that senior naval officers now hold appropriate appointments for promoting technology and a futures imperative and are quite favourably inclined towards IMT and its ideas. Presenting alternatives on the future to the correct decision-maker therefore ensures that future naval innovation receives proper attention.<sup>53</sup> On a more cautious note, van der Walt acknowledges the disruptive potential of new technologies through its rapid introduction and diffusion. This requires of IMT to be fully futures inclined in presenting their proposals. IMT opposes radical

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<sup>52</sup> The researcher was invited during March 2004 to do a presentation on future warfare *Keeping in step with future warfare: Some preliminary thoughts* at IMT as part of their focus on this topic.

<sup>53</sup> The success of this kind of relationship is appropriately researched knowledge that promotes and maintains credibility by offering ideas to the appropriate principle that are relevant and cogent (Kenkel 2003:20-21).

embracement as time for experimenting exists and opportunities for radical technologies are limited. A real future threat faced by the SA Navy is to absorb all the changes diffusing into the navy whilst losing expertise at an alarming rate. As this transpires, innovation is eroded as maintaining those that are accepted, becomes difficult. A further difficulty is that political imperatives do not always reflect careful analysis and the technological imperative is judged to acutely contribute to the inhibitions chipping away at innovation, change and progress towards the future (van der Walt, 2001).

### ***A naval perspective from the inside***

The *SA Navy Review* is a deliberate navy effort to pierce the futures veil. In his foreword the Chief of the SA Navy acknowledged the need to address long-term challenges to the SA Navy (Department of Defence (Navy Office), 2001b:vi). Although no deliberate futures focus is presented or addressed as such, the review carefully maps out the naval role from higher order defence and national policy to outline much more than its core business of fighting and winning at sea (Department of Defence (Navy Office), 2001b:iv). One debate is the recurrent navy - coast guard alternatives framework (Howell, 2000 ; Crawford-Brown, 2002). If some parties got their way, a coast guard was what the future navy would be about (Edmonds, 1996:4-5) for this extreme view contends that the need for a future navy is non-existent. The review, however, contains some futures elements that offset this narrow or simplistic view of a future naval entity for South Africa:

- Supporting future expeditionary type operations along the coast.
- Influencing the Defence Vote on future funding.
- Incorporating elements of the RMA into its future force design.
- Adjusting its organisational and HR components towards the future.
- Optimising its supply function.

(Department of Defence (Navy Office), 2001b:17,20,41,42,61)

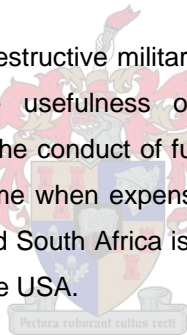
Although not setting out alternative futures, these are important matters for setting the SA Navy on a futures course.

The SA Navy has to balance its futures outlook with the capacity it is allowed to create and its future collateral utilities might rightly be viewed just as seriously as its future fighting potential. Naval futures are (and always were) about performing a spectrum of future missions with a demand for particular government functions representing a dominant future demand. This is to increase over distance and time as the capacity and diplomatic demands increase in a

corresponding manner. According to Howell, the future is not so much about the navy being dominant, but rather that jointness receives priority. Hard military matters, fighting at sea and projecting force are not what the real futures debate is to entail, but rather organisation, structure and future direction that is to eventually afford the former. Adapting to political demands, jointness and keeping up with change are dominant drivers of the future navy (Howell, 2000). Elements of this are visible in the 2003 study undertaken by the Centre for Military Studies (Saldanha) on the future role of the Standing Maritime Committee of SADC. This study again represents a drive to clarify co-operative maritime realms between the SA Navy and its sub-regional and regional counterparts to uphold the future African connection. This connection is bound to become more prominent as new and sophisticated naval platforms with vastly new futures potential are now entering the SA Navy. Although the naval review tends to ascribe traditional naval roles, it is quite probable that few of these roles are to materialise in the African futures awaiting the SA Navy.

### ***The role of special operations forces***

In order to bridge the divide between destructive military actions and the imperative of using the military option when necessary, the usefulness of special operations forces (SOF) is acknowledged as a strategic option in the conduct of future warfare. The utility and low military profile of SOF operations come at a time when expensive and cumbersome military operations with a high profile are frowned upon and South Africa is no exception. Their utility became more accentuated after the 9/11 attacks on the USA.



In the SANDF, SOF are now under command of the CSANDF in an effort to bring them closer to dominant government priorities as understanding arose for the value of their future role.

An interview with the Officer Commanding 4 Special Forces Regiment (SANDF) mirrored some of the ideas aligning the SOF option with national outlooks (Engelbrecht, 2002). Co-operation with African countries increased in order to find more congruence with official state policy. The internal role of these forces also increased with their support to the South African Police Service (SAPS) by employing specialised SOF skills. This is, however, is not the preferred longer term outlook as it represents a future vulnerability if such a role becomes ingrained. Engelbrecht prefers that SOF roles are rather viewed through the SANDF Military Strategy for this directs SOF-preparations for the future. The current need for South African SOF also implies a growth period in order to live up to expectations of senior officials. Nonetheless, dangers arise from boundaries becoming blurred by their current employment and considering what was previously deemed exclusive SOF terrain as to what is now deemed acceptable future roles and operating domains. Soft issues, secondary roles and SOF contributions smudge these boundaries



although support to the police and dealing with acts of piracy, for example, are now 'accepted' as future roles. The African focus and what they are expected to deliver in future direct future SOF teams to be hi-tech teams with a strong information capacity and skills (Engelbrecht 2002).

#### **6.6.4 Futures research and publishing in the SANDF**

At the launch of the Landward Institute, the Chief of the SA Army deliberately appealed for soldiers and academics to publish their research on appropriate matters. This practice, according to the Chief of the SA Army, is necessary to expose and distribute appropriate research for the benefit of the wider SANDF community (Jooste, 2001:21). Reading about futures issues is therefore some indication of thought and exposure to affairs influencing military futures of the SANDF.

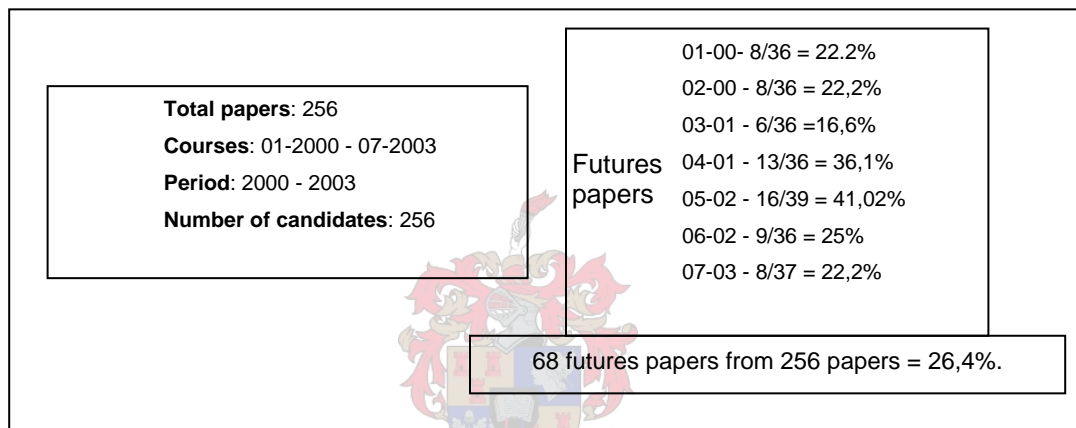
The one military publication most widely circulated in the SANDF is the SA Soldier (previously Paratus and thereafter Salut and currently SA Soldier). A sampling of available volumes over the period January 1997 to December 2002 (65.7 per cent representivity of journals to be found) revealed that only 4.37 per cent (26 of 595 articles sampled) addressed futures projections or futuristic matters. This 4.37 per cent points towards a lack of addressing futures matters of interest to the SANDF and thus denying a broad spectrum of military readers exposure to this domain.

A second deliberate effort to address the future is contained in an article widely distributed in the SANDF (and published on the SANDF web page) by the former Chief Director Strategy and Planning (SANDF) *A Determination of South African Defence Requirements: A Vision for 2015 and Beyond* dated August 2000. In this document an attempt is made to bring the future force structure and that of future roles (traditional and non-traditional) into equilibrium. It also attempts to establish some congruence between the future policy outlook and that of the military strategic domain by catering for the primary role and secondary roles in setting a capabilities need as a departure. The central tenet of the article was to tone down the primary-secondary role debate and bring some tangibility to the strategy-structure dictum for the SANDF (Le Roux, 2000).

A third document is the unpublished, but acknowledged document by Malan, the current Deputy Chief Director Army Force Preparation titled *The Quest for Excellence. In Search of a New Role for the Post Apartheid South African National Defence Force* dated 1997. As in the case of Le Roux, Malan attempted to configure a pathway for the future use of the SANDF at the strategic level. In contrast to Le Roux and Gagiano, Malan's work contained a preference for ground forces as the dominant future actor. These attempts took place in the absence of any real theoretical foundations and attempts from within the SANDF to address these matters. It,

nevertheless remains unclear how these views were integrated into the SANDF, although some organisational interest was shown in the work by Malan.<sup>54</sup>

A further location of addressing the future is found within the Executive National Security Programme (ENSP) at the SANDF National Defence College. Staff papers researched and presented by candidates in line for senior future appointments contain futures topics and expose some of these officers to topics in the field of military futures. Topics presented per candidate since 2000 (Course 01-200) to Course 07-2003 were analysed in terms of addressing a futures topic or phenomenon. The following results were obtained from examining the scope of topics over the said period.



A fourth futures focus is in the Faculty of Military Science (Military Academy) where military futures are addressed at both the under, as well as post graduate programmes, that focus on the RMA and future warfare respectively. Although military futures are only partially addressed at the undergraduate level, it is addressed more comprehensively at the post graduate level where optional modules on future warfare and strategic futures are presented to candidates (Faculty of Military Science Year Book, 2003).

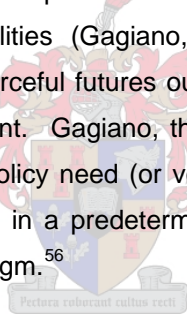
An important futures document concerning the SANDF and the road ahead is the paper presented by the Director Operations Development (SANDF) at an air power seminar. Although primarily researched within the SANDF Directorate Strategy and eventually toned down to address the air power environment<sup>55</sup>, the futures orientation of the paper contains two main streams of futures thinking. One, supporting NEPAD and two, advanced future integration and

<sup>54</sup> The work by Malan was acknowledged and considered to be included in training curricula of the SANDF, but the extent to which this materialised is unclear. The process became marred by differences in opinion about how these ideas were to be collected and introduced into SANDF doctrine.

<sup>55</sup> The ideas of Huysamen of the Directorate Strategy (SANDF) on interoperability as a strategic tool as discussed by telephone between the researcher and Huysamen are acknowledged.

co-operation with African armed forces in order to address intrastate conflicts. Both these notions flow from the view of Gagiano that the SANDF cannot operate without a long-term vision (Gagiano, 2002a:4). As the SANDF's inputs into this futures domain remained somewhat marginal until recently, Gagiano's views contain fundamental long-term alternative futures. They map out linear and less cluttered pathways into the future for the SANDF to embark upon. These alternatives are illustrated in Figure 6.6 and the continuum implies a pathway to address the strategic challenge of moving from a traditional war fighting paradigm to that of establishing military capabilities within a different paradigm - that of co-operative security. This is to reconcile the politico-strategic concepts of trust and confidence with that of co-operation and more constructive and thus legitimate military coercion (Gagiano, 2002a:8).

The utility of Gagiano's views is that it uses fundamentals of political and organisational theory to combine with military theory and strategic paradigms. This broadens the applicability or utility of his views to wider defence needs that tend to remain at the level of a political debate with little substantial input to implement a required futures outlook. It also extrapolates the military strategic paradigm to that of policy and in particular the somewhat esoteric vision of integrated SADC and wider African military capabilities (Gagiano, 2002a:30). By linking the migration to a broad time frame, it represents a resourceful futures outlook on reconciling SANDF futures with outlooks held by the current government. Gagiano, thus enters a relevant and cogent futures pathway to first address a normative policy need (or void at that time) of how to reposition the SANDF and secondly have it progress in a predetermined, but manageable way, towards co-operative African defence futures paradigm.<sup>56</sup>

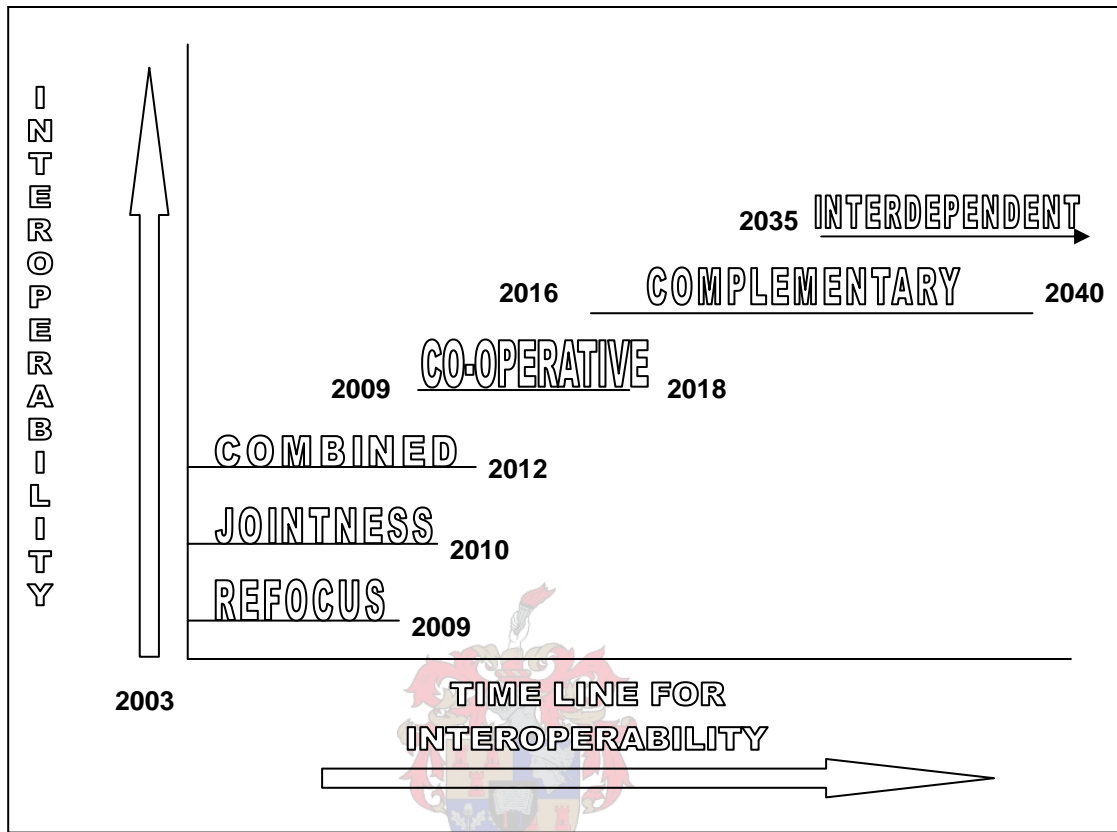


#### **6.6.5 Addressing the future through SANDF professional military education: The Joint Senior Command and Staff Programme (JSCSP)**

The training environment represents a further pathway to introduce the topic of military futures to officers intent upon a prospective military career. The JSCSP is one location where future military matters, future military commanders and decision-makers are to meet, be exposed and explore matters of the future. The aim of JSCSP is to prepare selected officers for senior appointments at the operational level by developing their command, staff and analytical skills and by broadening their professional understanding of single-service, joint and combined operations, the management of defence and the wider aspects of conflict (JSCSP, 2001:2). It is the last two references of professional understanding and wider aspects of conflict where the scope for matters of future warfare is located. It is necessary to establish the conceptual framework within

<sup>56</sup> With acknowledgement to Kenkel (2003) and his hypothesis on uncertainty, specialised knowledge and institutional prestige that make cogent policy inputs to decision-makers more credible.

the minds of future commanders about those alternative futures that are prone to configure and reconfigure their future operational environment.



**Figure 6.6: A Pathway to Future Co-operation and Integration**  
(Source: Compiled from Gagiano, 2000a)

The futures profile of the JSCSP-programme is contained in its technology focus and single service terms or modules. The attempt here is to transcend the training focus with a higher order educational focus on selected futures matters, its relevance to the SANDF, Africa and the conduct of operations. If the futures context of the curriculum is analysed, the themes and modules as illustrated in Table 6.2 become apparent.

Table 6.2 reflects the following. First, the SA Army has an observable futures focus and in addition contends with information technologies and concepts of the future as well as its African focus. Secondly, the SA Air Force has a similar futures focus as to air power including that of exploiting space as a future domain of war. Third, the land and air power domains also include the futures debate as to conflict in general. Fourth, as opposed to this futures focus, the SA Navy has a marginal futures focus as can be derived from the SA Navy programme. Only one theme - net centric warfare - is a known futures concept in terms of future warfare as pointed out in

Chapter Five. Expeditionary warfare and littoral warfare are concepts of maritime warfare that recently again gained renewed prominence as to the future role of navies and their contribution in the realm of future warfare.

**Table 6.2: JSCSP Course Themes with a Futures Content**

Domain	Objectives and focus of subject.
Joint programme	<ol style="list-style-type: none"> <li>1. Technology and its influence on the DOD (38).</li> <li>2. Appraise the role and application of technology on <b>the future combat space</b> and impact upon SANDF operational operating systems.</li> <li>3. <b>Information management:</b> Role of technology in developing information systems.</li> <li>4. Impact <b>advances in information systems technology</b> will have on operational level operating systems.</li> <li>5. Importance and impact of <b>Information Warfare</b> (38).</li> </ol>
Army programme	<ol style="list-style-type: none"> <li>1. Army <b>long term</b> strategy (73).</li> <li>2. <b>Implications of future</b> to SA Army (74).</li> <li>3. <b>Future warfare</b> and the <b>future of SA Land power</b> in Africa (74).</li> <li>4. <b>Future wars</b> in African theatres and African theatres of 21<sup>st</sup> century (75).</li> <li>5. <b>Future wars</b> SA army will have to engage in (75).</li> <li>6. Land component and the <b>future battlefield</b> structured by defence against aggression and support to the people as ends of military strategy (75).</li> <li>7. <b>Operational art in future operations</b> in Sub Sahara Africa (76).</li> </ol>
Air Force programme	<ol style="list-style-type: none"> <li>1. Current <b>space control</b> theory and restraints on <b>military space exploitation</b> (91).</li> <li>2. <b>Air power in OOTW</b> - new ideas, roles and contributions (92).</li> <li>3. New concepts and technologies in <b>the future of air power</b> (93).</li> <li>4. <b>UAV's, parallel warfare, asymmetric warfare, information systems</b> (93).</li> <li>5. Opportunities and vulnerabilities resulting from <b>increased reliance upon new technologies</b> (93).</li> <li>6. SAAF and <b>future air power developments</b> (94) .</li> </ol>
SA Navy programme	<ol style="list-style-type: none"> <li>1. <b>Modern trends</b> in modern military maritime power (108).</li> <li>2. <b>Net centric warfare</b> (108).</li> <li>3. <b>Expeditionary warfare, littoral warfare, sea lift</b> (109).</li> </ol>
SA Medical Health Services.	None.

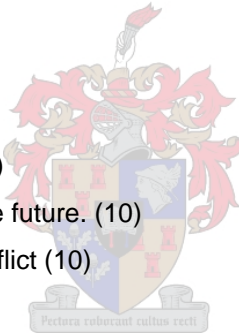
(Source: Compiled from 2001 JSCSP Curriculum)

### 6.6.6 Addressing the future through SANDF professional military education: The Executive National Security Programme

The aim of the ENSP is to develop Department of Defence and non-Department of Defence members across the full spectrum of national security (SA National Defence College, 2003:3). As this programme is professed to address the national strategic level, it is arguably to have a futures focus as well. Detailed objectives in the *ENSP Curriculum: Framework Programme* (SA National Defence College, 2003:Enclosure 1) contain particular objectives with a futures focus such as scenario planning, information technologies, environmental conflicts and the future of peace operations.

An analysis of the 2003 weekly programmes, however, also revealed the following explicit futures themes or containing a futures inclination (number of periods in brackets).

- New security paradigms (3)
- Scenario planning (3)
- New thinking on strategy (1)
- NEPAD: The way forward (3)
- Conflict scenarios for the future (3)
- Symposium on technology and the future. (10)
- Symposium on environmental conflict (10)
- Global security (3)
- Influence of international terror-crime (3).
- RSA in the world economy (3).
- Reading material on Global trends 2015 and global trends shaping the new century.



Forty-two periods of a possible 190 and additional reading comprise the spectrum of the futures focus of the course. These themes and focus areas show that futures matters are addressed and, in addition to the research papers (as discussed earlier), they represent a futures input although topics of research papers remain optional. Arguably, at the national strategic level these themes are judged sufficient for the candidates' future roles and employment. According to Hartley (2003), this is not to change unless specifically required by interested parties and the ENSP advisory board (ENSP 07-2003 Weekly Programmes, 2003).

Concerning research matters, two particular research domains can be demarcated - national and regional security. Particular futures matters, as alluded to in the above paragraph, are included.

These futures topics (representing 9 of the 44 topics) have a deliberate-stated futures focus or correspond broadly with futures issues discussed in Chapter Five of this study:

- The emergence of new threat patterns (The non-traditional domain).
- The importance of strategic early warning intelligence (Importance of information).
- The influence of information technology on security (Rise of information as a way of war).
- The AU and its future prospects (The shift to Africa and the AU as a future supranational institution).
- The development of new oil resources. A source of possible new conflict (Resource wars of the future).
- A facelift for the UN, new challenges (Preference for global government).
- Effect of the international degeneration of military forces (Smaller forces and lesser importance of military coercion to emergent threats).
- The Non-Aligned Movement - Future challenges (RSA commitment to a supra-national collective entity)
- NEPAD (Futures vision of promoting wealth, security and development in Africa)
- Non-state deviants in world affairs (Acknowledged future actors beyond the state paradigm and their disruptive influence on the future).

(SA National Defence College, 2003, C-1 to C-3)

The ENSP contains an observable focus on futures matters. It is, however, questionable whether this focus is sufficient for it lacks the following. First, a futures inclination to understand and research the co-operative security paradigm and secondly, the future role and place of armed forces in evolving futures preferred by political decision-makers and posited by military and other theorists. If it is argued that futures matters become all the more prominent as ENSP candidates ascend the career ladder, this final official learning opportunity for SANDF officers ought to contain a well designed futures contingent, not the limited and optional profile currently displayed.

## **6.7 INDICATORS OF FUTURES MATTERS AND FUTURES THOUGHTS BY SELECTED PARLIAMENTARY RESPONDENTS**

The above sections on the training and educational environments represent a necessary overview of deliberate legislative and institutional military efforts to probe or at least investigate alternative futures for the SANDF. Although elements of exposing officers to futures matters are present, it reflects little of the views held by SANDF members about the future and whether the SANDF is at all deemed to be futures inclined. At face value, a culture of deliberately addressing

the future is not well developed in the SANDF. The extent to which it is observable, reflects little concerted co-ordination to establish a futures culture to contend with matters of military change. It also became apparent that supposing or seeking out such an institutional culture in the SANDF drew either scepticism or outright rejection. At the advent of this study, the favoured response to the researcher was one of contemporary adjustments, transformation and integration being so demanding that the deliberate pursuit of alternative futures are bound to be found wanting. This outlook, however, ignores the futures principle that even the contemporary activity traps are important as they also set the futures agenda in some way or the other.<sup>57</sup> Contemporary planning activities also introduce constructs of the future and furthermore frame the mindsets of decision-makers for what they are bound to contend with.

### **6.7.1 Responses on alternative SANDF-futures by MPs serving on the Parliamentary Portfolio Committee on Defence**

Interviews with members of the Portfolio Committee on Defence ceded certain observations concerning the future evolvment and role for the SANDF. These responses flowed from a set of questions investigating preferred optimistic and pessimistic futures as well as the secondary responsibility as an avenue to legitimise and pursue the primary role of the SANDF. The interviews dealt with the alternative of a dual role military and an ultimate integration with African military institutions to contend with the primary-secondary conundrum.

