

A faint, grayscale photograph of a busy port. In the foreground, several large cargo ships are docked at a quay. Behind them, massive industrial port cranes with long metal booms are positioned to load and unload the ships. The sky is overcast with heavy clouds.

EDITORS

Thean Potgieter
Reiner Pommerin

MARITIME SECURITY

IN SOUTHERN AFRICAN WATERS

CENTRE FOR MILITARY STUDIES

Faculty of Military Science
Stellenbosch University

MARITIME SECURITY IN SOUTHERN AFRICAN WATERS

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THEAN POTGIETER
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CENTRE FOR MILITARY STUDIES

Faculty of Military Science
Stellenbosch University

FOREWORD

Two thirds of the world population lives within 60 kilometres of the sea. Much of the wellbeing of our planet is dependent on the sea as the bulk of international trade passes across oceans and through ports, while the sea is a rich source of protein and contains profound wealth in terms of energy and natural resources. Inevitably, economic stability and development are therefore closely linked to maritime security.

Renewed strategic focus has recently fallen on Africa because much of Africa's natural resources are found along or near the coast and there is evidently a new "scramble" for Africa's resources. This is the result of greater involvement from India and China in Africa, which has led to commercial rivalry, while the maritime security of Africa is currently an important issue to the USA, EU, and the wider international maritime community. This interest can also be linked to the so called "war on terror", issues relating to humanitarian and development aid to Africa, efforts to limit illegal migration, as well as efforts to combat illegal waste dumping and fishing. Many countries have commercial interests along the coast of Africa, contractors and companies operating in the littoral areas require protection, while international maritime trade and safe passage for shipping must be secured.

Though most conflicts may be decided on land, armies are often dependent on support or supply from the sea, while conflict prevention and crisis management surely have a maritime dimension. Recently many new terms have globally caught our attention: asymmetric threats, network centric warfare, jointness, interoperability sustainability, power projection, forward presence, mission flexibility, and, last but not least, maritime security. But have these terms also made their way into the public domain? Has the desperate need for new organisational structures, new doctrines, and new weapons, new training and more taxpayer's money already been convincingly explained?

The emphasis of this publication, as well as of the maritime security conference from which it emanated, is to expound on the term maritime security, provide it with more content, and make it better understandable to the public and decision makers. This was done by emphasising and exposing its different layers, by providing details on the nature of maritime security problems and by making suggestions on how to improve maritime security. Furthermore, one of the important objectives of the conference was to bring the maritime security debate into the public domain. If significant awareness of the importance of maritime security and of specific shortcomings exists in the general public, it will facilitate decision making and the provisioning of the required resources to tackle maritime security problems. South Africans rarely "think" maritime and things maritime usually do not take centre stage in South African contemplations. Historically the South African reality was always dominated by landward issues (as is also the case of Germany).

This publication includes papers from academic experts and practitioners addressing topics from Port Security to the economic dimensions of maritime security, from Asymmetrical War

and Terror at Sea to the African Experience of Piracy. These papers represent some of the presentations given at the international conference "Maritime Security in Southern African Waters" which took place in July 2008 at the Wallenberg Centre at the Stellenbosch Institute for Advanced Studies. The conference was a result of cooperation between academics from Germany and South Africa.

Many shortcomings undoubtedly exist as far as the collection of essays in this publication is concerned and for this the editors should shoulder the blame. Aspects that surely warrant greater focus are the role of police forces in the maritime domain and marine and coastal management (these issues were addressed during the conference, but publishable outputs were not obtained). Though the air dimension of maritime security was not specifically emphasised or discussed, it requires much emphasis as it is crucial for surveillance, enhances operational capabilities and air platforms are certainly force multipliers. In the end, however, one still requires a hull in the water to "do the job", as the foot soldier ashore does. Greater cognisance must also be taken of security concerns regarding natural resources, mining and commercial activities, while aquaculture activities are on the increase around the coast of Africa. These activities are of pertinent importance, as they could contribute much towards sustainable development in Africa.

In Germany the true importance of the sea for national prosperity was realised at a very late stage – after the creation a national state, almost at the end of the nineteenth century. As Germany is situated in the centre of Europe, it has many neighbouring states and borders, which has played a decisive role in the history of conflicts in which the country was involved. Historically, first Prussian and then German military thinking was more or less, and is probably still, dominated by the role of the army. Only the end of the Cold War, budget cuts and international terrorism initiated the transition of the German armed forces and required a new approach in military thinking and planning. But it was only after German ground forces had to be evacuated from Somalia in 1994 with frigates and support ships, when the situation in former Yugoslavia required the long-term participation of German naval vessels to control the Adriatic Sea and when piracy again became a realistic danger for cargo ships and tankers, that more interest (at least within the Armed Forces, the Ministry of Defence and in the Defence Committee of the German Parliament) was shown in maritime security.

In the South African case, maritime defence issues were for centuries a colonial responsibility. Britain wrestled the Cape of Good Hope from the Dutch at the end of the eighteenth century because it was of supreme strategic value to the British Empire as the link with the East. Britain only established control over the interior after the discovery of diamonds and gold. During the two world wars, South African harbours and the Cape Sea Route were crucial to the Allied war effort and the British Royal Navy was omnipresent at the Cape. South Africa became isolated after the Second World War because of its Apartheid policies and the maritime link with Britain was severed. After the political change of the early 1990s, South Africa had to realign itself politically and in defence terms. The defence force, seen by many as a tool of the oppressor, had to become a legitimate national defence force. As a result the South African Navy, like the rest of the newly created South African National Defence Force, went through a process of transformation in terms of its role, objectives, constitution and policies.

Despite its ideal strategic location and the influence maritime contact has had on its national history, the local emphasis on maritime defence requirements and maritime security issues has been limited. This could to some extent be ascribed to the influence of the sea on South African history. Because of South Africa's geographic location and easy access to the world, international contact stimulated development, trade and economic growth. This led to the conquest of a continuously greater part of South Africa, industrialisation followed; South African society experienced numerous conflicts and underwent transformation. The South African existence became embroiled with local political, economic and societal issues, rather than issues of international trade and maritime power, while Britain maintained a strong grip on all maritime aspects of the South African existence – which was one of the constants in a fluid environment. Before the late twentieth century it was therefore never necessary for South Africans to be concerned with maritime defence and security issues, as it was always a colonial responsibility.

South Africa's network of ports is considered to be the largest, best equipped and most efficient on the African continent. The imports and exports of South Africa and of a number of states in the region go through South African ports. In terms of trade and industry maritime communications are very important to South Africa since its ports handle about ninety percent of the bulk of South Africa's trade and eighty percent of the country's trade in value. With international sea-borne trade as an essential ingredient for the economic development of Southern Africa, the security of shipping, sea lanes of communication, maritime resources and harbours are very important. This aspect is also recognised by those land-locked states in the region that do not have direct access to the sea.

Conversely maritime trade is very important to the Federal Republic of Germany since 18,8 percent of its exports (182,1 billion Euros in value) go abroad by sea, while 16 percent of Germany's imports (124, 3 billion Euros in value) reach the country by sea. As many of Germany's most import international trade partners are located far away most trade is, in essence, seaborne. These trade partners are (arranged in terms trade value) China, the United States, Japan, Russia, Norway, Brazil, Great Britain, South Korea, India and Mexico.

Considering the importance that the sea and maritime communication have to both South Africa and Germany, one might deduce that maritime security is a well-known, important and uncontroversial issue in both countries. Unfortunately though, this is not yet the case.

Recently, the maritime security debate has provoked much public and media attention, not only in South Africa and Germany, but across the world. This could be ascribed to events around the Horn of Africa and the lack of maritime security along much of the African coast. Not only has piracy (specifically around the Horn of Africa and in the Gulf of Guinea) received much attention, but considerable focus has been placed on the Southern African situation, threats and capabilities, as well as the possibility of South African naval participation in multinational efforts to limit piracy around the Horn of Africa and escort the ships of the World Food Programme. The debate (now in the public domain) continues. The general message seems to be that more must be done and greater cooperation in Africa is necessary.

In terms of cooperation in Africa, it is important to identify the tools African navies and security structures require to address their maritime security problems, as the challenge is often that the wherewithal to perform the necessary tasks is lacking. Prominent states and navies can assist smaller navies with acquiring material means as well as with developing the knowledge and skills necessary to manage maritime security. Perhaps Africa's focus should be on good capabilities, for example if specific states have the best blue water capability, why not utilise it for enhancing wider African security? If African navies decide to work together, key problems they would have to manage are to develop the required common procedures (specifically for command and control), to create standardized logistics and operational doctrine to make proper and effective cooperation possible, to establish a common communication ability and to make sure national participants are on an equal footing (with the smaller contributors not being dominated by the larger). Parenthetically, industry can contribute by investigating and offering "interoperable" solutions to African or southern African navies. Perhaps, a standardized platform, or vessels that are not "too sophisticated" with interchangeable spare parts, which a number of countries can use and support, should receive more attention. So, can simpler as well as more complex solutions not be offered within the same technological and design family? However, all of this seems to indicate that not only a policy framework, but clear political and organisational commitment, proper resources and realistic time scales for executing and implementing a cooperative framework are necessary.

The editors are grateful for the support ThyssenKrupp Marine Systems, and especially Dr Henning Waschk, provided as they made it possible to organise the conference on "Maritime Security in Southern African Waters" and to print this publication. The conference in Stellenbosch was opened with a keynote address by Vice Admiral J. Mudimu, Chief of the South African Navy. We are very honoured to publish this address as an excellent introduction to the following papers.

President Nelson Mandela said in 1997, "The sea is a vital national interest, and that is why we maintain a navy. Just as we believe that all people should be free, so too, as a nation, we believe in the freedom of the seas. That is a matter of national strategic interest. We are a maritime nation trading all over the world. We accept our obligations to combine with other nations to uphold the freedom of the seas and to protect our national interest through naval power."

The editors believe that these sentences are true not only for Germany and South Africa, but for all littoral states globally.

Thean Potgieter and Reiner Pommerin
Stellenbosch and Dresden
March 2009

KEYNOTE ADDRESS

Vice Admiral Johannes Mudimu
Chief of the South African Navy

Ladies and Gentlemen,

It is indeed an honour to be able to deliver the keynote address to this conference. The *Maritime Security in Southern African Waters* Conference has come about as a result of a unique trilateral co-operative relationship between the Dresden Technical University in Germany, the Security Institute for Governance and Leadership in Africa as well as the Centre for Military Studies (CEMIS) of the University of Stellenbosch, underpinned and supported by a generous sponsor, ThyssenKrupp Marine Systems.

The South African Navy welcomes this initiative, as its tenets are well within the core business of our fleet.

For several reasons, the conference is very well timed. We live in a dynamic, even turbulent, maritime world; where the forces that dictate the state of maritime security in our region constantly ebb and flow, where the only constant is change itself. Maritime security is not a static issue and requires continuous awareness, vigilance and prompt responses. Further, maritime security is a broad concept that includes a panoply of notions such as maritime safety, port security, freedom of navigation, security of sea lines of communication, security from piracy, armed robbery and maritime terrorism as a form of asymmetrical warfare. Maritime security also incorporates non-traditional security issues such as environmental degradation, weapons proliferation and the smuggling of arms, drugs and humans. The expansion of economic activities at sea has led to over-fishing, pollution, and irreparable environmental damage in some regions of the world. Stated in positive terms, maritime security constitutes that strategic integument which ensures and facilitates equitable world maritime trade; epitomised by the specialised agency of the United Nations' International Maritime Organisation's motto: *Safe, secure and efficient shipping on clean seas*.

This conference will no doubt point to the paradoxical state of the current global maritime outlook: on the one hand there is a booming rise in maritime trade and shipping which translates to maritime stability and prosperity, and yet on the other hand there is the countervailing trend of maritime insecurity in all its facets. Clearly, there is a direct correlation between achieving and maintaining excellent levels of maritime security versus ensuring national and regional economic development. It is therefore critical that this forum has been created to analyse, firstly, the prevailing trends with respect to maritime security in Southern African waters, and also, then, to determine pro-active ways – which may involve issues of policy – of dealing with those forces that seek to undermine the well-being of our people.

When we speak of "Southern Africa" we speak of our region, the Southern African Development Community (SADC) region. SADC comprises 14 countries, six of which have sea borders (the DRC, Angola, Namibia, South Africa, Mozambique and Tanzania) and two island states (Madagascar and Mauritius). Some of these states possess sovereign offshore islands, which

serve to extend their Exclusive Economic Zones and potential continental shelf claims in terms of the United Nations Convention of the Law of the Sea. This gives the region a vast seaward estate, one that is well in excess of the land area, which needs to be properly defended and secured in order for the SADC to prosper.

Southern Africa therefore has all the advantages that the majority of the region being littoral states brings, with long combined coastlines. Altogether, the region operates at least 17 major ports, as well as a number of lakes or riverine systems and secondary harbours which, together, makes for an imposing infrastructure. It is important to note that these ports and secondary harbours serve as a gateway to neighbouring countries' trade, especially landlocked countries. Also, these ports and harbours are at the seaward end of an extensive network of roads, railways and pipelines that penetrate deep into Southern Africa and beyond into the hinterland. The region is a large exporter of mineral and agricultural products and has a growing trade in manufactured goods from select countries. Economies in the region are almost totally reliant on maritime infrastructure, and trade is essential to its growth and development.

The geo-strategic position of Southern Africa places it centrally astride major trade routes to the East and to the West. The Cape Sea–Mozambique Channel Route is an easy one to round, but remains also one of the busiest shipping lanes in the world, especially when conflict results in closure of the Suez Canal. The oceans of the world have gained greater prominence in the post-Cold War era as globalisation has stimulated world trade, most of which moves by sea. This conference is bound to have as a major theme the phenomenon of global growth. The biggest growth in demand has been in global energy flow, particularly to China, where crude oil imports are expected to treble within the next decade. A regional effect is evident as Angola became the biggest supplier of oil to China in 2007.

The growth in global trade may be the "good side" of the message; there may be a flip side, as countries may feel more vulnerable as they become more dependent and interconnected in the global and regional trading systems. Studies continue to show that there is an almost inexorable shift southwards, from regions of relative instability off the west and east coasts (i.e. the Gulf of Guinea and off Somalia), towards countries where potential criminal opportunities are untapped. This directly touches upon what may well be the region's biggest threat: Complacency. There is no room for complacency, yet complacency is insidious in spite of efforts to exclude it. "It will never happen to us" is a fallacy – remember the words of the poet John Donne: "Ask not for whom the bell tolls – it tolls for thee."

In order to address such vulnerabilities, creative and pro-active solutions and alternatives have to be examined, with the main thrust lying in regional and, indeed, continental maritime co-operation.

Improved mechanisms for what has been termed "oceans governance", by national governments, regional organisations and international agencies, are an increasingly urgent necessity. For instance, if one takes the South African maritime scenario: After some abortive attempts, there is still no comprehensively encompassing maritime policy for the Republic. Not having a cohesive maritime policy for our land leads to duplication of effort, wastage of precious resources; and worse – often certain critical maritime tasks are not performed because functional delimitations have not been agreed to. At regional and continental level,

there are cases of overlapping claims to jurisdiction, a lack of agreed maritime boundaries, and worse – there appear to be no agreed mechanisms for dispute resolution.

Good oceans governance is important for regional security in several ways. It may well be not only that agreements for regional cooperation with respect to marine scientific research, resource and environmental management, safety, and economic activities are easier to reach than agreements concerning conventional security cooperation, but also that they provide opportunities for regional dialogue which builds mutual trust and confidence and enhances regional security overall. It has immense potential value as a basis for preventive diplomacy.

The new regimes of oceans governance at the global and regional levels, as well as oceans policy at a national level, are important inputs to maritime strategy. The significance of national oceans policy in the context of the themes of this conference cannot be overstated. Oceans policy sets out a strategy for maximising economic, social and political benefits from the oceans and is the basis of both oceans governance and maritime strategy. Even if one steers clear of a purely military concept of maritime strategy, then in many ways a comprehensive oceans policy, establishing a development and management regime for national maritime interests, constitutes a large element of maritime strategy.

Two main implications for navies flow out of consideration of the challenge of oceans governance. The first is the role of navies in contributing to more effective oceans governance and promoting maritime co-operation. This, in turn, has two vital components, namely information-sharing at national and regional level in order to ensure comprehensive maritime domain awareness; as well as the creation of the ability to interoperate between platforms of different types and from different nations during multinational maritime operations.

The second main implication for navies is the greater priority now to be attached to the protection of offshore areas and resources both in national areas of maritime jurisdiction and possibly on the high seas, and this may well include anti-piracy operations as part of our international obligations. In the past, navies have tended to see these non-war-fighting missions as detracting from their "core" business but it is not a "zero-sum" game and navies may have to accept new roles, particularly in high seas enforcement, without any reduced emphasis on their primary war-fighting missions. This protection is an integral component of maritime security.

The *Maritime Security in Southern African Waters Conference* is a timely event occurring at a critical junction when increased attention is being focused on the needs of oceans management at the national, regional and international levels. The international community and individual nations are paying increased attention to the needs of oceans governance. This is in response to the jurisdictional revolution in the law of the sea reflected in the United Nations Convention on the Law of the Sea, the expansion of economic activities at sea, increased concern for the health of the world's oceans, awareness of the importance of sustainable development, and the seemingly inexorable rise in maritime crime as well as forms of asymmetric warfare at maritime level.

The issues involved are particularly important for South and Southern Africa. I believe that this conference will lead us to the threshold of a new era of recognition of the full significance of the oceans to the future security of Southern Africa.

MARITIME SECURITY IN SOUTHERN AFRICAN WATERS

Once the issues are highlighted and understood, it will ensure that, collectively, we take appropriate and timely policy and other actions, which will in turn ensure stability based on the foundations of maritime security, leading to enhanced development in our region. It is here where I anticipate that this conference will make its largest contribution.

Ladies and Gentlemen, these are the core issues that will be dealt with by the overarching theme of this conference, namely comprehensively dealing with the complex concerns which are associated with Maritime Security in Southern African waters. I now leave you in the hands of the very capable and eloquent speakers who will deliver papers which will cover the range of maritime security issues that confront us.

WHEN MARITIME SECURITY IS ABSENT

Thean Potgieter

INTRODUCTION

Our oceans are very important as they allow all countries of the world to participate in the global economy. More than 80% of the world's trade travels across the sea, while about three quarters of the international maritime trade and half the global daily oil consumption passes through a handful of straits and canals, or maritime choke points. Open passage through these choke points is therefore crucial to international commerce. Besides being a vast trade highway, the sea also provides us with vast resources, not only protein, but also energy and minerals. The pervasive lack of maritime security in some coastal regions in Africa is a significant threat to the shipping and to Africa's maritime resources. These resources, which could contribute much towards sustaining development, are underutilized and threatened.

Africa is the subject of renewed strategic focus from the international community and the maritime security off Africa is currently an important issue to the USA, EU and NATO. The reasons for this might be a concern about China's and India's intentions in Africa, specifically as much of Africa's natural resources are found along or near the coast and there is evidently a new "scramble" for Africa's resources. Due to the commercial interest of many countries, contractors and companies operating in the littoral areas must be protected, while the security of international maritime trade and the need to ensure safe passage for shipping is an important requirement. In addition, the interest could be also linked to the so-called "war on terror", issues relating to humanitarian and development aid to Africa, efforts to limit illegal migration, as well as efforts to combat illegal waste dumping and fishing.

In Africa, security was historically often associated with regime survival and not necessarily the welfare of a country and its inhabitants. Furthermore, security focussed primarily landward, as states usually did not face a maritime threat. Maritime security is therefore under-resourced and receives scant policy attention.¹ However, a number of recent national and regional initiatives suggest that a paradigm shift is taking place as states, commercial entities, non-governmental organizations, and others are recognizing the vast benefits maritime security holds.

The busy maritime trade routes and shipping lanes around the Horn of Africa go back thousands of years and also link the Indian Ocean to the Suez Canal. It is considered a choke point and the security of traffic around it is internationally important. For years foreign warships have patrolled the region's busy shipping lanes, but the lack of maritime security has a real impact on economic development, regional security and the stability of the entire region. Maritime security is therefore very important to the region, both in economic and strategic terms.

¹ Raymond Gilpin, Enhancing Maritime Security in the Gulf of Guinea, in *Strategic Insights*, Vol VI, Nr 1 (January 2007), see <http://www.ccc.nps.mil/si/2007/Jan/gilpinJan07.asp>.

This paper is concerned with maritime security and, more specifically, what happens when maritime security is absent. The Horn of Africa region was used as a case study, and following a few brief remarks on the nature of maritime security and the situation in the region, possible responses will be discussed.

MARITIME SECURITY DEFINED

Maritime security is a broad, somewhat amorphous focus area. It is virtually impossible to coherently focus on all its elements without the danger of giving inadequate attention to it, or worse, being vague and inconsequential. This is therefore not an endeavour to give a proper account of this wide-ranging area, but rather a discussion on what goes wrong when maritime security is absent.

In literature on maritime security the debate centres around aspects such as physical security measures, registration of ships, shipboard security, piracy, marine safety issues, phantom ships, illegal immigrants and stowaways, port security, terrorism and the like. As the focus can be so varied, definitions and interpretations of maritime security therefore depend on the originator and the topic under discussion.

Germany, dependent on importing raw materials and its export trade, regards its maritime links as crucial for the prosperity of the country and its citizens. As a result the German Navy is developing towards "an expeditionary navy" because it is important to use the sea for deployment, transport and support of own forces and to be able to protect German citizens. The perception is that the German Navy should be allowed to act in cases where German property and the lives of its citizens are being threatened – as in the Horn of Africa region. For the German Navy maritime security is therefore about a regional surveillance system in the Baltic, the protection of sea lanes of communication and coasts, surveillance of sea routes in peace time, and defence against asymmetrical threats. But, it also goes beyond that as their conception includes securing sea lanes in conflict zones, which inherently implies the ability to deal with an opponent who is militarily organised.²

A thorough appreciation of "global maritime security" exists in the United States and sea power is seen as of critical importance to US security and prosperity. Creating and maintaining "security at sea is essential to mitigating threats short of war, including piracy, terrorism, weapons proliferation, drug trafficking and other illicit activities."³ US strategy therefore provides for cooperation in this sphere between the Navy, Coast Guard and the Marine Corps, as well as with international partners, to secure maritime links and security at sea.

The International Maritime Organisation (IMO) understands maritime security in terms of a comprehensive security regime for international shipping, various mandatory and non-mandatory measures and security-related requirements for states, ports and shipping

2 Klaus von Dambrowski, *Further Development of the German Navy* (translation of a presentation received from official sources), pp.1 and 6.

3 Gary Roughead (Admiral, US Chief of Naval Operations), *The Cooperative Strategy for 21st Century Seapower*, Statement before the House Armed Service Committee, 13 December 2007, p.8.

companies, as well as a series of guidelines about how to achieve these.⁴ Within the apparatus of the state, maritime security could have a distinctly departmental focus. For example, to the Australian government (Department of Infrastructure and Transport) maritime security is about safeguarding Australia's "maritime transportation system and offshore facilities from terrorism".⁵

As so many definitions and interpretations abound, what then is maritime security? Simply put, maritime security is concerned with preventing illicit activities in the maritime domain. It could be directly linked to a specific country and national security efforts, but it can also include regional or international efforts to enforce maritime security.

Critical to an understanding of maritime security is maritime domain awareness, which is essentially a thorough understanding of "all areas and things of, on, under, relating to, adjacent to, or bordering on a sea, ocean, or other navigable waterways, including all maritime-related activities, infrastructure, people, cargo, and vessels and other conveyances".⁶ As it geographically implies territorial waters (12 nautical miles from the coast), the contiguous zone or coastal waters (24 nautical miles from the coast) and the exclusive economic zone (EEZ, 200 nautical miles from the coast), effective control over such a vast domain is certainly a daunting task for most African countries.

In maritime security terms the interests of nations are therefore focussed around the following complementary objectives: to facilitate the vibrant maritime commerce and economic activities at sea that underpin economic security; and to protect the maritime domain against ocean-related threats such as piracy, criminal activities, terrorism, pollution and the like. This ideal can best be achieved by blending public and private maritime security activities and through an integrated effort to tackle maritime threats within a specific legal framework. Cooperation in this sphere between nations is essential, since virtually all nations benefit from maritime activity and security, while those engaged in illegal activities at sea usually do not care for national or international boundaries.

A coherent maritime security strategy should therefore include elements that focus on awareness of the maritime domain, intelligence, operations, threat response, coordination of activities, infrastructure and transportation, commerce and port security. But for it to succeed political commitment must be demonstrated, adequate operational capabilities must exist or be created, a clear regulatory system must be in place and proper public awareness is necessary.

As maritime security could be acute and affect not only the security of a state, but also regional and international security, the type of operations required to maintain order could be substantially more than those which would often be associated with normal policing, physical security and just maintaining good order at sea. Solutions might therefore be found in complex all-encompassing actions that involve everything from good intelligence to naval actions. The problem is, however, that a discrepancy often exists between what navies profess to do, and the

4 Source: http://www.imo.org/safety/mainframe.asp?topic_id=551.

5 Australian Government, Department of Infrastructure, Transport, Regional Development and Local Government, see <http://www.infrastructure.gov.au/transport/security/maritime/>.

6 US Government, *The National Strategy for Maritime Security*, September 2005, pp.ii, 1 and 2, see http://www.dhs.gov/xlibrary/assets/HSPD13_MaritimeSecurityStrategy.pdf.

national or international legal framework within which they have to act. Navies might be equipped and willing to perform specific tasks, but might legally not be allowed to execute them.

ORIGIN AND NATURE OF MARITIME SECURITY PROBLEMS IN THE HORN OF AFRICA REGION

The Horn of Africa is a choke point for shipping as the internationally important and busy maritime trade routes around it link the Indian Ocean to the Suez Canal. Due to the dire security situation in Somalia and along its coast, maritime traffic is threatened, thus requiring foreign warships to patrol these waters. However, the lack of maritime security has a real impact on economic development, regional security, the humanitarian situation and stability of the entire region. In economic and strategic terms the region is therefore paying a severe penalty because of a lack of maritime security.

For more than three decades, peace and stability have evaded the Horn of Africa region as countries in the region have been ravaged by conflict. Ethiopia experienced a civil war and was engaged in conflicts with Eritrea and Somalia. Sudan was torn apart by a civil war and Somalia was ravaged by clan warfare. The Cold War interests of the major powers initially added to the turbulence, but these conflicts soon became interrelated, with factions in various countries obtaining and providing support across national borders. Djibouti, bordering Somalia, Ethiopia and Eritrea, is strategically located on the busy shipping lane through the Bab al Mandeb Strait (linking the Red Sea with the Gulf of Aden), and is a transshipment location for imports and exports of the east African highlands. Djibouti has close ties with France and provides support facilities to the USA. Currently Combined Joint Task Force – Horn of Africa (CJTF-HOA, with more than 1800 US military personnel) operates from Djibouti.

It is the situation in Somalia that has impacted most on maritime security in the region as the country has been in disorder for the best part of two decades. After the notoriously repressive regime of President Siad Barre came to an end in January 1991, Somalia collapsed into a state of chaos and civil war.⁷ With utter civil lawlessness, banditry, mass starvation and no organised government, the humanitarian situation became very serious, warlords fought each other for the spoils, while policing along Somalia's coast and harbours disappeared.

Three large scale international intervention efforts (UNOSOM I and UNITAF and UNOSOM II) essentially failed in the early 1990s.⁸ UNOSOM II (20 000 peacekeepers, 8 000 logistical staff and 3 000 civilians from 23 nations) had a mandate to establish a new government, police force, justice system and rebuild the economy. Their efforts to disband and disarm the militias failed and after US helicopters and troops were mauled in an urban skirmish in Mogadishu in October 1993 (the infamous "Black Hawk Down" incident), the US withdrew in March 1994.⁹ Other participants followed, essentially leaving the warring factions to their own designs.

7 See M. Meredith, *The State of Africa. A History of Fifty Years of Independence* (Jonathan Ball, Johannesburg, 2005), p.469 and G. Arnold, *Africa. A Modern History* (Atlantic, London, 2006), pp.660–3.

8 A. Oyebade and A. Olao, *Africa after the Cold War. The Changing Perspectives on Security*, (Africa World Press, Trenton NJ, 1998), p.162.

9 M. Meredith, *The State of Africa*, pp.478 and 482–3.

Various subsequent mediation efforts failed as the warring factions received support from countries in the region. In June 2006 the Union of Islamic Courts (UIC) seized Mogadishu and much of the south. However, at the end of 2006 forces loyal to the interim administration (Transitional Federal Government created in 2004), seized control from the Islamists with the backing of Ethiopian troops, causing a new surge in violence. After 17 years of violence and anarchy, Somalia is still without strong central government authority and it is one of the failed post-Cold War efforts at conflict resolution.

Countries in the region, notably Yemen, Kenya and Djibouti, operate small functioning navies. Despite lacking equipment and funds, the Yemeni coast guard is active and conducts regular patrols. Much criticism has been labelled against them for not showing the proper respect to refugees from East Africa, and for atrocities they ostensibly committed in this regard.¹⁰ The former Somali Navy was equipped with four Soviet fast attack craft and smaller vessels, but the equipment became unserviceable after the departure of Soviet military personnel in 1977 and since 1991 it no longer exists.¹¹

In maritime security terms, the region lacks capabilities such as intelligence, early warning, maritime air surveillance and reconnaissance. No credible indigenous maritime forces with sufficient mobility, reach, flexibility and necessary firepower for sustainable operations to act as a deterrent, exists; coastguards and civilian maritime agencies are wanting; while no single agency or coordinating body that cooperates on maritime security issues in the region exists.

Mainly as a consequence of the disintegration of central government authority in Somalia, the lack of maritime security in the Horn of Africa has become a grave problem. It manifests in all aspects relating to the use of the sea and also impacts negatively on the already dire situation ashore. This is one of the few cases in Africa where security problems on land have spilled over and affected maritime security severely. Due to the geographic location of Somalia and the valuable cargoes traversing the seas around the Horn of Africa, it has become an international concern.

The fact that it is not possible to maintain good order at sea has impacted on three spheres, namely maritime communication and transport, marine resources and maritime sovereignty,¹² while the cost in humanitarian and economic terms is also high.

LACK OF ORDER AT SEA

Maritime communication and transport

Piracy is a great concern. Contemporary piracy is a sophisticated and brutal enterprise that ranges from petty thieving with machetes and handguns to the well-organised activities of

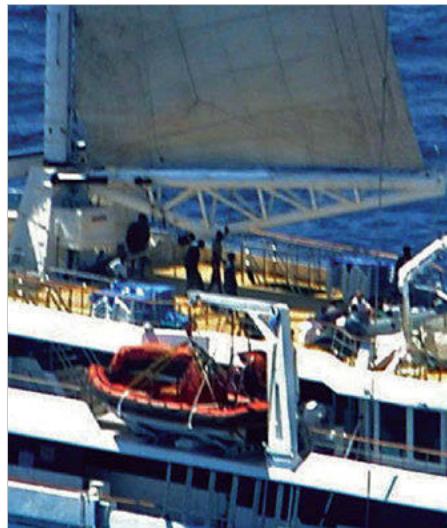
¹⁰ 'Yemen – Horn of Africa: 130 migrants die after coast guards open fire', *IRIN, humanitarian news and analysis*, UN Office for the Coordination of Humanitarian Affairs, 14 November 2007 in <http://www.irinnews.org/Report.aspx?ReportId=71614>.

¹¹ 'Somalia Navy' in <http://www.globalsecurity.org/military/world/somalia/navy.htm>.

¹² G. Till (ed), *Seapower at the Millennium* (Gloucestershire, 2001), pp.8-11.

criminal organisations. As other criminal undertakings, it threatens finance and commerce, but in the Horn of Africa region it goes beyond that – it also threatens peace and regional stability.

Who are the pirates? Almost always from Somalia. Why? Somalia has not effectively acted against them due to insufficient policing and government authority. The pirates are after money, cargoes and ransom from the ship-owners. It is difficult to determine who the pirates are, as groups professing to fight piracy are actually engaged in it. They organize themselves along military lines, their leaders have titles like admiral, vice-admiral, etc,¹³ and they have names like "National Volunteer Coast Guard" or "Somali Marines". Some groups have up to 100 members and their weapons include AK-47's, 12.7mm and 14.5mm heavy machine guns and rocket launchers. Pirates either hijack ships for ransom or capture them for their cargoes. They lure ships into an ambush with a false distress call or attack ships directly with small and fast vessels (often supported by a "mother ship"). After hijacking a ship, the crew will be locked up until a ransom is obtained, while the ships will be anchored along the coast, under the protection of local militia. Tankers carrying diesel and natural gas are important targets while ships transporting vehicles, humanitarian food aid as well as cruise ships have been attacked.¹⁴ Ships sailing through the congested Bab el Mandeb Strait, or waiting to anchor along the Djibouti coast are specifically at risk.



Hijackers and crew onboard *Le Ponant*
(Photo French Navy)

Maritime watchdogs meticulously record reported piracy incidents. Hijacking ships for ransom is the most common form of piracy in the region and the figure has risen dramatically over the last five years to a high of 31 in 2007 (18% of the international total), while attacks in the

13 'Waters That Prompt Fear From the Toughest of Sailors', *New York Times*, 3 July 2006, in <http://www.nytimes.com/2006/07/03/world/africa/03somalia.html>.

14 'Piracy Plagues Somali Waters', *OXFAM*, 19 November 2007, in http://www.forbes.com/home/business/2007/11/16/somalia-piracy-africa-biz-cx_1119oxford.html.

first quarter of 2008 were already 20% higher than the previous year.¹⁵ The recent increase in piracy is ascribed to the fact that coastal and port surveillance are virtually completely absent and to the poverty and desperation of the Somali people.

Early in 2008 a few prominent hijackings made international headlines. These include the hijacking of a Danish owned tug, *Svitzer Korsakov* (with Russian crew members on board), the French luxury passenger yacht, *Le Ponant*, and the Spanish trawler, *Playa de Bakio*. Ransom was paid in all cases, but the French later captured six pirates involved in the *Le Ponant* hijacking.¹⁶

Countries like France, USA, UK and Panama sought consent from the UN Security Council to allow states to "enter the territorial waters of Somalia for ... identifying and pursuing pirates ... deter, prevent and repress piracy ... board, search, and seize vessels ... suspected of piracy and apprehend persons engaged in such acts..."¹⁷ The Mogadishu government, weakened by war and instability, agreed to such a violation of its own sovereignty, adding that "these troops can also come ashore if necessary".¹⁸ At the beginning of June 2008, the Security Council unanimously approved a resolution allowing, with the consent of the Somalia's interim government, foreign warships to "enter the territorial waters of Somalia for the purpose of repressing acts of piracy and armed robbery at sea."¹⁹ States evidently wished for a clearer framework for international action. The Security Council action is significant, as it is using the force of international law to allow navies to chase pirates and armed robbers.

As far as asymmetrical war at sea and the possibilities of terror are concerned, the *Achille Lauro* incident (hijacking of an Italian cruise ship by members of the Palestine Liberation Front, in October 1985) indicated that maritime terrorism is a real threat and states need to consider potential responses. Port security was emphasised after the attack on the *USS Cole* in Aden (12 October 2000), but after the "9/11" attacks, the focus quickly turned to air transport. Soon afterwards (6 October 2002) the French supertanker *Limburg* was rammed amidships by an explosive laden dinghy in the Gulf of Aden. She burned fiercely and much of her oil spilled into the sea. The significance is that vessels, perhaps even merchant vessels, can be used as weapons of war and not even warships are exempted from possible harm.