The then chairperson held an interesting outlook that acknowledged the futures perspective, but pointed out structural habits in need of change.<sup>58</sup> In her opinion, structural habits impact upon the format of the defence budget in a way that hinders moving towards the future. To effect a more preferable future alternative involves not only a political decision, but also how service and divisional chiefs participate in this and them promoting their future outlooks as well. Furthermore, two crucial matters seem to demarcate and control the movement of the SANDF towards new futures. First, not leaving voids against which future adversaries could direct threats. Secondly, funding alternatives with a budget that increasingly requires closer political, as well as military attention, to motivate the need to address new priorities. The *status quo* is thus one reinforcing planning amidst much uncertainty and to break lingering dependencies upon entrenched thought that makes the military option available for the wrong roles (Modise, 2003). Amidst these two factors much futures planning takes place, but it is dogged by uncertainty as much of its dynamics are delimited or demarcated by undue demands and outdated thinking.

<sup>57</sup> This opinion was also expressed by the former Chief of Corporate Staff (SANDF), Vice Admiral H.J.M. Trainor, that incremental and less visible moves towards future outcomes should not be ignored (CCS, 2002).

<sup>58</sup> The structural habits referred to by the respondent coincides with strategic culture of military officials as addressed in Chapter Three of this study and the difficulty change within the military realm entails.



From the interviews with MPs serving as members of the Parliamentary Defence Committee it was ascertained that the future primary role of the SANDF is to remain that of defence against an external attack. The interim is, however, to remain an uncomfortable symbiosis with secondary roles towards promoting security and preventing conflict. Views of secondary roles, their priority and execution, nonetheless, shows some political disequilibrium. In general none of the respondents expressed a preference for executing the secondary roles, but rather one of it being a burden to be accommodated and, if possible, only for the interim. Peace-keeping missions, a role seemingly in process of transcending the primary-secondary divide from 2005 onwards, remained prominent and generally agreed upon. Whilst the one perception is for these secondary roles (its internal variants in particular) to be a SANDF responsibility - two other alternatives were expressed as well. First, instituting a para-military force (*gendarmarie*) to handle it and secondly, that these domestic tasks be delegated to provincial authorities to each train and prepare for the insecurity specifics of their provinces.

The desired optimistic futures outlook is for a high-tech, small and highly trained and disciplined SANDF consisting of a small core and large reserve, as foreseen by current defence policy. Adjacent to this a future SANDF geared for peace-missions remained prominent. The pessimistic alternative seems to stem from underestimating the reality of a future military threat and the SANDF being side-tracked, allowed to degenerate or being wrongly prepared in the face of such a future threat perception. The respondents acknowledged the difficulty of upholding the spectrum of military preparations for the primary, secondary and, even dual role future. The primary opposition flowed from sustaining all of them. Although the dual role military future drew favourable responses, questions were raised concerning the danger of it detracting from the primary role and simultaneously sustaining two differently focused military entities. The preferred option remained one of secondary roles acting as a conduit for eventually attaining organisational freedom to focus on the primary war fighting role in future.

The African connection again seemed to find amicable impact, although the degree of future integration and co-operation proposed or professed, drew scepticism from the respondents. As an idea it seems politically and militarily sound. Effecting it through systems, financing and procedures remained questionable and this goes for achieving an advanced stage of integration and co-operation, as foretold by Gagiano, as well. Also concerning the emotive and professed African responsibility, it remains an intervening alternative bound to compete with alternatives within the primary and secondary domains of a future SANDF.

## 6.8 SUMMARY: THE SANDF KEEPING IN STEP WITH THE FUTURE?

Seeking benign futures and adjusting armed forces towards their pursuit did not elude the SANDF. As the new SANDF emerged after the 1994 democratic election, setting it upon an appropriate future pathway through appropriate military change amidst the absence of war became an immediate political concern. An instantaneous defence debate ensued at the politico-strategic level amidst perceptions of an outdated defence paradigm and the quest for a new, but more normative rival. The constitution and defence in a democracy became the guiding intelligence and directed a debate on military change to establish the SANDF as a future writing institution, but one playing a dual role to promote security. Over time, this duality had to be nudged into closer proximity for both became relevant to envisaged SANDF futures. A defence review and military strategy became the settings for reconciling policy demands on the future roles and missions for the institution. At the outset, it appeared that the dual role military and the pursuit of security and prosperity might gain the upper hand. To the contrary, however, this popular argument about the future of the SANDF was not an exclusive and unopposed alternative.

In order to address the future SANDF, some immediate concerns assumed preference. Democratic imperatives correctly served as a futures framework for first order changes, as democracy functions best amidst future certainty - also concerning armed forces. Corresponding to the theory of paradigm shifts, the civil-military relationship was thought to solidify the emergent defence paradigm and future legitimacy of the SANDF as an appropriate future instrument of national policy. Matters such as representivity, integration and transformation became dominant concepts, albeit amidst a political, rather than defence agenda. These matters also represented priorities of the normative political agenda directing the SANDF's progress into the future with instantaneous change, and not longer term military alternatives, as the immediate goal. Nonetheless, military change for military futures beyond the transformation and integration agendas remained a lingering need.

The primary - dual role debate unfolded amidst extreme alternative views of the SANDF. First, that of it being a security force, secondly, for the military alternative to be eradicated, third, for it to be shifted to a co-operative mode, and lastly, to be set amidst the quest for development and prosperity. These alternatives continuously swayed between optimistic, co-operative and constructive futures outlooks and that of a pessimistic and destructive alternative with neither gaining *de jure* nor *de facto* superiority. The preparation and future employment of the military instrument thus became a persistent issue in the post-1994 South African defence debate.

Solidifying the primacy of the primary role (defence against aggression to protect South African sovereignty) eventually reflected the essence of the South African outlook upon the future strategic landscape. This alternative was set at the apex of latent roles and tasks judged uncondusive to sturdy future civil-military relations. Nonetheless, and in spite of views to the contrary, proponents of the traditionalist approach initially triumphed. The primary writing role became the preferred foundation, assumed custodian of stable civil-military relations, and holding tank of the means to deal with multiple future contingencies. This option minimised the possible erosive and disruptive effect of opting for a dual role military and the perceived future risk of unstable and destructive civil-military relations and a crumbling SANDF. The pathway towards a war fighting future was judged a durable and dependable alternative to address the longer term and its fuzzy demands upon a future SANDF. This choice also supports the theory that military decision-makers are prone to oppose disruptive changes from flooding into their operating domain and tends to maintain a pessimistic outlook.

Socio-economic needs and preferences of national policy soon raised a future conundrum. The RDP rationale held the potential for the stated futures outlook of the SANDF to be eroded by a growing strategic gap between what its primary function explicated and what it was bound to execute. The demand for more than mere war fighting was popular and voiced by powerful interest groups that viewed the future of the SANDF differently. This transpired amidst an international trend to revisit the previously downplayed secondary domain of military responsibility amidst post-modern thinking of armed forces being much more than fighting institutions. As longer term policy outlooks upon the role of the SANDF became enmeshed into strategy and structure, the future need for the secondary domain encroached upon the primary role by way of expanded security interests at the national level. Alternative futures dealing with future warfare thus became somewhat borderline as the use of military coercion to pursue political objectives was framed as a luxury.

Multiple and multilateral security preferences of the South African government increasingly usurped the defence debate. At the political level competitive war fighting was toned down and the SANDF had to toe this line. Political outlooks upon the future infused elements of certainty into alternative military futures as secondary functions and its broader security promoting contributions of confidence building, promoting peace and security, preventing conflict and contributing to development assumed prominence. The secondary alternative thus emerged as a visible competitor or co-partner to the conceived traditional military futures for the SANDF.

The secondary domain of SANDF activity subsequently became the most visible and *de facto* operating domain of the institution as the specific roles and activities to affect it gradually

matured. Heeding the perceived external strategic environment and the domestic responsibilities imposed through the RDP, this primary-secondary trade-off inherently contained risks. These risks made defence decision-makers more comfortable with a credible war fighting focus. Evolving defence policy, however, upheld imperatives that compelled secondary roles and thereby images of a future dual role military.

At the strategic level, the military strategy accommodated the political preference of defence policy by prioritising missions according to the military strategic ends without ignoring or degrading the primary role as a future alternative. The military strategy, however, also had to cope with the prominence of the dual role and rose above the problem by keeping the strategic triad of ends, ways and means coherent, but not rigid. The drafters established a future coherence through strategic concepts and multiple missions by catering for both the secondary domain of non-traditional military roles and the primary domain with its elements of war fighting and harder military matters. By manipulating these concepts, the SANDF, as the policy instrument, can theoretically be positioned and repositioned by regular updates to address unfolding alternative futures and facilitate corresponding force preparations.

As the 21<sup>st</sup> century drew closer, South Africa's alternative military futures became ever more closely associated with those of a post-20th century Africa. The arrival of the 21<sup>st</sup> century found the African vision eclipsing the earlier sub-regional fascination. Both the Defence White Paper as well as the subsequent Defence Review initially adjusted and reoriented the SANDF to this future reality. The use of military diplomacy inevitably assumed a similar slant. Promoting security through a number of security related roles (war prevention, preventing war from spreading, building confidence, identifying commonalities, pooling defence resources) grew increasingly prominent alongside that of defending sovereignty through defensive war fighting. Within the future time frames of the SANDF two important lines of thought can therefore be identified: First, that the future was to evolve along a time line taking the SANDF from its more domestic and security based functioning to that of advanced future collaboration with African partners. Secondly, the future collaborative paradigm is bound to influence the security domain in a way that the primary-secondary military roles are to be revisited and reconfigured.

The deliberate siding of South Africa with the woes of the African continent ties the SANDF to the envisioned futures of the continent and its volatile strategic landscape. The idea of an AR signifies a political future not to be ignored by the South African military establishment. Such ignorance risks a future politico-military mismatch and an outdated defence institution. Hence, it is doubtful whether the SANDF will be allowed to formulate its future posture and roles beyond

this pervasive African futures paradigm. Although a clear indicator for future military planning, the African commitment represents a volatile non-traditional theatre calling for future clarity.

Current politico-strategic and military-strategic progress is slow, difficult and illustrative of difficulties to design, structure and equip the SANDF for alternative military futures contained in the AR vision. The alternatives envisioned by defence decision-makers at the inception of the SANDF did not visualise the scope of the African commitment and its impact upon the primacy of the primary role. The somewhat ambiguous approach of the SANDF Military Strategy is therefore quite understandable in that it has to assimilate these uncertainties and constant changes as politicians pursue preferred African futures. In addition to national defence against aggression, the AR and AU remain two dominant variables for mapping out alternative futures for the SANDF.

To determine a futures orientation and institutional profile for the SANDF called for research that is more empirical. The above alternative futures and forging pathways through innovation and diffusion are not to be pursued by a SANDF characterised by stasis. Elements or indicators of futures thinking within the SANDF had to be recorded as well. Elements of futures thinking can be traced to the SA Army, the SA Navy, the SA Air Force, the Information Warfare domain and SOF. However, these indicators only reflect part of the futures outlook. It required deeper research to identify the extent of the SANDF's futures orientation and although elements or indicators of a futures orientation are visible, its systemic and organisational profile remains unclear.

The different service arms have observable futures programmes or institutions that are augmented by their training and educational institutions, but whether a concerted effort, could not be established. Of these the Landward Institute and the Institute for Maritime Technology are perhaps the most prominent as to their declared futures focus concerning the SA Army and SA Navy. A shift to the futures domain of warfare is also present in the newly introduced modules for the Joint Senior Command and Staff Programme, and in the Executive National Security Programme - the most senior SANDF programmes for senior officers.

A more concerted effort seemingly arises from a number of other enterprises as the SANDF entered the 21<sup>st</sup> century. First, the vision presented by the CD Operations Development (Chief of Joint Operations Division) of developing the long-term view through interoperable African military forces. Secondly, the Directorate Strategy (SANDF) is also in process to establish parameters for contemplating longer term futures for the SANDF. These parameters are wide and perhaps intangible or even fuzzy, but an acknowledgement of the need for longer term military futures - although not yet explicitly as alternatives. Third, the focus upon information and its warfare

potential is an important longer term adjustment and perhaps the one pursued most vigorously. Lastly, publications about and experimentation with future innovations are scarce in the SANDF in spite of these activities being acknowledged to indicate the presence of a futures culture in armed forces.

SANDF futures are buffeted by official and non-official forces. Intermixed are the ingrained cultural preferences of SANDF members themselves. Although the primary pathway is carefully argued and articulated in South African Defence Policy, the scope and immediacy of political and public demands continuously chip away at this official futures outlook. The political outlook upon African futures also continuously challenges the scope of alternative futures directing the SANDF. Adhering to policy with a limited futures outlook threatens to portray the SANDF as incapable of supporting the more optimistic and increasingly forward-looking political initiatives.

For the SANDF it has now become an imperative to recast its futures perspectives even further forward, and adjust its role definition as the primary-secondary parameters imposed upon it are fast becoming problematic if not outdated. What politicians expect portrays short-term timeframes in order to achieve their long-term goals. The responsibility of the SANDF is, however, of an extended and long-term nature. It has to contend with the multiplicity of the policy-makers and the alternatives it implies in terms of missions. Military change, however, is difficult and time consuming during times of peace. Innovations, its diffusion and the alternatives offered by the RMA for Second Tier countries are constructs that underline these intricacies. Embarking upon the aspired change agenda currently facing the SANDF, imply long time frames and the ability to handle the very complexities outlined for Second Tier countries in Chapter Five.

It is therefore challenging to follow the shorter term and more opportunistic profile of the politician. Whilst governments come and go, the SANDF has to intermix and prioritise its primary and secondary roles, capabilities and responsibilities into long-term military futures. In doing this, the views and perceptions of its constituencies within the military and civilian environments are important as well. These outlooks and whether they are in congruence with that established in this chapter, or not, are traced in Chapter Seven.

## CHAPTER 7

# A MATURING DEFENCE PARADIGM: SELECTED VIEWS AND PERCEPTIONS OF EMERGENT MILITARY FUTURES FOR THE SOUTH AFRICAN NATIONAL DEFENCE FORCE

### 7.1 INTRODUCTION

Pursuing alternative futures through military change in particular defence domains shaped the focus of matters addressed in Chapter Six. Moving away from viewing traditional military coercion as a way to influence and effect change, South African defence decision-makers adopted a new defence outlook (albeit one not devoid of criticism) favouring a particular policy notion for using armed forces in future. From the military side a review process and strategy structured foreseen alternatives that eventually shaped the SANDF for much more than war fighting to address a spectrum of military, quasi-military and even emergent new military roles at the national, sub-regional and regional levels. Attempts to forge a new defence paradigm through policy and strategy constitute a first challenge to turn the SANDF towards new futures. The second is to map lower level congruence or opposition to the futures implied by the emergent paradigm of Defence in a Democracy.

This chapter attempts to provide indicators of outlooks by different target populations upon the future employment of the SANDF. The policy and strategy imperatives and the opinions of those responsible for its compilation and politico-strategic execution represent one side of the futures outlook. The other represents those responsible to execute and support it. A comparative assessment of the views of certain populations on futures matters concerning the SANDF is therefore a way to further demarcate elements of envisaged SANDF futures.

In the sections that follow primary and secondary data analysis are used to compile futures perceptions amongst a number of selected populations as described in Chapter One. These populations comprise uniformed and non-uniformed members being members of the armed forces, the defence community and civil society. In all the surveys (whether primary or secondary data analysis) the research aim remained that of attempting to delineate futures perceptions, preferences and outlooks of respondents. The presentation of the research is displayed in the following chronology.

- Future threats, security and missions: European perspectives.
- Survey findings. 2002 Omnibus 3 and 4 SANDF survey.

- Future threats, security and missions: SANDF survey responses.
- Substantiating or rejecting SANDF futures outlooks: The case of South African public opinion and the Department of Defence (DOD).
- Summary: Perceptions of SANDF futures.

## 7.2 FUTURE THREATS, SECURITY, AND MISSIONS: A EUROPEAN BENCHMARK

Supposing or seeking out an institutional focus upon the future in the SANDF drew either scepticism or outright rejection. Initially, the response was one of contemporary adjustments, transformation and integration being so demanding that the deliberate pursuit of alternative futures are bound to be found wanting. Nonetheless, particular futures matters concerning the SANDF are observable or possible to infer, albeit not always in a representative mode. In the sections below the outputs and findings of concerning different military and non-military populations are displayed. Introducing the discourse and empirical evidence is a European interlude to indicate that the South African question is not unique to the SANDF as a Second Tier military institution.

Kuhlman (in Caforio (ed), 1998) links the attitudes of officers towards future threats and military missions to how military institutions migrate into the future. As referred to in Chapters Three and Four, defence paradigms of European armed forces are exposed to challenges calling for decision-makers to reappraise its explanatory and guiding edge. By exploring elements of this challenge amongst European armed forces (UK, Italy, Sweden, France, Germany, Italy, Greece, Switzerland and Czechoslovakia) Kuhlman compiled certain prospects and indicators of this pretext.

***Future functions of armed forces.*** Respondents held a general attitude of expecting their armed forces to change in some way in order to cope with alternative futures. Defending state territory remained prominent. So did the continuance of armed forces and their training and funding to prevent power vacuums although its future prominence is not a general assumption. Managing crisis at home and abroad also featured prominently, although internal roles drew apprehension as officers questioned military-based internal order. Military means were, however, perceived to be a permanent instrument for dealing with blurry crisis not easily addressed otherwise (Kuhlman in Caforio, 1998:420, 426, 427).

***Extending future tasks of armed forces.*** As clear and close threats and their solution through military coercion diminish, armed forces have to assume tasks to preserve their legitimacy and resource allocations. Substituting traditional with civic roles is an observable practise to solve the



goal-displacement dilemma armed forces now drift into (Kuhlman in Caforio (ed), 1998:426). Military institutions also tend to enter those domains corresponding to the image held of it by its public. In this regard and, although frequently not a preferable practice, embracing lesser military roles becomes a matter of institutional survival in some cases. In Europe, the parameters of the domestic domain are circumscribed in wider geographic concerns such as NATO territory whilst the role domain is expanded to include civil disasters at home and foreign, as well as foreign humanitarian and developmental aid. UN missions enjoy solid support, but not under UN command which points to the legitimacy of these ventures, but under national, rather than multi-national (NATO or EU) command structures. In general, those non-military tasks rated positively by public opinion find their way into the military role environment, but within limits. Protecting the environment and fighting drug wars, for example, are preferred to replacing striking workers and building civil infrastructure and educating sections of society (Kuhlman in Caforio (ed), 1998:430-431).

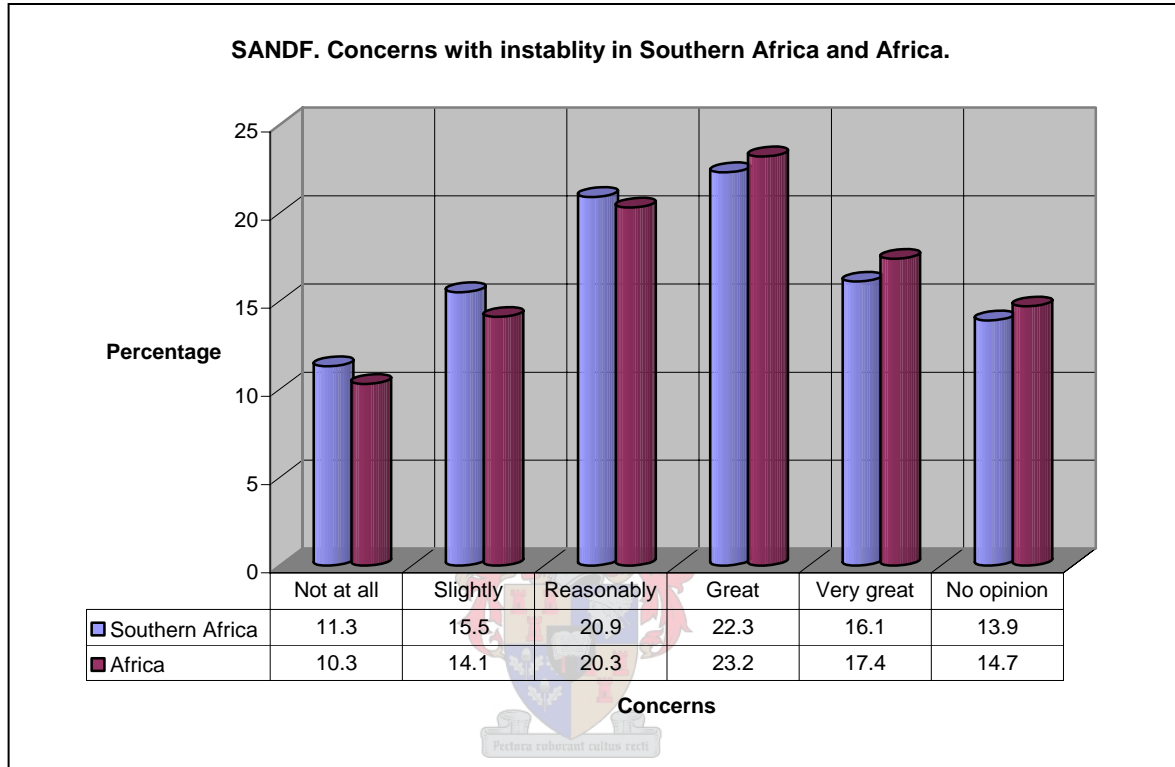
***Future tasks and future entrapments.*** Public perceptions acknowledge the decline in the primary role of military institutions (Kuhlman in Caforio (ed), 1998:427), but are not a *carte blanche* for armed forces to enter the civilian domain. Neither can military institutions longer primarily depend upon political defence of their future role. They nonetheless need to sustain their legitimacy into the future. In spite of endism theories, their demise is also not sanctioned by contemporary outlooks (Kuhlman in Caforio (ed), 1998:426). Notwithstanding, military institutions are open-ended systems and in constant exchange with their environments. Encroaching upon the civilian sphere is one outflow of this, but through proper justification for it holds the potential of militarisation and sustaining an outdated and costly institution. Projecting the military into the civilian realm for the wrong reasons needs to be avoided and kept within the ambit of the constitution and national law. Military institutions nevertheless remain an expression of their country and how much 'intervention' for future survival is tolerated, depends on the civil-military connection and governmental sensitivity for upsetting it.

### **7.3 SURVEY FINDINGS: 2002 OMNIBUS 3 AND 4 SURVEY**

Processed from the 2002 OMNIBUS 2 and OMNIBUS 3 survey data of the SANDF Centre for Affect Analysis, the following represents relevant findings as to certain futures matters concerning the SANDF. This survey reflects certain opinions that need to be interpreted in terms of its futures implication or whether it coincides with possible futures outlooks for the SANDF. The survey, amongst others, also dealt with threat and role perceptions of SANDF members and their willingness to partake in and support, or oppose the envisaged role spectrum for the SANDF. The roles ascribed depict a military as well as non-military spectrum, an internal as well as an external dimension, (a national as well as regional and international spectrum) and jointly cover

the much-acclaimed primary-secondary role spectrum of a future SANDF. The matters, concerns, and preferences are hereunder illustrated and interpreted by means of composite bar charts.