Marine Resources

Many African countries are not too concerned about environmental security, yet insufficient care of the environment, including the marine environment, can have a detrimental effect.

¹⁵ 'Reported piracy incidents rise sharply in 2007', *Weekly Piracy Report*, International Chamber of Commerce, Commercial Crime Services, <http://icc-ccs.org/main/news.php?newsid=102>, See also Captain: My "Heart Sank" When Pirates Attacked', CNN, 5 May 2008, in CHINFO News Clips, 6 May 2008.

¹⁶ 'How Savage Pirates Reign On The World's High Seas', *The Observer*, 27 April 2008; 'Somali President Asks French for Troops, Naval Help', *Reuters*, 5 May 2008; 'Crew Of Spanish Ship Home After Hijacking Off Somalia', *Associated Press*, 30 April 2008; and 'Brute Force on the High Seas', *Der Tagesspiegel*, 25 April 2008.

¹⁷ 'Update Report No. 1 Somalia', *Security Council Report*, 2 May 2008, in <http://www.securitycouncilreport.org/site/c.gjKWLeMTIsG/b.4096805/#top>; 'US, France Circulate UN Resolution To Battle Pirates' *Associated Press*, 28 April 2008.

¹⁸ 'Somali President Asks French for Troops, Naval Help', *Reuters*, 5 May 2008; 'Brute Force on the High Seas', *Der Tagesspiegel*, 25 April 2008.

¹⁹ U.N. OK's Foreign Ships to Fight Somali Pirates, *Associated Press*, 2 June 2008, in Chinfo News Clips, 3 June 2008.

Links exist between conflict and the environment as populations make increasing demands on the environment in their efforts to provide for themselves and their families.

The massive increase in commercial fishing, illegal and foreign fishing threatens fishing grounds and subsistence fishing communities, specifically in cases where maritime policing is lacking. The large numbers of commercial fish species around the Horn attracts a growing number of poachers. In 2006 the "Somaliland Coast Guard" captured nine Yemeni fishing boats (they were released shortly afterwards) as they claimed that up to 200 Yemeni boats were illegally fish in their waters.²⁰ Despite the high risk, Taiwanese and South Korean fishermen often poach lucrative yellow-fin tuna. Some vessels were captured by Somali "coastal patrols", such as the South Korean *Dongwon-ho*, which was released after paying US\$800 000 (a "fine" according to the Somali's and a "ransom" according to the South Koreans).²¹ Such incidents might be seen as piracy, but Somali sources claim they are just protecting their fishing resources.

A real environmental concern is the unknown quantity of waste that has been dumped off the Somali coast. Somalia is easy to reach and because of low public awareness influential locals have allowed toxic waste dumping (usually in exchange for foreign currency). After the Asian tsunami, broken hazardous waste containers washed ashore and according to the UN Environmental Programme, Somalia has been a dumping ground for hazardous waste since the early 1990s. It was much cheaper for European companies to dispose of waste here (with costs as low as \$2.50 compared to \$250 a ton) and specifically organised crime in Italy was linked to this dumping.²² It is uncertain if illegal waste dumping continues, but a UN report (February 2005) warned that it can have serious health implications as the type of waste might include uranium and radioactive waste, leads, heavy metals such as cadmium and mercury as well as industrial, hospital and chemical waste. Due to the little information available about the extent of such dumping, the exact impact cannot be calculated.²³

With the scourge of piracy, the amount oil moving to Suez and regular attacks on fuel tankers, the risk of an accident at sea is high. Real potential therefore exists for a major oil spill which could result in pollution of coastal waters and an environmental disaster.

Maritime sovereignty

Countries require maritime sovereignty in order to benefit from the sea.²⁴ The basic duty of a navy or coast guard is to exercise maritime sovereignty. This is a vital issue, especially as states must protect their own maritime territory and citizens from threat. However, it is a fundamental principle of international law that sovereignty must be exercised to be recognized. Even in the case of weak states the mere existence of a minor capability is important as it could have vast

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- 20 'Stealing My Fish, Adding Insult to Economic Injury', *Somaliland Net*, 20 March 2006, in http://www.somalilandnet.com/somaliland_voice/articles/13371692.shtml.
- 21 'The battle against illegal fishing off east Africa's coast', *The Economist*, 3 August 2006,
- 22 'Waste Dumping off Somaliland Coast May Have Links to Mafia, Somali Warlords', *Voice of America*, 15 March 2005, in <http://www.voanews.com/english/archive/2005-03-03/2005-03-15-voa34.cfm?CFID=221833898&CTOKEN=44002112>.
- 23 'National Rapid Environmental Desk Assessment - Somalia', UN Environmental Programme, 2006, in http://www.unep.org/tsunami/reports/TSUNAMI_SOMALIA_LAYOUT.pdf and 'Somalia's degrading environment', *EDC News*, 2001, in <http://www.edcnews.se/Reviews/Elmi2001.rtf>.
- 24 G. Till, *Seapower. A Guide for the Twenty-First Century* (London, 2004) p.328.

political consequences even for powerful states if they disregarded such sovereignty. Somalia does not have the ability to protect and defend its maritime sovereignty, while other countries in the region struggle to build up and maintain basic naval forces and uphold harbour security. Having a small navy and a coast guard is therefore not viable and if coast guard functions are performed, it is usually done by naval units.

Humanitarian challenges

The humanitarian dimension of the ongoing conflict in Somalia is substantial and widespread. Pirate attacks have hindered humanitarian aid deliveries during one of the worst droughts ever to hit East Africa and have seized a number of WFP food shipments. By April 2006 almost two million Somalis were on the brink of famine and the WFP had to re-route much of its relief overland at far greater cost.²⁵ Food distribution in Mogadishu also does not go well. Food distribution has suffered greatly due to local power struggles and corruption.²⁶

According to a WFP estimate, 300 000 to 400 000 people fled Mogadishu between February and May 2007. Recent statistics suggest that 70% of the population is undernourished, while the UN have warned that as many as 3,5 million people will need food relief (80% of which is delivered by sea) by the end of 2008²⁷. On 21 May 2007 the WFP made an appeal for high-level international action to stamp out piracy in the waters around Somalia as relief supplies to Somalia were under severe threat.²⁸ As a result, naval vessels have escorted WFP ships between Mombasa and Mogadishu since late 2007.²⁹

Due to the lack of order at sea, smuggling in the region has blossomed and illicit cargoes can include weapons, people and contraband.³⁰ The UN Independent Expert on Human Rights in Somalia (UNIE) and humanitarian organisations has reported that human trafficking is rampant in Somalia as no unified policing to interdict such practices, and no authoritative legal system to prosecute traffickers, exist. It is exactly this chaotic internal situation that has kept the full extend of it hidden. According to reports, militias traffic women and children for sexual exploitation and forced labour, some go to the Middle East and Europe for forced labour or sexual exploitation, while child victims were reportedly transported to South Africa for sexual exploitation.³¹

25 'Somali Piracy A Menace To Aid Relief', *TerraDaily*, 20 April 2006, in http://www.terraldaily.com/reports/Somali_Piracy_A_Menace_To_Aid_Relief.html

26 'Somalia Food Aid Stopped', in *Islamic Focus*, CiPS, University of Pretoria, Issue 13 November 2007

27 'Piracy Plagues Somali Waters', *OXFAM*, 19 November 2007, in http://www.forbes.com/home/business/2007/11/16/somalia-piracy-africa-biz-cx_1119oxford.html, see also 'UN Seeks Foreign Navy To Escort Food To Somalia', *Agence France-Presse*, 26 June 2008, in Chinfo News Clips, 27 June 2008.

28 'WFP urges high-level international action against Somali piracy', *World Food Programme*, 21 May 2007, in <http://www.wfp.org/english/?ModuleID=137&Key=2486>.

29 'UN Seeks Foreign Navy To Escort Food To Somalia', *Agence France-Presse*, 26 June 2008, in Chinfo News Clips, 27 June 2008.

30 'Piracy and Maritime Crime (Horn of Africa)', *UKMTO Dubai Briefing*, UK Maritime Trade Operations, 21 September 2006.

31 'Country Reports on Human Rights Practices – Somalia', *US Department of State*, 8 March 2006, in <http://www.state.gov/g/drl/rls/hrrpt/2005/61592.htm>.

Somali refugees and human traffic cross the sea from Boosaaso (a busy smuggling hub in north-east Somalia) to Yemen. Horrific stories of bodies floating around, people drowning after being forced at gunpoint to jump overboard by smugglers, or just being shot out of hand, abound. In May 2006 the UN High Commissioner for Refugees reported that boats arriving in Yemen from Boosaaso numbered around 30 a month, with hundreds, if not thousands of deaths.³²

Economic implications

The fact that the sea, its resources and rich trade routes are historically important to a region makes the economic impact of the maritime insecurity self-evident. In the maritime sphere it impacts on imports and exports, fishing, trade, and taxes. There is not a country in the region that does not claim vast damage due to illegal fishing, reef destruction and the depletion of many species. Piracy is big business and pirates often cooperate with organised crime syndicates to gain information on vessels and cargoes. Kenya for example has claimed that the cost of piracy has been substantial, to be calculated in billions of Kenyan shillings.³³

Furthermore, countries lose potential income from coastal tourism. Hazardous waste dumping poses a serious threat, while piracy inhibits leisure travel (yachts, chartered voyages and ocean liners). After the unsuccessful pirate attack on the passenger vessel *Seabourn Spirit* off the coast of Somalia in November 2005, experts suggested that the passengers and crew were unnecessarily exposed to danger.³⁴ Much of the potential leisure shipping kept well clear, while those that did venture into these waters took a risk, as the capture of *Le Ponant* in April 2008 indicated.

ACTUAL AND POTENTIAL RESPONSES TO THE MARITIME SECURITY PROBLEMS

Complex situations call for complex solutions. Maritime policing and navies alone cannot rectify the situation and ensure maritime security. Much of the solution to the maritime security problems of the region is essentially ashore and the typical business of restoring order in a country requires the establishment of a proper, operating civilian system of law and order as well as functioning policing. However, lack of law and order at sea contributes towards making things worse ashore, specifically as organisations engaged in transnational crime, such as human trafficking and drug smuggling, pose a threat to proper state authority and undermine the rule of law and security. The unique challenge is therefore to create order ashore and at sea.

Various agencies, bodies and states would have to work together to improve maritime safety and security, harbour security and environmental care. Often the mere presence of a coast guard and civilian policing agencies does much to enhance maritime security. However, civilian systems of maritime policing and coast guards are insufficient in the region and international naval cooperation has contributed much towards maritime security.

32 'Human trafficking: Greed and the trail of death', *The Independent*, 25 May 2006.

33 'Multi-national force deployed to combat piracy off East African coast', *Biblioline Basic*, in <http://www.eastandard.net>.

34 K. von Hoesslin, 'A Medal for Gallantry, Impending Negligence Lawsuit, and a Boatload full of Speculation: The elusive Seabourn Spirit Affair', in *Protocol Strategic Insights*, No 8, June 2007.

THE CONTRIBUTION OF NAVAL FORCES AND COAST GUARDS

The contribution navies could make is clearly based on their ability to use force and to project power. Naval forces have a unique advantage over armies and air forces in the sense that they do not necessarily appear menacing. They can easily perform diplomatic roles in foreign ports, but can also quickly switch from a peaceful or diplomatic role to a belligerent one. In managing the tumultuous post-Cold War environment, navies seldom conduct high level operations, while the frequency of operational duties, often termed "maritime operations other than war" continue to be high. This can include everything, from low-level policing to diplomacy and coercion.

In strategic terms navies can typically protect and facilitate merchant shipping and military supplies, deny an opponent the use of the sea, protect resources along the coast and offshore, acquire bases from which to operate, move and support troops and gain and maintain air and sea control in support of operations both at sea and on land.³⁵ Most navies and coast guards are essentially concerned with securing their Exclusive Economic Zone (EEZ), while many of the larger navies are also concerned with maintaining good order on the high seas, at maritime choke points and even in the EEZs of other countries. Many naval planners and theorists maintain that in future naval forces will be more involved in expeditionary forces, conducting operations in littorals far from home, than in the open ocean. Such forces are bound to be multinational in character, with other services participating, and will have limited means and limited aims.³⁶ The issue, however, is to what extent decision makers are prepared to get involved in problem areas and how much effort they are prepared to commit.

Though the tasks navies could be called upon to fulfil in this region might include the traditional tasks such as response to military threats, the focus is, and will be, rather on control of the sea and sea lanes of communication, illicit trade and traffic at sea, threats relating to piracy and terrorism, humanitarian and disaster relief, environmental concerns and the exploitation or overexploitation of maritime resources, pollution control and general enforcement of law at sea. Managing the maritime environment and coping with the threats require traditional tasks and the physical presence of naval forces, as well as advanced electronic and scientific knowledge and intelligence and multinational cooperation.

Navies refer to operations aimed at combating illegal activities such as hijacking, piracy, human trafficking and terrorism as maritime security operations. Ships engaged in such operations could also assist seafarers in distress and generally maintain good order at sea – operations that therefore fall short of open warfare and which are often referred to as "operations other than war".

Good Order at Sea

Piracy is endemic in the Horn of Africa region and the International Maritime Bureau warned that if the international naval vessels operating around the Horn of Africa do not do more,

³⁵ J.B. Hattendorf, 'The Conceptual Foundations for Maritime Strategy in the 21st Century' in *Africa Defence Review*, No 18, 1994 in <http://www.iss.co.za/pubs/ASR/ADR18/Hattendorf.html>.

³⁶ G. Till (ed), *Seapower at the Millennium*, p.5.

for example also intercept and apprehend suspicious craft, unrestrained piracy will continue.³⁷ Large sophisticated and expensive warships are not necessary to suppress piracy as smaller ships can do the work. The reality is that mostly sophisticated naval vessels operate in the region. If pirates threaten shipping, any warship in the vicinity must act. Naval vessels have managed to destroy a number of suspected pirate vessels and have captured pirates. They have also assisted ships in distress such as the North Korean freighter, the *Dai Hong Dan* whose crew managed to overpower hijackers in October 2007. The destroyer *USS James E. Williams* came to her assistance and three seriously wounded North Koreans were treated aboard the American destroyer.³⁸ The fight against piracy surely makes for strange bedfellows.

After a series of well-publicized pirate attacks in the first quarter of 2008, some dramatic relief was offered. On 4 April the French luxury yacht *Le Ponant* and her crew of 30 were seized by Somali pirates. A few weeks later, after the ransom (Euro 1,25 million) was paid and the crew rescued, elite French troops attacked, killing or capturing the pirates.³⁹



French commando boats can be seen at the stern of *Le Ponant*, with the French frigate *Le Commandant Bouan* in the background, off Somalia's coast on 12 April 2008. French forces swooped in the pirates after they released the hostages, seizing six and recovering sacks of money. (Picture courtesy French Navy)

Escorting merchantmen is a classical role warships can perform. A successful example in this sphere is the French and Dutch naval escorts for the food aid ships of the WFP since November 2007.

Control of fishing is a typical "blue light" function as it requires inspections and a constant presence at sea, but usually not physical force. In July 2007 the Somali and Yemeni Ministers of Fisheries agreed to protect traditional fishermen and cooperate in combating illegal fishing and piracy.⁴⁰ It is an important step ahead, yet the challenge is to enforce it.

37 'Piracy Plagues Somali Waters', OXFAM, 19 November 2007, in http://www.forbes.com/home/business/2007/11/16/somalia-piracy-africa-biz-cx_1119oxford.html.

38 'Waters That Prompt Fear From the Toughest of Sailors', *New York Times*, 3 July 2006, in <http://www.nytimes.com/2006/07/03/world/africa/03somalia.html>; and 'Navy helps foil Pirate attacks on Merchant Ships off East Africa', *Virginian-Pilot*, 31 October 2007, in CHINFO News Clips, 31 October 2007.

39 'Update Report No. 1 Somalia', *Security Council Report*, 2 May 2008, in <http://www.securitycouncilreport.org/site/c.gIKWLMTIsG/b.4096805/#top>; 'Brute Force on the High Seas', *Der Tagesspiegel*, 25 April 2008; and 'Le Ponant crew released', *Weekly Piracy Report*, International Chamber of Commerce, Commercial Crime Services, 14 April 2008, <http://icc-ccs.org/main/news.php?newsid=108>.

40 'Yemen, Somalia agree on Protecting Fishermen', *Yemen News Agency*, 5 July 2007, in http://www.illegal-fishing.org/item_single.php?item=news&item_id=1745&approach_id=17.

Without proper navies states in the region find it very difficult to guarantee their maritime sovereignty and to protect their maritime territory and citizens from threat, and naval diplomacy and assistance are important ways of dealing with the problem. This, however, implies international naval assistance in the fields of equipment, training and development.

Maritime diplomacy

Though the so-called "blue-light" duties (or maritime constabulary tasks) navies perform are usually tedious and routine tasks they often fall within the sphere of maritime diplomacy and can at times even be coercive, specifically if they involve combating international piracy and terrorism, the detection and prevention of smuggling and countering environmental threats at sea.⁴¹

The traditional gunboat diplomacy can work if illegal acts are attributed to a specific state or group of states. In this case, however, there is no real state authority to influence, so international naval vessels or the ships of a group of states should rather be prepared to act coercively against unlawful acts at sea.

A fallacy that must be discarded is that peace operations are not "proper soldiering". Certainly events in Somalia and off Somalia have indicated that unmotivated, poorly trained forces with flawed objectives can lead to disaster from a peacekeeping and humanitarian point of view.⁴² A sense of worth and pride should be linked to participation in peace operations. Such operations could be seen as an opportunity to provide additional training and flexibility, develop forces, enhance operational readiness, cooperate with other forces, and build *esprit de corps*, while at the same time contributing towards international and regional security and well-being.

Cooperation

Important advantages are to be found in the ideals of collective security and regional co-operation. In the Somalia situation, the ideal would be for the AU and UN to cooperate; the issue, however, is to share exactly the responsibility at sea and on land.

With the type of maritime security problems experienced here, the necessity of an intergovernmental approach is evident and it must address issues related to piracy, harbour security, fishing, illicit trafficking, and many more. As individual states continue to operate navies with severely limited budgets, nations must, and surely do, recognize that international and regional cooperation may allow more to be done with less.

In order to enhance maritime security in the region, greater awareness of the realities of the situation is necessary; information must be shared between role-players; policies and laws to facilitate cooperation must be established and the various agencies and countries involved should cooperate. As far as individual states are concerned, they should enhance their capacity to limit maritime threats

41 M.H. Murfett, 'Gunboat Diplomacy: Outmoded or Back in Vogue?' in A. Dorman and M.L. Smith (eds), *The Changing Face of Maritime Power* (Basingstoke, 1999), p.87.

42 M. Pugh, 'International Peace Support Operations from a Maritime Perspective' in A. Dorman and M.L. Smith (eds), *The Changing Face of Maritime Power* (Basingstoke, 1999), p.87.

by building up their levels of law enforcement, customs, fisheries and navies to make it possible to enforce sovereignty in their ports, territorial waters and economic exclusion zones.

One of the possible responses to the maritime security problem is the establishment of a Regional Maritime Control or a Search and Rescue system that is operated from one of the states in the region. But then naval forces must be available to respond and cooperate. Furthermore, the effort to establish some sort of control, by itself, will mean nothing unless such control has an effect. Ultimately such control can, in the widest sense, also assist in controlling events on land, especially if good cooperation between actions ashore and at sea exist.

Cooperation should also include the various agencies operating in the area and integrated policies are necessary to address maritime security. An ideal response would be to establish a regional maritime control or coordinating centre for the region. However, for control to be effective naval or coast guard forces must be able to respond and cooperate.

UNILATERAL ACTIONS BY STATES

Yemen is an important role player in the Gulf of Aden and has been affected by the crisis in Somalia as many thousands of Somali refugees have fled there. In addition some tension has existed between Yemen, representatives of Somalia and Somaliland as a result of allegations relating to illegal fishing, piracy and smuggling. The Yemeni Coast Guard is active in a policing role at sea and it is expanding slowly, but lacks proper equipment. Efforts to get the better-equipped Yemeni Navy to join Coast Guard operations have not been very successful and problems remain. In the meantime, Yemeni authorities have done much to improve port security in Aden.

In response to the joint appeal from the WFP and the International Maritime Organisation, France decided to provide a naval escort to secure the delivery of food aid to Somalia. Two ships of the WFP left Mombasa on 16 November (with more than 3 600 tons of food on board) in the company of the French corvette *Commandant Ducuing*. The ships arrived safely in Somalia three days later. For a few months a French naval vessel protected the WFP ships that deliver aid between Mombassa and Somalia, while a naval commando detachment provided military protection to ensure the deliveries.⁴³ The World Food Programme (WFP) has thanked the French government for providing a naval escort to protect their two ships against piracy.⁴⁴ In April 2008 the Dutch frigate, *KNS Evertson*, commenced escorting WFP vessels.⁴⁵ This is certainly an effective way of securing the delivery of aid and warships such as frigates and corvettes are well suited to perform such tasks. It will be interesting to see if other countries assist in the same way.

Higher awareness and a greater will to act are necessary amongst states in the region. Efforts at sea must be complemented by proper port security and policing. What needs to be improved is port security in terms of physical security, law enforcement, customs and excise controls

43 Official French sources.

44 'Concerned at conditions in Somalia, Security Council urges end to violence', UN News Centre, 19 November 2007, in <http://www.un.org/apps/news/story.asp?NewsID=24715&Cr=somalia&Cr1=>

45 Official French and Dutch sources; Radio Netherlands, 1 April 2008, in CHINFO News Clips, 3 April 2008; and 'Concerned at conditions in Somalia, Security Council urges end to violence', UN News Centre, 19 November 2007, in <http://www.un.org/apps/news/story.asp?NewsID=24715&Cr=somalia&Cr1=>.

and environmental control. In terms of policing, improving the authority of the state in ports and coastal waters is necessary. Improving these elements of maritime security would also add to higher state revenue through taxes and tariffs.

The Contribution of CTF 150

Currently Combined Task Force (CTF) 150, which was established at the time of *Operations Enduring Freedom*, conducts maritime security operations in the Gulf of Aden, Gulf of Oman, the Arabian Sea, Red Sea and the Indian Ocean. CTF 150 comprises naval forces from France, Germany, Italy, Pakistan, the United Kingdom and the United States.⁴⁶ A key responsibility is to monitor maritime crime and piracy and to conduct "operations to assist states in the region to combat terrorism and to enhance regional stability".⁴⁷ According to official sources, CTF 150 is placing much emphasis on maintaining a sustainable presence off the Horn of Africa for an indefinite period of time.

The involvement of most of the European states in CTF 150 relates to their responsibilities within NATO and the EU. These countries are unlikely to get involved in Africa unilaterally and are usually careful to first consult with the AU and African nations. Although some of these navies (like the German Navy) are stretched for resources due to their involvement in other regions like the Middle East, they will probably remain a part of CTF 150. A factor that limits CTF 150 is the restrictions posed by international law. It will therefore be interesting to see if other countries will become involved in the new French initiative of escorting ships of the WFP between Mombasa and Mogadishu.

When French Rear Admiral Alain Hinden handed over command of CTF 150 to his successor, Pakistani Commodore Khan Hasham Bin Saddique (on 1 August 2007), he summarised his command period as follows: "... we boarded dozens of vessels, saved just as many lives, visited every nation in the region, and fought off pirates. Having to conduct a diverse nature of operations in a large area of responsibility every single day brought new challenges".⁴⁸

CTF 150 is without doubt an important role-player in the maritime security of the Horn of Africa region. Unfortunately though, they have no African participants and more work can probably be done to gain confidence from decision makers in Africa.

USA and AFRICOM

Maritime security in Africa is high on the agenda of the new Africa Command (AFRICOM) of the USA.⁴⁹ Its aim is to protect America's strategic interest in Africa and to assist African countries with military training and conflict prevention. AFRICOM also plans to assist African coastal nations in building at least credible coast guards.

46 'Combined Task Force 150', *US Fifth Fleet Combined Maritime Forces*, in <http://www.cusnc.navy.mil/articles/2007/162.html>.

47 'Piracy and Maritime Crime (Horn of Africa)', *UK Maritime Trade Operations*, UKMTO Dubai Briefing 21 September 2006.

48 'French Navy Hands Command of CTF 150 to Pakistan', *US Fifth Fleet Combined Maritime Forces*, 1 August 2007, in <http://www.cusnc.navy.mil/articles/2007/162.html>.

49 Africa Command Gives Top Priority To Aggressive Maritime Security, *American Forces Information Service*, 24 October 2007, CHINFO News Clips, 24 October 2007.

In the case of Somalia, AFRICOM can be of little immediate assistance, because of the current instability. Even though the US regards Somalia as a "failed state" unable to prevent Al Qaeda supporters from seeking refuge, it has maintained an interest in Somalia, but is not prepared to again get involved directly. The view is that key partnerships can be created and the US Navy indicated its interest in keeping CTF 150 going.

Many in Africa are uneasy about AFRICOM, stating that it might just be the African dimension of an extension of the American "war on terror". A number of African countries, notably Libya, Nigeria and South Africa, have expressed reservations about it as it could signal an expansion of American influence in Africa with the primary focus on protecting oil interests. Nigeria is against AFRICOM basing its headquarters in West Africa and stated that it will instead work towards establishment of an African Standby Force.⁵⁰ The USA also has forces in Djibouti (Combined Joint Task Force – Horn of Africa (CJTF-HOA)), but due to African opposition, AFRICOM's headquarters remain in Stuttgart, Germany.⁵¹ It therefore seems unlikely that AFRICOM will impact directly on the security situation in the Horn of Africa region in the short-term.

POLITICAL CONSENT

The deployment of naval vessels to the region in an effort to enhance maritime security is in principle a good idea, but then there must a clear commitment and policymakers must give clear guidelines and a clear mandate to navies. Examples in military history abound of fiascos resulting in forces being deployed without clear strategic objectives and political commitment. The mere presence of a force and the application of firepower on its own are simply not enough.

Political consent is always important. Usually politicians are wary of casualties and costs, while even the smallest of military actions can have tremendous political and strategic significance. For example, marines patrolling a harbour can cause an incident with consequences for grand strategy if something goes wrong.

Even if naval expeditionary forces are involved under a Chapter 6 (peacekeeping) or a Chapter 7 (peace enforcement) UN mandate, political consent all round is still important. As part of peacekeeping operations, navies would typically monitor and observe, do coast guard duties and provide safe havens, while for peace enforcement tasks conventional high intensity operations must be sanctioned. Yet the difficult area is in the middle – if consent is partial with some parties giving consent and others not, peace support forces would have to control the situation with a delicate mix of persuasion and coercion. In such a situation (perhaps a future Somalia scenario) it might be necessary to enforce safe havens, separate forces, disarm forces or deny movement to one, while guaranteeing it to another.⁵² Yet, the danger of "mission creep" exists, with things just assuming a character and life of their own over time. Of the utmost importance then, would be the issue of having clearly defined objectives with coherent political-strategic guidelines.

50 "Nigeria Won't House AFRICOM", Associated Press, 19 November 2007, CHINFO News Clips, 20 November 2007.

51 'Nigeria Won't House AFRICOM', Associated Press, 19 November 2007, CHINFO News Clips, 20 November 2007.

52 G. Till, *Seapower*, pp.239-40.

In the Horn of Africa region, the issue of political consent is specifically pertinent due to the maritime strategic importance of the region. Countries deploying naval units in the region are therefore usually anxious not to offend other countries in the region diplomatically. However, realities dictate that the maritime security problems require urgent attention and it seems that political decision makers are aware of it. Perhaps now the "how" is a bigger issue than "why".

POSSIBLE AFRICAN ROLES AND RESPONSIBILITIES

Maintaining maritime security around the coast of Africa is essentially an African responsibility and it should not only be done by foreign naval tasks forces. But African navies are small and maintaining maritime sovereignty in their own waters is already a mammoth task for many states; to also participate for an indefinite time in a multi-national naval task force would be a very challenging proposition.

It is important to identify what tools African navies that wish to address the maritime security problems off their coasts require, as the challenge is often that they simply do not have the wherewithal to perform the necessary tasks. Prominent states and navies can assist smaller navies to acquire and develop the knowledge, skills and material means necessary to manage the maritime security situation.

So how can Africa act in this situation? Why not focus on good capabilities, for example if South Africa has the best blue water capability, why not utilise it for the purpose of African security? If it is possible for navies to specialise in different fields, then capabilities can be combined, which in the long run would be cheaper than for all navies to try and do everything. In this context one can learn from other examples, such as NATO. Perhaps such an approach might be the way forward for the African Standby Force, specifically as it would financially be too burdensome for everybody to try and do everything. At the *Seapower for Africa* symposium held in Abuja, 2006, it was proposed that four naval task groups (from Egypt, Nigeria, Kenya and South Africa) be part of the AU Standby Force. This proposal has not yet been implemented

If African navies decide to work together, key problems they would have to manage are to develop the required common procedures, specifically for command and control, to create standardized logistics and operational doctrine that would make proper and effective cooperation possible, to establish a common communication ability and also to make sure national participants are all on an equal footing, with the smaller contributors not being dominated by the larger.

Recently Kenya's coastline and harbours, which were always a headache to government, came under scrutiny and much is being done to enhance security in these areas. Government is working hard to improve port security in Mombasa since the port was described as a soft target by American and Kenyan surveys.⁵³ Improvements to the security of the port include electronic surveillance systems, physical security as well as a higher police and security presence.

53 "Kenya: Country Moves to Tighten Security at Mombassa", allAfrica.com, 2 October 2007, in <http://www.allAfrica.com:Kenya>.

In addition, the relationship between Kenya and the US seems strong and the US has offered security equipment (including six speedboats) to the Kenyan Navy and assisted with training. Kenyan personnel underwent intensive anti-terrorism training in Mombasa.⁵⁴ The six speedboats (five 8-metre boats and one 13-metre craft) will improve efforts to police the country's territorial waters and Kenya has stepped up coastal patrols to enhance maritime security.⁵⁵

It is obvious that the South African Navy (SAN) in principle can contribute. As early as 1998 the Deputy Minister of Defence stated that "the South African Navy has a valuable role to play in supporting South Africa's ... regional and international policies. The benign nature of the Navy as a diplomatic tool is one that South Africa can use as a force for global good ... in support of our South African neighbours and in protecting the region's broad interests".⁵⁶ Both the EU and the USA have invited the SAN to participate in CTF 150 and play a leading role in these patrols. To date the SA Navy has declined the offer, citing very credible reasons, but willingness exists to participate in the future.

CONCLUSION

In strategic, economic and humanitarian terms maritime security is important to African nations. This is probably nowhere more evident than in the case of Somalia, where the lack of stability ashore has impacted negatively on the situation at sea. To improve the maritime security situation in the Horn of Africa region, higher awareness of the realities of the situation, improved cooperation between role-players and enhanced capacities to limit maritime threats in the states involved is necessary. Essentially it is not really so much what is to be done, but rather to have the political commitment, to find the wherewithal to perform the tasks and to give those doing the jobs a clear mandate.

No single state in the region would be able to solve the maritime security problems on its own. Proper control over the maritime domain and the marine riches of the region requires firm control and collective action. Investment in maritime security will have human security benefits within the region as well as global implications.

The message is unequivocal; an enhanced integrated approach to maritime security in the region is necessary, despite financial and material limitations. Navies and civilian role-players involved in the maritime sphere should develop an integrated approach that connects all aspects and they must think, plan and work together. In fact, what is necessary for the region is an integrated "ocean policy", involving national, regional and international role-players.

54 'Kenya: Country Moves to Tighten Security at Mombassa', allAfrica.com, 2 October 2007, in <http://www.allAfrica.com:Kenya>.

55 'US donates boats to secure Kenya's Coastline', *The Standard* (Kenya), 9 October 2006.

56 M. Edmonds and G. Mills, *Beyond the Horizon. Defence, Diplomacy and South Africa's Naval Opportunities* (Johannesburg, 1998), pp. vii-viii.

SELECTED ECONOMIC DIMENSIONS OF MARITIME SECURITY

André Roux

INTRODUCTION

This paper explores various macro-dimensions of the economics of defence in South Africa as a preamble to an overview of selected economic arguments pertaining to maritime security. The economic contribution of the fishing sector is highlighted as validation of the continued importance of the world's marine resources.

THE ECONOMICS OF DEFENCE

Conventionally (and intuitively) it is assumed that the opportunity costs of rising defence expenditure in a developing country are, from a socio-economic point of view, unacceptably high. This is so because – presumably – scarce resources are diverted from non-military endeavours that are more effective and meaningful in addressing issues such as economic growth, development, job creation, poverty relief and the like (See Figure 1). By extending the argument to include the crowding-out effect, inflationary financing of defence spending, widening current account deficits, oligopolistic market conditions and human capital distortions, the conclusion is reached that a high defence burden compromises sustainable economic growth and socio-economic development.

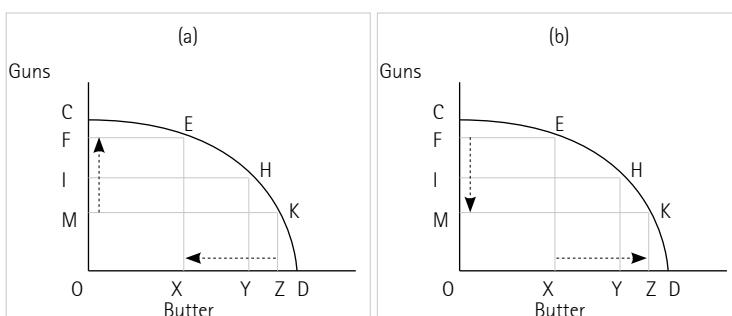


Figure 1: The opportunity costs of defence spending. Assuming that all available resources are fully employed, an increase in spending on defence ("guns") can only occur at the expense of spending on civilian goods ("butter") (Panel (a)). In Panel (b) a reduction in defence spending frees up resources for civilian spending (the "peace dividend").

Source: Own compilation

If this argument is valid then, by implication, the opposite should hold true – a sustained decline in the defence burden (which is the expected outcome of a peace dividend) should

have a beneficial impact on a developing country's economic and socio-economic prospects. However, this kind of reasoning, could – at least in the case of South Africa – be flawed on a number of counts.

First, there can be no disputing the fact that South Africa's economic growth and development performance between the mid-1970s and the early 1990s was sluggish, erratic, uneven and distorted. Also, there can be no doubt that defence spending reached unprecedented peaks in that period. However, the assumption of a causal relationship between the two events could well be indicative of a number of conceptual and contextual irregularities. These include confusing correlation with causation (the *post hoc ergo propter hoc* fallacy); looking at reality through tinted lenses; subjectivity and bias.

A second potential flaw in the argument emerges when considering the possibility that defence expenditure may actually be beneficial for economic growth in developing nations. Sandler and Hartley (1995) list the following conceivable benefits (compiled from work by Benoit, Deger, Mintz and Huang):

- Developing countries can experience a stimulative effect from defence spending during periods of unemployment, under-consumption or underinvestment.
- Developing nations may experience direct technological effects and spin-offs from the defence sector. If spin-offs are later used in the civilian sector, growth is promoted.
- Defence spending can enhance growth if some portion of the spending is allocated to social infrastructure development (e.g., roads, dams, airports).
- Defence spending can promote growth by providing nutrition, education and training (i.e., by investing in human capital), which may later have a positive influence on productivity in the civilian sector.
- Defence spending can support growth by maintaining internal and external security – a necessary, although not sufficient condition for the smooth and effective functioning of a market system, and for attracting foreign investment.

A third possible flaw revolves around the interpretation of the concept of the peace dividend. Sandler and Hartley (1995) propose three possible interpretations, at the same time exposing a number of myths. The *uninformed (naïve)* view of the peace dividend is that it is large and instantly available for use to, for instance, reduce government, build infrastructure or finance the social wage. In reality, however, a structural decline in defence spending requires a fundamental reallocation of resources in the economy and major adjustments in employment patterns, capital utilisation and the like.

The *simple* view of the peace dividend is that it will serve as a panacea to a country's economic and social problems. However, as argued earlier, this will depend on the nature of the structural relationship between defence spending and economic performance.

The final interpretation of the peace dividend – the *informed* view – is that it requires a major reallocation of resources, involving costs and taking time. This view dispels the myth (and hope) that adjustment problems and costs of disarmament will be relatively small and localised, and therefore ignorable.

From these reflective and cautionary observations it becomes clear that in order to establish the existence and extent of South Africa's peace dividend, it is necessary to determine the relationship between a range of macro-economic variables (such as defence expenditure, non-defence government expenditure, private investment, non-defence public investment, savings, consumption spending, exports and imports) and economic growth.

Until the middle of the 1990s the empirical analysis of the defence-growth nexus in the case of South Africa relied largely on anecdotal evidence and pre-conceived expectations, often based on international observations. Subsequently, however, various papers have considered the macro-economic impacts of defence spending, using different theoretical approaches and covering different periods. Econometric models of simultaneous equations should capture – at the very minimum – the following (Roux, 1996):

- The direct impact of military spending on economic growth (which may be positive or negative).
- The indirect effect through savings to reflect the fact that military spending increases government expenditure and may reallocate potential savings away from investment, thereby suppressing economic growth.
- The effect on resource mobilisation, which is manifested in a decline in the propensity to save as consumer spending rises to offset potentially lower government expenditure on social services such as education, health and housing.
- The possibility that, in an open economy, military-related imports may occur at the expense of potentially more productive civilian imports.
- The possible endogeneity of military expenditure (i.e., the notion that, like other forms of government expenditure, military spending is constrained – at least partly – by overall economic performance).

In qualitative terms, the results of various model specifications and estimations based on the above approach (viz., Roux, 1996; Roux, 2000; Dunne, Nikolaïdou and Roux, 2000) can be summarised as follows:

- The basic Benoit (1973) hypothesis that military spending in developing countries is positive for economic growth has not applied to South Africa.
- Military spending has not influenced – positively or negatively – the gross domestic savings rate.
- The trade balance of the balance of payments has reacted negatively to military spending.
- Military spending decisions until the mid-1990s did not take cognisance of economic considerations; this is clearly no longer the case.

Overall, military spending appears to have a moderately negative impact on economic growth. This suggests that cuts in military spending present an opportunity for improved macro-economic performance. However, it is too early to prove this hypothesis statistically; consequently, the manifestation and scope of South Africa's post-1994 peace dividend is, for the time being, best captured in a few speculative and reflective comments:

- The reallocation of societal resources from defence-related to civilian purposes could have a benign effect on overall welfare in the long run.
- The sustainability of the positive effect will be a function of the purposes for which the released resources are employed. If, for example, they are used to finance the

elimination of socio-economic disparities through current, as opposed to investment, spending, the positive growth spill-overs may be short-lived.

- A lower military burden should reduce the crowding-out effect on investment.
- Reduced military spending, in conjunction with increased financial inflows, could alleviate balance of payments pressures, which will in turn, enhance the positive multiplier effect on economic growth.
- The potentially negative impact on employment of disarmament and conversion could be offset by the outcomes of the strategic arms package.

Finally, it is worth repeating that South Africa's poor economic and development performance in the two decades prior to 1994 was largely a function of underlying structural deficiencies and institutional constraints, rather than excessive military spending. In the final analysis, therefore, meaningful and sustainable growth will be attained only when these deficiencies and constraints are removed – not as a result of a decline in the defence burden.

MARITIME SECURITY: THE ECONOMIC ARGUMENTS

The conceptualisation and description of "security" has evolved significantly in the post-Cold War era (and, indeed, the post-apartheid era). Security now entails not only narrower considerations related to national and personal "safety", but also broader holistic issues, such as military stability, political democracy, human rights, social development and economic development. This view resonates with the model presented in Table 1, which postulates that the achievement of human development is obstructed *inter alia* by a state of insecurity in any one of the economic, scientific, political, ethical/moral or aesthetic dimensions.

Table 1: Human aspirations and development

Classical aspirations		Primary (first order) obstructions		
Dimension	Expected yield	State of scarcity	State of maldistribution	State of insecurity
Economic	Goods; services PLENTY	Poverty; inefficiency	Disparity; exploitation	Fear of deprivation; instability
Scientific	Information; knowledge; understanding TRUTH	Ignorance; incompetence	Elitism; illiteracy; lack of communication	Obsolescence
Political	Influence; participation LIBERTY	Impotence; powerlessness	Centralisation; autocracy	Illegitimacy
Ethical/moral	Peace GOOD	Normlessness	Conflict; discrimination	Fanaticism
Aesthetic	Sense of belonging; excitement BEAUTY	Meaninglessness; hopelessness; boredom	Lack of shared image of desired future; selfishness	Fear of loss of identity & individuality; fear of loneliness & isolation

Source: Gharajedaghi, 1985

Moreover, while economic growth alone does not guarantee (economic) development, sustained economic growth does seem to be an important *sine qua non* for development. In this regard,

the Commission on Growth and Development (2008), after examining 13 countries which, since WWII have recorded economic growth rates of at least 7% per annum for a period of at least 20 years, concluded that there are five ingredients for success, viz.:

- Achieving and maintaining macro-economic stability.
- A futures orientation – high rates of saving and investment.
- Allowing markets to allocate resources.
- Committed, credible and capable governments and administrations.
- Full exploitation of the world economy, i.e., importing what the rest of the world knows, and exporting what the rest of the world wants.

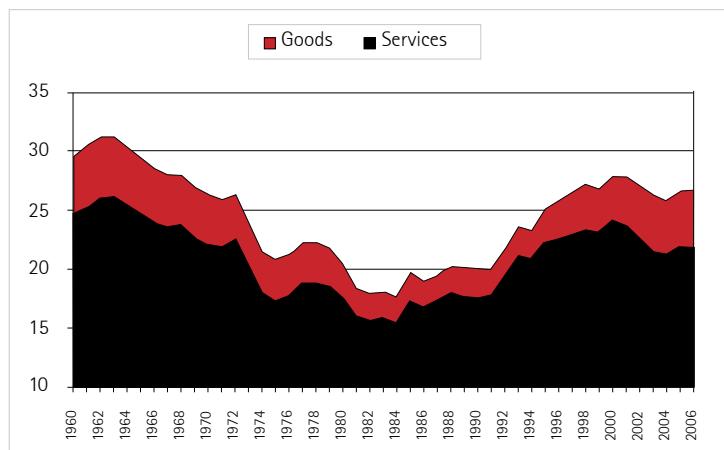


Figure 2: SA exports as percentage of GDP

Source: Computed from SA Reserve Bank

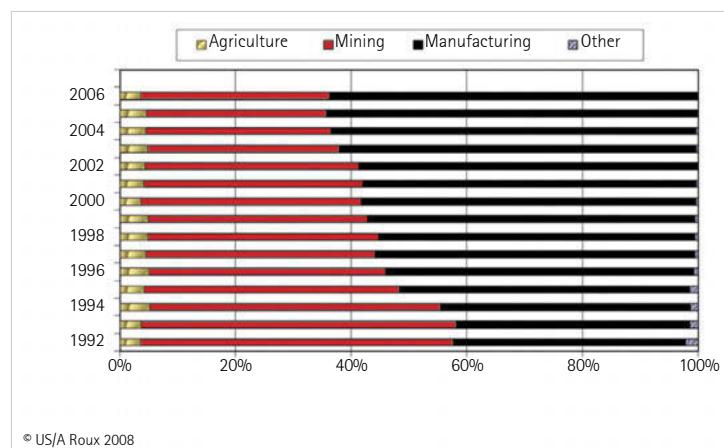


Figure 3: Structure of SA merchandise exports (percentage of total)

Source: Computed from DTI

MARITIME SECURITY IN SOUTHERN AFRICAN WATERS

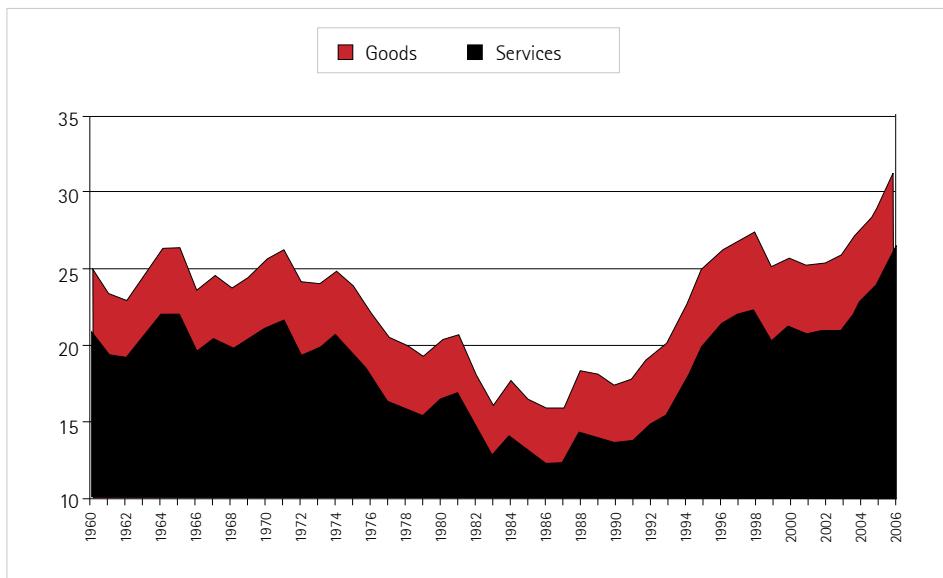


Figure 4: SA imports as percentage of GDE

Source: Computed from SA Reserve Bank

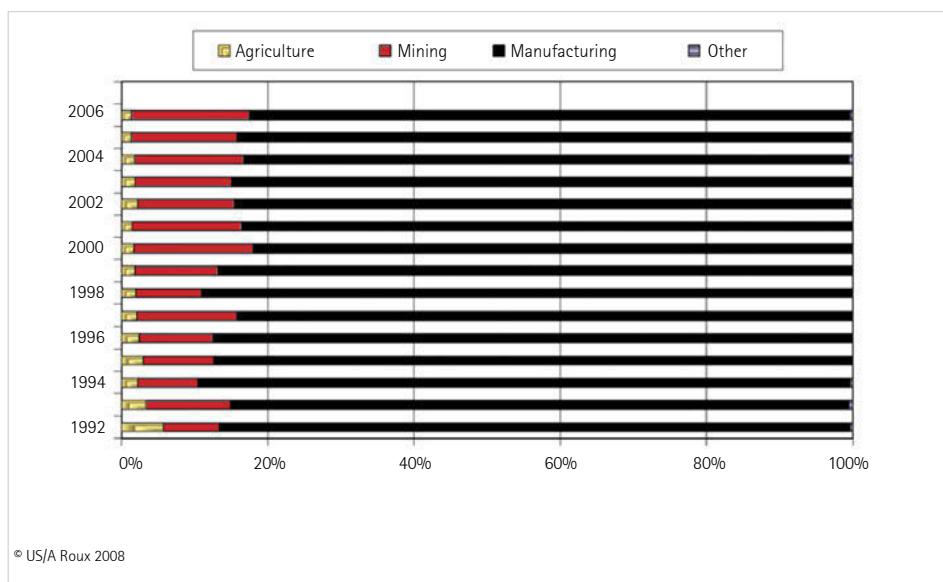


Figure 5: Structure of SA merchandise imports (percentage of total)

Source: Computed from DTI

It is with respect to the last ingredient that maritime security becomes significant. A cursory examination of Figures 2 to 5 shows the following:

- More than a quarter of South Africa's production of goods and services is sold to the rest of world, thereby earning much-needed foreign exchange, contributing to economic growth, and assisting in job creation earnings; economic growth; job creation.
- About a third of domestic spending is acquired from the rest of the world, mainly in the form of oil, machinery and other intermediate inputs that are crucial for future domestic production and growth.
- A large proportion of South Africa's international trade is in the form of agricultural, mineral and manufactured goods.

In summary, starting from the point of departure that international integration is a *sine qua non* for high and sustained rates of economic growth, it is observed that South Africa already has a fairly open economy, with exports and imports constituting a significant portion of economic activity. However, in order to reach and maintain a higher growth trajectory, export and import volumes will have to increase further. Given the nature and "bulkiness" of what SA exports and imports, maritime transport is (and will remain) crucial. This introduces an element of vulnerability – to piracy, smuggling, dumping of toxic waste, marine pollution and the like.

THE FISHING SECTOR

The significance of the fishing sector on a global level is highlighted by the fact that more than a billion people rely on fish as their main or sole source of protein, largely in developing countries. Moreover, more than half of the global fish production is traded internationally, with a net flow from developing to developed countries. However, if current trends in habitat destruction and over-fishing continue commercial stocks might collapse completely before 2050, resulting in less food for humans. The Atlantic is likely to be the first to be fully exploited and eventually over-fished, followed by the Pacific. There is still minor potential for expansion of sustainable capture fisheries in the Indian Ocean and the Mediterranean. Meanwhile, a global shortage is expected by 2015, resulting in a sharp increase in real prices, and jeopardising the food security of millions. Also noted is the phenomenon of illegal fishing by highly mobile fleets.

In South Africa fishing accounts for some 1% of GDP, although the benefits are unevenly distributed along the coast. Directly, some 29 000 people are employed in the industry, while approximately 60 000 jobs are created indirectly.

CONCLUSION

In the light of South Africa's extended coastline and the importance of international trade in goods, there can be no doubt that the country is a maritime nation. Indeed, exports, imports, ports and fishing resources are crucial ingredients of SA's future growth, development and poverty alleviation prospects. Globalisation (and, in particular, trade in merchandise exports and imports), while unavoidable and crucial, brings with it additional security challenges and vulnerabilities. In this regard maritime security is a prerequisite for holistic security and development.

In the 21st century, therefore, maritime security needs to embrace at least two distinct, but not mutually exclusive functions:

- "Traditional" security demands (such as policing; protection of sea routes, ports, etc.)
- "New" demands (such as the role of international trade and fishing in human security).

A key question for and challenge to policy-makers and politicians is whether the execution of these functions should be of a purely naval nature, or should the "market place" deal with them, or is a hybrid of the two the most efficient model to adopt.

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THE IMPORTANCE OF PORT SECURITY TO MARITIME SECURITY

Castro Khwela

INTRODUCTION

South Africa's maritime sector, in particular its eight commercial seaports, play a major role in the economic well-being of the country as well as the economies of neighbouring landlocked members of the Southern African Development Community (SADC). Approximately 95% of the trade to the region passes through these ports and those of East Africa, providing a vital link in the logistic chain that binds Southern Africa inextricably together. Ships carry approximately 98% of the South Africa's multifarious exports and imports. Each port has a natural hinterland with a defined market and this, to a large extent, determines the nature and types of cargo handled at each port. If one port experiences any sort of delay or congestion, the effect is often felt across the entire region.

From a security perspective, the Transnet National Ports Authority of South Africa (NPA) "has a responsibility of facilitating trade and contributing positively to strengthening the economy and contributing to the international competitiveness of South Africa and the Southern African Region. This implies that the Ports have to function as effective and efficient business units to meet these demands, through a secure enabling environment". The National Ports Act 12 of 2005 places the responsibility of security of the overall ports system with Transnet NPA.¹

In order for Transnet National Ports Authority to effectively carry out the above mandate, the following aspects should be thoroughly looked at:

- The SA Maritime Security Regulations: The ISPS Code
- South African Port Security Legislative Arrangements;
- The SA Maritime Security Regulations;
- Maritime Security in the Port of Durban;
- Identified Threats; and
- Appropriate Counter Measures.

THE IMO MARITIME SECURITY INITIATIVE: THE ISPS CODE

The International Ship and Port Facility Security (ISPS) Code came about as a result of the IMO's (International Maritime Organisation) Assembly decision to develop measures to enhance maritime security. The ISPS Code and SOLAS² amendments were adopted on 13 December 2002 at the IMO Conference, which resolved that the Code shall be fully implemented not later than 1 July 2004. Accordingly, all ships shall then carry a valid International Ship Security Certificate (ISSC) and all ports and port facilities are required to have a Local Certificate of Compliance.

1 NPA Security Policy, 25 January 2007.

2 Safety of Life at Sea.

The purpose of the Code was mainly to establish an international framework to enhance maritime security through which ships and port facilities can co-operate to detect and deter acts which threaten security in the maritime transport sector; and to provide a standardised and consistent framework for evaluating risk.

As of July 1 2004, the ports and port facilities were legally obliged to be in possession of Port Security Plans (PSPs) and Port Facility Security Plans (PFSPs) based on the ISPS Code, which had to be approved by the designated authority in each signatory state. The Code contains regulations and recommendations for all ports and port facilities that interface with ships larger than 500 gross tons (GT) on international routes.

The ISPS Code covers all ports and port facilities where interaction between the ship and the port takes place. It also covers, in terms of international trade, passenger ships (including high speed craft); cargo ships that are equal or above 500 GT (including high speed craft); as well as mobile offshore cargo handling units (OCHU).

Ships are required to have a Continuous Synopsis Record (CSR) from the insurer, which details the history of the ship. Ships should also be equipped with a ship-to-shore security alert system and have their identification numbers permanently marked and clearly visible. Moreover, ships should comply with the requirements for the security level of the ports they intend to enter. Finally, there is a requirement for Security Impact Assessments (SIA) to be conducted for new ship design and/or port land development.

THE SOUTH AFRICAN PORT SECURITY LEGISLATIVE ARRANGEMENTS

All security duties in South African ports must be performed in accordance with the following pieces of legislation³:

- The Constitution of South Africa Act 108 of 1996. The Constitution contains the Bill of Rights which seeks to protect, *inter alia*, the rights to privacy, religion, belief, opinion, freedom of expression, freedom of association, freedom of movement and residence and political rights.
- The National Ports Act 12 of 2005. This is the legal framework according to which Transnet National Ports Authority is obliged to manage the South African commercial ports.
- The Merchant Shipping (Maritime Security) Regulations, 2004. These regulations seek to regulate the security of the South African commercial ports, including the ships visiting the country's ports to conduct trade or private business. This is in line with the security requirements of the International Maritime Organisation.
- The Control of Access to Public Premises and Vehicles Act 53 of 1985. This legislation provides for the safeguarding of certain public premises and vehicles and for the protection of the people therein or thereon.
- The Criminal Procedure Act 51 of 1977. This Act specifies and clarifies the mandate and the powers of security officials in the performance of their duties.

3 NPA Security Policy, 25 January 2007.

- Private Security Industry Regulatory Authority Act 56 of 2001. This piece of legislation seeks to regulate the entire private security industry operating in the country.
- Protection of Information Act 84 of 1982. This Act provides for the protection from disclosure of certain information and to provide for matters connected therewith. No security official is to disclose information concerning Transnet NPA business to any person unless lawfully obliged to disclose the information after consultation with Transnet NPA.
- Promotion of Access to Information Act 2 of 2000. To give effect to the constitutional right of access to any information held by the State and any information that is held by another person that is required for the exercise or protection of any rights, and to provide for matters connected therewith.
- Electronic Communications and Transactions Act 25 of 2002. This legislation provides for the facilitation and regulation of electronic communications and transactions and to prevent the abuse of information systems.

THE SA MARITIME SECURITY REGULATIONS

South Africa became a signatory to the resolution on the ISPS Code and SOLAS amendments that were adopted on 13 December 2002 at the IMO Conference. The National Department of Transport (NDOT) was designated as the custodian for the implementation of the Code and it was given effect by the Merchant Shipping (Maritime Security) Regulations of 2004. The Maritime Security Regulations were signed by the Minister on the 19th of June 2004 and the Security Plans were delivered to the NDOT on the 22nd of June and were approved before the 1st of July 2004.⁴ Therefore, as of 1st of July 2004, all South African ports and port facilities were legally obliged to be in possession of a Port Security Plan (PSP) and Port Facility Security Plans (PFSP) that had to be approved by the designated authority (NDOT).

In terms of the Maritime Security Regulations, there are certain definitions that are important to note:

- Port Operator: For the South African ports "Transnet NPA".
- Port Security Officer: The person nominated by the port operator for security throughout the port.
- Port Security Plan: The plan developed to ensure the application of measures designed to protect the port in its entirety – the port facilities, ships, persons, cargo, cargo transport units and ship's stores – from the risks of a security incident.
- Port Facility: The location where ship/port interface takes place.
- Port Facility Security Officer: The person designated as responsible for the development, implementation, revision and maintenance of the Port Facility Security Plan and for liaison with ship security officers and company security officers.
- Port Facility Security Plan: The plan developed to ensure the application of measures designed to protect the port facility, ships, persons, cargo, cargo transport units and ship's stores from the risk of a security incident.

⁴ The regulations were made in the Schedule by the Minister of Transport under section 356 of the Merchant Shipping Act, 1951 (Act No. 57 of 1951).

- Ship/Port Interface: Means the interactions that occur when a ship is directly and immediately affected by actions involving the movement of persons, goods or the provisions of port services from or to the ship.
- Ship Security Officer: Means the person on board the ship, accountable to the master, designated by the company as responsible for the security of the ship, including implementation and maintenance of the ship security plan and for liaison with the company security officer and the port facility security officers.
- Ship Security Plan: Means a plan developed to ensure the application of measures on board the ship designed to protect persons on board, cargo, ship's stores or the ship from the risks of a security incident.
- Declaration of Security: Means an agreement reached between a ship and a port facility with which it interfaces, specifying the security measures that each will implement.
- Security Incident: Any suspicious act or circumstance threatening the security of a ship, including a high-speed craft, or of a port facility or of any ship/port interface or any ship-to-ship activity.
- Security Level: Is the qualification of the degree of risk that a security incident will be attempted or will occur.
- Security Level 1: Is the level for which minimum appropriate protective measures will be maintained at all times.
- Security Level 2: Is the level for which appropriate additional protective security measures shall be maintained for a period of time as a result of heightened risk of a security incident.
- Security Level 3: Is the level for which further specific protective security measures shall be maintained for a period of time when a security incident is probable or imminent.

The Director General (NDOT) is the designated authority to determine and declare the security level. Besides the definitions, the regulations also refer to the responsibilities of the various security officials within the port, most important of which are the Port Security Officer and the Port Facility Security Officer. The responsibilities of the Port Security Officer, who is often referred to as the Port Security Manager, include the following:

- Preparation of the Port Security Plan encompassing the Port Facility Security plans and submission to NDOT as per the Maritime Security Regulations.
- Implementation of the plan once approved.
- Overall responsibility for port security and surveillance on behalf of the port operator.
- Investigation of all security incidents.
- Interface with Port Facility Security Officers.
- Sign off Port Facility Security Plans.
- Maintain copies of the Port Security Plan and Port Facility Security Plans.
- Identification of threats and measures to counter these threats.
- Implementation of integrated physical security systems.
- Implementation of uniform security policy and procedures.
- Ensure that security of the port is addressed in a holistic manner.
- Access control to areas in the port.
- Identify restricted areas in the port.
- Ensure common procedures for security and responses to incidents.

- Ensuring standards for security personnel in the port are met.
- Conduct exercises at regular intervals and record outcomes, including Business Continuity Programmes (BCP).
- Ensure that security equipment is properly operated, tested, calibrated and maintained.

The responsibilities of the Port Facility Security Officer, who is normally referred to as the Port Terminal Security Manager, include the following:

- Preparation of the Port Facility Security Plan encompassing the Port Facility for which the PFSO is responsible and submission to the port operator through the Port Security Officer
- Overall responsibility for the security and surveillance of the port facility
- Access control measures for the port facility
- Liaison with the Ship Security Officer in identifying persons boarding the ship
- Updating and modifying of the Port Facility Security Plan
- Ensuring that standards for personnel responsible for security at port facility are met
- Reporting and maintaining records of occurrences which threaten the security of the port facility
- Undertake regular security inspections of the port facility to ensure continuation and compliance to the PFSP
- Ensuring that security equipment is properly operated, tested, calibrated and maintained
- Participation in exercises to test effectiveness of the PFSP and the PSP
- Developing standard procedures for activities at the port facility

Furthermore, the Regulations give guidance in terms of access and egress control of all ships calling into South African ports. For instance, the Marine Notice No. 33 of 2005⁵ sets out South Africa's requirements for pre-arrival and pre-entry information. It replaces and consolidates Marine Notices 19 and 27 of 2004, and gives guidance on how to ensure the receipt of a pre-arrival or pre-entry information report by the MRCC (the Maritime Rescue Co-ordination Centre) in Cape Town. In accordance with regulation XI-2/9 of the International Convention for the Safety of Life at Sea, 1974, and paragraph B/4.39 of the International Ship and Port Facility Security (ISPS) Code, the Director-General: Transport has, under the 2004 Regulations, determined the following requirements for pre-arrival and pre-entry information:

Pre-arrival information is required from foreign and from foreign-going South African passenger ships, cargo ships of 500 or more gross tonnage and mobile offshore drilling units on international voyages bound for South African ports. These requirements do not apply to fishing vessels, vessels used solely for sport or recreation, government ships engaged solely in non-commercial voyages, coasting ships, and ships transiting South Africa's territorial waters, including ships calling off-limits at a South African port for the transfer of stores, crew, etc. However, for ships calling off-limits voluntary compliance is encouraged and may avoid delay in the event, for example, of transfer operations having to be done within port limits because of adverse weather conditions.

⁵ South African Maritime Security Authority, Marine Notice 33 of 2005, Pre-arrival and pre-entry information required under the Merchant Shipping (Maritime Security) Regulations, 2004.

The report must be made at least 96 hours before the ship's expected time of arrival (ETA) at the first South African port. If the ship is arriving from a foreign port where the voyage time between ports is less than 96 hours, the master must ensure that the pre-arrival/pre-entry information is sent in compliance with the 96 hour requirement and updated when the ship clears the last foreign port. An amended report must be made if the ETA date for the ship changes (however, a change in time on the same day need not be reported); or there has been a ship to ship or ship/port interface after the original report was made; or any other information in the original report changes.

Reports are not required from ships making voyages between South African ports (i.e. coasting). However, if a ship makes a voyage to a port in another country (e.g. to Maputo–Mozambique or Walvis Bay–Namibia), a pre-arrival/pre-entry information report must be made before any subsequent call at a South African port. Also, when a ship is coasting between South African ports and interfaces with another ship between ports, the master must transmit a pre-arrival/pre-entry information report as soon as possible but at least 5 hours before the ship's ETA.

The Maritime Rescue Co-ordination Centre (MRCC) in Cape Town is the first point of contact for pre-arrival/pre-entry information. The pre-arrival/pre-entry information report must be in English and in writing and is to be transmitted to the MRCC via Cape Town Radio. The MRCC will only accept reports directly from the ship via Cape Town Radio; no reports by voice communication are accepted. The preferred means of ship-to-shore communication for pre-arrival/pre-entry information reports is via telex. The telex system assures receipt of the message at Cape Town Radio. If Inmarsat C is used, the ship's officer can confirm receipt by selecting the option "request delivery confirmation" on the ship's terminal.

A ship's agent can also confirm receipt 6 hours after transmission by contacting Cape Town Radio on a specially created help line. Transmission by means other than telex has previously resulted in communication difficulties that, in turn, have caused delays to ships. In exceptional cases such as faulty or unavailable satellite telex, Cape Town Radio accepts a forwarded e-mail message from a ship's agent, provided the agent confirms receipt of the e-mail with Cape Town Radio. Cape Town Radio does not forward an e-mail message to the MRCC without this confirmation. When e-mail is used, reports must not be sent as e-mail attachments but must be in the e-mail body text because the Cape Town Radio IT system strips attachments from e-mails.

Pre-arrival/pre-entry information required by this notice for maritime security purposes is similar to port entry information required by Transnet National Ports Authority (NPA) for berth planning purposes. However, the format and use of this information differs considerably and masters and agents are often advised to ensure that information for the MRCC is not confused with that required by Transnet NPA.

The MRCC does not clear ships for security purposes. Its function is to check pre-arrival/pre-entry information reports to ensure relevance and completeness. The MRCC will communicate with a ship, via Cape Town Radio, if it has any queries about the ship's report. The MRCC forwards checked reports to the Maritime Security Co-ordination Centre (MSCC), which is responsible for informing port security officers (PSOs) about the ships' security clearance status. Ships' agents should therefore obtain security clearance information from the relevant PSO directly.

Masters are usually cautioned that failure to transmit complete and correctly formatted pre-arrival/pre-entry information timeously could result in delays and, in appropriate cases, denial of port entry in terms of Marine Notice No. 20 of 2004. Ships whose masters refuse to give pre-arrival/pre-entry information are denied port entry.

MARITIME SECURITY IN THE PORT OF DURBAN

Within the Port of Durban there are 28 port facilities identified.⁶ Of these 28 facilities, 9 are operated by the port operator, the Transnet National Ports Authority. The other facilities are privately operated facilities and operators of these facilities had to submit their individual security plans. At some of the common user facilities, such as Island View tanker terminals which comprises 9 berths, the operators agreed to submit one collective plan as they are located in one geographical area and engage in similar operations. Again, operators at Maydon Wharf agreed to submit common user facility plans (Maydon Wharf 1-8, 9-12 and 13-15). The Graving Dock, Dock Yard, Transnet National Ports Authority Floating Dock & Floating Dock Approach Jetty, and Bayhead Ship Repair Jetty are also combined in one plan. the passenger terminal also has an individual facility plan.

Now let us look at the various port facilities and what they are engaged in:

- Outer Anchorages (Transnet National Ports Authority): Operations are the arrival and departure of vessels from this outer anchorage.
- Entrance and Approach Channel (Transnet National Ports Authority): Operations are the transit of vessels calling at the Port of Durban, which is carried out in almost all cases by qualified pilots employed by Transnet NPA.
- Internal Channels and Basins (Transnet National Ports Authority): Operations are the transit of vessels calling at the Port of Durban, which is carried out in almost all cases by Transnet NPA employed pilots. Internal channels include the Island View channel and Esplanade-Maydon Wharf channel. There are 4 turning basins, Island View, Between N-Shed and Berth 104, in the vicinity of the Sugar Terminal, and the Congella turning basin close to the ship repair area.
- City Terminal MPT A – H Berths (Transnet Port Terminals): Operations in this area include the handling of break bulk cargoes, some containers and, in certain instances, vessels awaiting stores/repairs are also berthed there.
- City Terminal L Et M-Sheds (Transnet Port Terminals): Mostly grain and, in certain instances, other break bulk cargoes are handled at these berths. Currently, the facility is handling vehicles in order to support the Durban Car Terminal.
- Passenger Terminal N-Shed (Transnet National Ports Authority): These berths are dedicated to passenger vessels. However, in certain instances, vessels carrying fruit and vessels on lay-by have been accommodated here.
- Fresh Produce Terminal O & P Berths (Capespan): Refrigerated cargoes are handled here by a private operator, who assumes responsibility for this area. At times rice is also handled at these berths and they may also find usage as lay-bys in the off-peak season.

6 See map of the Port of Durban.

- Car Terminal Extension Q & R Berths (Transnet Port Terminals): Import and export of vehicles is handled at these berths at this port facility.
- Maydon Wharf Fish Wharf and Jetty (Sterling Fisheries & Cold Storage and other smaller operators): This area handles fishing traffic and the discharge of fish from vessels that have been operating in the adjoining sea area. Some processing of fish also takes place in this area. As no security regulated vessels call at this area, this facility is covered as a Maritime Industry Participant (MIP) in the Prt Security Plan.
- Maydon Wharf Multi-user Berths 1-8: There are multi-users of these berths which is identified as a facility. Cargoes handled here are varied and include sugar in bulk, grain in bulk, refrigerated cargoes, steel cargoes and chemicals for the soap and cosmetic industry.
- City Terminals Maydon Wharf Berths 9-12: (Transnet Port Terminals): This facility handles general cargoes and containers as necessary.
- Maydon Wharf Multi-user Berths 13-15: These berths have multi users and handle products such as soda ash, rice, forest products and break bulk at times.
- Prince Edward Graving Dock (Transnet National Ports Authority): This facility is where vessels calling for the purpose of underwater inspections/repairs are docked. It operates in conjunction with the Dockyard.
- Dockyard (Transnet National Ports Authority): Ship repair activities and physical dry docking of the vessels is undertaken at this facility. Incorporated in this facility is Shop 24 workshop for ship repairs.
- Floating Dock (Transnet National Ports Authority): Vessels are docked for ship repair and underwater inspection at this facility.
- Elgin Brown & Hamer Floating Dock (Elgin Brown & Hamer): Ship repair activities and physical dry docking of vessels is undertaken at this facility.
- Floating Dock Approach Jetty (Transnet National Ports Authority): Vessels awaiting dry docking and carrying out repairs prior and post dry-docking are berthed here.
- Floating Dock Approach Jetty (Private) (Dormac/Elgin): Vessels awaiting dry docking and carrying out repairs prior and post dry-docking are berthed here.
- Dormac Slipways & Fitting-out Quays (Dormac): Vessels approaching the dry dock and also carrying out repairs prior and post dry-docking are berthed here.
- Bayhead Ship Repair Jetty (Transnet National Ports Authority): Vessels awaiting dry docking and carrying out repairs prior and post dry-docking are berthed here.
- Elgin Brown & Hamer Slipways & Fitting Out (Elgin Brown and Hamer): Vessels awaiting dry docking and carrying out repairs prior and post dry-docking are berthed here.
- Dormac Slipways & Fitting-out Quays/Jetties (Dormac): Vessels awaiting dry docking and carrying out repairs prior and post dry-docking are berthed here.
- Bayhead Fish Wharf (Lusitania): This area handles fishing traffic and the discharge of fish from vessels operating in the adjoining sea area. Some processing of fish also takes place at this area. This facility is covered as a MIP in the Port Security Plan.
- Pier 2 Container Terminal Berths 108-205 (Transnet Port Terminals): The interchange of containers between vessels and the port takes place mainly at this facility. Transhipment containers are also handled here.
- Pier 1 Container Terminal Berths 101-107 (Transnet Port Terminals): The interchange of containers between vessels and the port takes place mainly at this facility. Transhipment containers are also handled here.

- Island View Oil & Chemical Berths 1-9 (Cutler Management Board): This is a storage facility used by various stakeholders in the oil and petrochemical industry and is also regarded as a National Key Point area.
- BMA Coal Terminal Bluff Berths 1-4 (Bulk Connections/Rennies): The facility handles the sized coal exports from the port. The berths are also utilised for vessels calling for bunkers and for lay-bys in certain instances.
- SBM Oil Facility (SMIT/SAPREF): This facility lies outside the port limits and handles cargo operations involving the import of large volumes of crude oil and other products for the various refineries in the Durban city area. This facility is also regarded as a National Key Point Area.

Besides the port facilities that have to have security plans in place, within the port security environment are the port service providers. Port service providers are required to have plans that include:

- Helicopter pilot transfer service.
- Bunker barge services.
- Dredging services.
- Diving and marine services.

Maritime Security Plans are also supposed to cover:

Customers	Stakeholders
Shipping Lines	National Intelligence Agency
Terminal Operators	South African Police Services
Agents	Dept of Transport
Yacht Clubs	SA Revenue Services (Customs)
Cargo Owners	SA National Defence Force
Container Liners	SA Maritime Safety Authority
Waterfronts	EThekweni Municipality
Ski-boat Clubs	Dept of Home Affairs (Immigration)
Angling Clubs	
Trucking Companies	
Canoe Clubs	
Stevedores	

Customers are usually accommodated under the Durban Port Liaison Committee (DPLC) for security-related issues. This is a forum established under the Durban Chamber of Commerce and is responsible for bringing all the port users together for matters relating to the maritime industry.