### ***Instability in southern Africa and Africa***



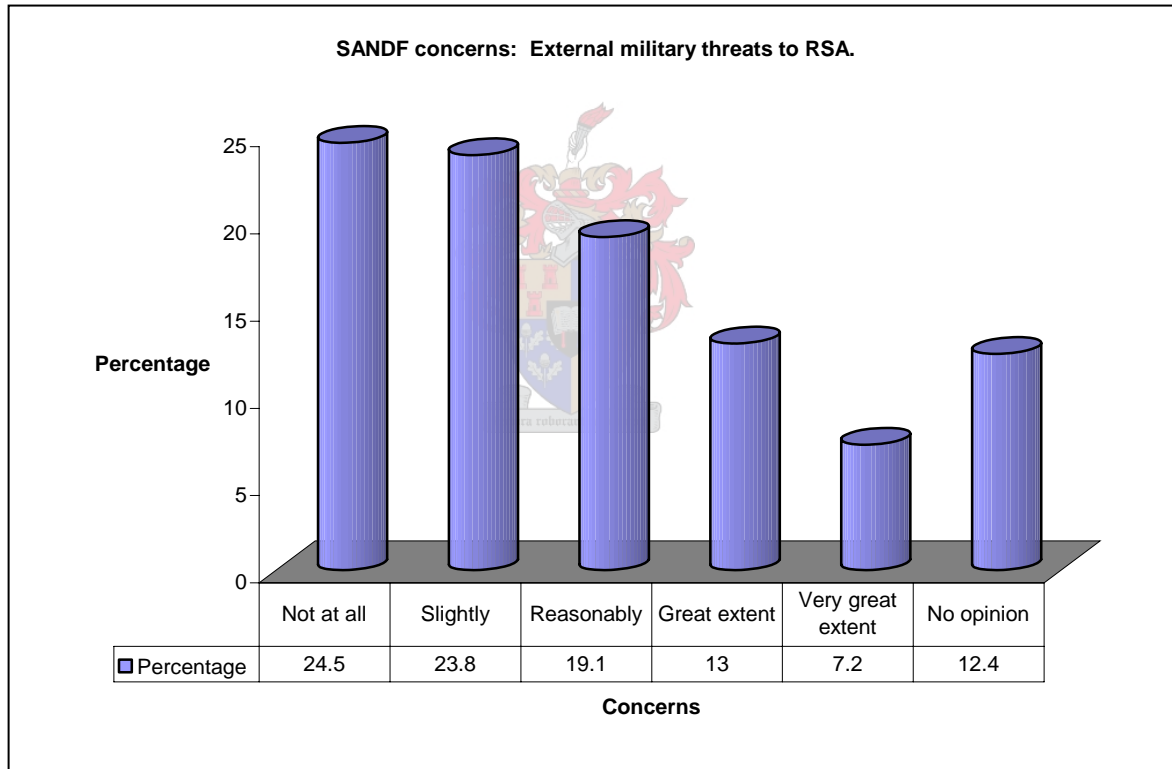
**Figure 7.1: SANDF Concerns with Instability in Southern Africa and Africa**  
(Source: Own compilation from OMNIBUS 3 and 4/2002)

In Figure 7.1 reasonable to great / very great concerns indicate the seriousness of concerns held by SANDF respondents. Original survey results were calculated and indicate that 60,6 per cent of respondents are concerned with instability within African states and 59,4 per cent with instability in southern African states in particular (IG/DOD, 2003:6). These responses point to a disquiet with the security of other actors and not only that of the RSA *per se* and a possible lessening of national security concerns when reflected in conjunction with wider security matters. A close resemblance between Africa and southern African concerns are also visible. 'No opinion' and 'no concern' are noticeable responses of 21,6 per cent and 28,6 per cent respectively that indicate a certain perception of future security and a lesser concern with African insecurity and having to deal with it. This reinforces the wider security concerns that have the potential to offset the primary war fighting - national security paradigm. The strong association with African security

is possibly indicative of government policies and South African defence policy in particular as contemporary events allow for this outlook to take shape amongst SANDF members of all ranks.

Senior officers in the population are less concerned with military threats to Africa, but more with instability in African and southern African states (IG/DOD, 2003:5). This alludes to a further outlook of threats and vulnerabilities not being vested in some military threat, but arising from other sources that are in need of attention. As a future concern, the focus is thus directed to lesser military threats and vulnerabilities. These concerns, however, coincide with national outlooks that African conflicts are a source of future threats, vulnerabilities, insecurity, and bound to escalate to eventual military confrontation. These instabilities, therefore, need close attention and are to be prevented or terminated before escalating.

**External Military Threats**

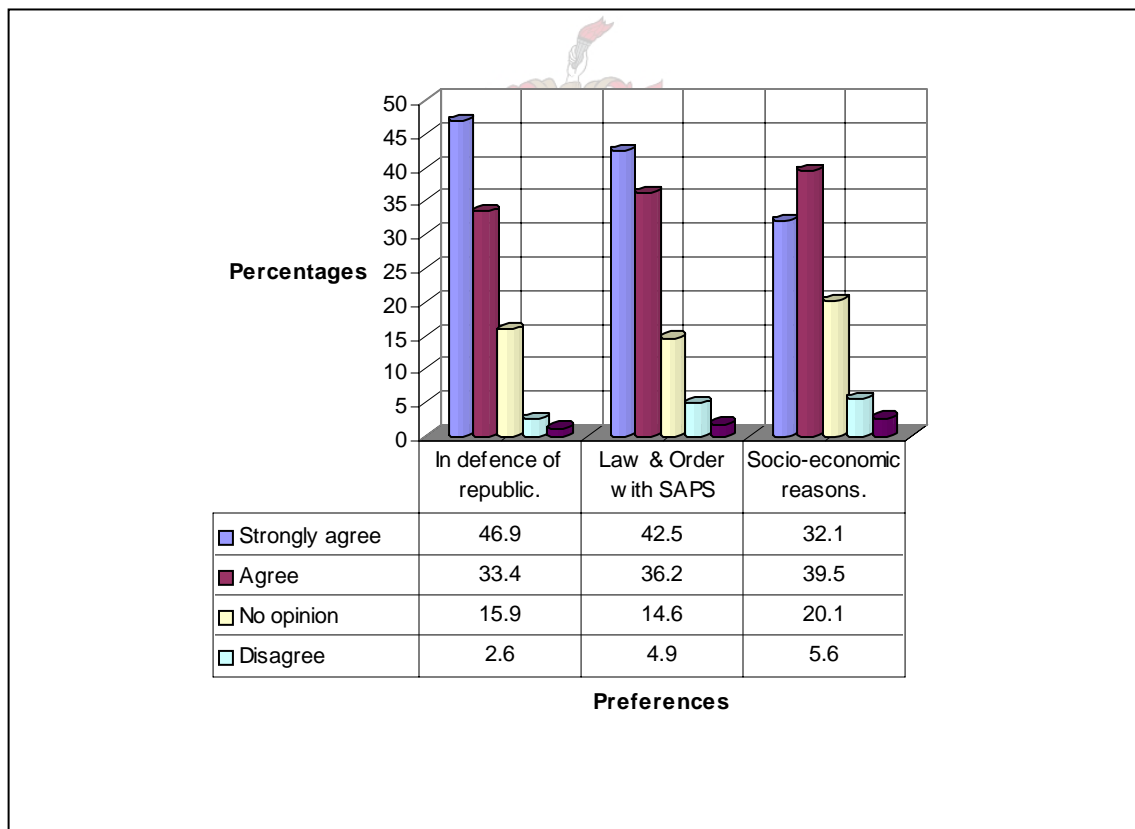


**Figure 7.2: SANDF Concerns with External Military Threats to the RSA**  
 (Source: Own compilation from OMNIBUS 3 and 4/2002)

As illustrated in Figure 7.2, no opinion or no concern drew a 27 per cent response, a slight concern 24 per cent, and a significant concern 39 per cent. Responses to external military threats to the RSA are quite evenly spread with no great concerns, but lower end lesser concerns the majority with 49 per cent of responses as to 39 per cent of significant responses. Senior

officers are most concerned with future external military threats to South Africa (IG/DOD, 2003:4) as opposed to other ranks whilst all ranks are quite concerned with internal military threats (IG/DOD, 2003:4). Nevertheless, 39,7 per cent of all respondents are concerned with external military threats to the RSA (IG/DOD, 2003:6). It is possible to explain these responses by the responsibility for and real danger of such a military threat to the RSA and that opposing it remains a primary SANDF-responsibility and that of senior officers in particular. This realm is emphasised in policy and remains the focus of military decision-makers as it assumedly provides the means to perform secondary roles and sustain them. Both defence policy and military strategy, however, situate future military threats to the RSA in the longer term future of 2010 and later with some even positing 2030 as a further limit. The above response pattern is also indicative of the primary war fighting *versus* the secondary promoting security debate within the SANDF with each having its own proponents and opponents about what the future holds. The pattern, nonetheless, shows a positive slant towards the non-traditional field.

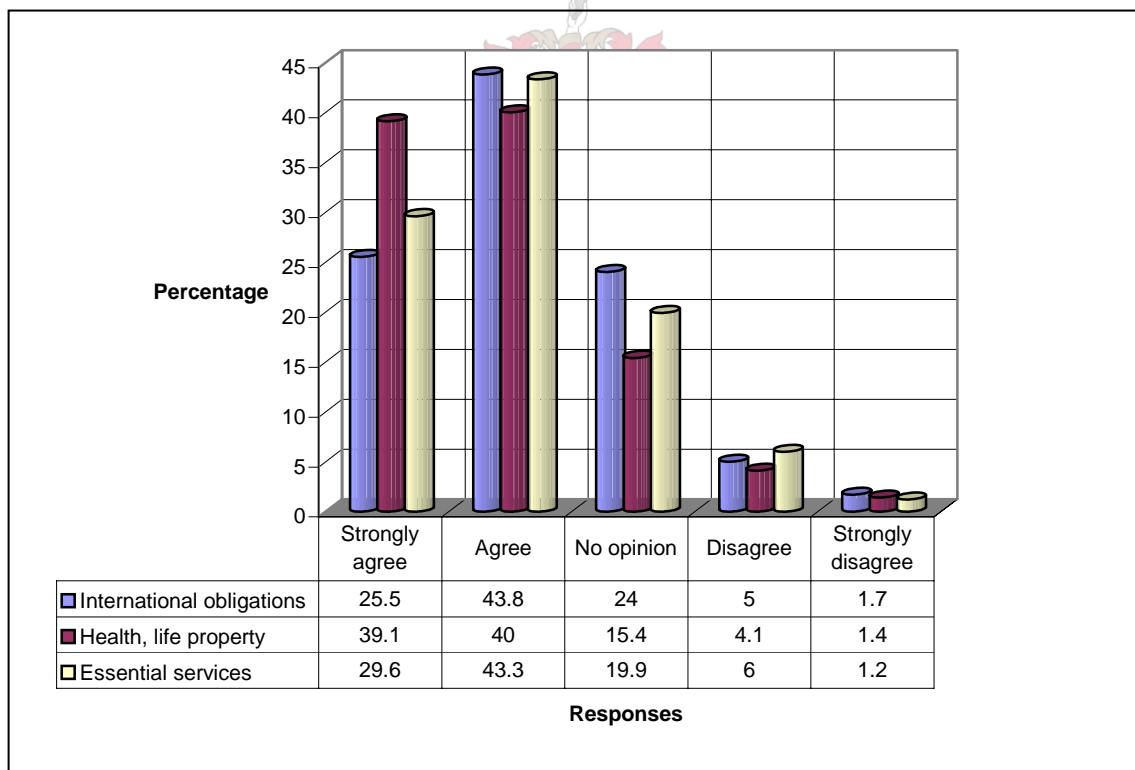
**Deployment Preferences**



**Figure 7.3: SANDF Deployment Preferences**  
 (Source: Own compilation from OMNIBUS 3 and 4/2002)

This question is directed at deployment preferences confined to the RSA and its security. The resultant preferences reflected in Figure 7.3 show a strong agreement with both primary and secondary type deployments by the SANDF and a very low level of disagreement. Figure 7-3 is also indicative of a shift towards other roles being judged important for a post-modern military and requiring role diversification and to protect and provide more than military security. ‘Strong agreement’ and ‘agreement’ persistently drew the most responses in all cases of deployment alternatives. The response pattern does not favour a particular role domain, but rather points towards accepting role diversification or dual role responsibilities, but with an observable preference for defending the RSA and a lesser preference for an ascribed socio-economic role. It also once again points towards the security-security debate about what future to prepare for, but in this case, the response pattern rather supports the dual role or multi-mission futures outlook proposed for contemporary military forces.

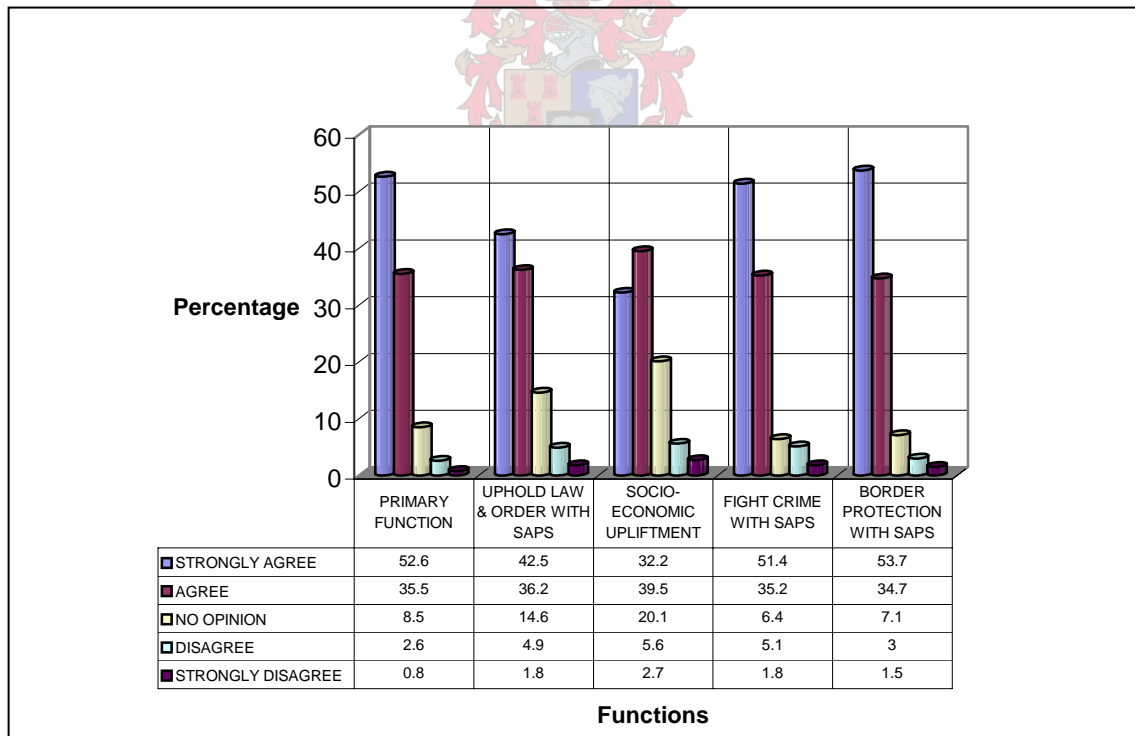
**Concerns with Non-Traditional Roles**



**Figure 7.4: SANDF Concerns with Non-Traditional Roles**  
 (Source: Own compilation from OMNIBUS 3 and 4/2002)

Concerns with non-traditional roles as stated in this question and illustrated in Figure 7.4, have a prominent foreign focus. Responses to concerns with non-traditional roles (also its foreign domain) reflect a strong agreement or association with such roles and to honour international obligations. This agreement points to accepting and associating with more than the allotted primary role, but to also provide security and co-operate in its pursuit at a level above the state. Disagreement levels are very low and indicative of respondents accepting an extended secondary role spectrum for their future employment. Low disagreement also indicates accepting these less glamorous and non-traditional roles and it further coincides with responses on deployment preferences. 'No opinion' is, however, a noticeable response of between 15 and 24 per cent that indicates some uncertainty or apprehension amongst respondents. Nonetheless, 80,3 per cent of respondents, according to the IG DOD Report on this survey, is prepared to volunteer their services in event of a peace support operation. With 80 per cent willing to serve under UN-command during military operations (IG/DOD, 2003a:5) this further suggests accepting future roles towards promoting peace, to protect health, life and property and prevent insecurity as these are typical functions of UN-missions.

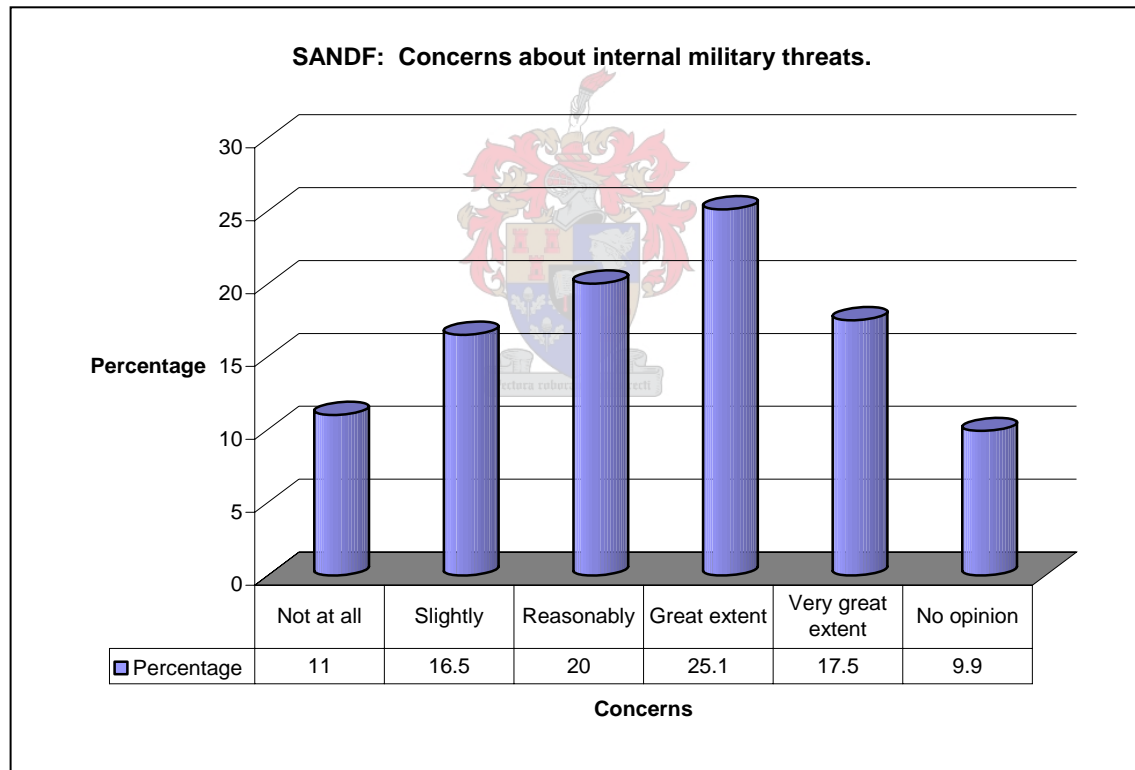
**Preferences Concerning Functions**



**Figure 7.5: SADF Preferences Concerning Functions**  
 (Source: Own compilation from OMNIBUS 3 and 4/2002)

In Figure 7.5 preferences as to the functions allotted to the SANDF, reflect strong support for the full spectrum of primary and secondary functions for and within the RSA. Disagreement levels show a ceiling of less than 10 per cent for each role controlled for. These preferences are once again indicative of respondents accepting more than a mere security future, that the SANDF has a domestic responsibility as well and thus a level of comfort with a military institution performing a spectrum of domestic roles. No clear preference for an exclusive security role is observable with strong agreement for differentiated SANDF functions. Socio-economic upliftment, as was found concerning deployment preferences, is a lower preference and here once again drew the strongest disagreement. The primary function did not obtain less support in the face of secondary functions whilst the latter did not draw significantly more responses as an indication of them now being judged of greater future importance.

### **Concerns with Internal Military Threats**



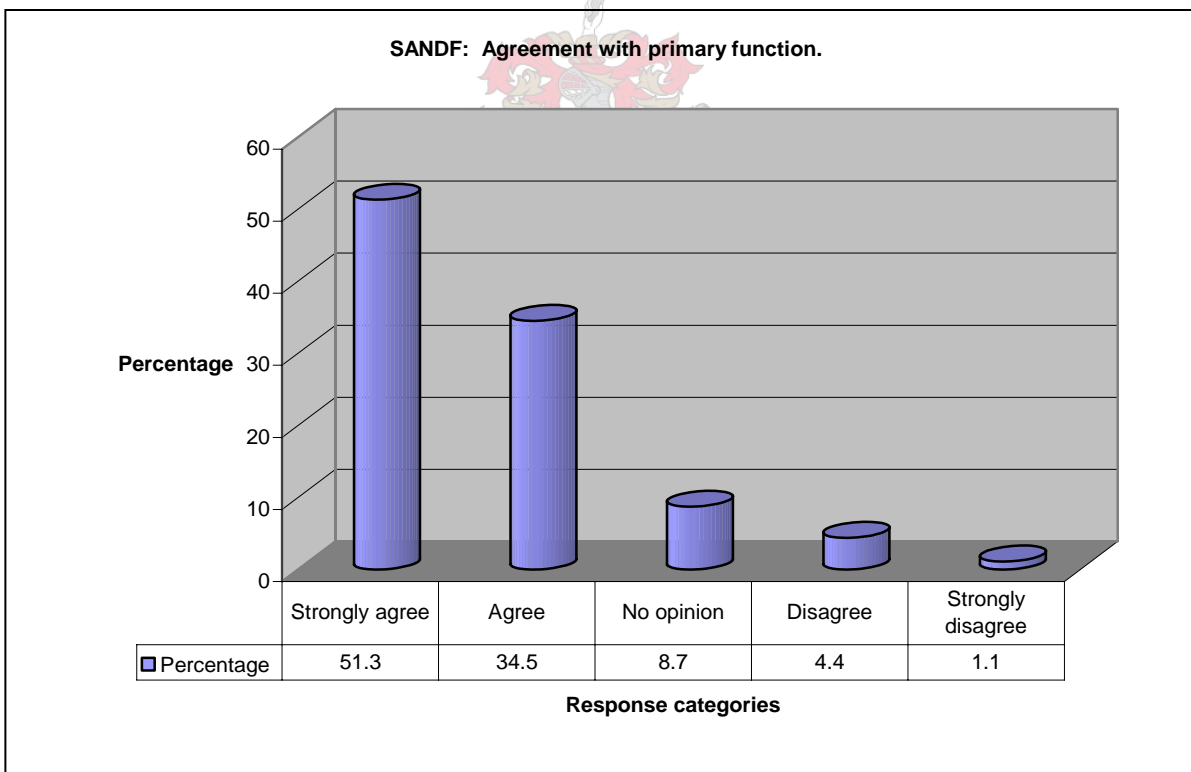
**Figure 7.6. SANDF Concerns about Internal Military Threats**

(Source: Own compilation from OMNIBUS 3 and 4/2002)

From Figure 7.6, a disproportionate concern with internal military threats becomes visible if isolated from the wider threat spectrum. Only 11 per cent are not concerned at all with a real concern expressed by 62 per cent of respondents and 16,5 per cent at the lower end of

responses holding slight concerns. These anxieties coincide with the pattern found with internal threats (65,5 per cent:62 per cent) as pointed out by the DOD report on this survey (IG/DOD, 2003:6). Although 62 per cent of all respondents are concerned, senior officers are not more concerned about internal military threats (IG/DOD, 2003:4). This is perhaps once again indicative of these officers being preoccupied with the dangerous future defence dilemma brought about by deep destruction through loosing a future war. It remains somewhat difficult to explain this disparity of the prominent concerns with internal military threats. One explanation could well be the pattern of internal conflicts plaguing contemporary African countries and such futures, according to the respondents, not al that impossible as far as South Africa is concerned. A second explanation being that domestic conflict soon shows a military character as it quickly migrates to armed conflict between domestic groups in new internal conflicts or uncivil wars as alluded to by Snow in Chapter Five of this study.