Stakeholders, on the other hand, are often accommodated under the Border Control Operational Co-ordinating Committee (BCOCC) and the Maritime Security Committee (MARSECO). BCOCC looks at all border-related issues in the port and is chaired by SARS. MARSECO includes all maritime security related stakeholders, including the PFSOs and the PSPSOs (Port Service Provider Security Officers). It is chaired by the PSO and is mainly used to give feedback on new port security developments, to share ideas on all security-related issues, and to convey and receive updates to and from the Maritime Security Advisory Committee (MSAC) in Pretoria.

IDENTIFIED THREATS

There are several threats that were identified universally in terms of the ISPS Code and the Maritime Security Regulations. These threats include:

- Unauthorised Access: This includes stowaways on board a ship that is alongside as well as access to the port/port facility.
- Unauthorised Tampering: This includes cargo, ship's stores, baggage, essential port/port facility equipment or systems including security and communication systems.
- Theft: Including cargo, baggage, stores or equipment from a port/port facility.
- Damage: To port/port facility/ship through arson, sabotage, explosives etc.
- Hijacking: Service vessels, seizure of port/port facility, persons on board, or ship alongside.
- Use of Ship: to transport unauthorised personnel, weapons and equipment including drugs.
- Blockage: of port entrance, channels and basins.
- Unauthorised Access: to computer and communication systems at port/port facility.
- Unauthorised Access: to classified documents.
- Use of ship alongside as a weapon.
- NBC Attack: Nuclear, biological and/or chemical attack.

APPROPRIATE COUNTER MEASURES

Amongst many counter-measures that have been identified, the following are the most prominent in terms of access control:

Permits

- A set of standardised permit system for all ports;
- One permit recognised in all ports;
- Standardised procedure and criteria for obtaining a permit/temporary permit; and
- One standardised permit policy to be applied.

Entrances

- All entrances to be standardised.
- Same equipment to be used i.e.:
 - Booms with skirts.
 - Caltrops (spikes).
 - Turnstiles.
 - Card readers.
 - Number plate recognition.
 - CCTV.
 - Palisade fencing throughout the port.

Visitors

- Standard policy for all visitors.
- Corporate Communications and Security share the same strategy with regard to:

- School tours;
- Casual visitors and sightseers;
- Film shoots;
- Unaccompanied media; and
- Taxis.
- Demarcation of areas for visitors.
- Indemnity forms.
- Applications through Corporate Affairs and the Security Department.

Authorised Taxis

- A standard policy to apply for taxis and other transport operators.
- Taxis must be screened before permits are issued.
- Organized labour collection where company must supply transport.
- Request by ships for taxi service.
- Taxis are the biggest transporters of drugs, contraband and sex workers in the ports.
- Involvement of law enforcement agencies is crucial.

Firearms

- Ports are declared gun-free areas.
- Transnet NPA Security are currently undergoing training to obtain Competency Certificates.
- All port entrances are to be equipped to detect firearms and thus enforce a gun-free port.
- Standard policy and procedure for all ports (Transnet Firearm Policy).

Fishing

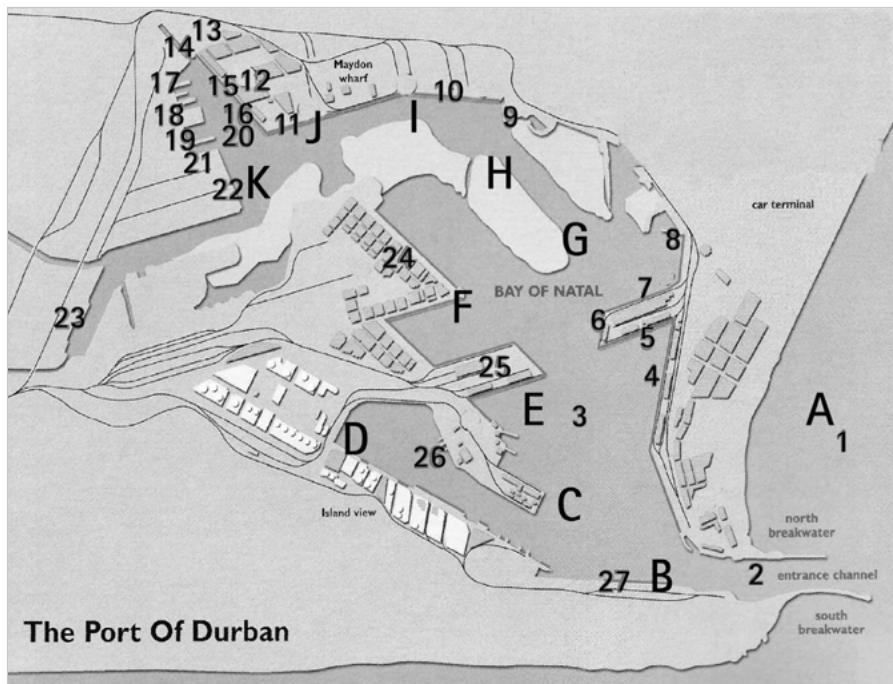
- No fishing in ports, except if certain non-industrial portions of the port can be demarcated as fishing zones and be controlled/regulated by Transnet NPA-related angling clubs.
- Fishing is strictly prohibited at the following places:
 - Quay walls.
 - Terminals.
 - Breakwater jetties, etc.
- Closer working with SAPS, Parks Board, Nature Conservation and Marine Coastal Management – for protected species.
- Standard fine/penalty to be introduced for transgressors.
- Formulation of a standardised fishing policy.

CONCLUSIONS

To conclude on this issue, the long-term effects of the ISPS Code is the fact that maritime and shipping will never be the same again as the raising of security awareness and co-ordination amongst all role-players in the maritime industry has become critical. The utilisation of existing institutions on maritime security, such as the Maritime Security Co-ordination Centre

(MSCC) and the Maritime Security Advisory Committee (MSAC) which are located within the Department of Transport, should be enhanced for such security awareness and co-ordination to be efficaciously implemented and preserved. Mainly, the improvement of general security at ports and in a ship by controlling and regulating access to sensitive areas is the cornerstone of the Code. Hence, the emphasis on strictly regulating access and egress control processes through improved physical security measures and unequivocal standard operating procedures. The ultimate objective is the general positioning of maritime transportation as a safe, secure, sustainable and efficient mode of transportation.

MAP OF THE PORT OF DURBAN



Facilities

1. Outer Anchorage
2. Entrance Channel
3. Internal Channels & Basins
4. MPT A-H Berths
5. L & M Shed Berths
6. Passenger Terminal
7. FPT O & P Berths
8. Car Terminal Q & R Berths
9. Maydon Wharf Jetty
10. Maydon Wharf 1-8 Berths
11. Maydon Wharf 9-12 Berths
12. Maydon Wharf 13-15 Berths
13. Graving Dock
14. Dockyard
15. NPA Floating Dock
16. EB&H Floating Dock
17. Floating Dock NPA
18. Floating Dock EB&H
19. Dormac Slipways & fitting
20. Bayhead Ship Repair
21. EB&H Slipways & Fitting
22. Dormac Slipways & Fitting
23. Bayhead Fish Wharf
24. Container Terminal 108-205
25. Pier! 100-107
26. Island View 1-9
27. BMA 1-4
28. SBM

Maritime security zones

- A. The outer anchorage
- B. The entrance channel
- C. Bluff & Point
- D. Island View
- E. Inner Anchorage
- F. Passenger & Container Terminal
- G. Car Terminal
- H. Esplanade Channel
- I. Sugar Basin Turning Circle
- J. Maydon Wharf Channel
- K. Congela Turning Basin & Ship Repair

AFRICAN NAVIES AND PEACEKEEPING: A ROLE FOR THE SOUTH AFRICAN NAVY?

Helmoed Römer Heitman

INTRODUCTION

Most of the current peace support and similar operations being conducted in Africa are taking place in coastal states. That is coincidence: Half of the UN operations in Africa since 1960 have been conducted in coastal states, and there is nothing to suggest that landlocked peoples are any less warlike than their littoral cousins.

Also bear in mind that only 15 of Africa's 53 countries are landlocked, although one could add the Congo Republic and the DRC to that list, given their very short coasts compared to their extent inland.

That being as it may, the fact that these operations have been inland, coupled with the fact that few African states have any real naval capability, has detracted from the potential role of navies in the range of operations other than war.

That is unfortunate and potentially dangerous, as the maritime domain in fact plays a very much larger role in all of our lives than we fully understand.

THE MARITIME DOMAIN

Most African governments have what a former Chief of the South African Navy once referred to, speaking of his own government, as "an agricultural mentality": They do not pay sufficient attention to their respective maritime domains.

There may be good geographical and historical reasons for this, but this neglect of the maritime domain is politically, economically and strategically dangerous:

- It effectively cedes control over large swaths of national territory.
- It leaves economically important activities and resources unprotected.
- It neglects to monitor the primary approach route of any serious enemy.

Having said "large swaths", perhaps it is worth stressing just how large. Sub-Saharan Africa has:

- A coast line of some 21 000 km.
- An Exclusive Economic Zone of 7.8 million km², not taking into account any continental shelf claims.

That is a lot of territory to simply ignore.

ECONOMIC IMPORTANCE

That maritime domain is also the scene of much economic activity that is of critical importance to Africa:

Trade

Most of Africa's exports and imports travel by sea, and there is no real alternative for most of its exports (raw material, agricultural produce, oil) and imports (manufactured goods, oil and fuels). Africa's seaborne trade will have to expand if Africa's economies are to grow. It is also very likely that coastal shipping will grow in importance as African countries expand trade with each other; the overland transport infrastructure is utterly inadequate.

Take the example of South Africa, the most industrialised country south of the Sahara: Some 90% of its foreign trade by bulk moves by sea, and this amounted to 179.5 million tons of cargo carried in 9 259 ships during 2007, including the greater proportion of the oil essential to running the country.

Bear in mind, too, that Africa's landlocked countries also depend heavily on seaborne trade for their major exports and imports.

Offshore oil and gas

Oil and gas is an increasingly important element of the broad African economy, and a high proportion of Africa's oil and gas reserves lies offshore, on islands or in coastal areas. To take some recent figures:

- Nigeria: Oil accounts for 95% of exports, most of it from the delta and offshore fields.
- Angola: Oil accounts for 92% of exports, 80% of government revenue, and 40% of GDP, most of it from offshore fields, and 80% of it is likely to be from "ultra deep" fields by 2012.
- Equatorial Guinea: Oil accounts for 90% of exports and 60% of GDP, almost all of it from offshore fields and offshore islands.
- Gabon: Oil accounts for 80% of exports, 60% of government revenue, and 40% of GDP, much of it from offshore fields.
- Congo: Oil accounts for 95% of exports, 75% of government revenue, and 67% of GDP, most of it from offshore fields.

Offshore mining

Offshore diamond mining is an important contributor to the Namibian and South African economies, and may become important in other areas. The potential for mining other minerals offshore remains to be explored.

Fishing

Commercial and subsistence fishing are an important source of food in much of Africa, and commercial fishing is an important source of foreign earnings for most of the littoral countries. To give some recent figures:

- Namibia: The fishing industry generates some 10% of GDP.
- Ghana: The fishing industry generates some 7% of GDP and 60% of the people's animal protein intake, and supports 14% of the population.
- Senegal: The fishing industry generates some 7% of GDP, 33% of exports and 75% of the people's animal protein intake.
- Angola: The fishing industry produces 50% of the people's animal protein intake.
- Guinea-Bissau: The fishing industry generates 50% of government revenue.

Marine culture

Fish, abalone and kelp farming are in their infancy in Africa, but have considerable potential.

Tourism

Coastal tourism is an important source of foreign currency.

Africa's economic development will depend in large part on the efficient exploitation of its maritime domain. The economic importance of the maritime domain will also ensure that it, sooner or later, becomes an area of operations for rebels, terrorists or foreign forces. It is too attractive a target array to overlook.

The current example that comes to mind is how the Movement for the Emancipation of the Niger Delta (MEND) has developed its strategy: Beginning with a simple entry into "bunkering" as a means to raise cash, it quickly realised the strategic potential and moved on to attacking oil installations and taking foreign employees of oil companies hostage. The next stage saw it take, and briefly occupy, offshore platforms close to the coast. Most recently it launched such an attack on a distant offshore field, taking and briefly holding the Bonga production, storage and offloading vessel 120 km offshore.

There is also the as yet unresolved matter of recent attacks on Cameroon Army patrols and outposts on the Bakassi Peninsula. In several of these incidents the attackers were apparently dressed as Nigerian Army soldiers, but there is considerable suspicion that they may actually have been guerrillas of MEND or another group, seeking to stir the simmering discord between the two countries. Certainly MEND has offered to help groups in the Bakassi Peninsula who have threatened to rebel rather than be ruled by Cameroon.

There is the potential in Cabinda for similar guerrilla activity and efforts to draw in a neighbouring country. One could also see a similar development around Equatorial Guinea's Malabo Island, which lies off Cameroon. Also, how long will it be before Islamists in Somalia seize the opportunity that lies in developing a political dimension of the Somali pirate industry?

Looking further into the future, the heavy dependence on seaborne trade, coupled with the small number of deep-water ports available to Africa, presents a very real strategic opportunity

for an outside power that wants to bring an African state to heel: It is not very difficult to close a port by laying a mine or two, or simply sinking a ship. Bear in mind what the United States did to Nicaragua; bear in mind also the Iranian mining of the Arabian Gulf and the, presumed, Libyan mining of the Red Sea approaches to the Suez Canal.

The economic importance of Africa's strategic domain therefore also extends into the strategic arena.

STRATEGIC IMPORTANCE

At a "purely strategic" level the primary importance of the maritime domain lies in the simple fact that any serious enemy must come by sea: Overland movement is simply not a practical proposition in Africa for large forces, and air transport is prohibitively complex and costly.

This is of particular importance in an era in which new major powers are flexing their muscles and beginning to look at means of securing access to essential raw materials, securing markets, building a network of client states and generally demonstrating how important they are. Africa is the only large part of the world that is both accessible to such powers and vulnerable to the full spectrum of interference, up to and including the provision of military advisors and equipment, support for guerrilla forces, and the deployment of proxy forces.

All of that has happened before, with the obvious examples being the deployment of Cuban troops in Angola in August 1975 to ensure the MPLA's succession to power and to help the MPLA take over Cabinda in November 1975, and the deployment to Ethiopia in 1977 to support that country in its war with Somalia.

Smaller in scale and somewhat different in nature, have been the various French deployments to support governments in former French colonies against rebellion and, in the case of Chad, against invasion by Libya. Similarly, British troops were deployed to East Africa in 1964 to help the governments of Kenya and Tanzania to quell mutinies in their armies.

More recently there has been the deployment of US military training teams to several African countries and the reported presence of some 5 000 Chinese "armed police" protecting Chinese-owned oil installations in Sudan.

There is no reason to believe that a larger-scale intervention or deployment of a proxy force cannot happen again. The potential for local conflicts to develop international dimensions is very real, and holds serious dangers for African countries. More to the point for this conference is that any larger-scale deployment will have to be carried out by sea.

NAVIES AND PEACE SUPPORT IN AFRICA

The fundamental issue of strategic and operational mobility is, of course, also relevant to peace support and similar operations. Examples include the amphibious operation in 1990 to land the first ECOMOG troops in Liberia and the use of sealift to bring in the follow-on forces; the 1993 amphibious landings (over the beach and by helicopter) by US forces in Somalia

to initiate Operation Restore Hope, and the use of sea lift to bring in several of the other contingents forming part of UNITAF; and the use of sealift in 1997 to deploy ECOMOG forces to Sierra Leone.

The potential for the employment of navies in peace support and similar operations is, however, much greater than merely providing sea lift or even amphibious capability.

Their potential includes:

- Surveillance and reconnaissance, including electronic intelligence gathering and the landing of special forces teams to conduct close reconnaissance or for surveillance of inland targets.
- Naval combat operations. One example is the neutralisation of the Sierra Leone Navy by warships of the Ghanaian and Nigerian navies during the ECOMOG intervention in that country.
- Presence patrols, to demonstrate engagement and discourage adventures in the maritime domain. Such patrols were conducted by Ghanaian and Nigerian warships in the course of the ECOMOG operations in Liberia and Sierra Leone.
- Maritime security patrols, to dominate and control the littoral, prevent arms smuggling and other activities in support of belligerents or rebellious forces. Examples include Ghanaian and Nigerian operations off Liberia and off Sierra Leone, and the patrols to stop arms shipments to Cote d'Ivoire.
- Blockade. One example is the Royal Navy "Beira Patrol" to interdict oil supplies for the then Rhodesia; another is the employment of warships to stop new arms shipments reaching Cote d'Ivoire.
- Naval gunfire support. Examples here are to be found in the Ghanaian and Nigerian operations off Liberia and Sierra Leone.
- Poising forces, to demonstrate a willingness to employ armed action to force a settlement.
- Amphibious operations, to deploy forces "over the beach" or through a small harbour when a harbour is not available for use. Examples include the initial landing of ECOMOG forces in Liberia and of UNITAF forces in Somalia.
- Amphibious raids in the context of peace support, intervention, stabilisation or constabulary operations. There are several examples in the initial phases of Operation Restore Hope in Somalia.
- Ship-to-objective operations, using heliborne forces to seize critical inland objectives quickly. Examples include the initial UNITAF landings and the Royal Marine landings during the East African mutinies of 1964.
- Sea-landed operations, to deploy combat-ready forces through a harbour in a situation where there might be opposition.
- Sealift operations, to deploy a peacekeeping force to the theatre, or to deploy an intervention force into a neighbouring country from where it will launch its operation.
- Logistic support for sealift operations. These have been a factor in most peace support operations, sometimes directly, such as in Somalia during Operation Restore Hope and more recently in Cote d'Ivoire and Sudan, or through a third country, such as currently in support of EUFOR in Chad and the CAR. The Ghanaian and Nigerian navies both conducted such operations for ECOMOG.
- Air space control over a limited coastal area.

- Secure offshore command and support facilities. The opening phases of Operation Restore Hope give examples of this; another was the deployment of *SAS Tafelberg* to Angola in 1992 as a base for helicopters deployed to support the UN election monitoring force.
- Deployable command and support facilities. One example is the German Navy's deployment of a depot ship to Djibouti to serve as a support base for fast attack craft serving with Combined Task Force 150.
- Secure negotiation venue. Examples here include the use of *HMS Fearless* for the Wilson/Smith talks in 1968 and *SAS Outeniqua* for the Mobutu/Kabila talks in 1997. A similar operation saw *SAS Drakensberg* deploy to Haiti as a secure base for President Mbeki during his visit to that country, providing the necessary communications links and medical back-up, and serving as a base for his protection team and for helicopters and boats if needed.
- Non-combatant evacuations. There are many examples here, among the more recent being those that were conducted by several navies during the conflicts in Liberia, Sierra Leone, Guinea and Cote d'Ivoire. The Ghanaian and Nigerian navies have both conducted such operations. The Nigerian/Biafran war was clearly not a peacekeeping situation, but nevertheless saw operations quite similar to those that could become necessary in peace support and similar missions. It holds useful examples of sealanded operations, logistic sealift, creek and riverine operations. There will be similar examples to be found in current Nigerian operations against MEND and in the Angolan operations in Cabinda.

CONSTABULARY OPERATIONS

Constabulary operations are outside the context of peacekeeping, but can form part of a wider peace support operation, quite apart from being important in themselves as an element in ensuring longer-term stability in a country or region.

This is so because many criminal activities that take place in the littoral can not only have extremely detrimental economic effects, potentially leading to security problems in the affected country, but can also be hijacked by guerrillas or terrorists or can, in fact, of themselves develop into a form of "war lord" situation. Security problems such as smuggling, human trafficking, banditry and piracy can also very easily develop and expand in the wake of a conflict if sufficient attention is not paid to ensuring that there is no administrative, power nor security vacuum.

Against that background, it is worth briefly considering the major problems:

- Piracy: Attacks in Sub-Saharan waters escalated from 7 in 1993 to 79 in 2005 and 46 in the first three quarters of 2006. While there has been a decline in the number of attacks, the degree of violence used has increased, and pirates have become more adventurous, attacking ships as far as 380 km from the coast. It does not take a vast leap of imagination to see the potential for co-operation between pirates and rebels, guerrillas or terrorists.

- Bunkering: Nigeria loses some 10% of its annual oil production to theft, with oil drained from pipelines into bunker barges for transfer at sea. At 2006 oil prices that was some \$ 1.5 billion. This industry also has expanded into attacks on tankers underway, and into hostage-taking as part of the nascent insurgency in the Niger River delta area.
- Narcotics: Africa is increasingly used as a transit area for narcotics, with some dropped from aircraft off West Africa to be collected by fast boats and taken ashore for onward shipment to Europe. The sheer amount of money involved in this industry makes it inherently dangerous to stability, and there are ample examples elsewhere in the world of the potential impact.
- Smuggling: Gold, diamonds, other minerals, exotic timbers and a wide range of other products lend themselves to illegal production and smuggling when there is a lack of state authority, such as after a major conflict. They also lend themselves to raising cash to fund insurgency and terrorism.
- Illegal fishing: Illegal fishing cost Sub-Saharan Africa \$ 1 billion in 2005. The amounts potentially available are such that this industry, too, can serve as a means of raising cash for rebels and others. This is particularly relevant in the case of poor countries, where the amounts can compare with those available to the state. Sierra Leone, for example, lost some 8% of its GDP to illegal fishing in 1997; Liberia 5.5% and Guinea 4%.

THE PROBLEM

There can be no doubt that securing the maritime domain can be an important element of peacekeeping and similar missions. However, the crucial problem is that few African states have any naval strength to speak of.

Available to patrol the 21 000 km of coastline and 7.8 million km² of EEZ, there are only:

- 5 frigates or similar ships.
- 7 medium-range patrol aircraft.
- 60 vessels able to conduct limited offshore patrols.
- 18 coastal patrol aircraft.
- 80 inshore patrol craft.

Not all of these ships and aircraft are fully operational. There are no long range/high endurance maritime patrol aircraft. This is clearly not an adequate force:space ratio. One key factor here is that most African countries are simply too poor to develop or to support adequate naval and other maritime forces.

Some basic numbers from 2006 to make this point:

- The whole of Africa had a GDP of some \$999 billion. That was roughly one third of Germany's GDP or half that of Italy.
- Sub-Saharan Africa had a GDP of some \$661 billion. That was roughly the same as that of The Netherlands.
- Sub-Saharan Africa without South Africa had a GDP of some \$422 billion. That was roughly the same as that of Belgium.
- Sub-Saharan Africa without South Africa and without Nigeria had a GDP of some \$305 billion. That was roughly the same as Denmark.

Looking at the issue a little differently:

- Only nine countries in Sub-Saharan Africa had a GDP larger than \$10 billion, two of them being South Africa and Nigeria. It is almost impossible to run a country on an economy smaller than \$10 billion.
- Only one country in Sub-Saharan Africa – Nigeria – had a GDP larger than that of Johannesburg.
- Only two countries in Sub-Saharan Africa had a GDP larger than that of Cape Town – Nigeria and Sudan, and the latter only barely.
- Angola, despite its oil, had a GDP smaller than Durban or Pretoria.

Finally, it is worth pointing out that the real situation is rather worse than simple GDP numbers would suggest: Per capita income in most African countries is very low, and there are immense infrastructure backlogs that need to be addressed if there is to be any real economic development.

For most African countries there is, therefore, no real prospect of developing effective naval or maritime forces in the near or even medium-term future. That does not mean that Africa must despair of ever protecting its maritime domain or being able to conduct naval operations in the context of peace support and similar missions. It simply means that African countries must co-operate to make optimal use of the ships, aircraft and other assets that they do have. Maritime security is, as Admiral Ulrich of the US Navy has put it, "a team sport". It is long past time that we form a team or teams.

MARITIME CO-OPERATION AND MARITIME STANDBY FORCES

One immediately obvious option is for those countries that do have naval forces to be more active in providing patrol and response support to those neighbours who do not.

Such bilateral co-operation really should not be too difficult to implement, except in a case where there are serious maritime border disputes. There are, in fact, examples of such co-operation. Taking just a snapshot of the SA Navy in this respect:

- In 1990 it deployed ships and technical staff to assist the Zaire Navy with the refurbishment of its bases.
- In 1991 it intercepted and arrested three trawlers on behalf of the Namibian government.
- In 1993 it assisted Mozambique with maritime border surveys.
- In 1997 it deployed divers to Tanzania to assist after a ferry sank.

The SA Navy has also transferred harbour patrol boats to Malawi, Mozambique and Namibia, and has assisted several countries with types of specialised training that are not practical for smaller navies to handle themselves.

I am sure that there has been similar co-operation elsewhere in Africa, with which I am just not familiar. The real point is simply that this is not so difficult to achieve.

It will be important, however, to ensure alignment of the relevant maritime legislation in the two countries, as well as to ensure efficient and reliable communication links. In some cases there will

also be a clear need to ensure a common operating language that can actually be spoken by all key personnel on all ships involved.

Such bilateral co-operation could then be taken a step further to the level of economic regions. There is already a measure of such co-operation within ECOWAS and SADC but more could be done even there.

It is worth mentioning here that a previous Chief of the Nigerian Navy hoped that the Nigerian and South African Navies would in future be able to co-operate to conduct regular patrols along the coast of West Africa between the two countries. Such patrols carried out by an SA Navy Valour class frigate or Nigeria's Aradu could very usefully complement the capabilities of the other navies along that coast.

The next logical step should be the development of standing naval forces or standby naval forces. While standing naval forces have obvious advantages, the reality of the very small navies of Sub-Saharan Africa and of their very restricted funding, suggests that "standby" forces would be the more practicable option, only requiring ships to be on call rather than actually deployed with the force.

That would imply that co-operating countries declare certain assets to be on standby for a given period and, ideally, that a single operations room be tasked with keeping an up-to-date log of where the ships or aircraft that are on standby are located at any time during that period, so as to be able to promptly task the best-placed ship or aircraft to respond to an incident, and others to move to its support.

Such maritime or naval standby forces would be able to handle maritime constabulary tasks and would also be able to provide an initial maritime component at short notice for a peace support or similar operation.

A realistic analysis of the naval and maritime assets available to Sub-Saharan Africa suggests that there should probably be two such forces, one centred on Nigeria and the other on South Africa. Those two countries have the largest and most balanced fleets in Sub-Saharan Africa, and would be able to provide a core force as well as assets that the smaller navies simply cannot afford to acquire or support.

Political realities may, of course, demand an adaptation of the concept to provide for a standby naval force for each of the economic regions, or at least one each in West, Southern and East Africa. In that case, however, the SA Navy should, from the outset, be included in the East African force, to provide the larger ships that would otherwise not be available, and that the SA Navy should make specialised assets available to support the West African force when necessary.

Africa should also seek to formally involve France, which is after all a neighbour, and endeavour to involve Britain, by virtue of its South Atlantic presence.

THE REGIONAL POTENTIAL OF THE SOUTH AFRICAN NAVY

South Africa is the major economic power of Sub-Saharan Africa. As such it also has a responsibility to assist and support other countries of the wider region in matters of regional

security. That is, in fact, also a matter of simple self-interest: South Africa needs a stable environment in which to develop its own economy, and certainly does not need the problems that conflicts in the region would bring with it.

The South African Navy should, therefore, be regarded as a Sub-Saharan asset in the context of peace support, stabilisation, intervention, constabulary and humanitarian operations. Some, in fact, have long seen it in that light: Some years ago the Chief of the Kenyan Navy, Major-General Rafrouf corrected his South African counterpart, Vice-Admiral Simpson-Anderson, when the latter referred to the SA Navy's three new submarines, then still being built: "They are not your submarines", he said, "they are our submarines".

This is not to say that the South African Navy should be expected to do everything for everyone. That is most certainly not its function, and that would most certainly not be acceptable to the South African tax payer. But the South African Navy needs to be seen, and needs to see itself, as a component of a regional maritime security system in addition to its primary national role.

It is important to understand that this needs to be done on the basis of bilateral and multilateral partnerships. It cannot be a case of the SA Navy unilaterally deciding what it wants to do, or of some other navy simply demanding that the SA Navy do something.

Two points need to be stressed here:

- We must be logical and practical: The SA Navy should focus on providing the capabilities that other navies cannot. South Africa has the ability to acquire, operate and support large and complex ships and the SA Navy should focus its efforts on employing such ships in support of its partners. There is little point in duplicating what the smaller navies can do for themselves.
- It would not be good enough for the SA Navy to be sipping pink gin and tonic on the flight deck of a frigate ten miles offshore while some other navy's people are up to their eyebrows in mud chasing pirates in some river delta. The SA Navy also needs to become involved at the gritty end if it is to be a credible and welcome partner.

The SA Navy and its counterparts must put some thought into developing a concept of co-operative operations that will make sense and be practical.

Seen as a regional asset, the SA Navy could:

- Complement other African navies by providing capabilities they cannot.
 - Frigates could conduct extended duration or long-range patrols; exploit their range to gain surprise by approaching an area of operations from an unexpected direction; serve as flagship for a small squadron or serve as command and support ship for small craft during extended inshore operation.
 - Submarines could conduct surveillance and reconnaissance preparatory and during an operation, and could provide a screen to warn of potential interference by naval elements.
 - Mine-countermeasure vessels and off-board systems could be deployed to conduct routine bottom surveys and to respond to a mine threat.
 - The combat support ship could serve as underway replenishment ship; as depot ship for smaller vessels conducting extended inshore operations; as logistic support ship and as a flagship.

- Supplement other African navies by reinforcing their existing capabilities for a particular operation.
 - Strike craft could deploy to operate together with similar vessels of other African navies for a range of operations.
 - Inshore patrol craft could be deployed to reinforce the inshore capability of other African navies, and could also be deployed as a task group with a frigate or support ship to allow an extended operation away from the host country's naval bases.
 - Riverine forces could be deployed to reinforce the host country's forces.
 - Diving teams could be deployed to reinforce the host country's diving capability or to handle specialised tasks.
 - Conduct naval and maritime operations on behalf of African governments that do not have any real naval or maritime capability.
 - This would allow Mozambique and Madagascar to begin to develop a picture of what is going on in their respective maritime domains, and to undertake corrective action.
 - Provide the core for multi-national maritime forces, as well as logistic support.
 - This would involve mainly the frigates and the combat support ship, or the latter together with smaller vessels.
 - Conduct short-notice operations in African waters autonomously when there is not sufficient time to form and deploy a multi-national force.
 - This would most probably take the form of one or two frigates or the combat support ship and some strike craft deploying immediately to ensure a prompt response to an incident, handing over later to a multi-national force once that can be formed.
 - Represent Africa in international naval operations.
 - This could be a single ship or a small task group, with some members of other African navies embarked for the mission.

PROJECTS MILLENNIUM AND BIRO

The ability of the SA Navy to play a proper regional role will be immensely enhanced by the addition of the ships planned under two current projects, *Millennium* and *Biro*.

Project *Millennium* provides for the acquisition of two large "strategic support ships" in an LHD configuration. These ships will give the SA Navy and, by extension, the region, a very useful range of capabilities:

- Amphibious and sea-landing operations: through a harbour, through a small harbour, "over the beach" and by helicopter in the context of crisis response, peace enforcement, peacekeeping and similar operations.
- Poised force operations to back up diplomatic efforts to resolve a crisis.
- Sealift to deploy and support forces for peacekeeping and similar operations.
- Secure offshore command and support facilities for joint forces conducting operations in the littoral.
- Command and underway support of a naval task group or task force.
- Command, helicopter base and support base (depot ship) for forces conducting extended inshore operations.

- Non-combatant evacuations: alongside or by landing craft and helicopter, the latter allowing evacuation from inland locations.
- Disaster relief operations, using helicopters and landing craft as necessary, but also using UAVs to, for instance, monitor flood lines.
- Emergency relief operations, using helicopters, landing craft and vehicles to distribute supplies, emergency building materials and other stores, deploying medical and engineering teams, and providing hospital and other facilities.

A key point is that these ships will only be employed optimally if they are employed as a regional asset and if other African armed forces take the trouble to prepare to be able to operate with them effectively and efficiently:

- African armies should identify units for deployment by these ships, configure these units to make optimal use of the space available and to avoid having equipment that cannot be accommodated or landed, and conduct training for sea-landed, amphibious and helicopter operations.
- African air forces should identify helicopter squadrons or flights that can be embarked in or transported by these ships, and configure and train those units accordingly.
- African navies should develop inshore operations units that can be deployed by these ships and conduct operations using them as a base.
- African military medical services should ensure that they have elements that can be deployed by these ships and elements that can be embarked in them to provide military and emergency medical support in coastal areas.

Even more than the submarines, the "*Millennium* ships" have the potential to be really valuable regional assets.

Project *Biro* concerns six large multi-mission offshore patrol vessels to be acquired. Project *Biro* will have considerable utility. They will be larger and will have significantly better sea-keeping, range and endurance than most vessels in African service, and should also have full helicopter capability. That combination of capabilities will allow them to conduct a range of operations falling neatly between the frigates and the smaller ships that are operated by most African navies, and even to serve as command and support ships for small-scale inshore operations.

THE SOUTH AFRICAN NAVY AND PEACE SUPPORT OPERATIONS

Given the importance of the maritime domain to Africa, and given the very small size of most navies in Sub-Saharan Africa, it is clear that the SA Navy must be prepared to play a role in peace support and similar operations.

The actual role that the SA Navy will be expected to play will depend on the nature of the particular mission. Assuming that *Millennium* and *Biro* go ahead, the SA Navy is going to be able to provide support across the full spectrum of naval operations in the context of peace support and similar undertakings:

- Surveillance and Reconnaissance: Primarily submarines and frigates and, in the future, strategic support ships operating UAVs. There will also be potential in some situations to deploy strike craft or the new MMOPVs in this role.
- Naval Combat Operations: Frigates, strike craft, inshore and riverine forces, mine-countermeasures vessels, off-board systems. In the future, the strategic support ships will be able to play a major role by conducting UAV and helicopter operations in the littoral, and the MMOPVs will be able to play a role both in patrolling and in support of inshore forces.
- Presence Patrols: Primarily the frigates and in future the MMOPVs, but there is also potential in some situations to employ the strike craft in this role and, in the future, conceivably a strategic support ship making use of helicopters, UAVs and embarked small craft. An operation of this type was exercised in 1997 in *Exercise Tanzanite*, when *SAS Outeniqua* deployed with an inshore patrol craft, two harbour patrol boats, helicopters and some troops embarked.
- Maritime Security Patrols: Primarily the frigates, MMOPVs and strike craft.
- Blockade: Frigates, supported by the combat support ship and in some cases by surveillance/reconnaissance UAVs operated from a strategic support ship. A close blockade could also be carried out by MMOPVs.
- Naval Gunfire Support: Frigates, perhaps also the MMOPVs, depending on what is selected as their main gun.
- Poising Forces: The strategic support ships and the combat support ship, with the frigates and other ships deployed to support and protect them.
- Amphibious Operations: The strategic support ships.
- Amphibious Raids: The strategic support ships and the combat support ship. Very small-scale operations could also be carried out by the frigates or one or more of the MMOPVs.
- Ship-to-Objective Operations: The strategic support ships and, on a smaller scale, the combat support ship.
- Sea-Landed Operations: The strategic support ships and the combat support ship.
- Sealift Operations: The strategic support ships and the combat support ship.
- Logistic Support Sealift Operations: The strategic support ships and the combat support ship.
- Air Space Control: The frigates and the future strategic support ships will be able to conduct such operations on a very limited scale.
- Secure Offshore Command and Support Facilities: Strategic support ships or the combat support ship and, on a smaller scale, frigates.
- Deployable Command and Support Facilities: Strategic support ships, combat support ship and, on a smaller scale, frigates or MMOPVs.
- Secure Negotiation Venue: Strategic support ships, combat support ship, frigates.
- Non-Combatant Evacuations: Strategic support ships, combat support ship, frigates, MMOPVs.