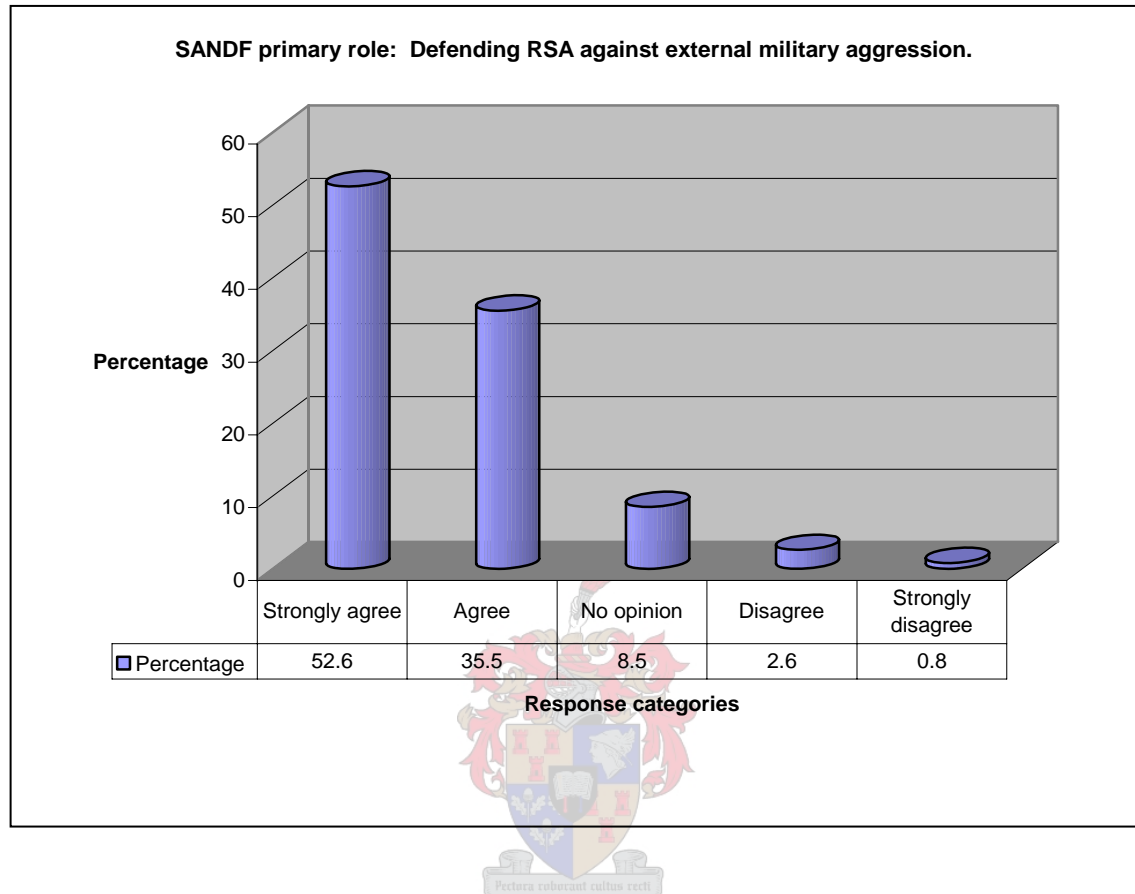
#### **Agreement with Primary Function of SANDF**



**Figure 7.7: SANDF Agreement with Primary Function**  
 (Source: Own compilation from OMNIBUS 3 and 44/2002)



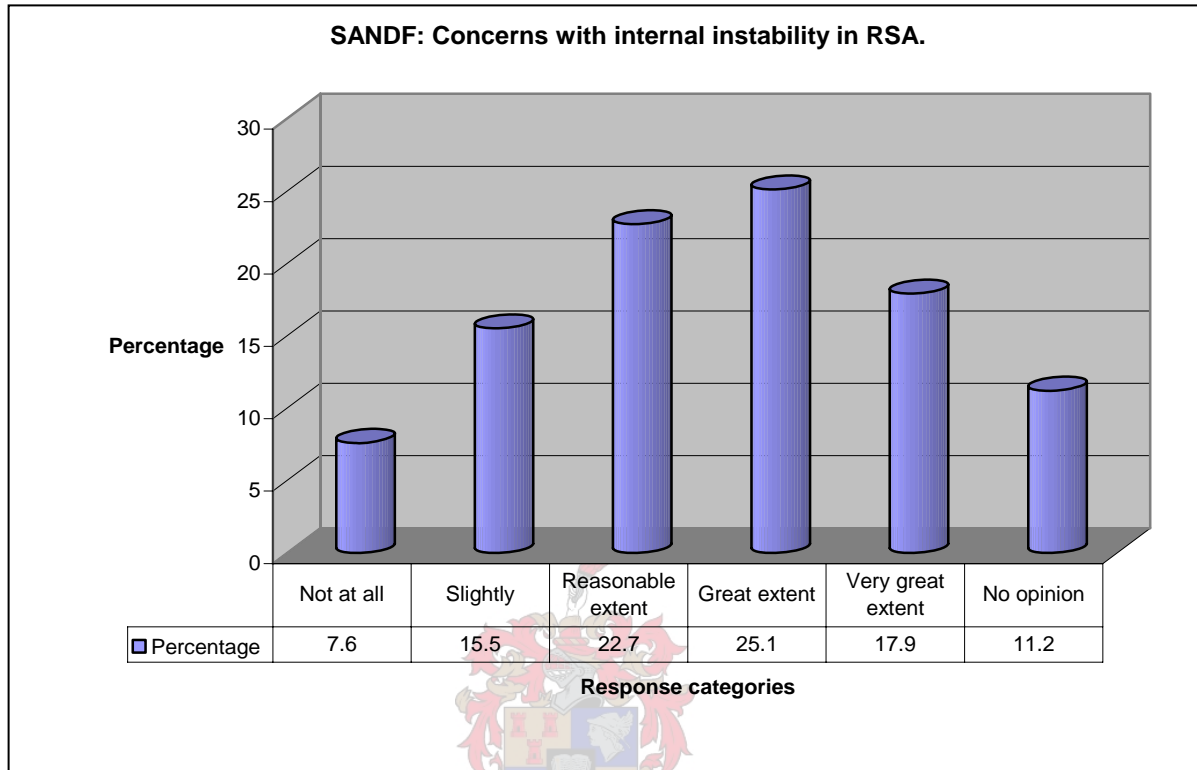
**Primary Role of Defending the RSA against External Military Aggression**



**Figure 7.8: Defending the RSA Against External Military Aggression**  
 (Source: Own compilation from OMNIBUS 3 and 44/2002)

In both Figures 7.7 and 7.8 strong agreement transpires with the primary function of the SANDF being one of defence against external military threats. The disagreement frequency concerning this function is very low and possible to ignore. These responses are indicative of substantial support for directing attention and effort to the stated primary role and for it to be articulated as defence against external military aggression. In addition, 75,1 per cent of respondents indicated a willingness to deploy as part of their unit if the SANDF has to fight a future war (IG, DOD, 2003b:5). This indicates support for the primary function of a future security role, although obviously a futures possibility given the strategic assumption of no such threats in the next 10 years or longer. From within the SANDF the primary role and preparing for it is therefore accepted and in conjunction with policy entrenched as a future role for the institution.

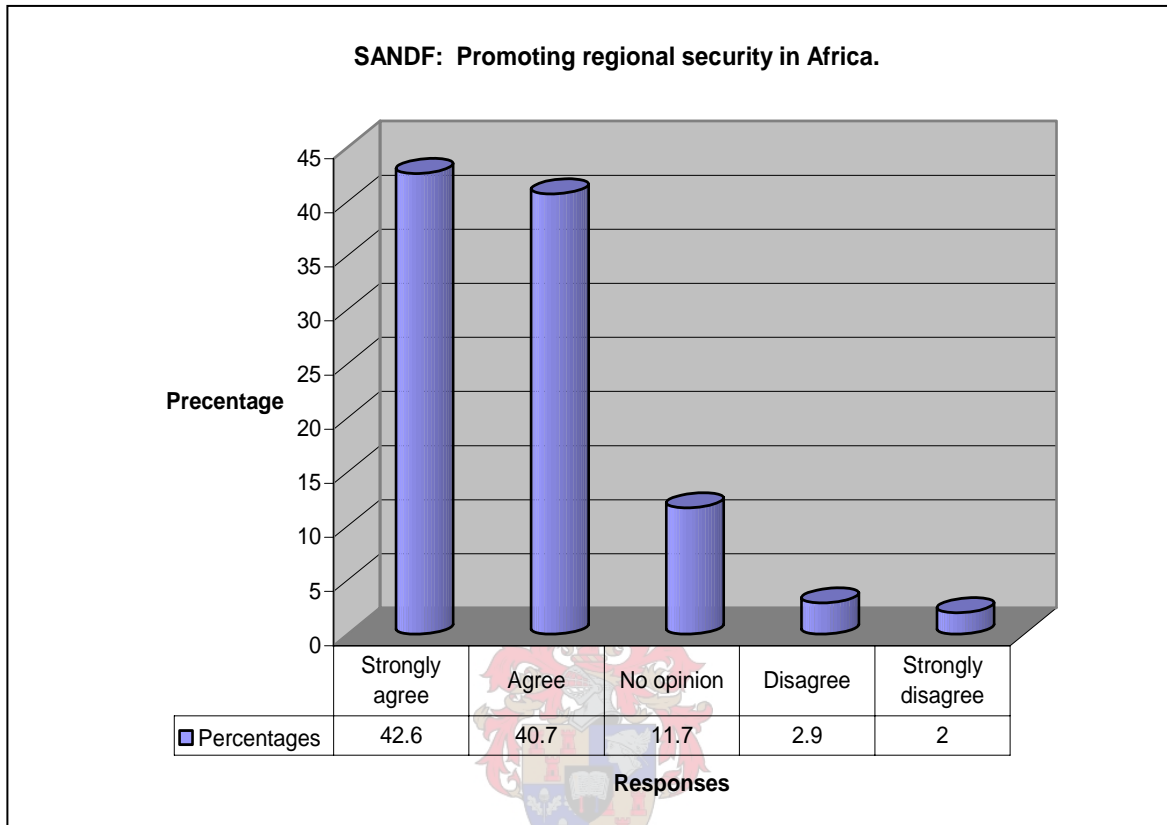
### Concerns with Internal Stability



**Figure 7.9: Concerns with Internal Stability in the RSA**  
 (Source: Own compilation from OMNIBUS 3 and 4/2002)

Internal instability is a continuous theme concerning the RSA and the SANDF cannot escape its role in this regard. Figure 7.9 displays a 'reasonable' to 'great concern' with internal stability from the acquired responses. Although responses of 'not at all' and 'only slightly concerned' amount to 23,1 per cent, real concerns add up to 65 per cent of responses indicating a reasonable or higher concern with internal instability in the RSA. Respondents are therefore rather more, than less concerned with internal instability and it thus represents a concern. These responses also coincide with internal threats and military threats to national security. Although 65,5 per cent of all respondents are concerned, senior officers are not significantly more concerned than other ranks (IG/DOD, 2003:4 Table 2). This noticeable concern with internal security threats - as to other threats - is perhaps also indicative of a national security first concern and competes the rising idea of security above that of national security to be considered a prominent or even dominant focus of government.

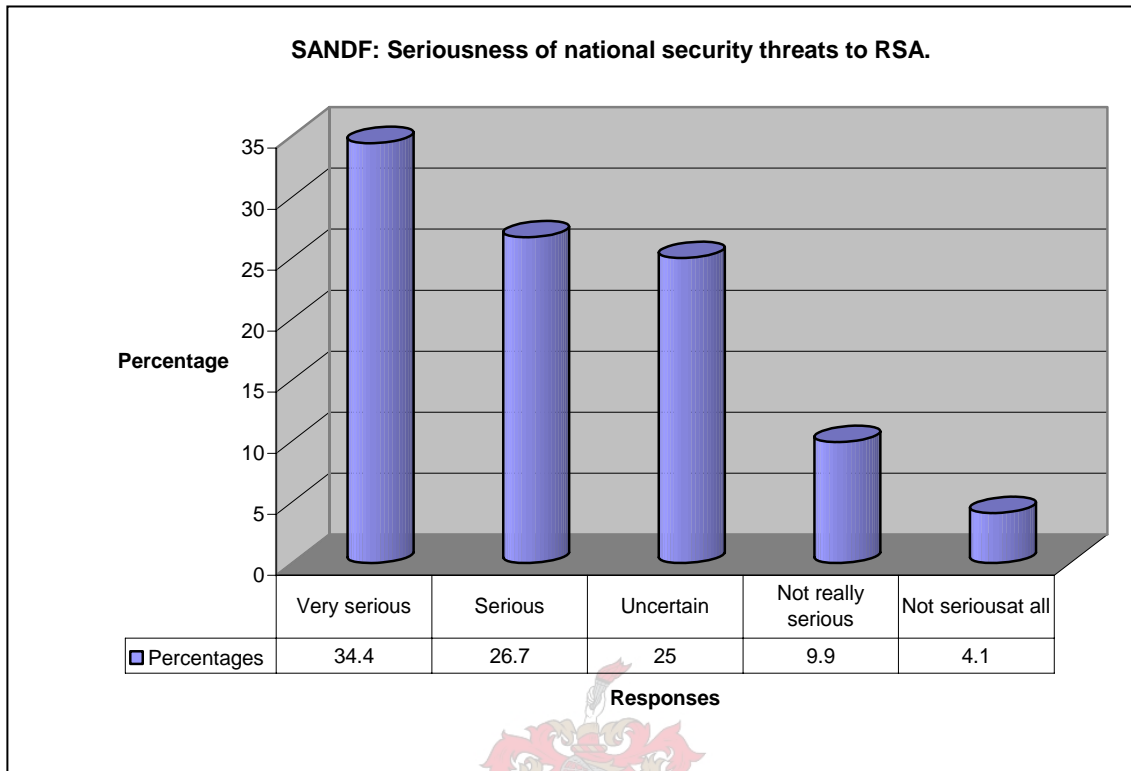
### Promoting Regional Security in Africa



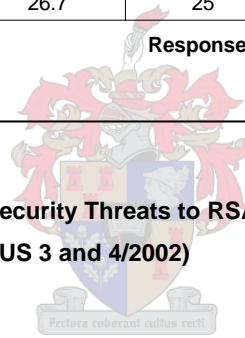
**Figure 7.10: Promoting Regional Security in Africa**  
 (Source: Own compilation from OMNIBUS 3 and 4/2002)

Concerning the promotion of regional security in Africa, Figure 7.10 demonstrates that 83,3 per cent of respondents agree with this role for the SANDF. Disagreement with the SANDF participating in promoting regional security on the continent came in at a very low response frequency of 4,9 per cent. Promoting security as a definite policy objective therefore coincides with preferences of SANDF respondents. No real opposition to this role is observable from within the SANDF. This outcome corresponds with the considerable concerns displayed by respondents about instability in southern Africa and Africa at large and is a possible explanation for this correlation. It furthermore reflects a wider concern with security and accepting the role of the SANDF and implicitly their participation in building and promoting future security in African regions. Lastly, it also augurs well for national policies of government that their future commitment to promoting African security is shared by most members of its defence establishment.

**Perceptions of the Seriousness of National Security Threats to the RSA**



**Figure 7.11: Seriousness of National Security Threats to RSA**  
 (Source: Own compilation from OMNIBUS 3 and 4/2002)



Responses to the seriousness of national security threats assumed a mixed response as demonstrated in Figure B-11. Although the perception of serious threats drew the highest response rate, the frequency of uncertainty and it being judged not to be serious drew a significant 39,5 per cent of responses. Nonetheless, 61,1 per cent still judged threats to national security as serious to very serious. Although being perceived as serious, the uncertain and 'not serious' spectrum of 39 per cent balances the tendency to deem these threats to be overly threatening. The lesser responses in terms of seriousness reflect a lower concern with the seriousness of this threat and thus the SANDF's involvement. It is also to be considered against the backdrop of national security having to compete with common and co-operative security arguments for Africa that tends to mask or weaken the prominence of national security concerns.

## 7.4 FUTURE THREATS, SECURITY, AND MISSIONS

### 7.4.1 COMMAND CADRE AND REGIONAL JOINT TASK FORCES.

Officers answering to the survey by the Centre for Affect Analysis (SANDF) and responses received from the Regional Joint Task Forces reflect the following patterns concerning the respective questions put to them. Although not representative, it contains indicators of the futures culture and perceptions of SANDF officers (See Appendix B for analysis and outputs of responses).

***The SANDF being sufficiently futures orientated to deal with future conflict?*** On this question and how warfare is to change in future 27 per cent indicated 'yes' whilst 63,5 per cent (the majority of all ranks amongst the respondents) responded in a contrary manner (See Output B-1). The extent to which this is a true reflection, it indicates the need to address this vacuum within the SANDF, although not the only concern to be reset. In part this response ties in with earlier responses encountered that it is the wrong time to investigate whether the SANDF is truly futures oriented as priorities of integration and transformation stand first in line. Nonetheless, the response pattern indicates some need towards clarity about future matters.

***Main obstacles to the pursuit of alternative futures.*** Respondents indicated that the main obstacles facing the pursuit of alternative SANDF futures are [1] substituting quantity with quality future forces (42,5 per cent), (highest response), [2] changing military and public opinions as to secondary roles to be performed by the SANDF and [3] anticipating and contending with effects of future warfare each drew 24,7 per cent of the responses (See Output B-2). These responses on the one hand indicate a particular range of obstacles that are judged to have a detrimental futures impact. It simultaneously holds a particular futures implication and one not foreign to defence forces the world over - that of lingering uncertainty concerning new military roles, convincing public opinion about their importance and what future warfare could comprise of. These uncertainties are inherent to defence institutions and liable to progress alongside the SANDF towards alternative futures.

***Knowledge and applicability of the debate on future warfare.***<sup>59</sup> On knowledge concerning the debate on future warfare 10,8 per cent of respondents indicated no knowledge whilst 89,2 per cent had heard of, read about, or indicated they were partaking in the debate with all ranks showing the highest responses as to having heard/read about it. The respondents nevertheless

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<sup>59</sup> This aspect can be better understood if considering the debate in the USA, Russia, the People's Republic of China and in Europe as described in Chapters Four and Five of this study.

indicated that the future warfare debate in the SANDF is largely marginal or even if present, peripheral to decision-making in the SANDF with 70,2 per cent favouring this opinion. Although 2,7 per cent of respondents judged the debate to be developed and integrated with decision-making, 27 per cent were of the opinion that no such debate existed leaving much leeway to argue for this to be a neglected domain (See Outputs B-3 and B-4). These outputs reinforce arguments about slow SANDF progress towards understanding alternative futures. Knowledge on the military futures debate remaining peripheral in terms of decision-making processes, are indicative of why this matter is found to be quite underdeveloped, slanted or only very slowly evolving within the SANDF.

***Establishment of an independent futures institution to contend with future complexity and unpredictability.***<sup>60</sup>

On the matter of addressing the future by establishing an independent futures institution, the majority of respondents (58,1 per cent) opted for current structures to be adjusted (for all ranks this alternative drew most responses). 20,3 per cent preferred an independent futures institution - responses composing the more junior respondents (ranks below major general) in the response group. The most senior respondents, (17,6 per cent of the population) indicated that current structures as adequate to address future matters and alternative futures (See Output B5). These responses indicate the need to address futures matters in some focussed manner. A minority (the most senior respondents) supported the status quo, although it is somewhat obvious these responses were to be expected. A lack of formally addressing alternative futures had already been indicated in previous responses and that of the rest of the respondents calling for either adjustments or establishing a futures institute for military futures. This serves as a warning of the need for some deliberate attempt to contend with futures matters bound to be encountered by the SANDF.

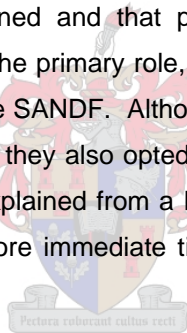
***Importance of technology-based approaches to the future.*** The importance of technology to contend with future threats received an overwhelming response. Of the 74 respondents, 57 (77 per cent) judged technology to be very important and only 14 (19 per cent) judging it mildly or only important concerning the maritime/air power domains. (See Output B6) Embracing technology in this manner is bound to reflect the fallacy of technology presumably being a pathway to control future reality and a prime mover of progress. Directed or islands of technology in particular future domains and tempering the power-technology continuum are necessary issues or pathways for the SANDF to embark upon. Technology is not to become a goal in itself. The extent to which secondary missions become prominent, this imperative is to either level off or be contained in islands.

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<sup>60</sup> The relevance of such an institution can be judged against the important work done in this regard by US, Russian and Chinese futures institutions and their demonstrated military link as portrayed in Chapter Two of this study.

#### 7.4.2 SANDF SURVEY RESPONSES: JUNIOR OFFICERS (JO) , JOINT SENIOR COMMAND AND STAFF PROGRAMME (JSCSP) AND EXECUTIVE NATIONAL SECURITY PROGRAMME (ENSP) CANDIDATES

**Formulating own alternative futures.** The responses are categorised according to their normatively positive, primary security, multinational, societal secondary and degenerate preferences as indicators of likely SANDF futures. This extended scale of responses reflected a more graded categorisation of responses, although still ranging from optimistic to more pessimistic. Future competency and legitimacy as a first and preferred future for the SANDF drew most responses. A future SANDF customised for multinational peace missions drew the second most significant response pattern on the optimistic side of possible alternatives. A SANDF explicitly customised for future security drew a surprisingly low number of responses. From the responses an image transpires of a future SANDF not embedded in the security role only, but one of different future roles. The need for a competent and professional SANDF remains high - irrespective of the less glamorous roles bound to evolve. It does not constitute an attitude of letting the SANDF degenerate. Most respondents still hold the opinion that a competent SANDF should be maintained and that peace missions are an important future operating domain – adjacent to that of the primary role, although the latter was not judged to be the primary driver or focus of a future SANDF. Although junior officers held the most negative futures outlook concerning the SANDF, they also opted for shorter time frames of interest in the survey. This observation is perhaps explained from a Futures Studies perspective that younger respondents tend to hold shorter or more immediate time frames in higher esteem than longer term futures.



**Preferred alternative military futures.** As to preferences of specific alternative futures for the SANDF the following was found. At the junior level a small, professional and triservice future SANDF with a regional focus was most popular with 67,6 per cent of the 318 valid opinions obtained from junior officers (See Output B-9). At the more senior level of the JSCSP preferences coincided with that of junior officers, but at a level of 85,5 per cent of the 290 valid responses obtained (See Output B-8). The same pattern is visible at the ENSP level with 89,7 per cent of the 165 valid responses opting for a balanced, professional and small future SANDF with a primarily regional focus (See Output page B-7). From these outputs it is quite apparent that a smaller and professional SANDF is favoured with the regional focus (southern Africa) being a preference. What remains significant is that the alternative of a SANDF to operate as a more robust and even low-tech military in harsh African theatres remained peripheral. These preferences promote the deterrent profile of the SANDF and its image as a professional military institution on the African continent whilst inversely it opposes decline or collapse as a future alternative.

**Patterns of future change.** Moving towards alternative futures implies military change and as to the views on the kinds of changes expected to accompany the SANDF into the future, the following responses were obtained. At the level of junior officers 57,1 per cent of the 175 valid responses indicated future change to be peaceful - whether it being rapid or slow. 42,8 per cent indicated that change was expected to be destructive or at least unstable with dramatic and unstable change drawing the most responses – 41,1 per cent (See Output B-12). This coincides with the view of a decline in the role and functioning of a future SANDF amongst junior officers as illustrated above. At the JSCSP level peaceful change drew 66,3 per cent of the 172 valid responses, it being dramatic and unstable 33,7 per cent, with no responses for revolutionary and destructive future change (See Output B-11). At the senior ENSP level 71,5 per cent of the 91 valid responses opted for peaceful future change and 28,6 per cent expecting it to be unstable and destructive, but only 1,1 per cent indicating the destructive alternative (See Output B-10). At senior levels the expectation of change is more peaceful although a significant slant towards unstable, but not destructive change is expected to accompany migrating into the future. Revolutionary and destructive change as an overall option drew negligible responses (a maximum of 4/438 valid responses - 0.9 per cent) (See Outputs B-10 - 12). Military change and it having an impact is acknowledged, but the preference or need for military change in the SANDF without disrupting the institution is quite apparent. The expectation is one of the SANDF needing to change for the future, but that it should not be destructive.

**Future time frames.** Opinions on time frames concerning alternative futures for the SANDF were measured as well. Junior officers are primarily interested in the time frame of 5-10 years with 43,3 per cent of the valid 182 responses opting for this frame. Time frames of 10 years and longer interested 30,8 per cent of the junior respondents with 2-5 years drawing 24,7 per cent of responses. Only 1,1 per cent indicated no interest in the future (See Output B-15). At the JSCSP level 10 years plus drew the most responses (53,1 per cent) and the 5-10 years 31,6 per cent with only 4 per cent indicating no interest (See Output B-14). At the ENSP level the 10 years and longer futures time frame also drew the most responses (46,2 per cent of the 93 valid responses) and 36,6 per cent opted for the 5-10 years time frame with 2,1 per cent reflecting no interest at all (See Output B-13). Whilst the junior officers were more interested in the 5-10 years, the senior officers primarily showed a greater interest in the 10 years and longer futures time frame and thus the longer term (See Outputs B-13 - 15). A further cross tabulation also indicated that across all three response groups those interested in the 5-10 years and 10 years plus future time frames also more often discuss alternative futures for the SANDF (See Outputs B-16 - 18). It was furthermore found that those often discussing alternative futures for the SANDF also judged the future of the SANDF to be very important or even crucial to their outlooks (See Outputs B-19 -



21). At the minimum, these responses indicate some need at the senior level to contend with longer future time frames - hence the greater interest it drew.

***Futures orientation and familiarity with the futures debate.*** Showing a futures orientation and testing for familiarity with the main stream debate on military futures, the RMA current of thought was used. At the junior level 47,8 per cent of the 182 valid responses indicated no knowledge of this debate. However, 51 per cent indicated to have either heard, read or in some way to be participating in the RMA debate (See Output B-24).<sup>61</sup> At the JSCSP-level 30,5 per cent of the 174 valid responses indicated no knowledge of the RMA debate on military futures. Of the JSCSP 69,6 per cent, however, indicated to have heard, read or is participating in the debate (See Output B-23).<sup>62</sup> At the senior ENSP level 36,6 per cent of the 93 valid responses points towards no knowledge of the RMA debate whilst 63,4 per cent heard, read or are participating in the RMA debate (See Output B-22). In all cases, more than 50 per cent of the respondents indicated some knowledge or participation in the futures debate as directed by the RMA. A cross tabulation further indicated that senior respondents most interested in the 5-10 year futures time frame showed the highest RMA awareness, those interested in the 10 years plus period following closely and those below these time frames having the least awareness of the RMA-debate (See Outputs B25 - 27). These findings should raise concern as to the level of awareness found amongst senior officers of this important debate on future military matters and its absence in the defence debate. The correlation between longer time frames and RMA-awareness levels is also significant as it places these two crucial elements in some relationship regarding future matters.

***SANDF concerns with alternative futures.*** Whether the SANDF is in fact concerned with the matter of alternative futures resulted in the following responses. At the junior level, 72,6 per cent of the possible 183 responses indicated some concern or a permanent concern with the future. Only 27,3 per cent indicated a negative response (See Output B-30). At the JSCSP 83,6 per cent from the 177 valid responses indicated a futures concern with 16,4 per cent responding in the negative (See Output B-29). ENSP responses indicate that 78,7 per cent of the 94 valid responses viewed the SANDF to be concerned with the future whilst 21,2 per cent responded in the negative (See Output B-28). The overall responses frame a significant concern with deliberately working towards alternative futures with those not holding this view or unaware being a minority of 99/454 (21,8 per cent) (See Outputs B-28 - 30). These findings raise the following questions. First, if such a concern is found to be present, why the lack of a more deliberate programme or its inclusion in decision-making and other agendas? Secondly, why the initial lack

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<sup>61</sup> The RMA is a theme in the Military Strategy modules presented at the Faculty of Military Science, SANDF Military Academy.

<sup>62</sup> The RMA, or at least related concepts, form part of the service specific modules presented to certain service arms.

of enthusiasm as to whether a futures orientation or involvement is to be present at all in the SANDF?

**Formulating and influencing preferred futures.** The extent to which the SANDF is in actual fact judged to be able to determine or formulate and influence preferred futures, the following responses were encountered. At the junior level this matter drew less optimistic responses with 18,1 per cent of the 183 valid responses being in the negative, 55,7 per cent judging it to be marginal and only 26,2 per cent being of the opinion that it is a definite feature (See Output B-33). Responses by the JSCSP reflect a 6,9 per cent negative opinion that the SANDF is not interested in or capable of formulating and influencing preferred futures. However, 50 per cent of respondents (of 176 valid responses) indicated it to be marginal and 43,2 per cent that the SANDF is definitely able to formulate and influence its future (See Output B-32). At the senior ENSP level 10,6 per cent of the 94 respondents indicated the SANDF to be incapable, 41,5 per cent judged it to be marginal and 47,9 per cent that the SANDF is definitely capable to formulate and influence its future (See Output B-33). Whilst the junior and JSCSP judged the SANDF's capability in this regard to be marginal, the ENSP respondents were the most optimistic that the institution can definitely formulate and influence its future. In all cases the matter of the SANDF not being interested in the future or incapable of addressing it drew very low responses (See Outputs B-31 - 33). The significance is the expectation that the SANDF is capable of formulating and influencing preferred futures as the opposite (it not being able to do so) drew almost insignificant responses. However, the extent to which the SANDF is capable of pushing the futures agenda contains some apprehension with a balance between the senior respondents indicating this to be possible and those indicating it to be possible, but not probable. The expectation for it to be done and the reality of the SANDF being capable of effecting it should be noted.

**Breaking with past legacies.** As influencing its future also implies for the SANDF to break with past legacies, the majority of junior officers indicated that this is possible with 58,2 per cent holding this opinion. 26,6 per cent indicated a marginal ability to break with past legacies and only 6 per cent judged it impossible (See Output B-36). 45,2 per cent of the JSCSP (from 177 valid responses) indicated breaking with past legacies to be possible and 24,9 per cent for it to be marginal. Only 4 per cent indicated for it to be impossible (See Output B-35). The senior ENSP responses show a 56,4 per cent preference for breaking with past legacies to be possible and only 13,8 per cent for it to be marginal. Only 1,1 per cent thought of it as impossible (See Output B-34). The imperative of a parting with past legacies drew an 8,8 per cent response from junior officers, 29,9 per cent response from the JSCSP and a 28,7 per cent response from the ENSP respondents (See Outputs B-34 - 36). The junior officers are less emphatic about the SANDF

being capable of breaking with the drag of past legacies and less inclined of it being an imperative to do so. The senior officers are more optimistic as to this possibility and the imperative to do so. A cross tabulation of breaking with past legacies and influencing alternative futures indicates that across all three response groups those judging it possible to break with the past also judge the institution to have a marginal to definite ability to influence its own futures (See Outputs B-37 - 39). It is possible to interpret the findings as it being possible and an imperative to break with past legacies in order to influence the future in a more constructive way. Keeping alive past legacies is perhaps increasingly judged to be an obstacle to formulate and pursue new alternative futures for the SANDF.

**SANDF futures and Africa.** The rising role of African futures cannot be ignored. Concerning the SANDF and its future being tied to that of Africa, the majority of junior officers (72,1 per cent of a possible 183 responses) rated this as important to critical. 25,1 per cent viewed African futures as less important and 2,7 per cent being of the opinion that it is unimportant (See Output B-42). Of the JSCSP 90,3 per cent of the 175 valid responses judged the Africa connection to the future SANDF to be important to critical and only 8,6 per cent for it to be less important. Only 1,1 per cent of the respondents indicated it as being unimportant (See Output B-41). Of the ENSP 93,6 per cent of the possible 94 responses judged the futures Africa connection to be important to critical for the SANDF. A mere 6,4 per cent viewed it as less important and none were of the opinion that it is unimportant (See Output B-40). On the whole a strong preference transpired for the SANDF and its future to be tied to that of African futures and significantly few respondents judged the connection to be unimportant or failed to see a connection (See Output pages B40 - 42). As these preferences show a positive correlation with government initiatives in this regard, it is needless dwell upon the African connection in the SANDF's future and the strength of this nexus.

#### **7.4.3 SHORTER TERM FUTURES, LONGER TERM ALTERNATIVES AND FUTURES TO BE AVOIDED**

In a survey amongst top decision-makers of the Department of Defence at the levels of at least deputy director and chief director, particular future alternatives for the shorter term, longer term and futures best to be avoided were measured. Each respondent had to select four alternatives from each category.

**Shorter term future up to 2010.** (See Output B-43). As to shorter term futures the following preferences were expressed. The preferred four alternatives for the shorter term from the 64 responses are the following:

- A future SANDF primarily prepared for PSOs (10 responses).
- A future SANDF that is primarily infantry based with high-tech air, maritime and medical elements in support (6 responses).
- A military geared to primarily conduct ground and maritime operations in African theatres (5 responses).
- The SANDF as primarily an agent of domestic upliftment and development (5 responses).

**Longer term futures beyond 2015.** (See Output B-44) As to longer term futures (2015+) the following responses were reflected.

- The SANDF as a dominant triservice military geared towards security (10 responses).
- The SANDF geared towards rapid and independent operations into and withdrawals from African theatres (10 responses).
- The SANDF as a military deterrent to African wars (6 responses).
- The SANDF as the leading facilitator for preparing military forces for the AU (5 responses).

Alternative futures to be avoided (See Output B-45). Responses to alternative futures judged to be avoided by the SANDF showed the following preferences.

- Keeping the SANDF weak and to expand it via regional and collective structures when necessary (10 responses).
- The SANDF as military deterrent to war in Africa (6 responses).
- A low-tech SANDF geared for traditional military operations in harsh African theatres (6 responses).
- A SANDF to prop up the national status quo and operating domestically to support the police (6 responses).

The shorter term preferences reflects a partiality for a future SANDF finding itself between a traditional security institution and that of also conducting less traditional missions and therefore containing some dual military profile. Longer term options reflect a preference for traditional security and a more constructive role as to the African Union and NEPAD. It does, however, tend to play down the softer secondary roles as far as the views of these senior respondents are concerned. Futures to be avoided point to a prospective SANDF upholding the ability to act independently, but not being an aggressive or offensive military force on the African continent. A lapse into the secondary realm is also to be avoided whilst its technological capabilities are not to be degraded or allowed to decline.

## 7.5 SUBSTANTIATING OR REJECTING SANDF FUTURES OUTLOOKS: THE CASE OF SOUTH AFRICAN PUBLIC OPINION AND THE DEPARTMENT OF DEFENCE

In the absence of a visible enemy, future tasks of armed forces, are to increasingly be defined by public opinion (Kuhlman in Caforio (ed), 1998:426) Under these conditions armed forces are to consistently ply their trade in a manner that satisfies the public. Should defence, from a public perception, contributes less and less to what society perceives to promote their security, it raises the image of a more critical or subjective public opinion. In some way, this civil-military connection is judged to assume a closer future interface between the need for security by society and for armed forces to sustain their legitimacy by contributing to societal security.

The DOD came under close scrutiny in a survey conducted during January and February 2000 that dealt with the image of the Department of Defence with the RSA population (DOD DCC, 2000:9). The attitudes of the RSA population towards the SANDF and their awareness of the functions of the SANDF were specific secondary objectives of the survey (DOD DCC, 2000:5). This survey involved a broad spectrum of South African public, the business, and corporate communities (DOD DCC, 2000:4). The resultant responses do not, however, always coincide with the images found in the surveys discussed above on future perceptions and images held by SANDF members and their preferences concerning the future utilisation of the country's armed forces.

**Knowledge of the SANDF.** The SANDF is not a prominent institution in the eyes of the South African public, except amongst some prominent business and political sectors (DOD DCC, 200:54). According to the report the SANDF 'lacks a face' and it needs a concerted effort to heighten its visibility amongst society (DOD DCC, 2000:71). Although professed to be a feature of the post-modern period, the importance of the SANDF as perceived by the different SANDF groupings is not altogether reflected in public opinion. A persistent degree of uncertainty or ignorance was displayed in the survey as is illustrated in Table 7.1.

This indifference should, however, not be equated with hostility as the report reflects a positive view or image held by respondents. Although not intimately involved or knowledgeable, the SANDF is admired, but primarily due to its domestic contributions and what is expected of the institution (DOD DCC 2000:65). It is apparently not a matter of the SANDF constantly featuring on the 'radar screens' of civil society.

**Table 7.1 Uncertainty Reflected by Public Opinion Concerning the SANDF**

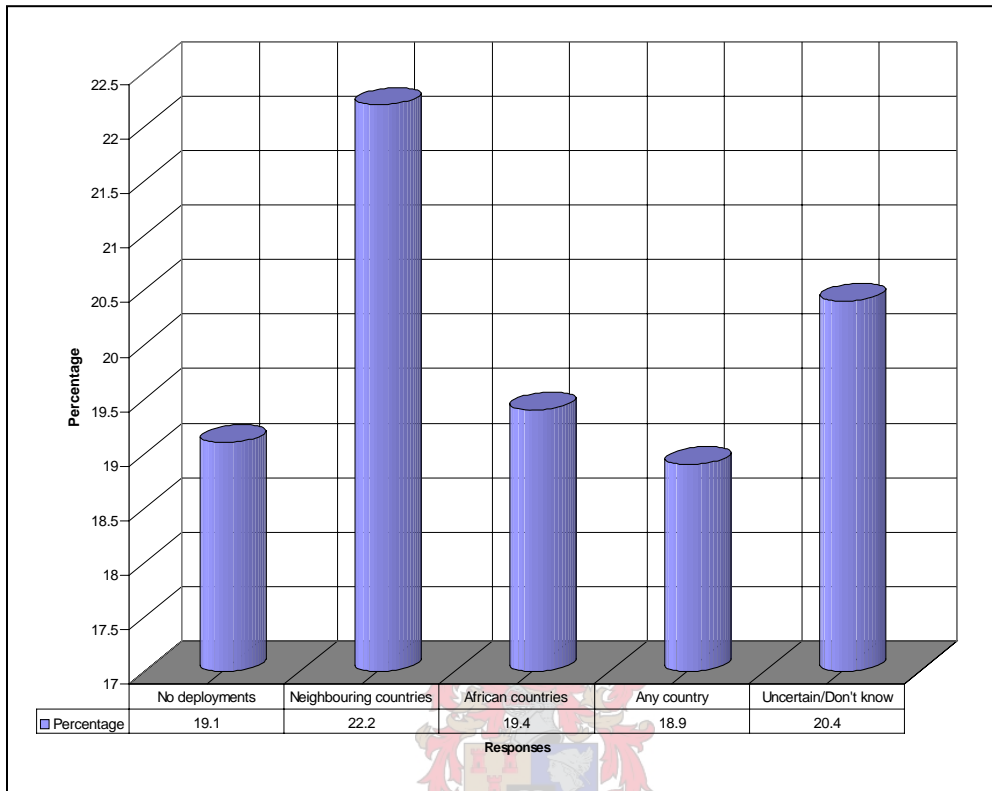
Question	Uncertainty in responses
I think the amount of money spent on defence is:	Don't know = 30,2 per cent
What in your view is the capability of the SANDF to defend the country:	No opinion 25,2 per cent
Transformation in the defence force is:	Uncertain/Don't know 34,4 per cent
To what extent do you think racism or racial discrimination occurs in the defence force:	Uncertain/Don't know 33,7 per cent
Which of the following statements best represents your viewpoint on the SANDF's involvement on PSO?	Uncertain/Don't know 20,4 per cent

(Source: Compiled from DOD DCC, 2000:B1-B2)

**Domestic role expectations by society.** The esteem of the SANDF increases as it interacts with society through its domestic role and the public perceives this to be contributing to their security (DOD DCC 2000:55). Although this confers much-needed legitimisation upon the SANDF as it is alleged to be more competent than its sister state departments, this domain remains dangerous. Public opinion nonetheless expects a domestic dividend from the SANDF, and, although the corporate and political sectors hold a more balanced outlook by acknowledging the primary defensive role of the institution, even they seem to prefer its domestic involvement (DOD DCC, 2000:56). It is, however, to be acknowledged that inherently this collateral utility of the SANDF paints some outlines of the faceless SANDF as expressed by respondents and acts as leeway for boosting its image and legitimacy.

**Internal-external roles of the SANDF.** The external-internal role of the SANDF displays another dimension. Internal operations are judged to pay positive dividends through its effect upon the economy and high crime figures. External operations are clinically judged as to whether they are cost effective or a financial drain (DOD DCC 2000:56). External deployments are seemingly viewed as for security operations and, in lieu of its absence, according to the respondents, this promotes the internal option of using the SANDF (DOD DCC 2000:58). This preference, furthermore, encourages a lingering reluctance amongst society to support the distant employment of the SANDF. Although marginally so, immediate neighbours and South Africa

### **SANDF and External Involvement in Peace Support Operations**



**Figure 7.12: SANDF and External Involvement in Peace Support Operations**

(Source: Own compilation from DOD DCC, 2000)

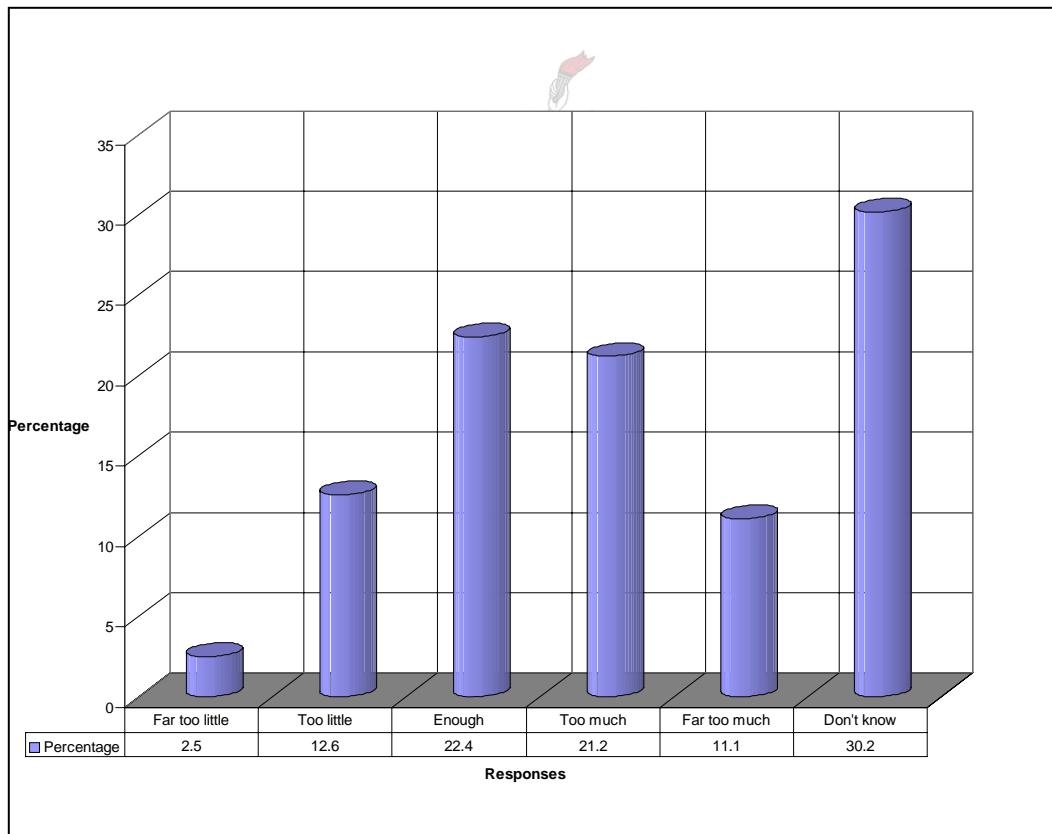
**Assuming policing roles.** Although constabulary roles are judged an unavoidable domain for contemporary military forces, the preference for the SANDF to be involved in this sphere holds two outcomes. Whilst it confers much needed legitimacy, it obscures the police-military boundaries with respondents even equating the SANDF with the South African Police Service (DOD DCC 2000:54). This matter is to be reconciled with the potential gains the SANDF is to reap from this association. The SANDF is viewed as an agent for promoting peace, not an aggressor and therefore expected to play this role of promoting security internally as well.

**Most important role of the SANDF.** Respondents indicated that the most important role of the SANDF is to defend the country from both external as well as internal threats (DOD DCC 2000:58). No particular preference for, but rather apprehension, marks opinions on external deployments. A feeling of the SANDF not being properly prepared, wastefulness and a subsequent reluctance is visible for seeing this to continue. Set against other priorities, these

external missions do not enjoy unilateral support (DOD DCC 2000:61). The SANDF in its domestic and secondary roles are judged to be much more appropriate and effective.

**Priority on the public purse.** The precedence of other non-military aspects obstructs the allocation of appropriate funding to defence in congruence with its stated priority. The importance of a ready defence force is also not reflected in a public attitude allowing sufficient funding. A clear military threat and a willingness to support large scale defence funding are linked and the absence of this link portrays opposition to allocating a large defence budget. Figure 7.13 illustrates public opinion towards current defence spending in the RSA and that this spending is judged to be primarily or more than sufficient. This implies, from a public point of view, that the low defence budget is accepted within civil society and that the SANDF will have to cope with a limited future budget and its own knock-on effects.

### **Public Opinion on Defence Spending**



**Figure 7.13: Public Opinion on Defence Spending**  
(Source: Own compilation from DOD DCC, 2000)



**Summary.** The SANDF shares particular traits of a post-modern military as can be surmised from the responses by public opinion groups. These post-modern military images manifest in a number of ways. As an institution, the SANDF is not admired as a war machine, but rather more critically as to how it contributes to human or individual security. Its role as a promoter of security is therefore an important matter. The extent to which respondents expect the SANDF to defend the country against internal and external threats points towards a dual expectation: a defence force ready to play its primary role, but contributing to security during periods of peace. This second expectation asks of the SANDF to enter non-traditional roles of serving the community, secure their being and promote their well being. Although this corresponds with what political decision-makers expect from the SANDF, as well as what Kuhlman alludes to for post-modern armed forces, it also contains the entrapment of an SANDF being everything for everyone within the constraints of an extremely limited defence budget.

## 7.6 SUMMARY

As institutions of the future, European armed forces are indicative of not merely maintaining the *status quo* as the strategic environment changes. European indicators point towards armed forces changing to embrace an expanded future role spectrum with their civil societies acting in some ways as participatory catalysts. Defending sovereignty, however, remains paramount. European officers tend not to oppose the expanded role spectrum, but display a wariness of roles being merged with fuzzy territories of other state departments. This indicates some limit upon how wide the future role spectrum should be pushed. Irrespective of preferences, a fundamental tenet remains that of armed forces having to adapt to maintain their legitimacy, albeit a legitimacy reaching beyond security. Redirecting their focus towards the more secondary and non-traditional mission-field, became a matter of fact, but featured no easy pathways. Although not rejected, armed forces can no longer assume general popularity and credibility by embracing their security for sovereignty role. Moving into the non-traditional field maps out much of the alternative military futures for these emergent post-modern forces and the difficulties it entails.

After 1994, specific initiatives were embarked upon to set the SANDF upon a future pathway that foresaw much more than security, but this 'more than security' only incrementally emerged over time. For its members and civil society the futures defence agenda did not unfold in any spectacular way. As for the European debate, it is important what the perceptions of SANDF members and civil society comprise for democracy, civil rights and human security became paramount future ends.

Selected opinions and views of SANDF members contain some information on how they perceive the SANDF as a futures institution and reflect a number of important indicators of arriving at the alternative futures bound to emerge.

- First, the general level of awareness about the mainstream debate on future warfare as portrayed in the RMA is not insignificant, although quite absent in matters currently underpinning the RMA within the SANDF. As a dangerous futures phenomenon it does not feature in a prominent way, or, is it perpetuated in some observable manner. Given the peripheral space for the warfare alternative, the absence of contending with future warfare is quite probably merely indicative of the emerging strategic culture of the SANDF.
- Secondly, the readiness of the SANDF to deal with military futures through change reflects some doubt amongst respondents. As an institution presumed to deal with futures matters, this promotes pessimism. If the optimistic-pessimistic spectrum of alternative futures for the SANDF is compared, pessimism reflects a distinct presence, although one not more dominant than optimistic outlooks. Somewhat disturbing is the perceived possibility of degenerate alternatives and that junior officers are more prone to hold such a future outlook about the SANDF.
- Third, the ability of the SANDF to break with past legacies as well as to formulate and influence elements of its future also reflects some pessimism. In conjunction with outlooks upon the types of future change expected, respondents expect some instability and disruptive changes to accompany movement towards the future.
- Lastly, a further matter not optimistically viewed is that of the SANDF not integrating its futures debate and outlooks with decision-making about the institution. Responses of officers surveyed do not assume or foresee an uninterrupted and smooth pathway towards the future. The absence of publications, experimentation, testing and exercises to accept or reject changes towards the future, could well explain the absence of properly integrating important futures aspects.