AIR SUPPORT

This paper has not discussed the issue of maritime air operations, primarily because the SA Navy has no air arm of its own. It must be stressed, however, that maritime air operations will be an essential component of many of the operations discussed above. This will require

suitable helicopters, UAV systems and patrol aircraft, and command and control systems able to make optimal use of them, nationally and multi-nationally.

CONCLUSION

South Africa is a regional power, with the security responsibilities that come with that status. The South African Navy must, therefore, regard itself as a regional navy, and must develop the concepts and doctrines required by that role, as well as fighting for the funding that this will require. The other navies of Sub-Saharan Africa must take a pragmatic approach to this reality, and work with the SA Navy to arrive at an optimal co-operative arrangement for the maritime security of the region.

When we have done that, we will have formed the team for that difficult sport called maritime security. Then, of course, we will still need to train that team.

DELIVERING EFFECT IN THE UNDERWATER BATTLE SPACE: SOUTH AFRICA'S SUBMARINE FORCE

André de Wet

A question that is frequently asked is how South Africa intends utilizing its newly-acquired submarines. Gone are the days of focusing submarine operations purely on intercepting a convoy and sinking the main body. Although the RSA will always be prepared to counter the conventional threat, a peace-time role for submarines is being developed in order to ensure that, with the limited resources available, the submarines can add value to the collective effort to protect the maritime security of the country.

This article will provide an insight into the challenging underwater battle space, the limited assets available to perform SA's international obligations, an insight into threats to the maritime security of the RSA and the technologies that are being developed in order to ensure that the Submarine Force of the RSA can deliver effectively.

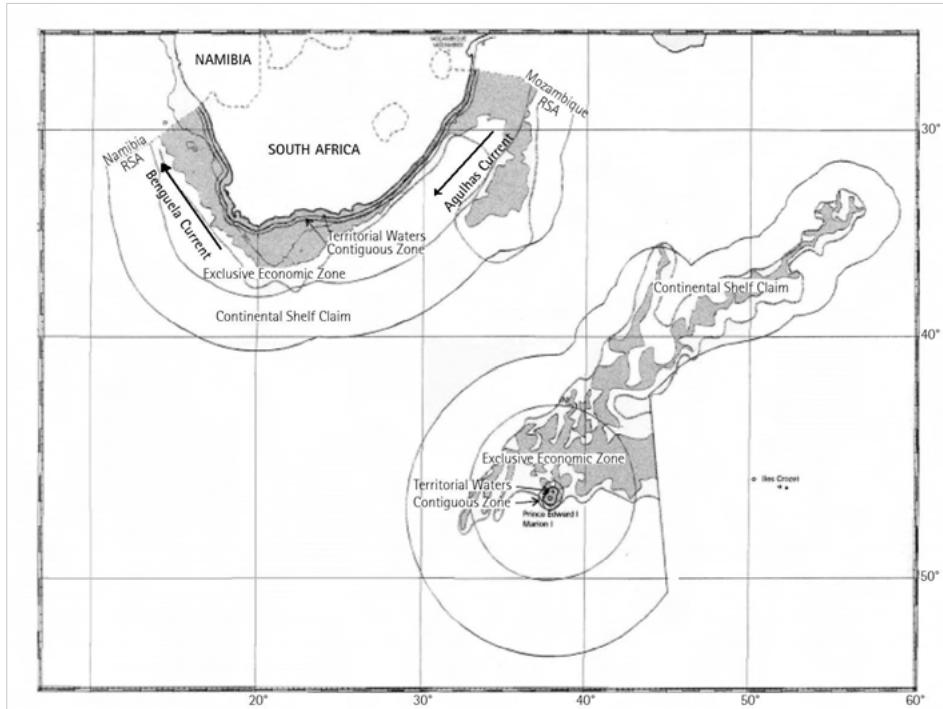
THE BATTLE SPACE

South Africa is geographically located on the southern-most tip of the African continent. It is strategically situated along one of the vital sea routes of the world that includes three vast ocean masses; namely the South Atlantic, the Indian and the Southern Oceans. The coastline stretches from the Orange River mouth (which separates South Africa from Namibia) in the west, to the Mozambican border in the east – a total distance of 1600 nautical miles. Two significant currents; namely the Benguela and Agulhas have an influence on the way submarine operations are planned and executed in the maritime zones of the RSA.

In addition, the Prince Edward Islands, which are situated 500 nautical miles to the south east, also belong to the RSA.

Within this vast area lie South Africa's maritime zones, signed into law by the country's President on 11 November 1994 (*Maritime Zones Act, No 15 of 1994*), to cover the territorial waters, contiguous zone, exclusive economic zone (EEZ) and the continental shelf. Combined, this is a total area of 1 million square kilometres.

Within each of these layered zones, the South African government has a specific maritime responsibility. In the territorial waters (12 nautical miles from the coastline), South Africa has total sovereignty that is counter-balanced with the right of foreign shipping to innocent passage. In the contiguous zone South Africa may enforce specific national legislation with respect to customs, immigration, health and fiscal issues. In the EEZ which includes the continental shelf, the rights and obligations of South Africa are confined to exploration, exploitation and protection of the marine resources.



South Africa's Maritime Zones

MARITIME ASSETS

South Africa is a member of the International Maritime Organisation (IMO) and also the International Hydrographic Organisation (IHO). As a subscriber to the United Nations Convention on the Law of the Seas (UNCLOS), and being a signatory to the convention on Safety of Life at Sea (SOLAS), South Africa is morally bound to observe these normative international guidelines.

Performing the above-mentioned tasks with the limited assets available is the biggest challenge to the South African Government. It is worth noting that South Africa has neither Coast Guard nor any Long Range Maritime Patrol Aircraft that can assist in performing the RSA's maritime responsibilities.

The task of protecting the maritime security of the RSA has largely been allocated to the South African Navy jointly assisted by agencies such as the Marine Coastal Management Services, the Parks Board and the South African Police Service.

As part of a Strategic Defence Package for the RSA, the SA Navy acquired three German-built 209 Class submarines. These submarines are currently being assessed in order to develop doctrine and determine the real capabilities and limitations in the African Underwater Battle Space.

It can be argued that the 209 Class submarine is old technology, thus the submarine doctrine would reflect the old way of thinking. However, the platform has been outfitted with arguably the most modern combat system currently available on the world market for a conventional submarine. This will give the Navy new technology which should ultimately result in a new way of thinking which will be reflected in its doctrine as well as in its strive for improved submarine technology.

Inherently a submarine force provides an operational commander with command and control, firepower, sustainability, mobility, protection and intelligence functions. The question that remains to be answered is how effective can the submarines be in the vast sea area previously described. Understanding the specific threats to the maritime security of the RSA will provide an answer to the effects required.

THREATS TO THE RSA's MARITIME SECURITY

The national security of the RSA has been compartmentalized into different sectors of which maritime security is one. It is widely recognized that any threat to maritime security has a ripple effect ultimately affecting national security. The following non-conventional threats to the maritime security of the RSA have been identified:

- a. Illegal trade in goods and human trafficking entering and leaving the seaports of South Africa.
- b. Poaching of marine resources by trawlers, fishing vessels and divers. In most instances utilizing illegal methods such as gill-nets and blasting.
- c. "Sea-based" trade in drugs in exchange for marine resources conducted by large organized crime syndicates.
- d. Piracy along the Cape sea route.
- e. Weapon smuggling.

TECHNOLOGIES TO COUNTER THE THREAT

In order to counter the threat the following technologies will aid in ensuring that the submarines can deliver effectively:

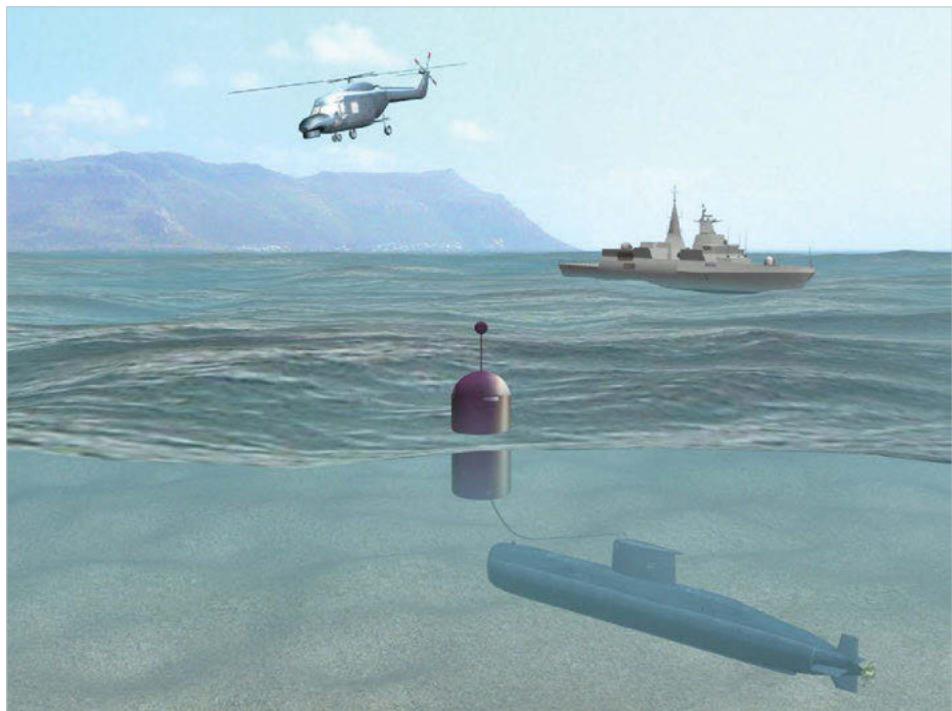
Sensor Data Processing

With an increase in sensors and sensor bandwidths the combat systems operators suffer from information overload, particularly during high stress operations. This is a prime example of where technology causes a problem that must be fixed with newer technology. The focus of this new technology is to present multiple sensor data in a processed format for easy interpretation by the operator. The demand to provide real-time and accurate information will become increasingly important in the future electronic battle space.

Above Water Communications

Owing to changed mission profiles the importance of improving communications with submarines is increasing. While in the past submarines often operated on their own during

missions, the requirements have evolved into joint military and interdepartmental missions for the RSA, the South African Development Community (SADC), the African Union and United Nations. During these missions extensive exchange of data needs to take place between the submarine and the operational commander. For this purpose submarines need far better connectivity than either their culture or equipment has previously allowed. The operational need is a communications buoy able to receive and transmit High Frequency and Super High Frequency communications that can be deployed at depth and speed.



Surface and underwater communications

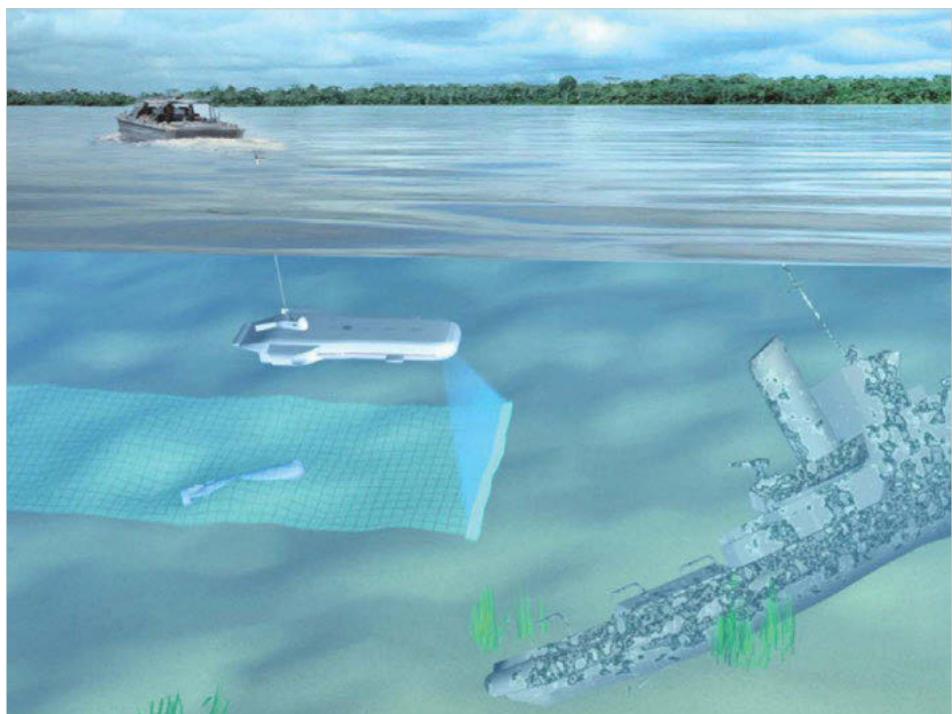
Underwater Communications

Hydro-Acoustics (Sonar) has proved to be the only effective means by which to communicate underwater in RSA's territorial waters. Traditionally underwater communications are performed with analogue underwater telephone systems, but the modern drive to systems connectivity requires a digital link between a submarine and another surface vessel or submarine. Although digital acoustic communications have been achieved in the past, the data rate and communications distance was insufficient in to satisfy the operational requirements. The underwater environment is highly dynamic and requires special attention with respect to adaptive processes being employed to make the communications reliable in the changing environment. The Institute for Maritime Technology (IMT) in Simon's Town has experimented with a variety of methods to perform digital communications at an extended range and in

shallow water. Future focus will be in spread spectrum techniques in order to improve both the effectiveness and security of the communications.

Autonomous Underwater Vehicle (AUV)

Due to the emphasis on littoral warfare and the poorly surveyed coastal waters around Africa, it is vital for the South African Navy to perform surveillance of an area before force deployment. This task can be performed from surface vessels. The future requirement is to be able to conduct these operations from a dived submarine. IMT is currently performing evaluation of covert surveillance techniques using an AUV. The aim is to have a system that will provide video data from a camera as well as bottom data from the side-scan/bathymetric sonar transmitted in real time to the submarine launch platform. This data should make it possible for the submarine to enter very shallow water with a high confidence level.



Autonomous underwater vehicle

Swarm Technology

This technology is based on using a swarm of small inexpensive agents distributed over a large area. Although a single agent only has limited intelligence the combined network of agents in the swarm forms an entity displaying intelligent behaviour. IMT is currently studying ways of using swarms deployed from a submarine. This is supported by work performed in developing miniature sonar, communication and propulsion systems for use in a distributed swarm.

High Resolution Imagery

The 209 Class submarine is fitted with an optical mast with various modes of providing imagery. Distributing the imagery to an operational commander ashore has remained a challenge coupled with the ever-improving quality in digital camera technology. The operational requirement is to provide the imagery to an operational commander in a rapid and near real-time condition.

CONCLUSION

The South African Navy with its limited resources has undertaken to ensure that maritime security is enhanced. Submarines will contribute in ensuring that the operational effects of control, protection and deterrence are attained.

MARITIME SECURITY: PERSPECTIVES FROM MOZAMBIQUE¹

Rear Admiral Patrício Yotamo
Chief Mozambican Navy

INTRODUCTION

It is with the utmost pride that the Armed Defence of Mozambique, through the Naval Defence Force, attends this auspicious meeting. Such events are important because they constitute an opportunity for the beneficial exchange of ideas on pertinent issues relating to the use of sea – which is extremely valuable to our region in geo-strategic terms.

Due to the effects of globalization and the establishment of wider relationships between nations, the global economic system is growing in complexity and interdependence. This has led to an increasing internationalization of maritime activities and much more contact between various states across the oceans.

As a result of their dependence on the sea and on trade, various countries have adopted maritime strategies best suited to their peculiar situations and have endeavoured to enforce the Law of the Sea, or Maritime Laws, in a proper way. Their aim has usually been to avoid conflicts, by focussing on positive interaction and diplomacy, while at the same time trying to promote their national interests and political objectives as far as the use of the sea is concerned. These strategies have for the most part been concerned with the spheres of maritime transport and trade, the exploration of marine resources, scientific and technological endeavours at sea, the conservation of the marine environment and its natural resources, as well as security at sea and security in the broadest of terms.

"Security" is the crucial variable. If proper security is in place, it can ensure favourable conditions within which other spheres of state and human activity can prosper, while in its widest sense security is essential for states wishing to achieve their political, economic and social objectives.

In our approach to maritime security, which is a very important element of maritime-related activities, we will restrict ourselves to a brief discussion of the situation Mozambique finds itself in. As a country Mozambique does not possess a powerful capacity to assert its maritime or naval power, while as a result of its unique history, long coastline and its natural resources at sea, the sea is of much value to the state and coastal activities have traditionally been very important to its people.

¹ This paper was translated from Portuguese and the translated version was edited. Any errors or inaccuracies it might contain could therefore be prescribed to the editing process – Editors.

Before discussing detail, we would like to request your indulgence to first convey our gratitude on behalf of our Government, a SADC member state, for the invitation and the reception we received. We also wish to covey our praise for the excellent work undertaken by the conference organisers.

CHARACTERISATION OF THE MOZAMBICAN MARITIME ENVIRONMENT

General Aspects

Mozambique is a South East African State. It has an area of 8 000 km², with a population of 20 million. As Mozambique is situated between 10°27'S and 26°51'S, it has one of the longest coastlines in Africa, some 2 800 km. Mozambique's territorial waters and Exclusive Economic Zone are within the Indian Ocean.

As far as hydro-metrolological characteristics are concerned, Mozambique is situated in two climatic zones: a tropical and a subequatorial zone, with a well defined rainy and dry season, important to the annual rainfall. Tropical cyclones occur in the region and the tides are pronounced, with the difference between high and low tide reaching up to six metres in places. The coastline is rocky towards the north and bordered by coral reefs towards the south. The bank of Sofala, towards the centre of the country, has a coastline with abundant beaches, inclined with stretches of dunes. This region is the centre of Mozambique's prawn industry.

Tourism-related activities are a powerful driving force in the social and economic development of the country. In fact, the beautiful and extensive beaches of the country are one of its main attractions to the massive demand from tourists from all four corners of the globe.

The Mozambican Canal (between Mozambique and Madagascar) is of international importance. It is a major international sea route and is extensively used, especially by oil tankers.

The Notion of Security

The Mozambican Naval Defence Force is a branch of the Mozambican Armed Defence Forces. It therefore also represents the civilian component of state authority.

Within the naval defence environment, the concept of security usually refers to the protection, or defence of a country's interests in the maritime domain. Action might be taken with the permission of the state and with its official sanction, or it could be undertaken as a result of an unusual circumstance or an unforeseen threat to security.

Furthermore, the naval defence function is important because it must contribute towards creating the conditions that make normal maritime-related activities possible. As a result it must combat, and act against, activities that might infringe on the use of the sea. These could be illegal activities, accidents or major disasters.

The concept of security in Mozambique is complex. This is because of the country's long coastline, the problems with enforcing state authority everywhere and the fact that there are

also other water-logged or "wet" areas, in which jurisdiction is shared with other States. Of specific note in this regard is the unique situation at Lake Niassa (Lake Nyasa or Lake Malawi). Here, the Navy has developed activities similar to those in the ocean environment. Another such area, which is handled in the same way, is Albufeira de Cabo Basa.

The maritime elements of security within the Mozambican paradigm could therefore be encapsulated as follows: To secure the movement of people and goods in conditions that are free from risk, the protection of the natural resources of the country at sea and in water-logged areas, compliance with national and international legislation relating to the use of the sea, and the protection of the national sovereignty of Mozambique.

It is equally important to emphasise that the lack of maritime security, or the maritime insecurity of Mozambique, could have a direct and negative effect on its neighbouring states. This would firstly pertain to countries that do not have direct access to the sea, specifically as Mozambican ports contribute substantially towards supporting other economies in the region and handles much of their trade. It is in this component that much of the geo-strategic significance of Mozambique in maritime terms can be found.

As could be argued, this situation is not unique to Mozambique. In fact, with greater globalization and the internationalization of maritime activities, many of these trends are quite universal.

THE CREATION OF THE MOZAMBICAN NAVAL DEFENCE FORCE: CURRENT SCENARIO

After Mozambique gained independence in 1975, the basic aim of the state was to defend its newly-gained national independence and state sovereignty. This sovereignty had to be defended on land, in the air and at sea. In order to ensure the independence and sovereignty of the country at sea, a navy was established. Since its creation the Naval Defence Force of Mozambique has had to conduct a wide range of activities relating to its role and its reason for existence.

National Roles and Responsibilities

As far as the internal ambit or the national role of the Naval Defence Force of Mozambique is concerned, its functions are generally geared towards contributing to the objectives flowing from national defence and security policy. In this sense it conducts a variety of missions as part of the Armed Forces of the state and reinforces the activities of the other services. The naval forces of Mozambique often co-ordinate their activities with the other services and good co-operation exists within the services.

As a country Mozambique has suffered much from natural disasters like drought, floods and severe cyclones. The effects of such calamities have often been particularly severe, not only from a national economic perspective, but specifically from a humanitarian point of view. The heavy financial cost of the destruction incurred during such events usually goes hand-in-

hand with the displacement of many people, the destruction of lives and property and much human suffering.

The armed forces are usually deployed in efforts to mitigate the effects of such disasters – often at high cost. As a result of such eventualities, a large challenge exists for the Navy and it must at all times be ready to face many challenges and to conduct a variety of activities. It must often intervene and is seen as "the first line of defence", specifically in the case of a deluge of flooding or when disasters or accidents take place at sea.

The Navy is a crucial component of the maritime authority of the state. As a result it is narrowly linked to other state departments as far as activities relating to the sea are concerned. It must cooperate with these bodies to create the relevant policy and strategic frameworks.

Other roles the Navy has to perform are within the sphere of public interest. As discussed above, it must cooperate with other state departments, but it goes beyond that as it also works with a variety of organisations and bodies that have an interest in the sea and provide a service to society at large.

The current scenario is characterised by a scarcity of resources which the legislative environment has not necessarily changed or adopted. Much of the legislation is inadequate or redundant and leads to a duplication of functions. It does not provide the proper criteria for regulating, controlling and cooperating between the institutions involved on all aspects associated with the sea. From this arises the need to find improved mechanisms that will protect the interests of those involved in maritime security. An improved policy and legislative framework is therefore necessary.

As a result the Mozambican state is in a process of limiting inefficiencies in the system and creating an improved maritime authority. It is creating an improved system for controlling the process, to define exactly what the responsibilities of various departments are, and for unifying or coordinating activities.

The concept of maritime authority as it is now being defined, visualizes an examination of the capacity of all relevant institutions with a view of the proper coordination and utilisation of the available resources. This will facilitate a more efficient process and it is envisaged that objectives will be easier to achieve.

All sea-related matters in Mozambique are under the auspices of the Coordinating Council for the Sea and Borders. This is a high-profile inter-ministerial council and is under the direction of Her Ladyship the Prime Minister. It comprises of the following persons: the Minister of National Defence, the Minister of Foreign Affairs and Co-operation, the Minister of Transport and Communication, the Ministry for Co-Coordination for Environmental Action, the Minister of the Interior, the Minister of Fisheries and the Minister of Mineral Resources.

In order to deal with the many technical issues that are inherent to the management process, the Council has a working group that consists of specialists from the Naval Defence Force of Mozambique, the Institute for the Sea and Borders, the National Naval Institute, the National Fisheries Investigative Institute, the Institute for Petroleum, the National Institute for

Sustainable Development, the National Directorate for Environmental Management, and the Police for Lakes, Seas and Rivers.

Within this framework the main challenge for the Navy is to provide assistance to other institutions in achieving their objectives. Some of these objectives relate closely to the objectives of the Navy, but in some cases they do not. These activities include aspects such as maritime inspections, the right to have a safe and secure passage while travelling through Mozambican waters, as well as the development of economic activities at sea (such as transport, fishing and tourism-related activities).

The cooperation with civil society, non-governmental organisations and with a variety of interest groups raises the level of awareness within the navy and much of this involvement is deemed important. A successful example that might be referred to is the relationship the Navy has with a number of non-governmental organizations in defence of the environment (such as the World Wildlife Fund, WWF). Furthermore, well-coordinated efforts are underway with regards to the protection of the marine environment in the Archipelagos of Bazaruto and of Quirimbas.

External Roles and Responsibilities

Externally, or within the international sphere, one of the most important maritime objectives to be pursued is without a doubt bilateral and multilateral cooperation. Maritime interaction is seen as an inherent part of the relationship between Mozambique and other states.

Within this sphere governmental institutions of the countries within the southern African region search for ways and means to collaborate and methods that will ensure proper respect for the dictates of maritime law. This is specifically important in our region and in our time, when the lack of security in the jurisdiction of one state can significantly affect the security of another.

The abilities of countries to manage the factors that give rise to security problems in our area differ. However, cooperation is an important way of filling that gap and if states cooperate, it can facilitate the protection of their interests, such as preventing the further degradation of marine resources, illegal migration, piracy and other security problems that might flourish because of a lack of resources.

As a result of the geo-strategic localization of Mozambique, actions in this sphere are conducted in cooperation with a number of regional organizations and in line with agreements between states. To begin with Mozambique is a member of the Southern African Development Community (SADC), which has an active Permanent Maritime Committee. In addition Mozambique participates in a forum for countries in the Indian Ocean, the Indian Ocean Rim Association for Regional Cooperation (IOR-ARC) and cooperates with the navies of other Portuguese-speaking countries (its first symposium recently took place in Lisbon, Portugal).

Irrespective of what the motivation is for the existence of such alliances or groups of countries (culture, politics or economics), such alliances are tied to the security of a country and are a defining factor in its relationship with other countries. The Naval Defence Force of Mozambique has good bilateral cooperation, mainly with its neighbouring countries, as a prime objective. Such a relationship will result in immediate benefits, and as recent history have shown, rapid intervention

has taken place (for example South African assistance with disaster relief), while it also makes joint patrolling activities or the development of permanent joint inspection activities possible.

In order for the joint activities to be a success, Mozambique must implement concrete measures to show its support for the processes. It has undertaken to involve itself to a greater extend in maritime matters, specifically as maritime resources are so important to Mozambique and are crucial for achieving the objectives of sustainable development.

PROSPECTS

The measures Mozambique envisages are intended to make it possible to deal with maritime security issues as part of the objectives of the state. It will therefore improve mechanisms, investigate the creation and implementation of alternative legislation and enhance the powers of the inter-ministerial Co-ordinating Council for the Sea and Borders. The purpose will is to improve management within the maritime domain.

The ultimate objective is to create a united maritime authority that would coordinate maritime activities, enhance the utilisation of available resources and ensure control and protection of the sea.

Within this process, particular emphasis must be placed on the role of the Naval Defence Force. It is a central entity within the framework of the state and interacts with other state departments. Furthermore, it is well-suited to the task of enhancing maritime security as it has much experience in this sphere, its personnel are specifically trained for operating within the maritime domain, and it has unique resources geared for maritime work. But above all, the Navy is the institution with the constitutional obligation to defend the national sovereignty of the country at sea and on its landlocked lakes.

CONCLUSION

The Naval Defence Force of Mozambique is an important component of the military power of Mozambique and is also responsible for exercising state authority in the maritime domain. It is therefore tasked with defence and security in Mozambican waters and on the lakes within the national jurisdiction of Mozambique.

Though security within the maritime domain is a combined effort with many stakeholders, the Navy performs a central role in managing matters related to the sea. This position is due to its more than three decades of experience in the defence of Mozambique and in managing matters relating to the sea. In maritime security related issues, it should work with other departments as well as with other navies.

One of the greatest shortcomings of the Naval Defence Force is its current lack of sufficient equipment and material to meet the various challenges. However, as in the past, it will continue to search for alternatives and ensure that its responsibilities are carried out in accordance with the national objectives of Mozambique and the spirit of international maritime law.

ILLICIT TRADE, SMUGGLING AND HUMAN TRAFFICKING

Carol Allais

INTRODUCTION

Trafficking in human beings is estimated to be the largest source of revenue for organised crime syndicates after arms and drugs, generating billions of dollars each year. People are fast replacing drugs as the second largest source of income because, as has been observed, "bodies can be replaced".

A wide range of estimates exists on the scope and magnitude of the trafficking in persons. The International Labor Organization (ILO) – the United Nations agency charged with addressing labour standards, employment, and social protection issues – estimates that there are 12.3 million people in forced labour, bonded labour (debt bondage)¹, forced child labour, and sexual servitude at any given time. Other estimates range from 4 million to 27 million.² These figures refer to trafficking which occurs across international borders and does not include those trafficked within national borders. International anti-trafficking initiatives and law enforcement concentrate largely on organised crime and cross-border trafficking, but trafficking also takes place within a country's borders. A trawl on the internet reveals that there are no countries that are immune from this trade in human misery – they are source countries (countries of origin), transit countries, destination countries or a combination of all three. Traffickers comprise a variety of players ranging from international crime syndicates, loosely organised local groups, businessmen and women, family members and parents themselves.

THE GLOBALISATION/TRAFFICKING/CRIME NEXUS

The involvement of international criminal organisations³ in human trafficking is facilitated by the infrastructure and trends associated with a rapidly globalising world, e.g. increasingly open borders, better transport and the increase in overall migration flows. New forms of communication and new opportunities of moving finances have expanded the scope for global crime.⁴ The supply and

1 Bonded labour – or debt bondage – is probably the least known form of slavery today, and yet it is the most widely used method of enslaving people. A person becomes a bonded labourer when his or her labour is demanded as a means of repayment for a loan. The person is then tricked or trapped into working for very little or no pay, often for seven days a week. The value of their work is invariably greater than the original sum of money borrowed. Millions of people are held in bonded labour around the world. <http://www.antislavery.org/homepage/campaign/bondedinfo.htm> (accessed 20/07/2008).

2 TIP Report 2008. US Department of State.

3 Estimates on the extents of such activity vary between US\$500 billion to US\$1 trillion. Criminal activities include not only drug trafficking, which is the biggest source of income, but also trafficking in weapons, nuclear material, illegal immigrants, women and children, and money laundering. Criminal groups include the Sicilian mafia, the American mafia, Colombian cartels, Mexican cartels, Nigerian networks, the Chinese triads, the Japanese Yakuza, the Russian Mafiyas, and the Jamaican posses (See Castells, vol 3, 2000, pp.170-172).

4 J. Graaff, *Poverty and Development*, Oxford University Press, Cape Town, 2003, p.56.

demand underlying trafficking is supported by the growing number of criminal networks worldwide that are increasingly able to move large numbers of people at higher profits than ever.

Crime and terrorism

While the connection to organised crime has long been recognised, the emerging alliance between transnational organised crime and international terrorism is seen to be one of the most serious threats faced by society today. Terrorist and criminal organisations rely on the same global transportation and financial infrastructure for illegal operations. They take advantage of the same breakdowns in authority and law enforcement. The most obvious example of such a linkage is when the proceeds from narcotics smuggling operations are used to finance terrorist activities.⁵

Maritime and container security

Maritime security has assumed new dimensions in the post 9/11 era. The importance of container security to maritime terrorism is only now being realised after a US Navy search of a freighter in January 2002 led to the discovery of a group of Al Qaeda terrorists hiding inside a well-equipped shipping container. According to the United Nations Office on Drugs and Crime (UNODC), container traffic has risen over the past ten years to 220 million units in 2000, and is expected to double by 2012, as licit merchandise transported in containers generates legitimate revenue. But containers also facilitate the trafficking of large quantities of illicit merchandise such as narcotics. They also serve the trade in weapons, chemical waste and human beings.⁶

With the considerable increase in large and small container transport by sea – more than 7 million shipping containers move around the globe each day – the problem of illicit trafficking has grown, as these sealed containers often pass through ports without undergoing thorough checking and are capable of containing anything from human terrorist cargo to arms and ammunition.⁷

Containers are rarely inspected on their journey, and provide easy cover for smugglers to transport drugs, weapons and people, especially to European ports, which attract tens of thousands of illegal migrants from the Middle East, Africa and Asia each year.⁸ These challenges in the maritime sphere call for more effective law enforcement and the maintenance of maritime order. The challenges are part constabulary, part economic and part human welfare.⁹

5 Lyudmila Zaitseva, 'Organized Crime, Terrorism and Nuclear Trafficking', *Strategic Insights*, Volume VI, Issue 5, August 2007.

6 UN launches container control programme to fight illicit trafficking. *UN News Centre*. <http://www.un.org/apps/news/story.asp?NewsID=12292&Cr=unodc&Cr1/> (accessed 18/07/2008).

7 P.K. Gosh, 'Maritime Security Challenges in South Asia and the Indian Ocean: Response Strategies', Paper presented at Center for Strategic and International Studies – American-Pacific Sealanes Security Institute Conference on Maritime Security in Asia. Honolulu, Hawaii. 18-20 January, 2004.

8 Energy Security, Maritime Terrorism: A New Challenge for NATO. <http://www.iags.org/n0124051.htm> (accessed 18/07/2008).

9 Gosh, *op cit.*

THE HUMAN COMPONENT OF TRAFFICKING

The aim of this paper is to focus on the human rather than the security aspect of trafficking by providing a broad overview of the trafficking of persons, particularly in Southern Africa. The trafficking in persons undermines the safety and security of all the nations it touches as it is a global health risk and it fuels the growth of organised crime, but the greatest impact of this 21st Century form of slavery, is the devastating impact it has on individual victims.

Eighty percent of trafficking victims are women and children who are trafficked for labour and sexual exploitation. Sixty percent of human trafficking takes place in sub-Saharan Africa. The most vulnerable age group is 14 to 28 years.

(At this point it would be expedient to point out the difference between smuggling and human trafficking: Trafficking refers to the exploitation of the migrant by means of force, fraud or coercion, whereas smuggling refers to the procurement, for financial and material gain, of the illegal entry into a state of which that person is neither a citizen nor a permanent resident. Whereas the former is a crime against the individual, the latter is a crime against the state.)

HUMAN TRAFFICKING DEFINED

Trafficking in the United Nations Transnational Organised Crime Protocol to Prevent and Suppress Trafficking in Persons, Especially Women and Children (2004) – also referred to as the Palermo Protocol – is defined as follows:

- The recruitment, transportation, transfer, harbouring or receipt of persons by means of the threat or the use of force or other forms of coercion, or abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person for the purpose of exploitation.
- Exploitation shall include, at a minimum, the exploitation or the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.

Child labour is defined by the Protocol as *the recruitment, transport, transfer, harbouring or receipt of a child (anyone under 18) for the purpose of exploitation even if this does not involve force, fraud or coercion*. This is a critical point because in many countries, child trafficking often occurs with the consent of the parents and sometimes of the children themselves.

The common denominator of trafficking scenarios is thus the use of force, fraud, deception or coercion to exploit a person for profit.

FORMS OF TRAFFICKING

A victim can be subjected to labour exploitation, sexual exploitation, or both. Trafficking for forced labour includes trafficking for domestic servitude, manual, agricultural, industrial or hazardous labour. Sexual exploitation typically includes abuse within the commercial sex

industry. In other cases, victims are exploited in private homes by individuals who often demand sex as well as work. The most lucrative part of the trafficking of women and children involves sex trafficking. This includes forced prostitution, bride trafficking, child prostitution and child pornography. One example of this type of trafficking is the cage prostitutes in India who are mostly minors, often from Nepal and Bangladesh.¹⁰ Here young girls, even as young as eight, are sold to traffickers and forced to work in brothels. Newcomers, usually virgins, are raped repeatedly to "season" them and make them easier to control. People are also trafficked for the removal of human organs and/or body parts.