The futures outlook along pessimistic lines is, however, not the dominant trend. Indicators of optimism prevail and it appears that alternative futures for the SANDF are to contain both pathways - each with its own set of proponents and opponents.

- First, the optimism found in survey responses creates a more balanced futures outlook by members of the defence community and the SANDF in particular. Although not overwhelmingly so in all cases, the majority of responses point towards optimism.
- In the second instance, this optimism not only promotes a measured futures outlook by SANDF members, but, also for those matters addressed in the survey, their responses

indicate particular future preferences and opinions in this regard. Important is the strong disposition amongst officers for a legitimate and competent future SANDF and this disposition even surpassing that of first being a future security or peace making type military.

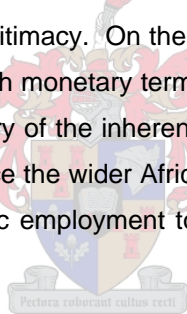
These more optimistic responses also held some certitude about the future and in particular concerning:

- some interdependence between holding a particular futures outlook and being more optimistic about the kind of future change to transpire,
- that the SANDF has to break with past legacies to pursue new futures and
- a capability for formulating and influencing its future and that resultant changes are not deemed to be destructive and revolutionary in kind.
- The breadth of changes involved is judged not to take the institution towards destructive futures, although tenable instability is acknowledged.
- Although respondents pointed out that the futures inclination is not readily visible in decision-making and planning, deliberate military-strategic outlooks and efforts from the strategic and operational levels seem to present developments to fill these voids.
- Some location for properly identifying and structuring futures matters for the SANDF is necessary. Its diffusion and thus absence from planning is quite clearly visible in the responses of officers. Some nodal point for locating it is required.

In spite of the above, high concerns with threats, instability and the importance of the primary role to defend the RSA against an external military threat cannot be ignored. However, of interest is the willingness of SANDF members to express support for and engage in the primary and secondary roles ascribed to the SANDF and thus some comfort with this dualistic future. A political concern with not finding the SANDF wanting, but ready for the most dangerous future threat ties in with member support for the anticipated range of alternative futures to be faced by the SANDF. In this regard, political and military outlooks upon the future seem to coincide. This confluence is reinforced as both political and senior defence officials tend to hold a similar futures outlook of the SANDF embracing its primary role on the longer term and for it to eventually shed the prominence its secondary involvement. For the SANDF it implies contending with the difficulty of expanded and diverse shorter term futures and these ultimately unfolding towards longer term futures allowing the SANDF to concentrate upon its primary role. Whilst policy and strategy commits the institution through ends, ways and means, SANDF members convey their intent through their responses to support the alternatives of traditional and non-traditional military futures.

Africa's centrality in the future commitments of the SANDF received positive responses. This congruence ties in with national policy futures mediated or coloured by the AU and SADC. This implies that Africa is to be a principal futures variable for the SANDF, one acknowledged by its members and a willingness to serve it. The latter is also visible in the concerns of SANDF members with the instability and threats emanating from the continent. Even though primarily non-traditional in kind and thus demanding secondary type responses from the SANDF, member commitment remains high. As an acknowledged and unavoidable future operating domain for South African military forces, efforts to have secondary and primary roles drifting into closer proximity are therefore not incompatible. An African future for the SANDF most probably needs or even compels a future drift of this kind.

Those directing the SANDF towards the future also have to contend with trends, such as the increasing influence of civil society in military affairs. Public attitudes towards the military shifts as post-modernism rises and influence the demarcation of military futures - those of the SANDF as well. On the one hand, public opinion on the SANDF shifted away from general knowledge of, admiration for and solid support and this raises a future of the SANDF having to vie for support in order to keep its future standing and legitimacy. On the other, civil society is more expectant of a return on their military investment in both monetary terms as well as services. South African civil society expects to be the first beneficiary of the inherent capacities of the SANDF. Although not rejecting it, they are less inclined to place the wider African vision and commitment of the SANDF to this vision at the forefront. Domestic employment to the benefit of society remains a strong contender when employing the SANDF.



These outlooks and preferences of civil society tend to direct the SANDF towards more immediacy for its secondary roles and some competition with political and military outlooks upon primary futures for the SANDF, unless construed within a longer time frame. This competition not only results from what the public demands, but from the SANDF also having to assume roles to uphold its normative image, utility, and legitimacy. This difficulty occurs amidst a civil constituency prone to be rather critical of what the SANDF consumes, and ultimately delivers, with little cognisance of its long-term utility. It is about the here and the now. The regional and sub-regional policy initiatives drew along the military constituency, but public opinion seems more apprehensive. Viewing the secondary roles more in terms of Africa, public opinion views rather tend to confine these futures to South Africa.

In summary, the extended future roles of the SANDF to remain on par with political initiatives are to immerse the organisation in simultaneous and multiple missions on the African continent. SANDF members portray a willingness to partake in this non-traditional outlook, for the factor is

acknowledged. Some apprehension is visible whether these ventures are to leave the SANDF unscathed, but indicate that its impact is to be tolerable. Public opinion does not oppose the new futures envisioned for the SANDF, but respondents expect a greater benefit closer to home. The regional outlook of military practitioners and defence policy is not accurately mirrored in the more national expectations observed in South African public opinion.



## CHAPTER 8

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 8.1 SUMMARY

To learn from history is a traditional approach to better understand the complex world of military affairs. In this study the researcher attempted to balance and to contribute to the historic paradigm with a futures contribution. If the history of war and armed forces constitutes an admitted field of study, then elements of its future can also be investigated through an acknowledged field of study. Exploring the nexus between the future and the ever-present, but increasingly controversial, military domain is a research problem open to investigation with a view to establish indicators of what the future could entail. Furthermore, defence institutions are adaptive social institutions whose futures have been viewed since time immemorial, to also promote or obstruct wider societal progress. A proper understanding of military futures is therefore justified. However, destructive military futures drew most interest during earlier times, and is now once again returning to the fold of research, albeit to prevent or preclude the destructive and trace the more constructive potential of armed forces. Upholding the latter amidst a burgeoning debate on military futures now appears to draw increasing attention and the early 21<sup>st</sup> century could well become a watershed period to reset the future of armed forces.



- ***Confirming the research question.***

In essence, this study dealt with explorations and explanations of the military futures realm, of which the focus was eventually turned towards policies, outlooks, and practices directing alternative futures of the SANDF as a Second Tier military. To these ends, the following dual research question was formulated. First, which theories and debates, or elements of it, direct alternative futures of national military forces and, secondly, what frameworks of futures thinking and alternative futures exist within the South African defence realm for preparing and utilising a future SANDF? This dual research question flowed from two underlying difficulties identified by the researcher. First, to contend with the future use of armed forces amidst a changing strategic environment and a growing, if not enduring, apprehension towards successfully using armed coercion. Inherent in the latter is the sentiment that armed forces need to change in tandem with their societies and that failure to do so, contributes to the rise of problem militaries as well as the failure of wider societal change. Secondly, to delineate and describe alternatives for armed forces amidst an endless bifurcation of their roles and missions. As the outcome(s) of changes

and the future remain clouded by uncertainties that promote threats and vulnerabilities, its clarification through demarcating possible military futures become apparent. These difficulties and lingering uncertainty were pursued to eventually illustrate the nexus of military futures to a dynamic strategic environment and particular debates that were utilised to demarcate the changing future role of the SANDF.

Two pathways were followed to explore the research question:

***The retrospective route.*** The first route traced the historic character of the military futures debate from selected futures literature. Past issues, debates and ideas that directed the field of Futures Studies and that of military futures in particular were screened and noted. This investigation was extended by also analysing prominent theories on military change that function as indicators of how military institutions set out to pursue alternative futures. This initial investigation of military change towards the future included perspectives from the historic debate on Military Revolutions in Europe and Africa respectively.

***The prospective route.*** The second route comprised a number of more forward-looking debates. First, the difficulties experienced even by three middle power armed forces (France, Britain, Germany) as they approached the 21<sup>st</sup> century and sought to change their armed forces towards congruence with their envisaged military futures. Secondly, a prominent, but more futuristic debate - the RMA-debate - and its dictates of possible alternative military futures and forms of warfare considered to characterise military power in a future strategic environment. In the third instance, an investigation of the emerging strategic environment for armed forces. Certain strands of future warfare forms, challenges to armed forces and its regional dimensions were demarcated to illustrate features influencing military futures. This second route culminated in an examination of the South African futures agenda of promoting a particular future strategic environment and changing its military forces to meet preferred futures outlooks. At the heart of the South African case, a slow-maturing paradigm shift was argued as the underlying dynamic directing South African armed forces towards alternative military futures for preparing and employing the SANDF in Africa in particular.

- ***Exploring the military-futures nexus***

In Chapter Two the focus was to explore the nexus between the futures realm and alternative military futures that led to the premise that a nexus is, indeed, visible in past as well as contemporary times. Investigating future alternatives by reviewing the past, in spite of a perceived contradiction, remains an acknowledged method to gain a degree of insight into

possible futures. This tenet was exploited for studying the presence and profile of military futures within the emergent field of Futures Studies. An investigation of the nexus between probing the future and military futures revealed military defence as an historic, enduring, and quite central element. Military futures featured as a primary focus for an extended period that stretched into the Cold War period alongside a lineage of unfolding ways to investigate the matter.

Although the investigation of the nexus portrays that the centrality of military matters and its futures profile declined during the latter half of the 20<sup>th</sup> century, three important arguments in this regard need to be noted. First, that this decline rather reflects a matter of choice by researchers and theorists. Secondly, that the interest in future war and adjacent military affairs shows an increase at the dawn of the 21<sup>st</sup> century as the varied use of armed forces filter through. Third, the prevalence of military matters on the international strategic scene now form a regular domain with which contemporary theorists and decision-makers at the state level and above are grappling. Nonetheless, contending with the military sphere of the future remained visible within the early practise of designing future alternatives. Although not always successful, decision-makers consistently strove to uphold and harness the constructive contributions of defence to preclude destructive military alternatives from interfering with preferences for progress, prosperity, and development.

The investigation of the historic domain of the futures field of study thus uncovered an enduring interest in the matter of future warfare and its technological imperative in lieu of it offering information about likely future events and preparing for such eventualities. The pursuit of this interest found an outlet through various futures practices that remain relevant even in contemporary times. These practices or methodologies are story-telling, theory building, the development of science fiction, the use of futures techniques contained in scenario building, formulating a continuum of optimistic and pessimistic futures, identifying trends and designing preferable futures. Furthermore, the imperative to simplify the future through alternatives also found expression as alternative military futures to address the acknowledged importance of defence related affairs. Hereby the formulation of alternative futures also included matters of defence and war when demarcating alternatives for humanity. One should, however, note that, in spite of the multitude of activities and methods uncovered, the weakness of not being able to accurately predict the future remained a telling factor for considering military futures. Uncertainty thus remained a stumbling block to interested parties trying to fathom and harness future defence as a shield against destructive military futures. It is from the mixed success and resultant destruction that the impetus arose during the second half of the 19<sup>th</sup> century to attend even more closely to military futures.



The pursuit of military futures and future war in particular becomes more tangible when tracing these debates in countries housing significant military establishments. During the middle of the 20<sup>th</sup> century, the futures-military connection was particularly salient in the US and the Soviet Union. An examination of the USA, the former Soviet Union and the People's Republic of China revealed quite extensive institutions and debates covering an extended time line that illustrate both the historic-futures nexus and a persistent interest in military futures and future war. The continued prominence of the American and Chinese debates are quite apparent whilst the influential Russian debate faded as their ability to maintain the futures imperative for their armed forces faltered late in the 20<sup>th</sup> century. These debates, however, as proved by the Russian case, not always upheld the constructive and prosperity notions, and neither could it totally negate uncertainty.

Irrespective of whose debate is most developed, it can be observed that countries housing or planning to house advanced armed forces in the international system, tend to maintain debates and research institutions to deal with matters of alternative military futures and the future use of their armed forces. Here the USA and the PRC were found to feature prominently with their extensive and influential institutions to peel back acknowledged uncertainty that confounds the domain of studying military futures. Although under severe pressure, Russian efforts to this end remain visible. Investigation of the RMA debate brought to light that the West European Union and Australia also house institutions to contend with the military futures debate facing their armed forces. In the case of the South African defence community, debating military futures is quite marginal and pursued by peripheral defence institutions.



The link between military futures and the futures domain with its historic, as well as futures imperative, to prevent or fend off destructive or pessimistic futures, was established by the arguments of Chapter Two. In essence, the enduring visibility of the military domain in Futures Studies turns upon its prospective use or applicability to prevent or avoid its negative connotations. Fear of its destructive power upsetting the preferred developmental and prosperity based societal futures kept it on the futures agenda. As the realisation dawned that the context and profile of armed forces and their use change over time, more attention was diverted to its utility. This established the conviction to remain informed about military futures, its ruinous potential and cope with or avoid the latter by adjusting to or bringing about essential modifications to military institutions and their future use. To achieve this, it is argued that a debate on military futures needs to be maintained.

Changes, in order to cope with and avoid vulnerability to military destruction, however, represented a dualistic secondary research question. First, how can the pathway for decision-

makers intent upon changes towards appropriately styled future armed forces be demarcated? Secondly, is the migration of armed forces from their old setting into the future a rapid and linear process, or not, and what do theory and practice suggest in this regard?

- ***Tracing theories and the practice of military change***

The investigation of theories and instances of military change in Chapter Three, suggests that there is indeed acknowledged modes to set military institutions upon futures routes. Paradigm shifts, innovation and diffusion of ideas and artefacts form important vestiges of debates that shed light upon how military change transpires. Furthermore, an historic as well as a more contemporary discourse that depicts its practical manifestations can be demarcated to illustrate instances of military change, irrespective of it being successful or not.

Military change allows for theoretical investigations along different approaches of which three were closely scrutinised in this study. The first approach displayed a dominant theory on change; one that depicts change to assume either dramatic or more evolutionary contours as explained by the authoritative theory on scientific revolutions and its analogy of paradigm shifts and for the military domain, change through the diffusion of appropriate innovations. A second pursuit of military change through earlier examples is portrayed in the historic, but influential debate on Military Revolutions. The third approach alludes to the dynamics of complexity purported to effect or to obstruct military change and the subsequent progress of armed forces towards the future. All three however, rest upon the assumption of graded paradigm shifts through innovation and diffusion, whether dramatic and revolutionary or minor and incremental in kind. Military change, nonetheless, remains challenging as illustrated by the difficulties experienced at the turn of the 20<sup>th</sup> century even in developed countries such as France, Britain and Germany.

Investigating military change as a process to direct armed forces towards the future through modification or even transformation, innovations and their diffusion, reflect change to rather be extended and multiple minor adjustments, than immediate, critical and deep breakthroughs. Military change, justifying the notion of a rapid paradigm shift, was found to be difficult to objectively observe. It is not a prominent, but rather an infrequent way in which military change transpires through dramatic innovations and effects new military futures. Theoretical explanations of military transformation, against the backdrop of a paradigm change, was found to illustrate slower, incremental and extended time frames, not spectacular, deep and rapid profiles. Both the historic picture, as well as contemporary efforts of change to pursue alternative military futures, tends to support this supposition.

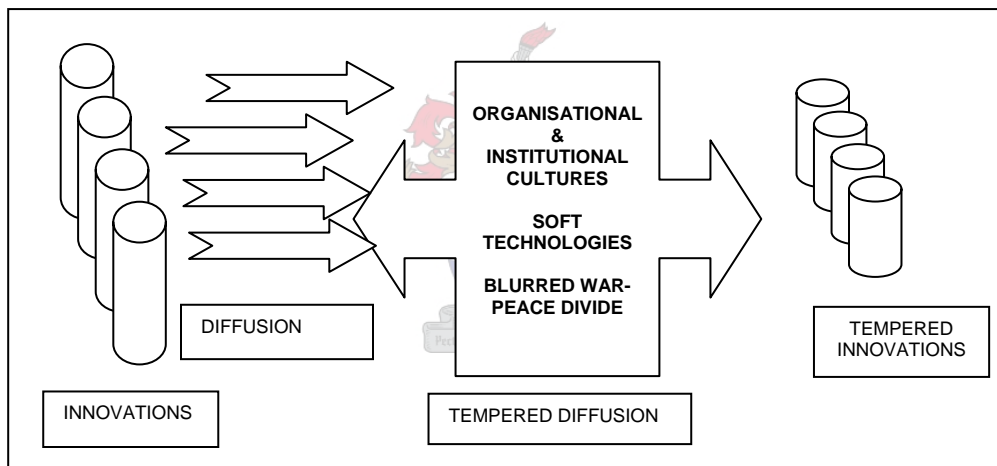
The Military Revolution debate (as the historic antecedent) illuminated not only the scope and duration of significant shifts to effect military change, but its longer term impact as well. This debate portrayed an extended period of European military change with its dynamics well documented and systematically merged into the Military Revolution debate. Beyond Europe and in Africa in particular, early military change is observed, but not explicitly construed as part of the Eurocentric Military Revolution debate. In retrospect, both debates need to be linked conceptually and historically for it underlines the fact that military change is most probably a cross-cutting phenomenon that occurred in countries of the developed and developing worlds of earlier times. In both domains significant changes through the diffusion of innovations were demarcated. Participants in both geographic entities shared central convictions of military change through technological artefacts, their diffusion, and organisational adjustments to optimise their military policy instruments. These changes became institutionalised through organisational and cultural adjustments as well as the emergence of centralised decision-making structures and state bureaucracies that compelled the shedding of earlier practices. Irrespective of being nationally or foreign induced, military change through innovation, diffusion (technological, organisational or cultural) and its acceptance or rejection, is a mainstream method how armed forces are empowered to embark upon new routes and support new futures outlooks of decision-makers.

This early pattern of dramatic, but extended military change portrayed as the Military Revolution not only altered the way in which armed forces functioned, but also refined their future utility for pursuing alternative futures. Armed forces emerging from the Military Revolution were more effective and dependable instruments for pursuing state policies. Against the backdrop of an assumed revolutionary paradigm shift, the scope of changes eventually effected, did bring about deep change that enabled armed forces to operate in a dramatic new way in future. This, however, only tends to become visible when viewed in retrospect. In terms of time frames, however, it is more difficult to justify these changes as rapid and simultaneously deep and transformative. The duration of the Military Revolution in both Europe and regions of Africa, although not simultaneous occurrences, supports the incremental alternative of how armed forces respond and change over time to become more appropriate future policy instruments.

Researching the dynamics of military change reckoned to move armed forces into the future included theories on the innovation and diffusion of hard and soft technologies professed to operate during periods of war and peace. Although specific arguments are offered why periods of war and peace each contain particular features that promote or hinder innovation, an increasingly blurred war-peace divide could well be a hurdle in bringing about the required change to direct modern-day armed forces towards desired alternative futures. Periods of true war also became

infrequent and brief, thus limiting experimentation. It is therefore more difficult to now project military changes of the future as pursued in this study, along this stark war and inter-war framework.

The blurring of boundaries calls for credible military alternatives to first compensate for this void and secondly, to ensure that the changing profile of armed forces enhances its utility as a future policy instrument. Although the pressures of war were found to promote clarity, its intervals, current brevity and emerging blurred war-peace divide and deliberate efforts to downplay military security, obstruct or erode this pathway as well as the certainty of overall peace. Military change is therefore influenced by this fuzziness of previously defined borders that assisted its demarcation. As a result, uncertainty increases with a subsequent need for appropriate technologies and methods to address this challenge. One can therefore argue that military change through the diffusion of innovation becomes subject to mediating variables as illustrated in Figure 8.1.



**Figure 8.1: Tempering Effects upon Innovation and Diffusion that Mediate Military Change (Source: Own Compilation)**

By outlining military changes in three states in Western Europe at the turn of the 20<sup>th</sup> century, their willingness to shift outlooks towards different alternative futures could be observed. Nonetheless, equally visible is the tempered diffusion of innovations through soft technologies that moderated the desired shifts. Amidst a sea of change and developmental priorities flowing over Europe, military change remained important as the dated profile of NATO and independent European armed forces became accentuated and called for future redefinition. Despite the realisation that their armed forces were fast becoming precarious future policy instruments amidst the decline of traditional military threats and military solutions to new insecurities, little special attention to or undue manoeuvring space for dramatic changes was forthcoming. Developmental

and societal priorities, even in these highly developed countries, remained at the apex of their national and regional agendas. In a blurred, but more peaceful strategic environment, wider societal change envisaged for Europe's future was to top the futures agenda and slowly draw along military change, not the other way around.

New defence thinking for military alternatives remains dependent upon changes through innovation and diffusion of both hard and soft technologies. However, keeping armed forces in equilibrium with the organisational and budgetary demands of a future strategic environment that increasingly calls for a versatile or dual role military, proved challenging. Even military entities of middle powers such as France, Britain, and Germany continue to battle with this, and, as a matter of fact, so does South Africa. Drawing clear time and goal parameters for their future militaries were daunting and resulted in incremental progress. This once again reiterates the earlier supposition that dramatic military change that alludes to notions of a dramatic paradigm shift is indeed rare. One can argue that British, French and German decision-makers realised the need to set their armed forces upon a futures pathway as required by integrative political outlooks for a New Europe and participating in partnerships for peace. However, arriving at the desired end state, in spite of officers and society tending not to blatantly oppose alternative military futures, assumed a slow and ponderous journey. Their military futures remained buffeted between destructive and constructive alternatives amidst a blurry war-peace divide.

In conjunction with the technological imperative that affords defenders more refined options via the innovation-change continuum, both the historic, as well as the innovation-diffusion theories represent pathways towards alternative military futures and that of future war. Theories on military change, however, only partially direct attention towards rising concepts of future warfare, or its decline that are now challenging established outlooks and inherently also the reigning paradigm. It is therefore possible to view the known pathways that govern how military change transpires. In need of closer scrutiny are the more futures-inclined concepts or debates that now act as catalysts for military futures. This ever-changing dynamic pointed the investigation to a further subordinate research question: Which contemporary discourses are influencing and reconfiguring the use of armed forces and how are they unfolding within the debate on using armed forces in future?

- ***A contemporary discourse: Contributions and limitations of the RMA debate***

In spite of the thesis or even preferences portraying military change towards the end of the 20<sup>th</sup> century as revolutionary and one of rapid adjustments for employing military forces in some dramatic new way in future, findings in Chapter Four muted this general explanation towards

alternative military futures. Although a preferred pathway into the future for a certain tier of countries, revolutionary changes and deep adjustments to armed forces were found not without its opponents and many state actors having little choice but to either ignore it or be very selective when considering it.

Coping with new threats and vulnerabilities that are shifting/changing all the more rapidly raises the imperative for a military response framework embedded in appropriate alternatives. In an extended analogy of the Military Revolution debate and its retrospective profile, a contemporary and more forward looking debate on the future use of armed forces, the RMA-debate, was explored. Inherent arguments of this debate touch upon the need to clarify and explain future war in a new systemic image and posit significant shifts (mostly technological and information based) in the mode of war with an adjoining expectation of a paradigm shift for armed forces.

The historic Military Revolution debate is reflected in the RMA debate of late through its tenet of dramatic change in armed forces and their future use. As in the case of the MR, the RMA also portrays a Western bias in its outlook, although the latter debate is more forward looking as a future alternative for preparing and using armed forces. What also transpires is that its proponents and opponents closely check the RMA as to whether it assumes the extended duration that hinders the MR debate. By default, this rapidity of change towards setting up armed forces for their future use drives the contemporary RMA-debate and sustains its perceived revolutionary slant.

Superficially, the RMA assumes the contours of a paradigm shift via the increased diffusion of technological innovations and their future use, albeit only in a limited way. This line of thought is simultaneously challenged by opposing and *status quo* views that are inhibiting the RMA from rising towards a general and dominant paradigm of the future role of armed forces. Also visible are competing concepts like asymmetry, the responsibility to protect, non-lethal warfare, complex emergencies, and their adherents that oppose or offset the RMA debate. This prevents the RMA to totally negate the past and arise as a sudden and totally new way for armed forces to conduct future operations through information, location, precision and clinical destruction.

The origins of the RMA debate inherently also contain elements of its limitations. Tracing the RMA pathway in the former USSR, current Russia, the USA, Europe and China over the past decade or two, raises an image of integrating long-coming developments to effect new future war fighting capabilities. This, however, depends upon the appropriate diffusion of mostly technological innovations and organisational change to effect dramatic adjustments in the conduct of future wars. In reality though, the study illustrates that the RMA as general way for

changing contemporary armed forces to conduct future warfare in a dramatic new way holds little practical utility for most actors. As a consequence, and in spite of the scope of the debate, fully-fledged RMA-militaries, as indicators of future war fighting institutions (even in advanced armed forces), remain limited.

RMA thought and its ordering concepts, posit superiority towards dominance in key domains of future warfare and superiority for those pursuing and achieving it. Subsequently, if not a premium deterrent, its assumed supremacy in the war fighting domain furbishes a credible second-order argument for considering RMA-based alternative futures. The underlying tenet of achieving disproportionate outcomes with reduced force inputs seems to have a clamour of its own. Its achievement, however, is complex, but not muted, and portrayed in the extensive RMA debate of present and its critics. Greater circumspection is nonetheless essential, albeit not to radically embrace its assumptions on future superiority and potential fuelled by glamorous hard technologies.

Following the RMA pathway is a deliberate choice and having it render the professed benefits, implies the ability to integrate and sustain the following three requirements. First, technological innovation and its diffusion; secondly, organisational and institutional service culture adjustments to pursue and accommodate deep changes, and lastly; a stratum of dedicated proponents to see it through and sustain it. The extent to which the integration of the aforementioned requirements is achieved, promotes or hinders the pursuit of RMA-based military futures - if such futures are considered a desired alternative. These three requirements were found to be marginal if not absent in the case of the SANDF.

For the USA and China, their determination to master the RMA as fully as possible became apparent from the conceptual, resource and organisational imperatives as well as the advanced stage of their debates. In the USA, a period of *thermidor* now characterises the US debate in order to reflect upon it. As for the Russian case, it is debatable whether significant progress is possible towards reconfiguring the Russian armed forces and embed RMA-capacities within a future Russian military. In Europe, the RMA-debate was found not to feature prominently and is limited by, if not submerged, in the debate about European integration. With the focus on integration and regional progress, no coherent European RMA-debate could be traced. The debate rather assumes an upward profile where individual countries (with Britain, Germany and France at the forefront) feature at the apex of the European effort. Beyond this fold, only the Swedish and Australian RMA is of significance and can be observed in their endeavours to harness selected RMA capacities. It is thus possible to argue that the RMA is pursued by a small, but powerful, group of actors and that technology is their foundation for achieving it.

When viewing Second Tier countries, RMA considerations are visible, but not matured beyond that of a mere desire or selective exploitation of the advantages conferred by selected RMA capacities. South East Asian examples, the Middle East, and South Asia mirror Second Tier limitations. Accomplishing technological, organisational and cultural integration affords disproportionate advantages, but also holds the risk of bankrupting lesser-developed countries. With development beyond the military domain being the primary focus and a wider expectation within developable Second Tier countries, these needs and embracing the RMA, are found to be controversial if not mutually exclusive. Being selective and emulative about certain RMA capacities and rather co-operating towards achieving certain core superiorities and interoperability is perhaps one tenable option. Nonetheless, it is a moot point as to whether any single country from the Second Tier, as illustrated by the Indian case, can master core RMA domains without seriously jeopardising their non-military security needs. RMA futures are not exclusive and self-sustaining, they need to be maintained or eventually forfeited.

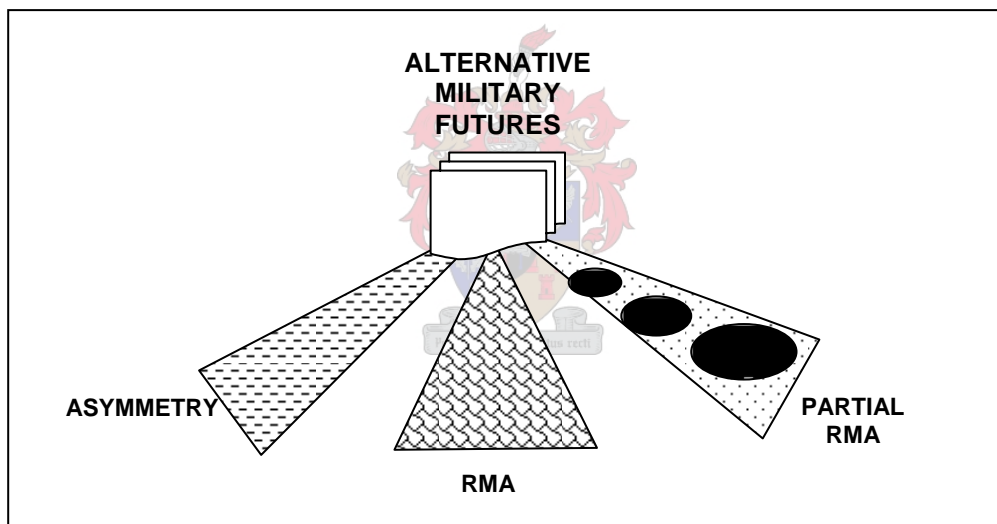
The RMA debate is not reported here in an *ex post facto* manner, but amidst its evolvment, stagnation, revision, and growing criticism. It therefore contains a structured or utilitarian value to illustrate how armed forces can operate in future and how they are to be reconfigured to meet envisaged alternatives. As the most developed debate of its kind, it is nonetheless not without its critics. The criticism not only stems from those adhering to an opposing paradigm, but also from within - from those using its *thermidor* phase to question its tenability in terms of changes required and outcomes propagated.



The RMA theory, in spite of not being fully mature, displays features of a maturing theory as it places an alternative future for using military coercion upon the strategic scene. Although displaying elaborate efforts to extend it beyond the developed and hi-tech image, the RMA remains confined to a narrow band of countries. At its heart the lethality - non-lethality debate lingers: No destruction or, precision and therefore much less destruction, as well as striving for superiority in all domains to achieve battlefield victories. Although each has its limitations in terms of stringing together the systems, concepts and organisations in a synergistic whole, the attraction remains that of disproportionate outcomes through the surgical application of less destruction. Innovation, diffusion, and change, however, have hence not yet yielded the spectrum of superiority posited by RMA efforts at theory building. Its limitation and vulnerability emerges from it demonstrating only battlefield and operational superiority, not strategic supremacy. It remains a future alternative to be configured and reconfigured over time and seemingly only mastered in some preliminary way by the USA.



Opponents of the RMA wage a parallel debate to break the exclusivity mould and have the debate adjusted to cater for countries of the Second Tier in particular. First, the RMA is found to be a dominant preference for certain actors to pursue military futures, but exclusivity is not guaranteed. As countries could select islands of the RMA capabilities to augment their future employment of the military policy instrument, exclusivity is challenged. Secondly, asymmetry is proposed as a tenable low-tech alternative to blunt RMA-superiority, thereby framing a conjecture of two opposing paradigms of fighting future wars. Each contains elements of the diffusion of a particular strand of hard and soft technologies to bring about a preferred military future for using armed force. Third, the view that the future use of military forces is to call for much more than war fighting places the RMA alternative in question. Fourth, the current outlook posits a hierarchy of developed countries with RMA-empowered armed forces, a middle group selecting islands of RMA-capacities and some Second Tier countries and non-state actors fending for themselves and rather donning the asymmetric mantel to offset RMA-based future threats. These alternatives are illustrated in Figure 8.2.



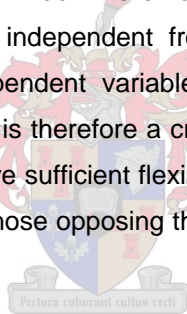
**Figure 8.2: Alternative Military Futures arising from the RMA Domain**  
(Source: Own Compilation)

To summarise, the RMA is not only increasingly questioned on grounds of its universal applicability, but also regarding its ability to explain and address new forms of conflict that could diminish its cutting edge advantage. It is neither a true revolutionary shift for the depth of its impact is perceivable, but its rapidity and scope is questionable that once again challenges the notion of rapid and spectacular shifts for the future use of armed forces in general. Furthermore, it is becoming increasingly clear that the future strategic environment not only calls for refined war fighting - the professed niche of the RMA. Armed forces, as more constructive policy

instruments, (as alluded to by the debate on post-modern armed forces) compete with refined war fighting propositions inherent to the RMA debate. This forward looking extension of the military affairs notion, possibly challenges and perhaps further complicate the tensions between confining and broadening the RMA-debate. The conception is that these tensions are more adequately addressed by placing alternative military futures within a wider context of change: the future strategic environment or a revolution in strategic affairs. The latter context allows for exploring and explaining the use of armed forces beyond the confines of the RMA and its limitation of not catering for strategic futures faced by its proponents, and neither most Second Tier countries.

- ***Expanding alternative military futures: Exploring the future strategic environment***

The migration of armed forces towards alternative futures embedded in the early 21<sup>st</sup> century cannot be properly examined by only drawing upon the arguments contained in any singular debate. In Chapter Five the breadth of future alternatives was explored as they emanated from the foreseen regulatory environment for preparing and employing armed forces. It was ascertained that the alternatives appear much more varied than that depicted by the influential RMA-debate. Military change is not independent from its regulating domestic and foreign environments and is inherently a dependent variable in this context. The future strategic environment, as the regulating domain, is therefore a crucible for ultimately testing the pursuit of alternative military futures and to achieve sufficient flexibility to cope with the its projected variety – a central argument in the arsenal of those opposing the RMA, and a lingering inconsistency for RMA-proponents.



The gist of Chapter Five was to first demarcate the evolving strategic environment in a somewhat traditional way to reaffirm the link between policy ends, the military policy instrument, and its coercive character. To this end, the military-coercion connection was upheld, but with recognition of its changing profile. As the regulating environment, changes within it do not leave armed forces untouched and neither for military futures to unfold independently or unhindered. In this manner new defence thinking is promoted in order to cope with the growing complexity of conflict and new kinds of war, as well as the influence of post-modern trends on military affairs. Understanding these influences become crucial for decision-makers having to decide upon modes for using armed forces in future and introducing appropriate changes.

The unfolding of alternatives on the military domain was subsequently pursued in order to identify their shifts amidst a dynamic strategic environment. As for the latter, its vitality requires military alternatives covering both ends of the optimistic-pessimistic continuum in order to cater for a shifting and complex future strategic environment. On the pessimistic side, traditional, but

sophisticated military futures (closely resembling the war fighting domain) to fend off direct military threats still feature. Although expensive, it remains an important future military province for armed forces as the most dangerous, but perhaps less probable alternative. Its utility is seen as the ultimate deterrent and reservoir in a strategic environment where the multiplicity of threats either, or even simultaneously, requires quasi or fully-fledged military interventions.

The unilateral, competitive domain also relates to actors beyond the state that embrace destructive coercive means to pursue their objectives. It is thus not only an alternative marked by traditional military ways and means for war fighting, but also one increasingly depicting non-state actors preying on destructive and exclusionary practices of coercion. This competitive domain could be juxtaposed to the RMA for the solution of its future uncertainties is partially embedded in the proposed certainties posited by the unfolding RMA paradigm. For others, it is about robust or even primitive means where both sophisticated as well as crude ways feature to increasingly characterise future military coercion.

Towards the more optimistic alternative, the shift of armed forces amidst conditions where their utility is functional, but more futures inclined and less destructive, tends to configure this fringe of the spectrum. Traditionally inclined armed forces (even those entering the RMA realm) have difficulty in embracing this end of the spectrum for it often involves changes or roles that challenge technological, strategic and service cultures. The deeper difficulty is that the pessimistic and most dangerous option implies a military alternative depicting ways and means not necessarily interchangeable with outlooks that are more constructive. The latter outlooks, however, represent a growing alternative future for armed forces that calls for particular military competencies and cultural adjustments by armed forces and its commanders to master both. These new competencies direct the more constructive co-operative, preventative and protective images and expectations of future armed forces and their future roles as depicted in this study. Operationalising new competencies of this kind not only contain the emergent organising concepts for the alternative, but also frame the more productive use of military ways and means in the future strategic environment.

Decision-makers are faced by a duality, if not an increasing multiplicity, for using armed coercion in a future strategic environment. As no clear option for the one or the other is readily forthcoming, armed forces have to contend with strategic futures straddling this duality or even multiplicity as illustrated by Metz in particular. Subsequently, a range of options materialised to contend with alternative military futures that are fuelled by an ever-increasing scope of threats. Facing these threats involve military changes by states and entities above it, as ignorance promotes vulnerability and insecurity. Attending to the traditional sphere is necessary, but the

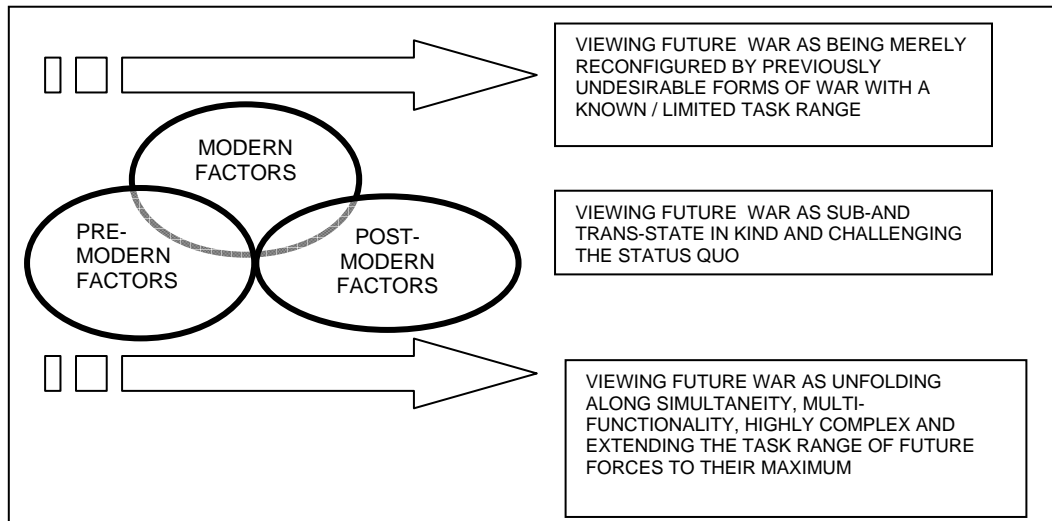
increased migration towards non-traditional military futures to meet new insecurities require that alternative military futures are kept in step with this unfolding of the strategic environment. Subsequently, future armed forces are faced with the blurring or even collapse of familiar boundaries for using the military policy instrument. Adjustments to meet these multiple futures promote or erode the role and legitimacy of military forces - depending on whether change is achieved, or not. Inherently, these changes to the military policy instrument face every state that is intent upon meeting the evolving or its preferred future strategic environment with appropriately prepared armed forces.

Second Tier countries represent an important geostrategic factor as the brunt of future armed conflicts could occur in this tier. The extent to which notions of war between major powers being limited are accepted, Second Tier countries, therefore, become both a location as well as a melting pot for alternative military futures. The reality of Second Tier conflicts further reinforce the requirement for armed forces to maintain some inherent or explicit future dual role capability and greater prominence, resources and time to sustain such an alternative. Future armed forces operating in this geostrategic tier are likely to encounter less leeway to pursue exclusivity and professionalism of a stark war fighting kind, but a military duality or flexibility to first contend with diverse complex emergencies, dirty conflicts, grey area conflicts and perhaps traditional armed combat.

Upholding the primacy of war fighting has a certain endurance, but as a social phenomenon, the Second Tier strategic environment imposes its constraints upon this war fighting alternative. Subsequently, future armed forces are compelled to broaden their alternatives in order to remain legitimate and applicable to an ever-increasing spectrum of simultaneous challenges calling for military attention. Some alternatives allow for a more national approach, others tend to lean towards a more co-operative configuration of armed forces. This trend materialises in layered alternatives demarcated by stark competitive and more malleable co-operative or collaborative alternatives. It is therefore bound to unfold along the lines indicated in Figure 8.3.

Where and how armed forces are to operate in future expose them to an extended or contracted spectrum of strategic futures and subsequently, to an extended or confined mission-profile. This finally unfolds as a choice of how to meet these complexities and how to configure policies, strategies and armed forces accordingly. Eventually actors have to commit to chosen futures, technologies, organisational change, and new concepts of defence thinking. These alternatives form the enabling abstractions to prepare and employ the military policy instrument in a chosen or imposed future strategic environment. It unfolds through either refining existing armed forces to

meet new futures or embarking upon a new way of preparing and employing armed forces for selected future roles and missions by mapping out alternatives for doing this.



**Figure 8.3: Layered Profile of Future War**  
(Source: Own Compilation)

- ***Debating and demarcating alternative military futures for the SANDF as a Second Tier military***

Towards concluding this study, Chapter Six contends with the following premises as established in this study:

- An observable nexus exists between the futures domain and contending with alternative military futures as this affinity offers a route for decision-makers to prepare and use armed forces to ward off pessimistic destructive futures and uphold optimistic more constructive futures. If left to progress unchecked, history showed that destructive alternatives are quite probable. Accordingly, countries intent upon housing professional military forces tend to engage in significant efforts to deal with military futures to prevent or oppose the destructive variant.
- Evolutionary and more incremental styles seem to depict both historic as well as contemporary change profiles of defence institutions. The pursuit of alternative military futures involves appropriate military change through the diffusion of innovations, but effecting dramatic and deep changes are not readily achievable. Time and adjustments to more than the traditional military and technological profile of armed forces are needed for deep cultural,

organisational and politico-strategic shifts are at stake. Historic examples in both Europe and Africa illustrate this tendency and it remains visible even in modern-day armed forces.

- In spite of the burgeoning RMA-debate, it is not a linear and uncluttered pathway towards alternative military futures for armed forces. The RMA-alternative reflects a matter of choice and scale as military decision-makers can opt to selectively pursue or avoid such futures. The debate does not posit RMA-based military futures or nothing, and from its critics, ideas about a revolution in strategic affairs are introduced to accommodate the extended range of alternatives to be considered.
- When tracing the military imperative within the evolving strategic environment, the urgency to cope with an ever-increasing range of demands for military contributions is found. The framework of maintaining or adjusting armed forces to respond to these diverse demands, point towards two alternative paradigms: a competitive national security paradigm, or a co-operative security paradigm and the need for changing from preferred, but outdated defence, to fitting defence. Subsequently defence and military decision-makers have to reconfigure the military instrument for simultaneous engagement in an expanded, but opaque spectrum of military futures, forms of future warfare and related conflict affairs.

The extent to which post-1994 political outlooks envisioned a different future for South African society, the military policy instrument had to be aligned with the envisaged futures. In contrast to, and as a result of how military affairs were conducted in the previous dispensation, optimism dawned for new pathways towards alternative military futures. From the outset, growing preferences to promote wealth, prosperity and development relegated destructive notions of military power.

Avoiding or dramatically toning down the destructive alternative became paramount. Accordingly, the initial military futures debate was turned towards terminating the past and for officials to explore more productive military alternatives. This shift set the parameters for change that directed the emergent SANDF towards futures comprising much more than traditional military defence. The importance of the nexus between the future and a changing military domain increased dramatically, but the latter had to be attuned to support futures embedded in development for future prosperity. This end eschewed the war for prosperity rationale in favour of war being a non-option and images of the end of war *per se*.

Constitutional constraints imposed upon its use and the way in which decision-makers formulated the guiding policy environment for using the SANDF, unfolded a future reminiscent of controlled

and more fitting defence and with war no longer a catalyst for change. New defence thought depicting political control, the democratic ethos, non-offensive defence, and the end of war argument, effectively muted military coercion through the SANDF as neither regional, nor sub-regional supremacy was sought. Accomplishing this degree of change implied alternative futures distinct from the competitive and exclusionary *apartheid* and struggle histories of South African armed forces. Warding off pessimistic destructive futures and promoting more optimistic and constructive futures are visible in both the policy-enshrined roles and the expanse of strategic missions featuring in its military strategy. From a constitutional, policy and strategy perspective, alternative military futures for the SANDF are primarily and even exclusively to be regulated and directed along pathways that promote security and assist the people of South Africa, not fighting future wars. This implies a futures outlook not facilitating unchecked destructive futures, but for controlled and directed alternatives featuring on the opposite side of the continuum that opposes war as a way of change.

The official policy statement of the roles and missions of the SANDF reflects the perceived futures outlook - first in terms of what is aspired towards, and secondly, how to achieve it through appropriate military change. What becomes apparent is that the alternatives still assume a destructive-constructive continuum with the former more embedded in national defence and the latter more inclined towards extended national defence through co-operation at national, sub-regional and regional levels. The future is thus expanded to include alternatives surpassing that of the first priority, military defence of South African sovereignty against aggression. The latter is further limited by a policy-strategy overindulgence in the constructive and co-operative domains for the future use of the SANDF.

The inclination by South African defence decision-makers to extend the range of future alternatives represents fertile ground for change, impending paradigm shifts as well as innovation and diffusion as agents of change. Moving away from the pre-1994 conception of military security differed significantly from the previous somewhat singular outlook upon the field of military futures. Theories relating to paradigm shifts, military and strategic culture, innovation and diffusion, however, warn that shifting the mould is an extended contest. The long time frames involved should be noted for it was, and still is not only a matter of changing the role and face of the SANDF in some perfunctory way. It is a politico-military paradigm that is at hand and this complexity remains a deep challenge.

Although set in motion by the defence debate straddling 1994, an intervening period of adjustments through the 1996 Defence White Paper, 1998 Defence Review, and 2001 Military Strategy, point to ongoing refinements of the initial shift. The preferred alternatives tend to be

less deeply founded in technology and neither in the RMA, but hold a strong political agenda. The alternatives are rather increasingly attuned to democratic imperatives, the African strategic environment, multilateralism and the call for new roles to meet military and even grey-area civil-military challenges in a blurred war-peace environment.

The 1996 policy of Defence in a Democracy represents a normative commitment to fulfil stipulated future military responsibilities. Nonetheless, the democratic imperative in itself demands future clarity to remove uncertainty and its debilitating effect upon progress and prosperity. The true execution of conceived future military roles and missions are, however, encased in innovation, diffusion, and acceptance of both hard and soft technologies. This process is nonetheless bound to be lengthy (as the past decade testifies) with multiple ongoing and incremental adjustments to promote maturity and compatibility, as well as compliance with changing views of policy makers as illustrated by the 2004 Defence Budget Vote. The difficulties implied are to be expected as much of the initial impetus went towards eradicating the past, rather than comprehensively directing energies towards new futures and the latter now rapidly calling for attention.

It has been ten years since the 1994 democratic watershed and the SANDF is still refining and moving towards demarcating alternative military futures. The theory on military change and even paradigm shifts on the political terrain, allow few expectations of quick and dramatic change to rapidly meet new future roles and missions ascribed to the SANDF as recently as 2004. The vertical and horizontal scopes of instituting military change, as illustrated in Chapter Three, encompass many domains and this slows down the rate of change. For South Africa, extended parameters of the South African military domain and its non-military interface further complicate matters. Much of the theory depicting how erratic the movement towards military futures can become, is also applicable to the SANDF being set up to enter a new military future. Not only are the theories of military change being slow and cumbersome visible, but, as found in the cases of Britain, France and Germany, South Africa is also slowly migrating towards integrated military futures. This migration involves [1] mastering traditional and burgeoning non-traditional roles whilst [2] simultaneously adjusting organisational and institutional cultures from a past era amidst [3] an increasingly ambivalent or even indifferent civil society and a [4] restrictive defence budget that stifles innovation. The desired scope of change to interface the SANDF with preferred futures is thus prone to be prolonged and difficult as predicted by theories on military change.