THE VULNERABILITY OF WOMEN

The vulnerability of women to trafficking is ascribed to their lack of rights by the United Nations Special Rapporteur on Violence against Women¹¹ who observes that:

"...the lack of rights afforded to women serves as the primary causative factor at the root of both women's migration and trafficking in women. The failure of existing economic, political and social structures to provide equal and just opportunities for women to work has contributed to the feminization of poverty, which in turn has led to the feminization of migration, as women leave their homes in search of viable economic options. Further, political instability, militarism, civil unrest, internal armed conflict and natural disasters also exacerbate women's vulnerabilities and may result in an increase in trafficking."

TRAFFICKING IN SOUTHERN AFRICA

Trafficking has only recently emerged as a serious issue across Southern Africa. Populations vulnerable to trafficking are growing on the continent, which increases the supply of potential victims for trafficking.¹² The United Nations High Commissioner for Refugees (UNHCR) reports that there are over 4.2 million refugees and about 13 million displaced persons in Africa as a result of armed conflict, insecurity and human rights violations.¹³ The Southern African Regional Interpol Office reported in June 2004 that trafficking in persons, particularly for cheap labour and sexual exploitation, was a growing problem in Southern Africa.¹⁴ The magnitude of trafficking in the region is difficult to gauge due to the lack of reliable data. While no official statistics exist, research conducted by the International Organisation for Migration (IOM)¹⁵ and cases reported by countries' non-governmental organisations (NGOs) suggest that

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- 10 Map and Fact Sheet on Trafficking and Prostitution in the Asian Pacific. <http://www.uri.edu/artscli/wms/hughes/apmap.htm> (accessed 12/06/2008).
- 11 T.D. Truong and M.B. Angeles, *Searching for best practices to counter human trafficking in Africa: A focus on women and children*, United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris, 2005.
- 12 UNESCO, *Human Trafficking in Mozambique: Root Causes and Recommendations*, Paris, 2007. p.61.
- 13 The UN Refugee Agency, *Africa Newsletter*, September/October 2005.
- 14 'Police Report Growing Human Trafficking in Southern Africa', *Pan African News Agency Daily Newswire*, 15 January 2004.
- 15 IOM, *Seduction, Sale and Slavery: Trafficking in women and children for sexual exploitation in Southern Africa*, IOM Regional Office for Southern Africa, Pretoria, 2003.

a significant amount of trafficking is taking place. The existing body of knowledge indicates that both cross-border and internal trafficking are prevalent, each having distinct dynamics.

Most countries in the Southern African Development Community (SADC) region¹⁶ can be categorised as predominantly source or transit countries.

The majority of victims of cross-border trafficking in Southern Africa are women and girls who are trafficked for commercial sexual exploitation: prostitution, pornography and/or other forms of sexual exploitation, and to a lesser degree, for domestic servitude. Individual cases suggest that men, women and children are increasingly being recruited from Southern Africa for exploitation in agriculture, construction, and domestic work in neighbouring countries as well as overseas. Cases of trafficking for human organs have also been documented in Southern Africa and there is increasing concern regarding the trafficking in body parts for ritual purposes. Small numbers of men and boys are trafficked, predominantly for agricultural work and cattle herding.

The trafficking of children

Twice as many African countries report trafficking in children as report trafficking in women.¹⁷ Vulnerability factors such as extreme poverty, the AIDS pandemic in Southern Africa, the lack of birth registration and gender equality, have left children increasingly prone to general abuse and susceptible to trafficking. The largest volume of child trafficking in all the countries appears to be within national borders rather than cross-border trafficking. Children are trafficked into a range of exploitative practices. Although not recognised as "trafficking", many of these young people are deceived, exploited and abused in various forms of sex work, domestic or agricultural labour, sometimes by acquaintances or members of their own families. In some areas, related practices such as child labour, debt bondage, child selling, sham adoptions, pledging children or females to pay a debt, and forced or early marriage are also prevalent. These children are regularly recruited from rural areas to work in urban centres, often through promises of well-paid work, schooling or a better life.

Sexual exploitation

An alarming rate of child abuse, particularly sexual abuse, is prevalent in many Southern African countries.¹⁸ The abuse of children, particularly the problem of the commercial sexual exploitation of children, has become a major concern. Many forms of child sexual exploitation have been identified in Southern Africa. The main forms are child prostitution, child pornography, sale and trafficking of children. Other forms include incest, early child marriages, rape, sodomy, and defilement, kidnapping with intent to marry or indecent assault. Child prostitution, pornography, sex tourism and trafficking are closely linked. It is, however,

¹⁶ The SADC member states included in this report are: Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe.

¹⁷ UNICEF, *Trafficking in human beings, especially women and children, in Africa*, Innocenti Research Centre, Florence, 2003, pp.9-10.

¹⁸ US Dept of State, 2007 Country Report on Human Rights Practices. <http://www.state.gov/g/drl/rls/hrrpt/2007/> (accessed 12/06/2008).

worth noting that the non-commercial types of sexual exploitation are more pervasive than the commercial exploitation of children (CSEC).¹⁹

In many African countries the tourist trade, coupled with high levels of poverty, unemployment and illiteracy provide fertile ground for child sex tourism to flourish. Child sex tourism (CST) involves people engaging in commercial sex acts with children. Many children in mostly poor countries fall prey to sex tourists each year. The demand for underage sex is on the increase and has given rise to practices such as Lomé's so-called *Marche due petit vagin*, literally, the market of the small vagina.²⁰ Molo Songololo, a South African NGO concerned with children's rights, estimates that there are 28,000 children in commercial sexual exploitation in South Africa's urban centres and South Africa is fast becoming known as a destination for sex tourists for sex with underage children.²¹

The commercial sexual exploitation of children has devastating consequences for minors, which may include long-lasting physical and psychological trauma, disease (including HIV/Aids), drug addiction, unwanted pregnancy, malnutrition, social ostracism, and very often, death.

Labour Exploitation

Sub-Saharan Africa is also the only region in the world where child labour is increasing.²² The HIV/Aids pandemic has played a significant role in fuelling child labour. Exploitative child labour takes the form of activities such as agricultural work, cattle herding, domestic labour, child minding, begging and drug running (in connection with gangs). Children are trafficked into unsafe or perilous jobs (for example domestic servitude, agricultural labour, begging) because, once trafficked into where they have no legal status or are not entitled to work, they can only work in jobs where they have no legal protection.

The armed conflicts in Africa – these include civil wars in Liberia, Sierra Leone, Angola, Burundi, Rwanda, Congo, Brazzaville, Democratic Republic of Congo (DRC) Uganda, Somalia and the Sudan – have given rise to another arena for the exploitation of children.²³ Children (and men and women) continue to be abducted by all sides in African conflicts to serve as forced labourers, child soldiers, sex slaves for militia and military officers and porters for looted goods, arms and ammunition. In Sierra Leone, children were forced to mine the diamonds that fuelled the civil war.²⁴

The trafficking of organs and body parts: Organ trafficking has become an international trade. Body parts (especially kidneys) sell for up to \$125 000. Transplant tourism is big business. There is a

19 UNICEF, Analysis of the Situation of Sexual Exploitation of Children in the Eastern and Southern African Region, 2nd World Congress against Commercial Exploitation of Children.

20 Human Rights Watch, *Borderline slavery: Child trafficking in Togo*, Human Rights Watch, (15)8A, April 2003.

21 Molo Songololo, *The trafficking of children for the purposes of sexual exploitation: South Africa*, Molo Songololo, Cape Town, 2000.

22 *Southern Africa Child Labour Link*, April 2008, p.2.

23 K. Fitzgibbon, 'Modern-day slavery: The scope of trafficking in persons in Africa', *African Security Review* 12(1), 2003, pp.82-89.

24 *Ibid.*

"body mafia" who will persuade or force you to sell your kidneys.²⁵ Children are trafficked for ritual sacrifice. The rising number of *muti* murders in southern Africa is a cause of great concern.

WHAT MAKES PEOPLE VULNERABLE TO TRAFFICKING?

Underlying many of the causes of trafficking is Africa's poverty trap which involves a range of mutually reinforcing economic and social ills. A number of push and pull factors render people susceptible and vulnerable to the trafficking chain. Economic differentials between countries may make even relatively poor countries appear to be a likely source of livelihood. War, conflict, poverty, gender discrimination, lack of education and information, HIV and Aids, violence against women, harmful socio-cultural practices and lack of legislative and policy frameworks (push factors) in conjunction with pull factors such as a demand for cheap labour and an increase in the demand for sexual services come together to underpin the vulnerability of people to human trafficking.²⁶ Women and children tend to be the most vulnerable to trafficking, as they often carry the burden of poverty. The susceptibility of women and children to trafficking and other forms of abuse is exacerbated by a patriarchal culture which relegates women and children to positions of being owned.²⁷

It is also believed that the trafficking of women and children in sub-Saharan Africa is linked directly to the HIV/Aids pandemic: Customers in the sex industry have increased the demand for younger women and children as the younger they are the less likely they are to have been infected with the virus. This perception has also fuelled the demand for younger and younger child brides.

Poverty²⁸ and HIV/Aids are linked in a vicious circle and the growing Aids epidemic in sub-Saharan African countries has exacerbated the vulnerability of women and children to traffickers as breadwinners, parents and other caregivers succumb to the disease.

Trafficking is facilitated by inadequate or poor legislation, lax border patrols, badly conducted reintegration of children, weak prosecutorial efforts and corruption.²⁹ South Africa is the only country in the region that is primarily a destination country for trafficked persons from regional and extra-regional locations.³⁰ While it is mainly a destination country for trafficked persons, it is also a transit point for trafficking operations between developing countries and Europe, the United States and Canada because it has direct flight and shipping routes to most countries in the developed world.³¹

25 N. Schepers-Hughes, 'Rotten trade: millennium capitalism, human values and global justice in organs trafficking', *Journal of Human Rights*, 2(2), June 2003, pp.197-220.

26 UNESCO, *Human trafficking in Lesotho: Root causes and recommendations*, UNESCO, Paris, 2007.

27 Susan Kreston, 'Trafficking of children in South Africa: An analysis of pending legislation', *Child Abuse Research in South Africa*, 8(1), 2007, pp.35-50.

28 It is important to note, however, that the relationship between poverty and HIV/Aids is not simplistic. Some countries in East and West Africa have a low HIV prevalence rate, despite high levels of poverty. Also, not only poor people are infected or affected by HIV. This indicates that poverty is not the only factor that enhances vulnerability to HIV and its impacts (UNDP 2002, p.2).

29 Human Rights Watch, Borderline slavery: Child trafficking in Togo, *Human Rights Watch*, (15)8A, April 2003, p.3.

30 UNICEF, *Trafficking in Human Beings, Especially Women and Children, in Africa*, Innocenti Research Centre, Florence, 2003.

31 South African Law Reform Commission, Discussion paper 111, Project 131, 2006.

SOUTH AFRICA AS PRIMARY DESTINATION COUNTRY

South Africa, as the economic heart of sub-Saharan Africa, is a powerful attraction for migrants and asylum seekers, who are easily able to take advantage of the country's extensive and inadequately monitored borders and increasing corruption amongst government officials, including those at the various border posts. The country has become a lucrative market for traffickers as it provides a market for the services of traffickers.

A survey on cross-border trafficking for the purposes of sexual exploitation reveals that source countries for women and children being trafficked to South Africa are Mozambique, Angola, Zambia, Senegal, Kenya, Tanzania, the Democratic Republic of Congo (DRC), Uganda, Ethiopia, Swaziland, Namibia, Botswana, Nigeria, Lesotho, Zimbabwe, Cameroon, Sudan, Mozambique and Malawi.³² Women and children are also being trafficked from Eastern Europe and South East Asia, especially from Thailand, Taiwan and China.³³

People trafficked into South Africa are for the most part trafficked to commercial centres such as Johannesburg, Durban and Cape Town. People are also trafficked to mining communities and other sites of economic significance such as commercial farms.³⁴ (While reports exist of substantial numbers of men being brought to South Africa from Pakistan, India and China for purposes of forced labour it has not been established whether these men are victims of trafficking.) While South Africa remains a major destination country, people are also trafficked from South Africa and the region to the Middle East, Europe, Asia and Australia.³⁵

CONCLUSION

Human trafficking can be counted amongst the greatest human rights violations of this century. Victims are denied the fundamental right of all persons to life, liberty and security, and to be free of slavery in all its forms. The trafficking of children is perhaps the most abhorrent aspect of this practice. It is a crime of such magnitude and atrocity that it cannot be dealt with successfully by any government alone. It is a global problem which requires a global, multi-stakeholder strategy that builds on national efforts throughout the world. To pave the way for this strategy, stakeholders must coordinate efforts already underway, increase knowledge, raise awareness and provide technical assistance; promote effective rights-based responses; utilise available resources and build the capacity of state and non-state stakeholders; foster partnerships for joint action; and, above all, ensure everybody takes responsibility for this fight.³⁶ I should like to conclude with words attributed to General Dwight D Eisenhower: *History does not long entrust the care of freedom to the weak or timid.*

32 *Ibid.*

33 J. Martens, M. Pieczkowski and B. van Vuuren-Smyth, *Seduction, sale and slavery: Trafficking in women and children for sexual exploitation in Southern Africa*, International Organization for Migration (IOM), Regional Office for Southern Africa, 2003.

34 IOM, *Eye on Human Trafficking*, Issue 11/2006.

35 UNICEF, *Trafficking in Human Beings, Especially Women and Children, in Africa*, Innocenti Research Centre, Florence, 2003.

36 United Nations Office on Drugs and Crime-Global Initiative to Fight Human Trafficking.

PIRACY: THE AFRICAN EXPERIENCE

Henri Fouché

INTRODUCTION

At the beginning of the 1990s attacks against ships in the shipping lanes off the coasts of South East Asia (Indonesia, Malaysia, Thailand, Philippines) and Africa began to rise as organised crime became increasingly involved in theft on the high seas. Between 1993 and 2000 a total of 1 827 actual or attempted attacks took place against ships world wide, of which 354 occurred in the shipping lanes off the African Coast.¹

In South East Asia ships and their cargoes were being hijacked permanently, with the crews sometimes being murdered, cast adrift or held to ransom. In many cases the cargo was disposed of and the entire ship renamed, re-crewed and made available in the international maritime trade by the pirates. A feature of most of the attacks was the level of violence involved; with attackers being well armed and prepared to kill to get what they want.²

After 2001 the number of actual or attempted attacks against ships off Africa began to rise sharply. Between January 2001 and December 2007 590 incidents were reported to have taken place off Africa, the situation having deteriorated markedly by 2005 when Somalia recorded the second highest number of total attacks (35) in the world. Somali pirates armed with guns and grenades were attacking ships as far as 400 nautical miles off the coast. Once a ship was hijacked the pirates would sail her to coastal waters where they would contact the owner to demand a ransom.³

The International Chamber of Commerce's (ICC) International Maritime Bureau's (IMB) Piracy and Armed Robbery against Ships Report for the second quarter of 2008 (1 January – 30 June 2008)⁴ reported a total of 114 actual or attempted attacks against ships world wide. In the first six months of 2008, 71 vessels were boarded, 12 vessels were hijacked and 11 were fired upon. In total 190 crew members were taken hostage, six kidnapped, seven killed and another seven are missing, presumed killed. Of these 114 attacks world wide 64 took place against ships off Africa (56% of the total reported actual or attempted attacks against ships world wide). This year for the first time the number of recorded attacks against ships off Africa has surpassed the total for South East Asia, thus making Africa the new hotspot for piracy.

1 ICC (International Chamber of Commerce), IMB (International Maritime Bureau), *Piracy and armed robbery against ships, Annual Report 1 January – 31 December 2003*, Maritime House, Essex, 2004, p.5.

2 P. Mukundan, 'Piracy and armed attacks against vessels today', *Journal of International Maritime Law*, 10(4) August – September 2004, pp.305–315.

3 ICC, IMB, *Piracy and armed Robbery against ships, Annual Report 1 January 2005 – 31 December 2005*, Maritime House, Essex, 2006, p.5; and ICC, *Piracy and armed Robbery against ships, Annual report 31 December 2007*, Essex, 2008, p.5.

4 ICC, IMB, *Piracy and armed robbery against ships, Quarterly Report, 1 January – 30 June 2008*, London, July 2008.

AFRICA'S PHYSICAL VULNERABILITY

Africa has major choke points which slow shipping, making easy targets for pirates. These choke points are at the Straits of Gibraltar, the Suez Canal, the Bab-el-Mandeb Strait, the gateway to the Red Sea and the Cape Sea Route which all force shipping to pass close inshore.

The coastal waterways of West Africa with its inlets, rivers and deltas, particularly in the vicinity of the Gulf of Guinea, make this area a prime site for pirate activity. The East Coast of Africa has heavy volumes of shipping traffic into the ports of Mombasa (Kenya) and Dar-es-Salaam (Tanzania), making these ports attractive locations for attacks on anchored or berthed ships. Some of these attacks involve ships that are specifically targeted for the cargo they are carrying. In such cases the attackers act as agents for sellers who have already prearranged for black market sales of the stolen goods.⁵ Acts of piracy are most likely to occur in unpatrolled or lightly patrolled waterways. To the south, South Africa is protected to a degree by her notoriously rough seas, the lack of harbours for pirates to operate from and a strong patrol and surveillance capability. Namibia is likewise protected from attack from the shore by the inhospitable skeleton coast and absence of harbours from which to operate.

MAJOR AFRICAN CHOKE POINTS

Straits of Gibraltar

There have been no reported attacks in the vicinity of the straits. Morocco, which borders on the straits, has had two attacks. One in the Port of Agadir in the first quarter of 2008 when three persons in divers' suits swam to a ship at berth and attempted to board, and one in Casablanca in 2005 when 20 robbers armed with knives boarded a ship at berth.⁶

Suez Canal

In April 2007 a general cargo vessel was boarded by robbers at the Egypt mooring buoy, in Port Said in the Suez Canal and in August 2007 a general cargo vessel was boarded by pirates from five boats while manoeuvring in Port Said inner harbour.⁷

Gulf of Aden and the Red Sea

The Bab-el-Mandeb Strait, situated off the coast of Djibouti, forms the southern gate of the Red Sea and ships are extremely vulnerable when transiting the area. Most of the attacks take place while ships and yachts are steaming when they are boarded or fired upon by attackers. Between 2000 and 2007 there were 77 attempted boardings, eight actual boardings and at

5 M.D. Lyman & G.W. Potter, *Organised Crime*, 7th Edition, Pearson Education, New Jersey, 2007, p.129a.

6 ICC, IMB, *Piracy and armed robbery against ships, Quarterly Report*, 1 January – 31 March 2008, Cinnabar Wharf, London, April 2008, p.43; and ICC, IMB, *Piracy and armed Robbery against ships, Annual Report 1 January 2005 – 31 December 2005*, Essex, 2006, p.54.

7 ICC, IMB, *Piracy and armed Robbery against ships, Annual Report*, 31 December 2007, London, January 2008, pp.66 and 69.

least 12 ships and several yachts were fired upon in this area.⁸ Recently Somali pirates began attacking vessels along the northern Somali coast in the Gulf of Aden. The Somali pirates sail the hijacked vessel to the Somali coast from where it is taken to small ports on the Eastern coast of Somalia and a ransom demanded for the release of the vessel and the crew.⁹ In 2008 no attacks were reported in the Red Sea. All the incidents which took place in the Gulf of Aden (19) took place on the eastern side of the Gulf and are attributed to Somali pirates.

Cape sea route

Between 2000 and 2003 one attack was reported on a ship berthed in Durban in 2000. There were also attempted boardings of ships steaming in the vicinity of Port Edward in 2001 and Port Shepstone in 2003.¹⁰

CONCLUSION ON AFRICA'S CHOCKE POINTS

It can thus be concluded that the vulnerability of Africa's choke points do not, on their own, account for attacks on ships but need to be exacerbated by other factors for attacks to occur. In the case of the Bab-el-Mandeb Strait and the Red Sea this is clearly due to the failed state of Somalia where weak state control is the primary cause for the manifestation and high incidence of piracy and armed robbery against ships.

Morocco, together with other countries in the Arab Maghreb Union (AMU) including the AMU countries bordering on the Mediterranean Sea, Tunisia, Algeria and Libya, have a combined maritime capability of 2 long-range marine patrol aircraft, 9 surface blue watercraft and 61 surface coastal craft.¹¹ This would imply a heavy patrolling and surveillance capability in the area of the Straits of Gibraltar. In contrast Nigeria's biggest warships are reported to be in a poor state of repair with only a small number of light coastguard ships and speedboats operational¹² implying light or ineffective patrolling in Nigeria's waters.

The Cape sea route is protected by South Africa's sophisticated maritime and air surveillance systems which serve as a deterrent to would-be pirates.¹³ Other factors which account for incidents of piracy and armed robbery against ships at choke points, apart from light or no patrolling, can be attributed to political instability and poverty.

8 ICC, IMB, *Piracy and armed robbery against ships, Annual Report*, 1 January – 31 December 2003, Essex, 2004, p.5; and ICC, IMB, *Piracy and armed Robbery against ships, Annual Report*, 31 December 2007, London, January 2008, p.5.

9 ICC, IMB, *Piracy and armed robbery against ships, Quarterly Report*, 1 January – 31 March 2008, London, April 2008, p.21.

10 ICC, IMB, *Piracy and armed robbery against ships, Annual Report*, 1 January – 31 December 2000, Essex, 2001, p.55; ICC, IMB, *Piracy and armed robbery against ships, Annual Report*, 1 January – 31 December 2001, Essex, 2002, p.68; and ICC, IMB, *Piracy and armed robbery against ships, Annual Report*, 1 January – 31 December 2003, Essex, 2004, p.93.

11 L. le Roux, 'The Common African Defence and Security Policy: Lack of a Maritime Perspective', unpublished paper read at the *Conference on Maritime Surveillance – An African Perspective*, Johannesburg, 27–29 July 2005, p.14.

12 'Nigeria World Piracy Hotspot', *News 24*, 20 May 2008, see http://www.news24.com/News24v2/Components/Generic/News24v2_Print_Popup. [Accessed 27/05/2008].

13 B. Jordan, 'Piracy on the rise along African coast' *The Times*, 13 January, 2008, p.1, see <http://www.thetimes.co.za/PrintEdition/News/Article.aspx?id=678453> [Accessed 27/05/2008].

FACTORS CONTRIBUTING TO HIGH INCIDENCE OF PIRACY AND ARMED ROBBERY AGAINST SHIPS

Failed States

Somalia

Somalia has been without an effective central government since 1991. During the 1990s the absence of a functioning navy, police force and civil authority to enforce laws left Somalia unable to prevent organised crime from becoming increasingly involved in theft on the high seas in the vicinity of the Horn of Africa and the Gulf of Aden. Between January 1994 and December 2007, 151 serious attacks took place in Somalian waters in which ships were hijacked and robbed, with crews being injured or killed in the attacks. Many more attacks are believed to have gone unreported. In 2005 Somalia topped the piracy high risk areas with a recorded 35 attacks including 15 hijackings. Many of these attacks were aimed at ships transporting international food aid to Somalia. In 2007 the French and Danish governments, and in 2008 the Dutch government, each provided a warship to protect the food aid being transported to Somalia and prevent the ships carrying the food from being hijacked and the crews held to ransom.¹⁴ No World Food Programme (WFP) ships with naval escorts have been hijacked since November 2007 despite numerous attacks on other commercial vessels by Somali pirates.¹⁵ Because of Somalia's inability to patrol and secure its territorial waters no one could come to the assistance of ships once they had been forced into the 12-mile limit of Somalian waters until resolution 1816 (2008) was adopted on 2nd June 2008 by the Security Council of the United Nations with the consent of Somalia's transitional government which was formed in 2004 after negotiations between the main warlords and politicians. Resolution 1816 (2008) permits states cooperating with Somalia's transitional government (TFG), for a period of six months, to enter the territorial waters of Somalia to repress acts of piracy and armed robbery at sea, in a manner consistent with the relevant provisions of international law. Resolution 1816 is a drastic measure by the international community to address the inability of a failed state to deal with crime in its territorial seas. The South African delegation to the UN pointed out that it was necessary to be clear that it was the situation in Somalia that constituted a threat to international peace and security and not the piracy itself. The South African delegation regards the sea piracy as a symptom (of a failed state). The terms of the resolution make it clear that the resolution

- Applies only to Somalia.
- Shall not affect the rights and obligations under the Law of the Sea Convention (UNCLOS).¹⁶
- May not be considered as establishing customary international law. When signing resolution 1816 some states feared that sovereignty would be threatened or eroded.

14 ICC, IMB, *Piracy and armed robbery against ships, Annual report*, 1 January – 31 December 2002. Essex January 2003; and ICC, IMB, *Piracy and armed Robbery against ships, Annual Report*, 31 December 2007, London, January 2008.

15 ICC, IMB, *Piracy and armed robbery against ships, Quarterly Report*, 1 January – 30 June 2008, London, July 2008.

16 *United Nations Convention on the Law of the Sea (UNCLOS)*, United Nations, New York, 1982.

- May not, in the course of anti-piracy actions by co-operating states, deny or impair the right of innocent passage to the ships of any third state
- Is in force for 6 months but may be renewed, after review of the situation, for additional periods upon the request of the TFG.¹⁷

Resolution 1816 should have the desired effect in the short term, but would not be sustainable over the long term for the very fears, expressed when signing, manifesting themselves.

In 2008 Somalia again ranks as the number one piracy hotspot worldwide with 24 incidents. Eight vessels were hijacked by Somali pirates in 2008 and 157 crew members taken hostage. On 30 June one vessel was still held captive by Somali pirates. The geographical location of attacks in Somalia has shifted from the eastern to the north-eastern Somali coast line and the Gulf of Aden. Nineteen of the 24 incidents recorded for Somalia in 2008 took place in the Gulf of Aden.¹⁸

Political instability and poverty

Nigeria

Lagos and Bonny River are listed in the ICC's second quarterly report for 2008 as piracy prone areas. Mariners are warned that pirates are violent and have attacked and robbed vessels/ kidnapped crews along the coast and rivers, at anchorages and in ports.

Until recently, Nigeria was Africa's largest supplier of crude oil (Angola has since overtaken it). The ICC IMB's first quarterly report for 2008 on piracy and armed robbery against ships reports that the deteriorating security situation in Nigeria has resulted in a 20% cut in Nigerian oil production. This is expected to have a disastrous effect on Nigeria's economy as 90% of Nigeria's income is from the exportation of oil.¹⁹

Nigeria is responsible for 16% (18) of the 114 attacks reported to the IMB Piracy Reporting Centre in the first six months of 2008, making it the number two hotspot for the second quarter of 2008. Pirates are violent and have attacked and robbed vessels and kidnapped crews along the coast and rivers, at anchorages and ports.²⁰

The reasons for the attacks in Nigeria can be attributed to the following aspects:

- The political crisis in the Niger River Delta
 - Many kidnappings and attacks are against foreign oil workers and the Movement of the Emancipation of the Niger Delta (MEND) have escalated their violent attacks against vessels in the oil sector in the delta and rivers of the state of Nigeria

17 APO-SOURCE (The African News Source), Somalia / Security Council condemns acts of piracy, armed robbery off Somalia's coast, authorizes for six months all necessary means' to repress such acts, 3 June 2008. See <http://appablog.wordpress.com/2008/06/03/somalia-security-council-condemns-acts-o/>, [Accessed 05/06/2008].

18 ICC, IMB, *Piracy and armed robbery against ships, Quarterly Report*, 1 January – 30 June 2008, London, July 2008.

19 ICC, IMB, *Piracy and armed robbery against ships, Quarterly Report*, 1 January – 31 March 2008, London, April 2008, p.28.

20 ICC, IMB, *Piracy and armed robbery against ships, Quarterly Report*, 1 January – 30 June 2008, London, July 2008.

- Poverty and opportunistic crime
 - Of the 42 attacks in Nigeria in 2007, 25 took place in Lagos alone. In 2008 12 of the 18 recorded attacks in Nigeria were aimed at vessels at anchorage in the port of Lagos. The attacks in Lagos appear to have less to do with political grievances and more to do with poverty and a love of making easy money.²¹

Ships calling at Lagos are being forced to lie 50 nautical miles off the port until being called to berth. Insurance companies regard Nigeria as a war zone and insurance premiums have more than doubled.²²

Maersk suspended its operations to Onne, a major oil industry port, and Bourbon, which operates 40 vessels in Nigeria, has stopped all operations into ports near Port Harcourt and Bonny. The International Transport Workers' Federation (ITF) have called for Nigerian waters to be declared a war zone. Commenting from London on the situation in Nigeria in January 2008, Pottengal Mukundan (IMB Director) attributed the increasing incidents over the past year to slack law enforcement in Nigeria.²³

Interventions in Nigeria

- Dialogue between the Nigerian Government and politically motivated groups.
- Implementation of the International Ship and Port Facility Security Code (ISPS) to tighten security in harbours.
- Intelligence sharing with other countries in the region.
- Further joint patrolling of territorial waters and exclusive economic zones, EEZs (during April 2007 five West African nations undertook a military exercise off the Cameroon coast to bolster maritime security in the Gulf of Guinea).²⁴
- Increased maritime surveillance (radar systems) in the Gulf of Guinea.
- Aggressive investigation of attacks on ships and prosecution of offenders.

21 W. Pelser, 'Swartbaard is nou in Afrika, ahoo!', *Beeld*, 23 Mei 2008, p.17.

22 *Ibid.*

23 ICC, IMB, *Piracy and armed robbery against ships, Quarterly Report*, 1 January – 31 March 2008, London, April 2008, p.28; and Jordan, *op cit*, p.2.

24 A. Mwangura, 'Sea Piracy in Africa', unpublished paper read at the IMB 6th Tri-Annual Conference on Piracy and Maritime Security, Kuala Lumpur, Malaysia, 12–13 June 2007.

Light or no patrolling

West African states north of Nigeria

Actual And Attempted Attacks Since 2003**						
	2003	2004	2005	2006	2007	2008
Benin *	1	-	-	-	-	-
Togo *	1	-	-	1	-	-
Ghana *	3	5	3	3	1	3
Ivory Coast *	2	4	3	1	-	1
Liberia *	1	2	-	-	1	1
Sierra Leone *	-	3	-	2	2	-
Guinea *	4	5	1	4	2	-
Senegal *	8	5	-	-	-	-
Mauritania	-	2	1	1	-	-

* Members of the Economic Community of West African States (ECOWAS)

** Compiled from ICC Reports between January and April 2008.

West African states south of Nigeria

Actual And Attempted Attacks Since 2003**						
	2003	2004	2005	2006	2007	2008
Cameroon *	2	4	2	1	-	-
Equatorial Guinea *	-	-	-	-	-	1
Democratic Republic Of The Congo *	-	-	-	3	4	1
Angola *	3	-	-	4	1	2

* Together with Sao Tome and Principe, a member of the Economic Community of Central African States (ECCAS)

** Compiled from ICC Reports between January and April 2008.

Angola

In the early hours of 14 January 2008 two robbers from a small boat boarded a general cargo vessel anchored in the Luanda anchorage and stole ship's stores.

On 23 January 2008 robbers again boarded the same general cargo vessel which they had attacked on 14 January in the Luanda anchorage. This time they boarded the ship in the Luanda inner anchorage and again stole ship's stores.²⁵

It would appear that this vessel was specifically targeted although the robbers were apparently unable to steal cargo. This would tend to indicate a degree of planning based on intelligence used in selecting targets and carrying out attacks.

25 Compiled from ICC Reports between January and April 2008.

East African states excluding Somalia

Actual And Attempted Attacks Since 2003**						
	2003	2004	2005	2006	2007	2008
Kenya *	1	1	-	-	4	1
Tanzania *	5	2	7	9	11	7
Mozambique	1	-	-	-	3	2
Madagascar	-	1	1	-	1	-
South Africa	1	-	-	-	-	-

* Together with Uganda, members of East African Community (EAC)

** Compiled from ICC Reports between January and April 2008.

Kenya

Mombasa in Kenya is listed in the ICC's first quarterly report for 2008 as a piracy-prone area and mariners are warned to be extra cautious when in this area. Between 2000 and 2004 seven vessels and two fishing vessels were boarded in Mombasa and the attackers stole ships' property and cargo.

In 2007 two vessels anchored at Mombasa inner anchorage were boarded and cargo containers broached. Two attempted boardings were recorded, one at anchor in Mombasa inner anchorage and one 300 nautical miles off the coast of Kenya. In June 2008 robbers attempted to board a supply vessel berthed at Mombasa from the offshore side, using a rope attached to a hook.²⁶

Interventions

- Types of attacks taking place need to be addressed on land and close inshore by police patrols before they develop into organised crime attacks far offshore
- Unauthorised boat launches need to be monitored
- Communities need to be made aware of piracy
- Members of local communities need to be recruited to provide information on possible pirate activities
- Pirates detained by the US Navy in international waters in 2006 were sentenced to seven years in jail for piracy and hijacking, creating a powerful deterrent to any would be pirates.

Tanzania

Dar-es-Salaam in Tanzania is listed in the ICC's second quarterly report for 2008 as a piracy prone area and mariners are warned that pirates are targeting ships in ports and at anchorage. Heavy volumes of maritime shipping into the port of Dar-es-Salaam make this harbour an attractive target for attacks on ships at anchor or steaming/drifting in the vicinity of the port.²⁷

26 Information from ICC Annual Reports, 2001 –2007.

27 ICC Reports, 2006-2007.

Robbery of ships at anchor seems to be increasingly organised, with container ships being targeted and containers on ships being broached while the ship is alongside or steaming. Attacks are also taking place further from the port entrance, with attackers increasingly venturing further out to sea. Pirates need markets for cargo stolen from container vessels and it is on land that they will be most vulnerable to detection and prosecution.

In 2007 Dar-es-Salaam was also listed as a piracy hot spot with eleven attacks being recorded against ships in 2007 and seven for the second quarter of 2008. Tanzania and Mozambique together with South Africa, Angola and the Democratic Republic of the Congo are members of the South African Development Community (SADC), the region's security mechanism for conflict resolution and management.

To prevent the further spread of piracy from Dar-es-Salaam southward the following possible interventions are suggested: The type of attacks taking place in Tanzania can be reduced by patrolling the anchorages, a system applied in South African waters by the South African Police Service and in all probability the reason why similar attacks against ships have not taken place in South African waters.

Once this phase in the combating of piracy has been applied and attacks against ships brought under control, one can address the more sophisticated forms of piracy such as hijacking of ships and holding crews to ransom by proactively using intelligence and, when necessary, applying Tanzania's laws for combating organised crime.

- Formulation of a joint strategy by Interpol's sub-regional Bureau for Africa for the arrest, investigation, prosecution and extradition of perpetrators of piracy and armed robbery against ships. (Interpol's Sub-regional Bureau covers 12 countries, all members of SADC, while only two SADC countries are not covered, Seychelles and the Democratic Republic of the Congo.)
- Joint patrols of Dar-es-Salaam roadsteads and anchorages by the marine units of member police forces of the Southern African Regional Police Chiefs Co-operation Organisation (SARPCCO).
- Assistance to Tanzania by the SADC alliance in terms of resources for the patrolling of its territorial waters.

Mozambique

In the latter half of 2007 and the first quarter of 2008 the increased attacks against ships in neighbouring Tanzania spilled over into Mozambique. On 26 October 2007 robbers boarded a container vessel at anchor in Nacala anchorage in northern Mozambique and stole ship's stores.

On 5 November 2007 robbers again boarded the same container vessel, this time while berthed at the container terminal in Beira amid strict security measures. The robbers once again managed to steal ship's stores. On 7 January 2008 ship's stores were stolen from a chemical tanker berthed at Beira and on 2 March 2008 robbers boarded a tanker anchored in Nacala Bay anchorage and stole ship's stores.

Prior to these attacks against ships in Mozambique two attacks took place against ships at Nacala in 2000, one while anchored and one while berthed. In 2003 two attacks also took place against ships anchored in the Nacala anchorage.²⁸

It would appear from the latest attacks that the container vessel which was attacked in Nacala and again in Beira was being specifically targeted and possibly escaped having the cargo being stolen as a result of the increased security surrounding the vessel in Beira. This would indicate a higher level of sophistication than the previous attacks. The attacks in Mozambique have also moved further south to Beira.

South Africa

In terms of International Conventions South Africa is a signatory to the *United Nations Convention on the Law of the Sea* (UNCLOS), the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA), the Convention for the Safety of Life at Sea (SOLAS) and the Convention against Transnational Organised Crime.

UNCLOS

Pursuant to its membership of UNCLOS South Africa has criminalised piracy on the high seas in national legislation in the Defence Act²⁹ and claimed its rights in terms of internal waters, territorial waters, a contiguous zone and the continental shelf in national legislation in the South African Maritime Zones Act.³⁰ The schedule of the African Union Convention on the Prevention and Combating of Terrorism lists UNCLOS amongst the traditional Counter Terrorism Conventions and Protocols, in respect of which member states of the African Union have the obligation to become party to as soon as possible, and to enact legislation in order to give effect to those conventions.³¹

SUA

Pursuant to its membership of SUA, South Africa has criminalised the offence of maritime violence in its national legislation in the Protection of Constitutional Democracy against Terrorist and Related Activities Act.³² In section 10 of the Act offences relating to hijacking a ship or endangering safety of navigation give effect to article three of SUA, and section six of the Act makes provision for the same offences relating to hijacking, destroying or endangering the safety of a fixed platform.

28 Compiled from ICC Reports between January and April 2008.

29 SA (South Africa), Defence Act, No 42 of 2002.

30 SA (South Africa), Maritime Zones Act, No 15 of 1994.

31 P.C. Jacobs, 'Policing Maritime Piracy: International Legislation', article for *Servamus*, email from P.C. Jacobs (jacobspc@saps.org.za) to H. Fouche (foucheh@tut.ac.za), 2005.

32 SA (South Africa), Protection of Constitutional Democracy against Terrorist and Related Activities Act, No 33 of 2004.

SOLAS

Pursuant to the 2002 amendment to SOLAS, South Africa implemented the International Ship and Port Facility Code (ISPS) on 1 July 2004. The objective of the ISPS code is to detect/assess security threats and take preventive measures against security incidents affecting ships or port facilities used for international trade.

CONVENTION AGAINST TRANSNATIONAL ORGANISED CRIME

The convention took effect on 29 September 2003 and aims to promote international cooperation to prevent and combat transnational organised crime. South Africa's Prevention of Organised Crime Act³³ makes provision for the offences established by the convention and can be used as an instrument in the suppression of organised crime involving theft on the high seas.

Interventions

- To create uniformity in laws applicable to piracy, all littoral states on the continent need to become signatories to the UNCLOS, SUA and SOLAS Conventions and to create enabling legislation, jurisdiction and penalties in their national laws.
- States on the continent need to become signatories to the Convention against Transnational Organised Crime and to create enabling legislation, jurisdiction and penalties in their national laws. Such national legislation can be applied to organised criminal groups involved in piracy and armed robbery against ships.
- In the 2001 European Union's statement on Piracy at Sea it was pointed out that experience has shown that coastal states may benefit from entering into regional cooperation. Specific areas for cooperation could include capacity building in law enforcement and legislation, development of standard reporting procedures, development of both global and regional information bases and cooperation between coastguards. A number of reports have shown that law enforcement officials and policy makers from areas affected by piracy need education, and need to exchange information on their experience(s).³⁴

THE FUTURE

Piracy and armed robbery against ships off the African coast is likely to remain a problem for some time to come. This is mainly due to the situation in Somalia, political instability, poverty and the absence of effective deterrents on the high seas and in the territorial waters of some African states. Furthermore, as a result of the presence of the above factors, new hot spots can be expected to ignite from time to time.

³³ SA (South Africa), Prevention of Organised Crime Act, No 32 of 1998.

³⁴ M. Jacobsson, 'Piracy at Sea', *EU Presidency Statement*, 10 May 2001, see http://www.europa-eu-un.org/articles/en/article_233_en.htm [Accessed 18/04/2006].

A FUTURE INTERFACE: NAVAL-PRIVATE PARTNERSHIPS IN THE GULF OF GUINEA?

Francois Vrey

BACKGROUND

Arguing matters of private security takes place amidst two larger debates: that of the monopoly of the state over instruments of violence on the one hand, and the growth in the privatisation of security and military functions on the other. This dual-track debate tends to focus strongly upon the landward manifestation of privatisation, for it is on land where private security activities are most visible and operational. However, emergent literature increasingly focuses on the maritime sector as strategic offshore assets are discovered and need to be protected. Due to its centrality to development by way of what is located below the surface and what happens on the surface, maritime security, as a potential conflict landscape, is once again under scrutiny.

As far as Africa is concerned, a growing need has unfolded to attend to the protection of energy assets. One important region where this need is of increased importance is the African West Coast in the Gulf of Guinea.¹ A region known for its abundant energy resources, West Africa also displays a volatility that juxtaposes insecurity, oil and conflict with a dire need for securitisation. Given the complexity of the insecurities that characterise the Gulf of Guinea and its littoral states, no single actor is bound to resolve the matter – a matter made more complex by the rise of insecurities in the maritime domain.

The aim of this paper is to explore possible naval-private cooperation in the Gulf of Guinea as maritime security increasingly encroaches upon the security landscape of the region. In pursuit of this aim, the discussion covers the following themes. Theme one contains two important arguments: the growing importance of maritime resources along the West African coast and the need to secure and protect these assets. In Theme two, the discussion turns to different options for protecting the said West African resources, whereas Theme three offers some brief suggestions of possible naval-private cooperation. In the conclusion, a limited number of alternatives are distilled from the discussion and offered as ways to make the Gulf more secure for the harvesting its resources.

¹ Nigeria, Cameroon, Gabon, Equatorial Guinea, Congo Brazzaville, DR Congo, Sao Tome and Principe. Chad is included because oil from the Doba basin runs through Cameroon to the Gulf of Guinea and Angola due to its adjacent location, prominent oil profile and interest in the Gulf region.

WEST AFRICAN OIL RESOURCES; SOME REASONS FOR OPTIMISM

At present, African oil and gas resources are not enormous, but offer significant advantages to interested parties. Being light and sweet, oil from the Gulf of Guinea is easier and more economic to refine than Middle Eastern crude. Africa's strategic location as a continent surrounded by oceans offers good sea-lanes to transport oil to client states in the West and East. In addition, and of great significance, the offshore locations of huge new resources (the Gulf of Guinea for example) are now being explored and, on account of their location, are offering a potentially stable security environment – one largely devoid of the landward volatility of oil-producing West African countries. Given the volumes of African oil (not ignoring the revenues) being lost (estimated at 150 000 barrels per day in Nigeria alone)² due to unrest and conflict, offshore locations offer a way around land-based vulnerabilities and represent a major step towards secured oil flows.³



Map 1: Gulf of Guinea

Significant deepwater discoveries in the Gulf of Guinea along the West African coast (See Map 1)⁴ point to new resources amidst the absence of major new discoveries in other parts of the world.⁵ Therefore, although not yet on the scale of the Middle-Eastern fields, the location and matters of quality, as well as a new source of oil supply, accentuate the importance of discoveries in the western offshore region of Africa. It is even possible to think about the West African Gulf of Guinea region as a post-Middle East oil supplier.

2 J.J.F. Forest, and M.V. Souza, *Oil and Terrorism in the New Gulf. Framing US Energy and Security Policies for the Gulf of Guinea*. Lexington Books, Lanham, 2006, p. 198.

3 J. Gazvinian, *Untapped: The Scramble for Africa's Oil*, Harcourt, Orlando, 2007, p. 9-11.

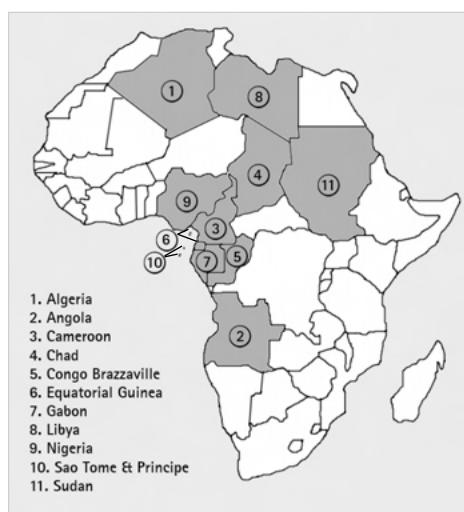
4 Image of Gulf of Guinea taken from Google Images, Available at http://www.commons.wikimedia.org/wiki/Image:Gulf_of_Guin...

5 W.C. Paes, 'Oil production and national security in Sub-Saharan Africa', in R. Traub-Merz and D. Yates (eds.), *Oil Policy in the Gulf of Guinea: Security, Conflict, Economic Growth, Social Development*, Friedrich-Ebert Stiftung, 2004, p. 87. Available: <http://library.fes.de/pdf-files/iez/02115-inf.htm> [Accessed 23 April 2008].

While Western needs and the growing economies of China and India are competing for African oil, the resultant influx of oil revenues offer hope to African countries as a tenable pathway to escape their current debt, financial and developmental crises.⁶ This, however, is easier said than done. Any brief overview of security in West Africa shows a strong nexus between unrest, insecurity and oil as a conflict commodity.⁷ In spite of massive financial resources flowing into the region,⁸ oil did not cultivate the expected developmental-security connection for African oil-producing countries. The West African oil boom thus unfolds amidst a volatile and crippling security environment.

SECURING AND PROTECTING WEST AFRICAN MARITIME RESOURCES

Countries bordering the Gulf of Guinea and stretching as far south as Angola are generally weak states (See Map 2).⁹ These littoral states portray an array of weaknesses that bode ill for expectations about secure and stable states and a subsequent safe and secure maritime domain.¹⁰ The notion of secure and stable states fostering strong and secure regions offers little promise in West Africa.



Map 2: Major oil-rich countries in Africa

6 Gazvinian, *op cit.*, p. 15. See also R.M. Soares de Oliveira, 'Context, path dependency and oil-based development in the Gulf of Guinea', Workshop on *Transforming Authoritarian Rentier Economies*, Bonn, 22–23 September 2005. Available: <http://www.isn.ethz.ch/pubs/ph/details.cfm?id=35454> [Accessed 30 June 2008].

7 Forest and Souza, *op cit.*, p.80.

8 R.S. De Oliveira, *Strategic resources, international politics and domestic governance in the Gulf of Guinea*, Government Public Policy Initiative, Berlin Germany, 2006, pp. 179–180. Available: <http://www.isn.ethz.ch/pubs/ph/details.cfm?id=35503> [Accessed 30 June 08].

9 H. McCullum, 'The curse of oil to African peoples: Paradox of plenty' in *Africa Files* [Electronic] 3, January–May 2006. Available: <http://www.africafiles.org/> [Accessed 22 January 2007].

10 Soares de Oliveira, *op cit.*, 2005, p. 6.

An arc of conflict or potential conflict stretches from Sierra Leone in the west through the Ivory Coast, Nigeria and down to the Republic of Congo and DR Congo to Angola in the south.¹¹ A weak maritime domain matches the volatility found on land as it is not possible to have maritime security amidst such continental insecurity. Piracy, poaching, polluted oceans, competition for offshore resources and disputed maritime boundaries characterise the adjacent maritime domain.¹²

Bad governance, weak institutions and fervour to protect regime security almost at any cost make for an unhealthy focus upon threats and vulnerabilities on land. Regime security and not that of people, and one largely ignoring the maritime domain, form the gist of what West African regimes prefer to attend to.¹³ Although insecurity with its strong landward focus features prominently, Forest and Souza¹⁴ rightly argue that maritime security is now the security domain in need of close attention by the states bordering the Gulf of Guinea.

Gilpin¹⁵ briefly outlines maritime security as "... Maritime security relates to prevention of unlawful acts in the maritime domain whether they directly impact the country or region in question, or the perpetrators in transit." After the Cold War, the environmental-insecurity nexus tended to dominate security thought on what transpired at sea. Protecting resources traditionally extended to matters of poaching, degradation and pollution with piracy featuring as a serious, but occasional event. As of late, this outlook has, however, changed. Hard matters such as piracy, militants operating at sea, and images of maritime terrorism have begun to erode the softer maritime security preference with its prominent environmental focus. Two recent publications underline this shift where armed threats at sea are now drawing most attention: *Piracy goes to sea* and *Russian ships at the mercy of pirates*.¹⁶

A culture of focusing primarily upon insecurities on land causes maritime threats and vulnerabilities to grow and promote insecurity at sea.¹⁷ Events along the African coast reflect how maritime security has reached a crucial overlap between mere soft security issues (pollution, poaching, smuggling and trafficking), and that of hard insecurity (armed piracy, terrorism and militancy) requiring a military response. Hard insecurities off the coast of Somalia demonstrate an escalation in maritime incidents that has led to the deployment of a multinational naval task force, CTF 150, by concerned nations.¹⁸ The March 2008 hijacking of a

11 See Preface by Paes, in R. Traub-Merz and D. Yates (eds), *Oil policy in the Gulf of Guinea: Security, conflict, economic growth, social development*, p.7. Available: <http://library.fes.de/pdf-files/iez/02115-inf.htm> [Accessed 23 April 2008].

12 R. Gilpin, 'Enhancing maritime security in the Gulf of Guinea' in *Strategic Insights* 6(1), January 2007.

13 Gilpin, *op cit.*

14 Forest and Souza, *op cit.*, p. 213.

15 Gilpin, *op cit.*

16 G.Luft, & A.Korin, 'Terrorism goes to sea' in *Foreign Affairs* [Electronic] 83(6), November–December 2004. pp.61-71. Available: <http://www.foreignaffairs.org/20041101faessay83606/gal-luft-anne-korin/terrorism-goes-to-sea.html> [Accessed 18 July 2008] ; S. Saradzhyan, 'Russian ships at the mercy of pirates', *ISN Security Newsletter*, 10 July 2008.

17 See S. Simpson, 'A rise in pirate attacks off Nigeria's coast' in *Christian Science Monitor*, 20 March 2008, in CHINFO CLIPS.

18 T.D. Potgieter, 'The maritime security quandary in the Horn of Africa region: Causes, consequences and response', paper delivered at *International Conference on Maritime Security Issues around the East Coast of Africa*, ISS and the Hans Seidel Foundation, Mombassa, Kenya, 26 November 2007.

large French yacht off the Somali coast is a further case in point. French commandos rescued the crew while the French Navy escorted the yacht back to Djibouti – an incident illustrating the criminal-military collapse of maritime insecurity in this region.¹⁹ As for terrorism, the attack and severe damage to the German oil tanker *Limburg* off the Aden coast demonstrates the terrorist threat to shipping in these waters.

More recently, armed attacks at sea have grown in number and intensity off the West African coast. A brief scrutiny of the January and February 2008 Nigerian *Summary of Militant, Pirate, Armed Robbery and Waterborne Attacks of all types* portrays 35 attacks upon vessels – attacks that now occur as far south as the Gulf of Guinea.²⁰ Attacks upon vessels by armed groups are a real threat in the Gulf of Guinea as maritime insurgents who harbour commercial rather than ideological goals enter the scene.²¹ On 19 June 2008, the Movement for the Emancipation of the Niger Delta (MEND) launched a 120-km deep offshore raid on a Royal Dutch Shell Bonga oil installation off the Nigerian coast – the furthest militants have ever ventured offshore (See Figure 1).²²



Figure 1: The Bonga oil installation

In part, this offshore escalation stems from the "paradox of plenty" found on land – the fallacy that oil leads to wealth and constitutes an easy pathway to national and personal prosperity. As oil on land runs out, greed and grievance increase and in combination with perceptions of denial, the resultant anger fuels the actions of armed groups.²³ Actions stimulated by the greed-grievance nexus easily spill over into the Gulf of Guinea. Maritime terrorism features

19 News24, 'Africa. Yacht crew arrives in Djibouti', 14 April 2008, 12:00, reported by AFP.

20 See January and February 2008 editions of *Nigerian Summary of Militant, Pirate, Armed Robbery & Waterborne Attacks of all types*.

21 See I. Beckett, 'The future of insurgency', *Small Wars and Insurgencies* 16(1), 2005, p.33, for the growing decline of ideology in insurgencies.

22 D. Mbachu, 'Niger Delta: Nowhere to hide', ISN Security Network, 27 June 2008, Image taken from Google Images available at <http://www.whilinder.com/Photos/Shell-Bonga2.gif>.

23 A. Vinci, 'Greed-grievance reconsidered: The role of power and survival in the motivation of armed groups', *Civil Wars* 8(1), March 2006, p. 30.

parallel to the piracy-militant nexus. Although Luft and Korin allude to the Far East, Forest and Souza accentuate the terrorist threat in the Gulf of Guinea. The combination of ongoing political and criminal violence, the presence of a very large Nigerian Muslim population and the fact that al Qaeda took note of this potential front creates fertile soil for an offshore attack against the huge oil installations at sea.²⁴

SECURING THE GULF OF GUINEA

Two trends seem to converge in the Gulf of Guinea. First, economic actors expect to extract good quality oil safely from the ocean bed. Advanced extraction technologies combine with lucrative deposits to make exploitation of the offshore discoveries a profitable undertaking. As the oil-gas sector is foreseen to grow significantly towards 2020,²⁵ its attraction is increasing. However, the second trend is less optimistic as threats take on a maritime profile that erodes the expectation of better security for offshore operations. Insecurity in the Gulf of Guinea is fast merging with the traditional continental face of insecurity present in the littoral states.

The oil industry at sea is vulnerable and requires protection against threats that prey upon its vulnerabilities. Securing the West African maritime domain over the longer term hinges upon promoting a culture of maritime security amongst the coastal states. Although more explicitly visible in US views, the general notion is one of interstate cooperation with naval forces playing a leading role through naval diplomacy directed at host governments, societies and the armed forces of selected African countries.²⁶ Maritime cooperation to secure the Gulf of Guinea implies primarily state-to-state relations of which the outcome is futures-oriented and rather unpredictable for parties already operating in the region.

Countries along the Gulf of Guinea need to understand the importance of the sea. Littoral states first have to grasp what the sea offers, and secondly, that the resources need to be protected in a comprehensive fashion. Coastal erosion, pollution and exploitation must be prevented while high-end commodities, such as gas and oil, all need to be secured as they offer strategic advantages.²⁷ Strategic advantages and protection are mutually dependent and over the longer term, recognition and allocation of resources for protection of the maritime domain should transpire. However, for states as well as the oil industry in the Gulf, the current insecurity that threatens the maritime environment remains a reality.

If one considers the military pathway for protecting maritime assets in the Gulf, partnerships feature as a most credible and responsible way to proceed. However, army-centric militaries, partisan police services and weak or non-existent naval forces represent hurdles in establishing a maritime culture with maritime security and safety at its heart.²⁸ Partnerships with out-of-theatre navies such as European navies with a longer tradition of familiarity with Africa

24 Forest and Souza, *op cit.*, pp.116 and 121.

25 C. Frizzell, 'Insider's perspective: Creating a culture of maritime security in the Gulf of Guinea', in *Strategic Insights* 6(1), 2007, p.1.

26 Frizzell, *op cit.*, p.4.

27 Frizzell, *op cit.*, p.3.

28 Frizzell, *op cit.*, p.4.

should not be ignored and remain an option. Most prominent, however, is the presence of the US Navy in the Gulf that is typically tied to the importance of oil and gas deposits, but which also represents a possible naval profile of the emergent Africa Command (AFRICOM).²⁹ Nonetheless, this energy-rich region is an African asset and reflects an African problem. Thus, small naval contingents under the banner of the African Union present an option while ECOWAS (Economic Community of West African States) is perhaps the most prominent actor to deal with maritime security in the region.

Irrespective of so-called "to be" arguments, the visible and growing naval diplomacy in the Gulf of Guinea represents a traditional pathway to secure the offshore domain in the region. Emergent state-to-state and navy-to-navy partnerships feature quite prominently.³⁰ On a more cautious note, however, traditional state-to-state partnerships all hold patterns of enmity, animosity and unhealthy competition between parties to pursue or protect their interests, and the Gulf of Guinea states are no exception.³¹ Being weak and vulnerable to domestic as well as foreign threats, West African states have little to offer to state-to-state partnerships in the sense of maritime ways and means. Angola and Nigeria, the two largest oil producers with a stake in the Gulf, have almost no naval patrol vessels to protect their assets.³² Although the normative stance is that states have to claim back and defend their maritime assets, its operational side remains rather empty. One further, albeit a rather non-traditional and perhaps controversial connection, is that of a naval-private security partnership to augment or bridge the envisaged longer time frames to build a mature and co-operative maritime culture along the African West Coast to ultimately secure the Gulf of Guinea.

EXPLORING PARTNERSHIPS BEYOND THE STATE

Partnerships of necessity

The notion of a naval-private partnership seems to be somewhat contradictory, as private security is not always favourably looked upon. However, competing paradigms regarding the governance of security is on the rise. Privatisation of security is not foreign to West Africa and is evident in the extensive range of non-state actors that operate in the West African security domain.³³ In Nigeria, for example, it is estimated that revenues from private security are only surpassed by the oil-gas industry.³⁴ In effect, private security assumed an indelible economic footprint as West African governments struggle to master their security responsibilities towards society and other interest groups.³⁵ Private security thus parades as a growth sector in the region, but not always in a constructive and stabilising mode.³⁶ Two strands

29 Ghazvinian, *op cit.*, p. 238.

30 A. Nodland, 'Sea piracy: Can AFRICOM save the Gulf of Guinea?', *Scandinavian Oil Gas Magazine* 5(6), 2008, p.48.

31 Note the controversy regarding the AFRICOM idea in Nodland, *ibid*.

32 Forest and Souza, *op cit.*, p. 117.

33 Ebo, 'Governance of private security in West Africa' in: A. Alexandra, D.P. Baker, & M. Caparini (eds), *Private military and security companies: Ethics, policies and civil-military relations*. Routledge, London, 2007, pp.144–145.

34 Ebo, *op cit.*, p. 147.

35 Soares de Oliveira, *op cit.*, pp.5-6.

36 Forest and Sousa, *op cit.*, pp. 202-203.

of privatisation dominate. Firstly, bottom-up privatisation where violence entrepreneurs or non-state actors use violence for their own perceived "security purposes", thus challenging the traditional principle of state monopoly over violence. Secondly, in the top-down strand, private companies assume traditional security responsibilities or roles,³⁷ and independently or in partnership with government agencies provide security services. In reality, what unfolds is that the first strand in fact promotes the insecurity that necessitates the second.

Although privatisation of security raises many critical and ethical concerns, certain causes and motives continue to drive the trend. Questions about legalities and moral grounding of private security companies remain salient, but it appears that several driving forces sustain the need for private security services. Wulf³⁸ flags the following stimulants that fuel the need for and means to sustain private security services:

- availability of "discharged" but qualified military personnel;
- over-burdened armed forces due to extended mission profiles;
- modern war fighting demanding a greater array of skills;
- besieged or weak governments (or groups) demanding protection;
- greater demand for international interventions and emergency aid, as well as forces and
- public opinion that ties in with the quest for a lean state that implies smaller armed forces.

The above driving forces contain an inherent contradiction. The downward turn in the availability of skilled armed forces unfolds amidst a strategic landscape that calls for military interventions and forces on a scale that goes against the broad trend towards a smaller military footprint. Private security entrepreneurs most probably observed the emergent void and began to probe it with a strategy to bring available human capital, expertise and information resources on offer into line with a growing demand on the security landscape.

PSCs (private security companies) are but one group of actors that have entered the insecurity void which was also brought about by the illegitimate privatisation of security and violence by sub-state and mostly rogue criminal and militant elements within countries. Much has been written about the private security industry, but its contribution towards dealing with threats and vulnerabilities – particularly at sea – is somewhat underemphasised. Although not unique, many private enterprises operate in West African countries, as local private contracts are arranged to assist in securing oil installations. By using local militias and even contracting demobilised soldiers locally, a certain strand of private security unfolds.³⁹ It is thus not only external companies that step into the void, although their entry draws most attention and criticism.

Extending new-styled security partnerships offshore into deeper waters requires more skilled private contractors. It is, however, quite problematic if, in the absence of effective professional security forces, a proper state-private relationship cannot be established. Oil interests do not always feature on par with national interests, but still demand protection, and for states bordering the Gulf of Guinea it is improbable that securing oil and gas assets falls beyond the ambit of national security. Nevertheless, the immediate future of the Gulf of Guinea is closely

³⁷ Wulf, 'Privatization of security, international interventions and the democratic control of armed forces', in: A. Alexandra, D.P. Baker, & M. Caparini (eds), *op cit*, p.192.

³⁸ Wulf, *op cit*, pp.193-194.

³⁹ Forest and Sousa *op cit*, p. 203.

tied to energy interests and their protection, and are subsequently prone to top the national security agendas of states.⁴⁰ The means to secure the immediate future, however, remains somewhat opaque.

Cullen⁴¹ is one of the analysts who recently drew attention to the move towards maritime securitisation by the private security industry. Three developments direct the growing PSC interest in maritime security.

- First, the upswing in pirate attacks against oil platforms and vessels – a prominent trend now also visible off the West African coast!⁴²
- Second, weak states that are unable to secure their territorial domain and even less so their territorial waters and thus allowing leeway for sub-state actors – whether political or criminal – to flourish.
- Third, the pervasiveness of the terrorist threat and that it might unfold as a catastrophe at sea. Cullen further argues that given the growing threat at sea, states and private companies also turn to private contractors that are able to provide security services at sea.

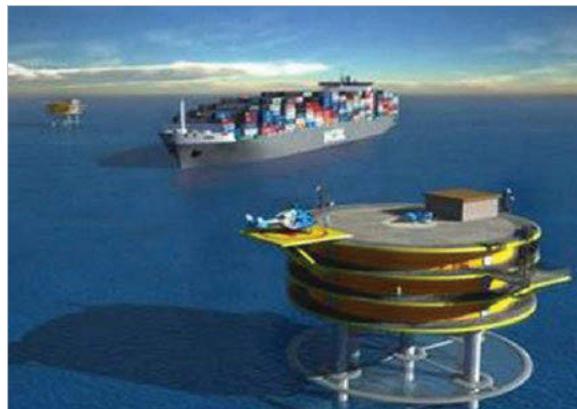


Figure 2: Sentinel platforms

An overview of the literature reveals either the ongoing nature of private security services at sea, or interesting initiatives to capture a future need for services at sea. In Africa, Puntland in Somalia and Sierra Leone on the Atlantic coast have both turned to private companies to patrol their coastlines. Blackwater exemplifies how private actors are moving into the maritime domain by providing basic protection services to even naval vessels in harbours. Blackwater (although seriously compromised in Iraq due to the death of civilians) purchased and refurbished a maritime vessel to react to maritime insecurities and so demonstrates their interest in offering security services at sea. Background Asia Risk Solutions (BARS) is quite

40 Soares de Oliveira, 2005, *op cit.*, pp.6-7.

41 P. Cullen, 'Private security takes to the sea', *ISN Security Watch*, 7 April 2008.

42 See Nodland, *op cit.*, p.50.

open about their security operations in the sea-lanes around Indonesia and Malaysia.⁴³ Even the US employs private security services to protect naval vessels when alongside in certain harbours. PSCs are thus turning their attention to security at sea by considering several ways to meet the expected demand and they already have a steady stream of tailored solutions on offer for clients (See Figure 2).⁴⁴

In the Bay of Guinea, several converging trends become visible: an increasingly dangerous ocean off the West African coast, the appeal of vast quantities of good oil in the Gulf and the attraction of PSCs gearing themselves to operate offshore. This convergence (albeit one now almost dominated by oil and gas) calls for some perspective on resolving the common denominator: securing offshore oil deposits for the benefit of all, but over the longer term a vision of security that covers more than oil and gas.

Nudging naval-private actors closer together

Wulf⁴⁵ warns that the shift from traditional war fighting roles to new roles by armed forces is difficult, for shifts in roles are rarely accompanied by mature and established regimes and rules. Having to operate in a murky environment below the level of war, but above that of peace is fraught with difficulties. Firstly, armed forces can no longer cover all modern contingencies requiring their attention. Secondly, a need exists to augment the void left by the scaling down of armed forces amidst the trend of decision-makers stretching the role of armed forces all the wider. Thirdly, much in the same way that armed forces are increasingly cooperating with private contractors on land, such co-operation should now be extended to the sea. Navies are no exception and, although the matter of coercion and threats of coercion at sea are traditionally vested in navies, they just cannot meet all the new challenges as well.⁴⁶

Although controversial, PSCs do act as potential force multipliers, they lower the "interventionist" profile and they do not replace navies, but cooperate and augment. Therefore, escorting, guarding and patrolling should rather be seen in conjunction with naval roles, and not in competition. For governments, the cooperation with PMCs also offers gains: cooperation tones down the costs and controversial profiles of naval contingents in sensitive foreign waters, and PSCs may have an intimate knowledge of local dynamics as opposed to an intermittent presence of naval contingents.⁴⁷ Naval resources are expensive, scarce and sparingly used and thus afford leeway for employing additional resources to share the burden. The maritime

43 B. Sizemore, *Blackwater showing off new training ship at Nauticus*. *The Virginian Pilot*, 2007, Available: <http://hamptonroads.com/node/329441> [Accessed 17 April 2008]. Background Asia Risk Solutions, Maritime Security, and Maritime Piracy Suppression, Available at <http://www.backgroundasia.com/security/maritimessecurity.html> [Accessed 17 April 2008].

44 Image of Sentinels at Sea taken from <http://www.popsci.com/scitech/article/2007-06/sentinels-sea> [Accessed 01 August 2008]; Also see S. Blake, 'Offshore platforms to battle piracy: SeaAway in agreement with Nigeria for \$750M contract', *Florida Today*, 15 May 2008. Available: <http://newsgroups.derkeiler.com/Archive/Sci/sci.military.naval/2008-05/msg01526.html> [Accessed 31 July 2008].

45 Wulf, *op cit.*, p.196.

46 C. Berube, 'Blackwaters for the blue waters: The promise of private naval companies', *Orbis* 51(4), Fall, 2007, p.604.

47 Brooks, & Choren, 'Ruthless humanitarianism: Why marginalising private peacekeeping kills people', in A. Alexandra, et al (eds), *op cit.*, pp.120–121.

security environment is growing more perilous due to dangerous militant groups entering the maritime domain. States therefore have to augment their maritime capacity and their naval capacity in particular, to maintain good order at sea. Nigeria, although hosting the strongest navy in the Gulf, for example, acknowledged more than once that the firepower of militant groups operating from the Niger Delta is at times superior to what their security forces have.⁴⁸ This Nigerian dilemma stems from a neglect of their naval platforms and the costs to rectify the neglect. Given this naval neglect and these dangers, securing trade routes and resources at the sea now and in the future has assumed a critical importance for the development of the littoral nations.

Weak states bordering on the Gulf of Guinea bring rather little to the maritime domain, but have much to lose if the region (on land and at sea) lapses into further instability and exploitation by rogue elements. The rising importance of the offshore domain draws increasing attention due to its oil deposits, but also as a result of the rising insecurity of the maritime environment. The littoral states have little monopoly over violence and by implication create a market for private contractors. In filling the niche, the PMC Executive Outcomes in Sierra Leone received much negative publicity towards the end of the 20th century.⁴⁹ Nevertheless, as found in Nigeria, legitimate – but not always legal – private security services frequently augment overburdened legal – but not necessarily legitimate – security forces.⁵⁰ Although not in the fashion of international PMCs with their tidy corporate profiles, private security in some West African countries, such as Nigeria, demonstrates an often-obsured image of this widespread phenomenon. Nigeria is perhaps also a case where private security merges closely with a state military, albeit an interface not well exposed.

The Gulf of Guinea states show a working relationship between PSCs and land forces to promote security. The major challenge is to extend private security into the Gulf of Guinea as the security of this off-shore domain grows in importance. If private security is so pervasive on land, the question arises whether it can be merely extended offshore. Although moving offshore is expected to offer some escape from insecurity stemming from the grievance-looting threat, offshore operations have to cope with a growing greed-looting nexus through piracy – a scenario to note now that the Gulf of Guinea reflects one of the highest incidences of piracy, attacks on maritime vessels and the surprising 120 km deep offshore strike by militants.

Perhaps less controversial is a private-naval partnership for training purposes. Private contractors that provide training already feature in the Gulf of Guinea. Military Professional Resources Incorporated (MPRI) is one company that blurs the traditional naval prerogative of operating at sea and holding a monopoly over the means of coercion. MPRI provides maritime training to revamp the coast guard of Equatorial Guinea and to upgrade African forces in the Gulf region to counter threats at sea.⁵¹ The significance of MPRI involvement is their private military

48 Nodland, *op cit.*, p.50.

49 Ebo, *op cit.*, p.150; and H.M. Howard, *Ambiguous order: Military forces in African states*, Lynne Rennier, London, 2001, p. 196.

50 Ebo, *op cit.*, pp. 144-145.

51 Ghazvinian, *op cit.*, pp. 239-240.

(PMC) leaning, rather than that of a PSC. In certain cases, private intrusion into traditional state domains such as securing national interests is tolerated to a surprising extent.

Oil, however, remains a conflict commodity⁵² and security needs to be maintained to protect this resource against a range of dangerous armed threats. Paes⁵³ argues that oil corporations prefer to have national militaries taking care of security, but West African armed forces are often in no state to do so.⁵⁴ The Gulf of Guinea region experiences several internal conflicts below the level of interstate war (the outfall of an attempted coup in the Ivory Coast, an ongoing rebellion in the Niger delta in Nigeria, and a simmering civil war in Congo Brazzaville as well as a potential interstate clash between Nigeria, Cameroon, Gabon and Equatorial-Guinea about a territorial dispute in the Gulf) that are not easily amenable to military solutions.⁵⁵ The implied threats and insecurity for the vulnerable energy sector require some intervention to deal with this difficult threat domain.

Setting up a naval-private partnership

A naval-private interface offers a tenable partnership to respond to oil conflicts and the adjacent insecurity experienced in the Gulf of Guinea. Naval-private partnerships perhaps challenge the existing paradigm of navies dominating the seas or part thereof through their monopoly over violence. However, a number of subtle and less subtle shifts are at work. By 2008, navies have to do more with fewer ships and sailors to the support non-traditional ways in which governments now prefer to prevent or resolve armed threats. In reality, many threats at sea no longer sit comfortably with traditional naval roles. In some cases, such as the Gulf of Guinea, maritime dangers have rapidly escalated to a level that calls for immediate coercive attention. Keeping in step with these dynamics that expand the roles of navies so rapidly, cooperation offers one alternative – but with whom? Private entities have moved into the maritime domain, albeit in a way not akin to fighting at sea. With an established, as well as an emergent actor at hand, naval-private partnerships offer some opportunities.