Guiding armed forces towards the future and preparing them appropriately is also subject to prominent debates attempting to define and refine emergent thought. As discussed in Chapters Four and Five, the RMA and the seemingly endless redrawing of the parameters of future forms



of war represent stark challenges. The alternatives contained in these debates are, however, in some ways absent from, and in others, visible in the South African case.

South African Defence Policy and its subsequent Military Strategy both recognise competitive war fighting as a primary function of the SANDF. Although acknowledging the possibility of a competitive national security future attuned to war fighting, the mainstream defence debate directing the SANDF is not about military change to this end, the RMA for clinical war fighting, a technological revolution, or innovations and change mirroring these lines. Notwithstanding material preparations for the former in the armaments arriving in the early 21<sup>st</sup> century, as well as in the training course curricula of SANDF staff colleges, the low probability, but dangerous profile is acknowledged, but not a driver of change.

Although masked behind their dual utilities, the acquired armaments and staff training certainly fit the primary war fighting priority, but conceptual and organisational change to use new systems in dramatic new ways remain unclear if not absent. Some disequilibrium exists between the preferred futures and those for which the armaments packages cater. At most, this alternative represents hedging against a dangerous, but low, or even very low, future probability by developing islands of maritime power, air power, and information capacities. Conceptually, and in terms of doctrine, RMA integration into the mainstream thinking about alternative military futures for the SANDF remains vague. The paper-based policy and commitment to a professional and technologically advanced future is also found to be rather ignored in the political rhetoric and envisaged employment of the SANDF. The further absence of publications, experimentation, and field exercises thus raises a premonition of the fallacy to drop new systems into old structures and claim revolutionary change.

The extent to which the future strategic environment depicted in Chapter Five demonstrates a need for alternative military futures (albeit in a different setting), that future warfare is bound to assume a variety calling for military options to cope with diversity and simultaneity, and that Second Tier countries are not peripheral to this, the SANDF response can be summarised as follows.

South African decision-makers recognised the need for an appropriate military instrument to contend with a new strategic landscape. A Defence Policy and Military Strategy were formulated to adjust to and accommodate a dearth of future contingencies. Although not accurate, as acknowledged during 2004 by the South African Defence Minister, the gist, nonetheless, remained slanted towards the non-traditional end of the continuum. Inherently a dual role futures

profile for the SANDF is emerging with time, resources and funding channelled to establish some equilibrium.

The practical manifestation of alternative military futures for the SANDF is embedded in the pursuit of a changing paradigm increasingly characterised by regional and sub-regional defence arrangements to which South Africa is deeply committed. These arrangements comprise a co-operative, preventative and collective notion of military futures that underplay the war fighting alternative in its competitive format. South Africa's preference for and migration to co-operative and constructive military futures above that of mere national security can serve as a motivation. The imperative for the SANDF is seemingly less about how to improve its future fighting capability, but rather one of change towards being a better policy instrument suited for more alternatives than war fighting.

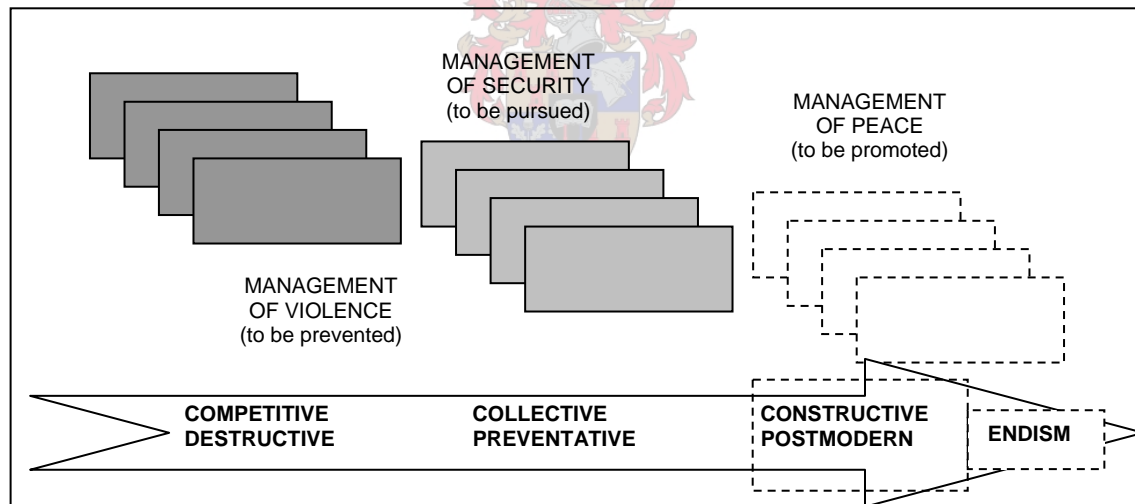
The traditional coercive features of the military policy instrument are marginalised in the contemporary South African debate, although the true training and doctrinal profile and preferences of senior military officials reflect to a lesser extent the intentions of political decision-makers. At the official level, outlining such futures is therefore one matter - that of correctly setting the coercive - non-coercive mix and to fathom the correct futures to meet. The crucial side of this national strategic outlook finds meaning in the extent to which those having to execute and support it, share or tolerate the envisaged futures. These populations represent defence decision-makers, members of the SANDF and, to a lesser extent, that of public opinion.

In the case of the selected SANDF population it was established that dealing with alternative military futures was deemed to be an important matter, but whether the SANDF is capable of truly influencing its future, drew mixed responses from officers. Concerning the future, roles depicting alternatives ranging from war fighting to constructive national missions of a social kind to missions at the regional level are mostly supported. It is also noticeable that war fighting alternatives do not necessarily enjoy greater support than lesser alternatives, except that top level military decision-makers tend to view war fighting as a longer term reality. In fact, support for war fighting and the RMA with its battlefield focus did not feature as a prominent variable promoting SANDF futures. A consciousness of this debate amongst senior SANDF officers was found to be visible, but not influential.

Responses show a general indication of SANDF members being quite comfortable with a range of non-traditional alternative futures to be pursued by the organisation - albeit not simultaneously, nor with equal vigour. Important, however, is that alternatives (and their adjustment over time) do not only form part of the strategic outlook, but its constructive fluidity seems quite acceptable to

South African soldiers. In addition, the African connection and the imperative of change towards this goal are accepted and from the viewpoint of senior officers, the implied changes are judged not to assume destructive/disruptive future profiles. One aberration is the extent to which national security threats of a military kind remain a concern and this possibly flows from the likelihood that modern threats rapidly flow across borders – both regionally as well as globally. Meeting this dangerous alternative is the future catered for by having the SANDF maintain a discreet core capability that can be increased rapidly.

Changes towards less traditional alternatives arising from new defence thinking about the future use of South Africa's armed forces appear to be quite tolerable to serving members of the SANDF. Displaying little opposition to extended futures (including war fighting as a remote possibility) portrays elements of the SANDF as a futures inclined organisation even reflecting elements of a post-modern African defence force. Regarding the latter, it appears that at the politico-strategic level the notion of a post-modern military and its peace-promoting alternatives fit political thinking. The extent, to which the SANDF has shifted towards post-modern elements, is, however, not yet in equilibrium with the current SANDF profile. This observation is illustrated in Figure 8.4.



**Figure 8.4: Migrating Alternative Futures for the SANDF**  
(Source: Own Compilation)

The responses by senior and future senior leaders represent an interesting profile of SANDF futures. One important factor pointed out was that a true conception of the matter of future war remains questionable. A second observation is that senior officers indicate the importance of and their interest in SANDF futures with those more concerned with longer term futures also more inclined to interest themselves and be concerned with military futures for the SANDF. At this

level, a concern with African futures also remain high and that SANDF futures are indelibly tied to that of the African continent. In this regard, outlooks by senior officers upon, participation in and an acknowledgement of an expanded future spectrum of SANDF missions are surprisingly clear. On the negative side, it can be observed that the junior officers tested are not as optimistic about SANDF futures, its evolution, and the ability of the SANDF to direct itself to newly ascribed futures without inflicting some damage on the institution.

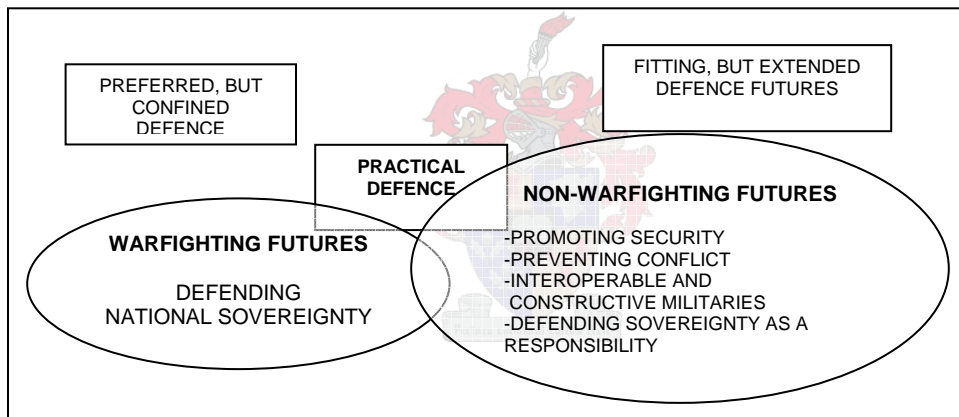
As to particular futures, top ranking officials (military and political) indicated that the prominence of non-traditional alternatives is foreseen as a probable interlude, but that the SANDF is to gear itself for traditional roles over the longer term (from 2015 onwards). The dual type military is, therefore, to eventually shed its Janus-faced profile and ultimately assume its true primary role and corresponding future missions. From this perspective, the spectrum of current alternatives is thus to fade or become truly *de jure* and *de facto* secondary roles as opposed to that now being the case. This outlook, however, does not correspond with how military futures are foreseen to be unfolding towards post-modern futures. The luxury of returning to the comfort of the primary, but improbable traditional military roles is not supported by the evolving theory on alternative military futures.

As for the opinion of the general public, their preference is for the defensive role of the SANDF and a lower predilection for its regional employment. This is qualified by their disposition that SANDF capacities should preferably first be exploited closer to home - not in faraway African countries – and representing a slight aberration from the politico-military outlook on this matter. Defence of national sovereignty to the benefit of the people is preferred and represents more confined profiles of alternative futures and employment of the SANDF. In this regard, public opinion does not convincingly share a futures outlook of the SANDF racing to the salvation of all Africa, but rather of it operating more traditionally in protecting interests closer to home. Although not bellicose in their outlook, public opinion leans towards a firmer commitment to primary war fighting as a future defence function and secondary roles to the benefit of South African society first. Only thereafter to its adjacent neighbours and finally to engage the longer term and less visible threat beyond the national borders.

The South African military alternatives spectrum flows from national policy, but whether it emanates from efforts to contend with complexities or from a middle-road to illustrate solidarity with the woes of Africa, remains unclear. It nonetheless portrays a strand of futures defence thinking as demanded by policy-makers from military decision-makers. South African defence thought has been moved from the traditional management of violence to increasingly reflect the less traditional management of security and is perhaps entering post-modern futures more

reminiscent of promoting and sustaining peace. As in the case of Europe, the war fighting role is seemingly masked by an African partnership-for-peace profile, but whether achievable (even with African solidarity) remains debatable. It is rather a diffusion of ideas and new defence thinking in co-operation with those sharing this imperative. What remains difficult to observe is innovation and diffusion of technology, ideas and resultant organisational change to effect a more evolutionary paradigm shift towards robust alternative military futures for the SANDF.

Alternative futures for the SANDF seemingly fit the rising paradigm of using armed forces (albeit in new roles) to contribute to fending off pessimistic African futures and to promote or uphold envisaged optimistic futures for the continent. Subsequently, South Africa's firm commitment to promoting security and eventually managing peace, rather than war, is upheld. To effect the latter two outlooks involves an appropriate military instrument to pursue both the lesser preferred competitive as well as the extended co-operative alternatives with the latter assuming a broader range than the competitive war fighting side. This image is illustrated in Figure 8.5.



**Figure 8.5: Interplay between Preferred and Fitting Alternatives for the SANDF**  
(Source: Own Compilation)

While the armed forces of countries like China, the USA, France, Germany, Britain and Russia still appear to lean towards the competitive paradigm and attend to the co-operative paradigm more selectively, South Africa, as a Second Tier country with a primary commitment to African strategic futures, reflects the opposite. A preference for alternatives embedded in co-operative, preventative and constructive futures, rearranged South African military alternatives as the outlook upon defence and security changed. This involves not only changing the SANDF, but raises the notion of wider security sector transformation to accommodate the implied cultural, organisational and technological shifts and thus an underlying developmental agenda. The South

African case, nonetheless, illustrates a society moving into the future, and, rightly or wrongly, taking its military institution along to face distinct alternative futures.

## 8.2. CONCLUSIONS

Investigating the phenomenon of alternative military futures made it possible to demarcate the following premises.

- An established nexus between preferred futures and the military domain to contend with or tone down the uncertainty and potential destructive or disruptive outcomes of unchecked military futures.
- Alternative military futures are pursued through changes emanating from the diffusion of innovations in hard and soft technologies, but selected futures are more prone to arise from evolutionary than revolutionary patterns of military change.
- RMA-futures represent elements of a dominant contemporary debate on military futures, but do not offer universal and linear pathways of change for armed forces. Choices for and nuances of RMA-futures remain alternatives for certain countries opting to explore new military futures for their armed forces.
- Affairs from the strategic environment co-direct the futures of armed forces and a selected or demarcated view of the future strategic environment depicts their futures and alternatives in ways that are more lucid. One central tenet arising from the future strategic environment is for armed forces to be prepared to cope with simultaneity and variety in their future-operating domain that calls for more than future war fighting defence capabilities.

The need for contending with the military-futures nexus and to institute appropriate military changes, whether along selective RMA pathways, or by responding to the emergent strategic environment, challenged the SANDF since its inception in 1994. The complexity and resultant uncertainty about the future became visible in the slow responses and initial internal focus of military changes filtering through the SANDF. The military domain was not exempted from the general futures looming for South Africa amidst a realisation that the old defence paradigm had to be replaced or, at the minimum, be adjusted. As the 21st century dawned, alternative futures beyond the traditional and national domains were gradually approached. A subsequent futures profile of the SANDF began to emerge that points to the following conclusions.

- ***The futures nexus.*** The question of what futures to pursue came to direct the South African military establishment towards democratic and African based futures, albeit along the optimistic lines of eradicating future wars. As illustrated by the nexus between Futures Studies and military futures, this optimism remains vulnerable to the persistence of armed conflict and the African continent offers little to refute this. Nonetheless, South African military futures are directed by preferences of war being subconsciously irrational and not even occasionally useful, counterproductive to national goals, outweighing potential benefits and going to war not being a constant.
- ***Effecting soft military change.*** New defence thinking on the future use of the SANDF became the vehicle to introduce military change through attempted paradigm shifts, innovations, and diffusion. Soft technologies, rather than hard technological innovations and diffusion underpin the changes that are directing the SANDF towards the future. Defence policy became particularly radically altered, but it initially changed more rapidly and deeply on paper, than in doctrine and execution. The South African defence paradigm assumed a profile more reminiscent of co-existence and competition, than a clear shift that runs down the vertical policy-strategy-structure strata of the SANDF. Effecting more fundamental change is, however, bound to manifest at the end of 2004.
- ***Marginalizing the RMA.*** Concerning the influential RMA debate the SANDF reflects selective exploitations of its elements (the information domain in particular) and their utility within a narrow band, thus toning down the RMA alternative. In spite of the military superiority, prestige, deterrence and invulnerability ascribed to RMA empowered armed forces, the SANDF does not cater for this strand of military futures. Shaping the SANDF to be a pliable policy instrument for much more than war fighting is the future being pursued. Solving the peace and prosperity dilemma with clinical military technologies and concepts are most probably to remain a peripheral matter in SANDF futures. As war is viewed as a marginal and even non-option, the RMA is a marginalised military alternative.
- ***Understanding and responding to the future strategic environment.*** The strategic environment and new defence thinking heavily impacted upon South African defence outlooks for using the military instrument in future. Extended security in a changed strategic environment became the benchmark as well as directing agent for the future use of the SANDF. Expanded and collaborative military alternatives became the preference to contend with the variety and complexity of future conflict predicated by protection through prevention, intervention, and reconstruction. In this regard, the demise of major war and the focus upon Africa made this region and its conflicts the future crucible for the SANDF.

- **A dual role SANDF for uncertain African futures.** As a Second Tier African country conceptually bent upon a paradigmatic shift for using its armed forces, changes and what was to be dealt with in future had to be balanced. Futures positing the end of war, demands long-term futures and this is not forthcoming. This compromises alternative futures for the SANDF along preventing or removing war in a multilateral way and not using war as an extension of politics. The major futures scenarios that the SANDF will have to come to terms with, is that of simultaneity and variety in its future operating environment for it has to pass this test to arrive at long-term futures. Amidst the responsibility to collectively promote security by protecting, preventing, and intervening, expanding alternative military futures for the SANDF increasingly assumes the profile of a dual role military establishment. Only in this way can the alternatives of dangerous war fighting and the seemingly endless expanse of non-traditional military roles arising from the selected African strategic domain be served.

### 8.3. CONSTRAINTS ENCOUNTERED DURING THE STUDY

In completing this study, a number of difficulties materialised. In brief, these pitfalls comprised the following.

- **Institutional biases.** The emotional and political biases of service personnel and other defence officials directing the SANDF towards the future became a constant research companion. It therefore remained fundamental to the success of the study that such biases be avoided in order to maintain the military parameters of the debate. Although these officials represented a primary research focus, the bias factor had to be persistently controlled for by the researcher.
- **Institutional disinterest.** A noticeable disinterest by SANDF personnel was noted at the inception of the study. This difficulty became accentuated by the absence of thought, guidelines and organisational rigour within the SANDF to address military futures. Subsequently, the researcher had to laboriously sift indicators from training doctrine, individual interviews, statements and presentations by senior defence officials that were seemingly immersed (or chose to immerse themselves) in the *status quo* and issues of the past. This framed the difficulty of tracing SANDF futures amidst a visible absence of a true concern with military futures beyond integration and representivity issues of the day and to translate the political agenda into a true military futures agenda.



- ***Schools of futures thinking.*** A void in the study remains the demarcation of true or fundamental schools of thought or grounded theory directing current thinking on military futures. This absence required from the researcher to carefully select and organise existing knowledge domains towards a coherent whole. Primarily Western thought and academic discourse constantly had to be related to Second Tier countries and the SANDF in particular where little if any debate on alternative futures remained a research challenge. The pervasive Western bias and prominence necessitated a form of reductionism in order to interface the developed-underdeveloped levels of the debate.
- ***Resources and institutional restrictions.*** In spite of supporting the study, no resources other than normal support services at unit level were forthcoming from the SANDF. This support primarily comprised access to transport for local travelling and printing facilities. The study subsequently resulted in an individual effort from its commencement to its completion with little if any institutional support by the SANDF. Furthermore, security restrictions of the SANDF enforced a research constraint in that the study could be classified confidential or higher and thus denying access to the wider defence and academic communities. This resulted in matters pertaining to integration, affirmative action, race, gender, HIV/AIDS and current planning documents being avoided and thus forfeiting contribution or limitations from these realms towards the SANDF futures domain.
- ***Survey co-operation.*** Writing about the South African case amidst rising developments that dramatically influenced defence futures for the SANDF, required political inputs. In this regard, the participation by South African MPs became a major limitation. Very low response rates by MPs of the Defence Portfolio Committee caused their responses to be negated. In spite of a personal briefing to the Chairperson and committee members followed by two rounds of surveys, response rates remained disappointing and rather meaningless. A properly structured political outlook upon the matter of the SANDF and the future therefore remains limited to a range of personal interviews (and even late interviews) with available MPs.

## 8.4 RECOMMENDATIONS FOR FURTHER RESEARCH

This study is most probably a first South African attempt to comprehensively address alternative military futures for the South African armed forces during ten years of democracy and at the dawn of the 21<sup>st</sup> century. The researcher found it a field not well known by the academic community, and viewed with some apprehension by the South African military community. This ambivalence (or indifference) and the scarcity of deliberate academic efforts from the defence community to

address this topic in some fundamental way necessitated and directed the extensive demarcation of the origins and profile of the military futures debate. Subsequently, a number of topics remained somewhat marginalised, but offer scope for future academic attention.

- **Promoting an SANDF futures culture.** One important domain that remains underdeveloped is the need for and formulation of substantive alternatives for the SANDF according to policy outputs or indicators. In addition, the role of a dedicated futures institution or futures directorate for the Department of Defence or the SANDF *per se* is to be considered. The goal of early warning to prevent conflicts and their escalation turns upon a better understanding the future strategic environment to rather contain small conflicts than fight destructive wars. As democracy, development and stability all thrive amidst certainty, one way to promote it is to demarcate alternative futures as lucidly as possible. The ability to present decision-makers with such alternatives is therefore to be revisited in terms of the human capital and institutional culture it requires.
- **Clarifying the African focus.** The extent to which this study compromised between setting out the topic of alternative military futures and investigating the South African province, it henceforth allows for more specific research on the futures African realm of the SANDF. The increased use of the SANDF as a policy instrument towards Africa promotes a more solid rationale for investigation than that available at the inception of this study during 2000. The guiding parameters of African futures are now well established, but not yet the alternative futures *per se*. The decline of major war points to Second Tier regions such as Africa where conflicts are to simmer. The latter is therefore in need of closer attention for it is underdeveloped and where most uncertainty still reigns amidst the perceivable rise in the use of the military policy instrument. Exploring alternatives that indicate the possible expanse of prospective military involvement in Africa is therefore a research topic to be further pursued.
- **Imposed or evolving military futures?** A further void is the absolute subordination of the military to South African political preferences and the lack of future guidance this implies if military decision-makers become faced by crisis management and brinkmanship in order to maintain a politico-military equilibrium. The idea of wars of efficiency – to gradually adjust to what evolves and adjust armed forces accordingly; and wars of destiny - to choose future military involvement and prepare accordingly, are therefore worthy of further investigation. Is it truly a case of South Africa opting to use its armed forces for operations in Africa, but not for war fighting? If so, how efficient are the ends, ways and means employed for preparing South African armed forces towards efficiency and flexibility to contend with future variety?

- ***Entrapments of military change.*** Moving military institutions into the future implies change and this implies a precarious activity as was alluded to in Chapter Three of this study. Political swings on defence are therefore undesirable, but quite probable for the South African realm as the volatile African agenda becomes entrenched. Carefully planned military futures and extended military futures are therefore two important research problems to be investigated in the light of the 2004 defence outlooks. Consequently, to what extent is the SANDF to become subjected to an extensive military change agenda and how debilitating is this to be upon the organisation?
- ***Political expediency and military reality.*** Political commitments to future co-operative and multilateral defence arrangements imply that these political initiatives are to be accompanied by an adjacent military shift. Identifying and delimiting alternative futures and their costs are therefore a rising research domain. Amidst the growing collaborative use of the SANDF as a foreign policy instrument, alternatives and costs are two matters assuming increasing prominence. In addition, the apparent differences between the SANDF and the majority of African armed forces with whom interoperative futures are to be pursued, represent a domain fraught with difficulties. Integrative African military futures require intensive research in order to inform and warn about the pitfalls of political expediencies and military realities in this regard.
- ***Removing the scourge of war.*** Entrenched in the AU outlook upon the future African landscape features the notion of eradicating war. This endism is truly futuristic, but nonetheless founded upon a number of theories underpinning its tenability. What are these theories and how applicable are they to the idea of African warless futures?

## APPENDIX A

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## APPENDIX B

### RESEARCH OUTPUTS: DATA AND GRAPHICS

- Senior officers in the SANDF working environment. Pp 404-409
- Senior officers attending the Executive National Security Programme (ENSP). Pp 410-449
- Senior officers attending the Joint Senior Command and Staff Programme (JSCSP). Pp 410-449
- Junior officers (JO) and candidate officers attending the Military Academy. Pp 410-449
- Senior decision makers in the SANDF and Department of Defence. Pp 450-452