Berube⁵⁶ suggests some ideas about naval-private partnerships. Private navies do not exist and in principle they should not be viewed as entities destined for war fighting at sea. However, their potential to cooperate with traditional navies to counter the growing insecurity at sea cannot be ignored. In this regard, six tentative proposals are offered:⁵⁷

- Privatisation can complement naval forces in coping with the lower end of the maritime threat spectrum. Less dangerous threats are now more frequent and, in a similar vein to what transpires on land, they represent a growth sector within the maritime domain.
- Private naval contingents are fungible partnerships. They are easy to assemble and then to disband/release when their purpose is served in the much-discussed capability

52 M. Ross, 'Blood barrels: Why oil wealth fuels conflict', *Foreign Affairs* 87(3), May-June 2008, pp.2-9.

53 Paes, *op cit.*, p.99.

54 See Howard, *op cit.*, Chapter 2. The roots of African military unprofessionalism.

55 Paes, *op cit.*, pp.96-97.

56 Berube, *op cit.*, p.609.

57 These proposals by Berube are here presented within a broader context than one merely serving the US Navy.

paradigm often sought by modern armed forces. Traditional roles of navies are more enduring and robust to meet the most dangerous threats from opposing navies. Meeting lower-order threats are perhaps less enduring, but nonetheless call for a measured maritime response.

- Increasing demands put pressure on traditional naval capacities. As part of government bureaucracies, navies, however, adjust slowly and incrementally to cover new roles successfully. The resultant temporal void offers opportunities for private contractors and is a void readily filled by such contractors.
- Private contractors already provide lower-end security services at sea in the form of low-key naval-private partnerships. A careful extension of partnerships to cover a broader array of security services with more sophisticated means should be considered – albeit one with islands of expertise to counter clusters of insecurity not readily covered by naval forces.
- Private naval contingents can adapt and react more rapidly than cumbersome navies. Business cultures, as opposed to service cultures, demand flexibility to changing environments and markets and exploit human capital, technology and maritime platforms on offer to "do the job".
- Private contingents offer important holding companies for experienced personnel who leave the navy and as such they can serve to address "out of reach" maritime threats and vulnerabilities. This presents a win-win situation as both navies as well as the private contractor benefit from a scarce resource: professionalism and expertise to promote maritime security when required.

CONCLUDING REMARKS

The maritime domain of the Gulf of Guinea is of geostrategic importance that can no longer be ignored. Location, large deepwater oil deposits and good quality oil offer some relief from dangerous insecurities that surround oil in the littoral states. Inherently, the offshore location thus raises images of some escape from the threats and vulnerabilities in countries such as Nigeria, Brazzaville Congo, DR Congo and Chad, but for how long?

Oil is a conflict commodity and the threat spectrum that it engenders is migrating to sea with an ever-growing insecurity of the offshore production, storage and transport of oil products. Protection of the fast-growing offshore assets in the Gulf of Guinea brings into focus a real need for appropriate maritime and, even more so, naval responses that call for revisiting traditional and non-traditional partnerships and cooperation:

State responsibilities

States are primary agents of good order at sea through good governance and professional naval forces. Navies from the Gulf of Guinea are weak and need a recovery and rehabilitation programme. Such rehabilitation is a longer-term option with states, navies and accountable private actors involved in partnerships from the region and beyond.

Expanding naval roles

Expanding the roles of navies to include the growing spectrum of insecurities is an option, but given the immediacy of what now transpires off the African coast, time is of the essence. Naval ends, ways and means are effective, but they adjust slowly and with difficulty – particularly if expansion involves technological innovation, diffusion and human capital. Some intermediate arrangements are thus required.

Private actors

Private security agents offer an option to set in place ways and means to enhance new roles and capabilities. Private companies are competent to cover new domains of lower-order threats that require a rapid response. However, control and accountability must be clarified while costs may become prohibitive as insecurities at sea could well escalate beyond what private contractors could afford or risk.

Partnerships

Naval-private partnerships are suggested to cover a triad of needs: insecurity in the Gulf of Guinea, the immediacy of the threats to be dealt with, and an appropriate response architecture to counter or prevent an extended threat spectrum. Whilst both may contribute in their own ways to counter immediate threats, naval-private partnerships is the better option, albeit temporary in kind, to cover both the prevalence of threats at the lower spectrum, as well as their possible escalation in intensity and scope.

In conclusion, the embryonic maritime culture of West African states bordering the Gulf of Guinea needs to be developed in order to recognise and defend the strategic importance of these states' maritime assets amidst an increasingly insecure maritime environment. However, emergent maritime insecurities in the Gulf of Guinea also challenge the assumed maturity of developed navies who have to be innovative to counter the ever-growing threat spectrum at sea. For both scenarios, the inclusion of previously ignored partners offers some leeway to deal with a dangerous threat landscape in the Gulf of Guinea as well as a respite to restore some naval supremacy for maintaining good order at sea.

ASYMMETRICAL WAR AND TERROR AT SEA: 2010 SCENARIOS

P. Francois Hugo

"The nature of asymmetric threats is that they're so unpredictable¹"

INTRODUCTION

This paper offers a quick review of some of the current thinking on asymmetric warfare and terror and maritime crime or piracy. It takes a brief look at their application in the seaward and coastal dimension and broadly considers some of the potential scenarios (and some counters) for South Africa as the designated host to the Soccer World Cup in 2010.

ASYMMETRIC THREAT AND TERROR

Asymmetric threat and terror have been around for virtually as long as mankind has, although not necessarily conceptualised as such. To the extent that the Cold War of the 20th century spawned new military thinking and a new vocabulary, its demise seems to have done so to an even greater extent. (Blame the internet?)

Disproportionate Response and *Mutually Assured Destruction* were terms that we lived with almost up to the fall of the Berlin Wall and, of course, the threat of nuclear weapons used with mal-intent is still very much with us. But perhaps during the 21st Century they will not be wielded with the purpose of totally destroying life on earth as we know it, because that might well defeat the objective of the wielder.

Today we face asymmetric threat, terror, suicide bombers and improvised incendiary devices. Common everyday technological tools such as light aircraft, helicopters, jumbo jets, high speed ski-boats or luxury passenger liners can suddenly turn into instruments of terror or leverage for high economic or political stakes.

As for terminology, the matter of accurate definition and mutually-agreed-upon meaning often involves scholars and stakeholders embroiling themselves in arduous debate. This debate normally runs the risk of becoming somewhat woolly; almost like that age old question: when is it sex? When is an asymmetric attack a terror attack? Reading in the general sense everything that is published in the press and even in academic papers, piracy is nothing more than terrorism, but there is or could be a serious element of crime in every act of piracy, or in some acts of terror, for that matter. So, to start off with, when is it asymmetric?

¹ S. D. Pomper, *The Principles of Asymmetry*, Fort Leavenworth, Kansas, 2005.

ASYMMETRIC THREAT

G. A. Primmerman, in *Thoughts on the Meaning of "Asymmetric Threats"*², in basing his operational definition of Asymmetric Threat on the United States as protagonist insists that an asymmetric threat must satisfy three criteria. I have taken the liberty of referencing the criteria to a protagonist in general. By substituting the United States (as Primmerman would have it) with the word *you* in each case it could mean, for instance, we, South Africa, or we, SADC, or we, the region, and so forth. Primmerman's criteria are these:

It (the threat) must involve a weapon, tactic, or strategy that a state or non-state enemy (the antagonist) both could and would use against *you* (the protagonist). In his reasoning Primmerman emphasizes that there "needs to be some reality to the threatened action".

Note: In my presentation to the conference, I expressed the thought that a threat that an opponent, anticipated opponent, known opponent, or anonymous, has conveyed to you, the protagonist, by whatever means, to the extent that a port, an approach to a particular port, or a particular (coastal) passage, has been mined would have to be taken seriously. If you do not possess the means to absolutely confirm the absence of mines, which probably indicates that neither have you the means to neutralise them, you would have to take such a threat seriously or, real or not real, run tremendous risk.

It must involve a weapon, tactic or strategy that *you* would not employ. This means that *you* would not employ the weapon, tactic or strategy, even if it is known that it would be very effective or perhaps even if you were in possession of or could obtain such weapon. This implies, in the words of Primmerman, that "the threat involves a weapon, tactic or strategy that *you* would not combat by retaliating in kind and, therefore, could not deter by threatening to retaliate in kind".

It must involve a weapon, tactic, or strategy that, if not countered, could have serious consequences, i.e. "the enemy action actually constitutes a threat". By extrapolation therefore, and to my mind very importantly so, "the threat involves a weapon, tactic, or strategy that is not already countered by systems designed to deal with (the equivalent) symmetric threats".

Primmerman substantiates his operational definition of asymmetric threat by citing some historic as well as current examples. Relevant to this conference is his reference to "the buccaneers" of the 17th and 18th centuries when pirates such as Henry Morgan used particularly brutal tactics in their operations. I quote: "Their reputation for brutality helped Morgan and other pirates to win victories over nominally superior foes. Despite (or perhaps because of) his brutality, Morgan was commissioned as a privateer by the British government, knighted for his accomplishments, and made lieutenant governor of Jamaica." He adds, somewhat ominously, that "[T]he analogy to present-day state-supported terrorists is obvious".

Another maritime example, a classic in his view, and I think we are in agreement here, is the Japanese use of kamikaze attacks. These attacks, he says, "combined elements of asymmetric

2 G.A. Primmerman, 'Thoughts on the Meaning of "Asymetric Threats"', *Security Review*, Special Report 10-1165, Massachusetts Institute of Technology, Lincoln Laboratory, 8 March 2006.

equipment, tactics and strategy. [They] were effective: suicide planes hit approximately 400 ships off Okinawa". Disregarding for the moment the cost in pilots' and in human life, the weapons were relatively cheap. One or two fighter planes with their bombs and/or torpedoes disabled or destroyed warships many times more expensive. The destroyer *Callaghan*, cites Primberman, was sunk by several wood-and-fabric biplanes. "These antiquated planes", he goes on, "were effective because they were hard to pick up on radar and because the high-technology proximity fuses (used by the United States forces), which were deadly against the symmetric aircraft threat, did not work well against the small wooden planes."

Moreover, the kamikaze threat had an important impact. "[U]ntil the atomic bombs ended the war", this asymmetric threat remained "a major consideration in American planning for the invasion of the Japanese mainland". And remember, consistently impacting your opponent's planning is a highly desirable effect.

At an abstract level that strips the concept of any implied value system supporting it, Captain Frederick Teo Li-Wei, discussing asymmetric warfare, in "*Rethinking Western Vulnerabilities to Asymmetric Warfare*"³ states that:

"A conflict can be termed asymmetric when either the political and strategic objectives are asymmetric or when the means are dissimilar."

On a practical level, he points out: "Militaries have always attempted to seek asymmetric advantages so as to inflict maximum damage to the enemy at minimum cost. Asymmetric strategies are especially favoured by the weak because they tend to offset the conventional superiority of their opponents." This is not new. He goes on:

"[However], asymmetric warfare has taken on a new relevance today. Opponents are increasingly willing to employ 'the unorthodox' in battle as well."

This is, he says

"because conflicts today tend not to be total wars; they tend to have complex causes and manifest themselves in small wars, low-intensity conflicts or sub-national conflicts."

Finally, my own interpretation of asymmetric threat is that it represents a threat (weapon or tactic) that the suite of capabilities inherent in your force design, or in the particular platform that you are employing (designed to counter the *symmetric* threat you had in mind), may not be able to counter.

An asymmetric threat may be used against you by pirates on the high seas, by terrorists with some political end in mind, or by criminals.

³ *Rethinking Western Vulnerabilities to Asymmetric Warfare*. Captain Frederick Teo Li-Wei. http://www.mindf.gov.sg/safti/pointer/back/journals/2002/Vol28_2/3.htm.

TERROR AT SEA

I am not going to engage you in a lengthy discussion on the definition of terrorism and its exploitation of aspects of asymmetric warfare, whether at sea or on land, but some clarity is in order.

In the words of Cody Brown, in an article dubbed *The New Terrorism Debate*⁴, "The use of the words terror, terrorists, and terrorism carries a political and moral weight when invoked. At the most basic level terrorism can be defined as the illegal use of political violence." In fact, he says, "At the heart of terrorism is the fact that it is political violence that engages in unconventional warfare in order to circumvent the constraints placed on the actors by the nation state. Thus [terrorist groups] engage in asymmetrical warfare since they lack the capacities and capabilities such as a state and a military to confront their foes head on."

- "What is essential to realising what *is* and what *is not* (my italics) terrorism", says Brown, "is the understanding that violence is used as a means to avoid the repercussions and the possible direct confrontations with nation states. Whether it is the asymmetrical assaults on state structures and civilians by *non-state actors*, or the clandestine actions of *state actors* both are functionally terrorism, since both avoid state associations, are in violation of conventional norms, and operate through violent, unconventional means."
- "Another essential key to [terror] is the role of the audience." Quoting Martha Crenshaw on *The Causes of Terrorism*, Brown emphasizes that "the victims or objects of terrorist attack have little intrinsic value to the terrorist group but represent a larger human audience whose reaction the terrorists seek".

Brown then postulates what he calls a "working conceptualisation" of terrorism: [it is] "unconventional political violence or the threat of political violence meant to have an impact on both immediate victims and the audience that is carried out by non-state actors and, or clandestine state agents".

TERRORISM IN SOUTHERN AFRICA

Before we turn to possible scenarios, a look at the current situation with respect to terrorism in Southern Africa may be of use. Very conveniently, the June edition of the *African Security Review* published by the Institute for Security Studies in Pretoria carries an article on *Enhancing Counterterrorism Cooperation in Southern Africa* by Eric Rosand and Jason Ipe⁵.

They contend that "the threat of global terrorism in Southern Africa is a matter of concern because of connections between the region and terrorist activity in Africa and beyond" and cite a number of factors contributing to the need for a coordinated approach to counterterrorism in the region:

4 C. Brown, 'The New Terrorism Debate. Alternatives', in *Turkish Journal of International Relations*, Vol 6, nr. 3 & 4, 2007.
 5 E. Rosand and J. Ipe, 'Enhancing Counterterrorism Cooperation in Southern Africa', in *African Security Review*, Vol 17, nr. 2, 1988.

- "So-called militant Islamic formations" (their quotation marks) in countries such as Mozambique and Tanzania are reported to be serving as corridors for "international jihadist going to the Western Cape and Gauteng provinces"⁶
- The authors quote Kurt Shillinger of the South African Institute of International Affairs, who describes the sub-region as "a mix of economic strengths and state weaknesses, demographics and social 'seams', and historical links and attitudes that provide ample attraction and opportunity for terror-related activity".⁷
- They quote K Aning: "While certain countries have well-developed financial and transportation infrastructures, the sub-region generally suffers from
 - lengthy and permeable borders,
 - small-arms trafficking,
 - the lack of a strong legal counterterrorism framework,
 - easily available travel documentation,
 - poor bureaucratic capacity,
 - corruption,
 - mineral and other commodity smuggling,
 - unique migration patterns,
 - understaffed and under-sourced law enforcement agencies,
 - and poverty,

all of which present challenges and create a permissive environment that may foster and facilitate terrorism".⁸

- "South Africa, as not only a major transportation hub with direct flights to both US and European capitals, but also as a tourist destination that will be hosting the 2010 FIFA World Cup", Rosand and Ipe say, "offers numerous potential targets for terrorist attacks."
- They add that "noting a growing radicalisation among Southern Africa's migrant populations – including cases of harbouring terrorists from South Asia and the Middle East – many analysts have pointed out that Southern Africa's own Muslim population, while historically moderate and peaceful, is not immune to radicalisation".

We should also not lose sight of the fact that the recent spate of xenophobic attacks by South Africans against foreign migrants could not have contributed to a reduction in underlying tensions that could potentially be exploited for purposes of terrorism, or, for that matter, crime.

Crime

In setting the scene, so to speak, we can also not afford to lose sight of good old, bad old crime. And in South Africa crime does, in fact, seem to pay. I will dispense with definitions, but in the eye of the pirate, South Africa 2010 might just appear to offer rich pickings. Do not forget, however, that UNCLOS makes piracy distinct from crime in the sense that for purposes

⁶ D. Fleming, *Jane's Terrorism and Security Monitor* [online], 23 November 2004.

⁷ *Armed Forces Journal* [online], February 2006.

⁸ K. Aning, 'Africa: confronting complex threats', *Coping with Crisis Working Paper Series*, International Peace Academy, New York, 2007.

of piracy *the act of violence must be committed on the high seas or at a place not subject to state sovereignty*⁹. So, close to home, it's just plain old robbery.

Some Scenarios

Given asymmetric threat, terror, crime and the fact that the antagonist, unlike the state, need not be bound by any constraint, the possibilities are endless.

The first that comes to mind is the vulnerability of a passenger liner or oil tanker or gas tanker on coming close inshore, entering the approaches to a port or the port itself.

Attack from ashore with illegally obtained standoff weapons is a possibility, but to what end? A passenger liner may sustain some damage, there may well be loss of life, but the ship would either stand out to sea or continue proceeding alongside. As an act of terror, this would certainly afford the perpetrator much attention in the media and the intention could be that the incident should be construed as a warning of worse to come, but to my mind, no tangible end is served.

Such an attack against a vessel carrying dangerous cargo, liquid gas or chemicals could do severe damage. The environmental impact could be enormous, there would be loss of life (perhaps even among the attackers depending on how close they are) and the port in question could be out of operation for some time. As a statement by some disaffected grouping this would be dramatic and could possibly afford the attackers a measure of leverage to gain some political end.

We can expand this scenario to a vessel, be it a passenger liner, container ship, oil or gas carrier further out to sea. The fact is, an innocuous fishing vessel, yacht, or pleasure boat could in a few minutes transition from an innocent part of the scenic picture into a serious threat to a particular ship or into a national or international maritime threat. One moment you are proceeding upon your legal occasion, the next, you are in a quandary that may put your masters, owners or government in dire straits. How is this dealt with?

Hostages: A number of dollar millionaires or Arab oil billionaires onboard might just alter the entire status quo. What about a few royals, Arabian, British, or African? Name your price.

Note: Keep in mind that the downstream (future) impact on tourism income, well beyond Soccer 2010, could be substantial.

How do you counter this type of threat? In my opinion, the answer is intelligence, intelligence, intelligence.

At the equipment/technology level things are comparatively simple. Ships, commercial, that is, have escaped piracy attacks using, for instance, LRAD, or Long Range Acoustic Devices. Marvellous, I think. Imagine a sound cannon, actually a very effective loud hailer out to about 800 metres or so, chasing away the bad guys because it is hurting their ears.

The threat in the approaches to a port, or on entering a port, could relatively easily be dealt with by an old and tried recipe, the *cordon sanitaire*. No kayak, canoe, yacht, boat or vessel

9 UNCLOS, *United Nations Law on the Convention of the Sea*.

is allowed anywhere in sight. Likewise, allow no air traffic. Shoulder-to-shoulder ranks of patrolmen are deployed along a perimeter that excludes entirely, or at least to some reasonable extent, the likelihood of standoff weapons. And so we harden up our protective measures. At what cost, and why? On the basis of good intelligence, of course.

The protagonist, us, the good guys, has to assess the objective of the antagonist, be he terrorist or be he criminal, as best we can. Is his objective to shut down the port, well, big problem. Is his objective to hijack a couple of millionaires off a luxury liner and hold them to ransom? Well, big problem. But different, this could be done ashore as well. So, different counter. Good intelligence would simplify matters.

For warships, paradoxically, the odds presented by asymmetric threat are not much lower. Yes, a man-of-war is by definition more capable of self protection, but the psychological impact on the nation actually losing one of its battleships has historically been much greater. The mighty ship, *Deutschland*, was renamed because Hitler considered the psychological impact of the loss of a major battleship carrying such a prestigious name too terrible to contemplate. There was a war on.

Many years later, the damage to *USS Cole*, with no war declared, resulted in an intense image-damage-control effort by the United States. And rightly so. National prestige was at stake.

Reflect for a moment on the image or the perceived image we South Africans would like to think that we enjoy on the African continent. Should a South African man-of-war put into some African port and literally be blown out of the water by a home-made cocktail of terror to achieve political ends or leverage in some other part of the planet, what would our reaction be? What would the effect on our national psyche be?

And this is not an event outside the realms of possibility.

An Israeli man-of-war, *Eilat*, was targeted by Soviet-produced STYX surface-to-surface missiles in the late sixties. Asymmetric to the bone. Major headlines. Major rethink. Shades of a Revolution in Military Affairs. Next thing we saw the SAAR Class (SAAR meaning "storm" in Hebrew) high speed torpedo boat armed with sophisticated surface-to-surface missiles. The South African Navy is still operating some of these vessels today.

Many years later, an Israeli man-of-war was targeted once again, either by missile or by an unmanned air vehicle. It made port, barely, and hence not so many headlines. An act of terror, apparently, that has since been followed by a curiously silent debate.

How does one counter this type of incident? Intelligence, prior information, and information that you are prepared to take hard action on. Is this an easy thing to do? No. But you have to give it your best shot.

Note: An example that comes to mind is the South African problem of cash heist robberies. Intelligence is apparently paying off. Cash heists are becoming more risky, Police Services are having more success. So, now, automatic cash dispensers (ATMs) are being blown up instead.

Ironically, the very measures the international community, through very effective organisations, like the International Maritime Organisation (IMO), are putting into place to maintain good order at sea, could just as effectively assist the bad guys. ISPS (the International Ship and Port Security regime that is slowly but surely taking hold, and to good effect, no doubt) requires that forty eight hours before any commercial vessel (above certain tonnage) puts into any South African port such vessel has to report its time of arrival, manifest of cargo, list of passengers and so forth: Valuable information.

VHF radio receivers ashore (now known as AIS) pick up on information that includes identification of the vessel, its position, course and speed. This information, like the information forwarded to the next (international) port of arrival forty eight hours before, can be intercepted. How convenient.

But then, out on the high seas, any passenger enjoying the good life, or disenchanted crew member, could take a few moments, armed with satellite phone and GPS, to forward vital information on the ship's movements to any interested party ashore.

Let alone detail on the planned movements of particularly desirable people, either for their riches, their influence, their political clout or their glamour.

Our hi-tech, highly connected world is a vulnerable world.

Some final scary stuff: Be they attractive targets because their embarked passengers are affluent, because their cargo is valuable or volatile, or because they are men-of-war reflecting the image and aspirations of their respective Governments, ships of any description or kind are vulnerable at anchor or alongside.

Enter the underwater threat. How do you protect yourself against midget submarines loaded with explosives, possibly manned (if they're not remotely controlled or autonomous), by suicide bombers? How do you protect yourself against ideologically driven, highly motivated underwater saboteurs? Those who would not even think of being deterred by the odd low power sonar or underwater noisemaker?

The jury is still out on this one, but detection systems that can raise a sufficiently early alarm on detecting divers underwater, do not abound. Nor are they part of our conventional thinking on security. Putting up a razor-wire fence around the harbour has always been good enough.

Note: The event in itself, Soccer World Cup 2010, offers a magnificent international stage to air grievances that may have absolutely nothing to do with South Africa at all.

THE COUNTER

The counter, for purposes of this conference, I hasten to add, is relatively simple. I have said this before: Intelligence, intelligence, intelligence. Add situational awareness. Forewarned is forearmed and the more you know, the better. But it is not enough. Knowing that you are under threat, you had better install some early warning just to inform you that your worst fears have actually come true. Then comes the need for response.

How do we respond? This is a topic that requires a debate in itself. The simple answer is, in a coordinated fashion. Bringing every facet of the power of the state to bear, should that include its sword, its managers of violence, so be it. Some means exist. Maritime surveillance is a problem. Underwater security is a problem, but the main issue is the requisite level of coordination across all government departments to bring all of the state's assets to bear. This requires a very mature government.

Note: I mean mature in the sense of well-established in terms of processes and procedures for dealing with the very high levels of integration, coordination and cooperation required across all departments and levels of government, agencies and stakeholders involved.

CONCLUSION

Is South Africa ready to police its maritime borders, ports, and seaward points of access to a degree that could reasonably be expected to make us safe? For now, for Soccer 2010, and for the foreseeable future (beyond soccer)?

The answer to this question is not so straightforward. One can take reasonable measures to deal with contingencies, but one cannot take absolute measures. From a naval point of view, the South African Government has taken the reasonable measure of investing in capable surface ships and submarines.

There remains any number of maritime-related issues that it must still gear up to deal with. I am not overly optimistic, but the good news is, we still have 23 months to go.

ILLEGAL, UNREPORTED AND UNREGULATED FISHING AND MARITIME SECURITY IN SOUTHERN AFRICA

Martin Purves¹

Illegal, unreported and unregulated (IUU) fishing is a global issue with many harmful environmental, economic and social impacts. The need for strengthened fisheries governance at national and regional levels has been increasingly recognised by the international community as one of the main requirements if IUU fishing is to be halted. Developing World countries often bear the brunt of IUU fishing activities through incursions by seasoned and sophisticated foreign-flagged operators decimating offshore resources and sometimes also venturing within coastal waters, where they often compete for depleted resources with coastal communities. IUU fishing is, however, not only a threat from "beyond the horizon", but often involves nationals of the countries concerned, misreporting or under-reporting catches or using banned fishing gear and entering restricted areas. Even coastal communities are sometimes involved in dynamite or poison fishing as a more lucrative fishing method compared to more traditional methods. It is estimated that 75% of the world's fish stocks are either fully or over-exploited and IUU fishing places an extra burden on fisheries resources, and in some cases, hastens the depletion of already vulnerable stocks. Maritime security is closely linked to IUU fishing activities as illegal fishing vessels are sometimes also used for human and drug trafficking. IUU fishing operators also often have sophisticated schemes to falsify catch records and customs declarations, circumvent port control measures, and, in some cases, are armed and willing to defend their gains with threats of violence.

BACKGROUND TO THE FISHERIES

Fisheries are a vital resource for Africa with 7.3 million tonnes of catch with an export value of USD \$2.7 billion annually, and as a source of income for up to 10 million people. Fish is also important to the food and nutritional security of up to 200 million Africans. Africans rely on fish for an average of 22 percent of their consumption of animal protein and in some countries the rate is as high as 70 percent.² The poor also often rely more on fish than other sources, as it is often the most affordable source of protein.

Overfishing of the resources in the region is common, often due to inadequate management systems and the lack of proper control, monitoring and surveillance (MCS) of fishing activities.

¹ Fishing consultant, Cape Town, South Africa. Currently Southern Africa Programme Manager of the Marine Stewardship Council (MSC), a global fisheries certification program and eco-labelling scheme which promotes sustainable fishing through market-based incentives.

² Proceedings of the NEPAD – Fish for All Summit, 22-25 August 2005, Abuja, Nigeria.

Ecosystem impacts, such as the use of the wrong gear types or the absence of mitigation measures to minimise by-catch, also compromises the long-term sustainability of the resources.

Of the Southern African countries, Namibia relies more on fisheries as a source of income than any of the other countries in the region with a contribution of between 5 to 10% of the GDP in recent years. See figure 1 below on the value of fisheries and their contribution to GDP of countries in Southern Africa.

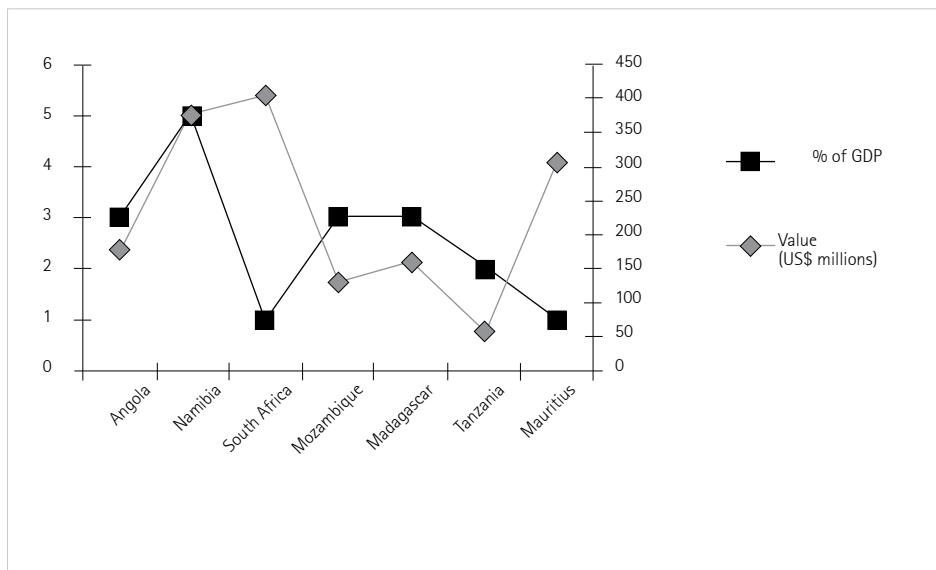


Figure 1. The value of the fisheries and their contribution to the GDP of countries in the Southern African region (Data are from the most recent FAO Fishery Country Profiles, and includes those from fresh water fisheries. In some cases the data are outdated).

Within the region, the actual income earned from fisheries is the highest in South Africa and Namibia, with the hake fisheries in the cold Benguela system of the Atlantic Ocean (Figure 2) being the most valuable. These two countries are also similar in that their fisheries are almost exclusively industrial, fisheries management is generally guided by sound scientific research and advice and they have sufficient resources and capacity to enforce fisheries regulations and monitor activities in their exclusive economic zones (EEZs). A range of fishing gear and vessels are employed to target, among others, small pelagics, such as sardines, anchovies and horse mackerel, large pelagics, such as tuna and swordfish, rock lobsters, both coastal and deep water species, and demersal species such as hake and monk.

The southern fishing zone of Angola also experiences the strong and highly productive, up-wellings of the Benguela Current and is by far the most productive of Angola's fishing zones, with an abundance of horse mackerel, sardines, tuna and a range of demersal species including hake. Angola's fisheries differ from those of Namibia and South Africa, but share similarities with the African countries of the Southwest Indian Ocean in that there is a large artisanal component to their fisheries. In 2005, some 31 528 people earned their living from

the fisheries sector out of which 22 521 operated in the artisanal sector, using 3 000 to 4 500 boats (mainly without any engine).³

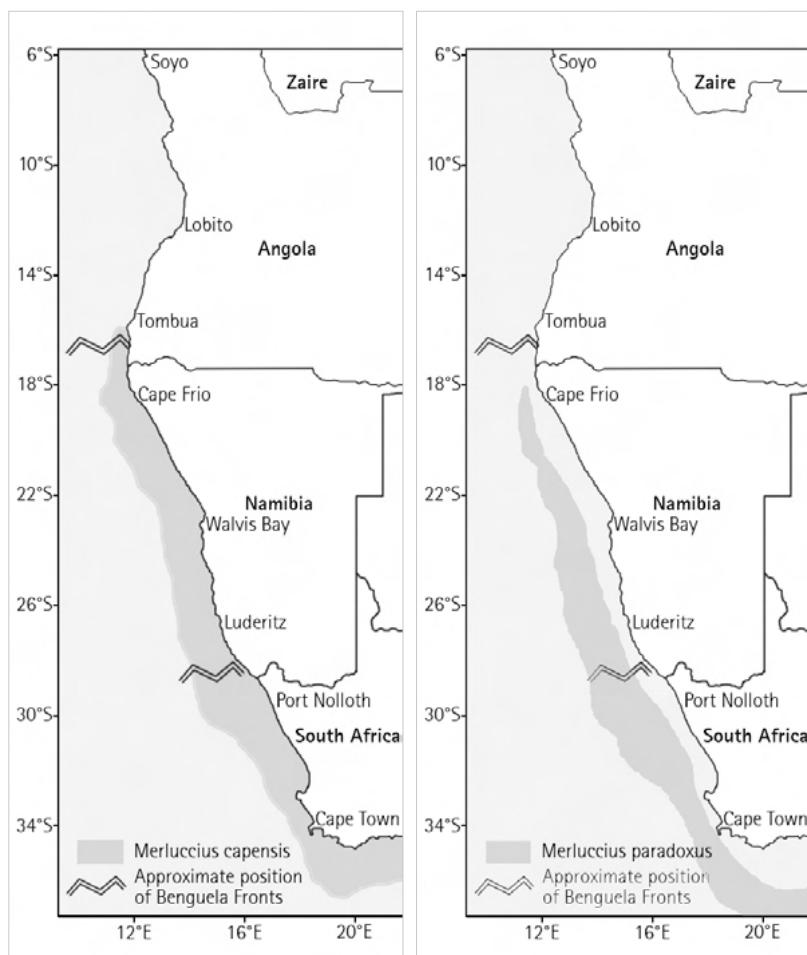


Figure 2. Fisheries resources are shared between South Africa, Namibia and Angola in the Benguela Current Large Marine Ecosystem (BCLME). The distribution of the two hake species, Cape hake (*Merluccius capensis*) and deep water hake (*M. paradoxus*) are depicted above.⁴

Mozambique and Madagascar rely mostly on their shrimp fisheries as a source of foreign revenue, although in recent times the sector has experienced difficulties due to increases in fuel prices, competition from aquaculture production in Asian and South American countries and declining stocks due to overfishing. Both these countries also have large traditional or artisanal sectors which exploit mostly coastal resources. Tanzania's marine fisheries sector is relatively small compared to the lake fisheries, which account for most of the revenue from

3 FAO Fishery Country Profile for Angola, 2007, FAO, Rome.

4 D. Japp, M. Purves & S. Wilkinson (eds), *State of the Stocks Review: Benguela Current Large Marine Ecosystem (BCLME)*, Report No. 1, BCLME Project PCU/SSR/07/02, 2007.

exports. Shellfish (mainly prawns, lobsters and crabs) and cephalopods (squid and octopus) are the main exports from the marine sector. The artisanal sector is also very important with fishing comprising an important livelihood activity for most of the coastal communities.

The EEZs of all the SADC Indian Ocean coastal and island states overlap to a greater or lesser extent with the area of the Western Indian Ocean (WIO) tuna fishery. Around one million tonnes (t) of oceanic tunas,⁵ with a processed value of €2-3 billion are caught each year in the WIO. Landings in the WIO are close to triple those of the Eastern Indian Ocean (EIO), reflecting the high levels of productivity associated with nutrient rich up-wellings along the Arabian and Somali coastlines. Fisheries for large pelagic tuna and tuna-like species⁶ in the Indian Ocean are unique for two main reasons; firstly catches taken by the artisanal sector are similar in volume to those of the industrial sector; and secondly catches taken by the industrial sector are fairly evenly split between longline and purse seine fleets.⁷

The majority of the active purse seine fleet is Spanish and French, fishing under negotiated access rights linked to European Community agreements in force with all Indian Ocean SADC coastal / island states, with the exception of South Africa, as well as private and bilateral agreements, and in high seas areas.

Tuna purse seine fishing activity is widely distributed throughout the WIO, although it tends to follow an annual pattern of distribution depicted in Table 1 and Figure 3 on the seasonal and migratory patterns below.

Period	Region
Jan – Mar	Central WIO, Seychelles plateau and Northern Mozambique Channel
Apr – Jun	Southern Somali basin and Mozambique Channel
Jul – Sept	Somali basin and Western Seychelles plateau
Oct – Dec	Central WIO and Seychelles plateau

Table 1. During the specified periods tuna purse seine fishing activity is usually concentrated in the oceanic regions noted here.

In contrast to purse seine activity, longline fishing is comparatively more dispersed ranging over the entire tropical and subtropical WIO.

5 The oceanic tunas include skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*) and bigeye (*T. obesus*) which are caught by purse seine fisheries, with Albacore (*T. alalunga*) and southern bluefin (*T. maccoyii*) which, together with yellowfin and bigeye tuna are caught by longlines.

6 Tuna-like species include principally billfish, with swordfish (*Xiphias gladius*) having the highest catches.

7 Study and analysis of the status of IUU fishing in the SADC region and an estimate of the economic, social and biological impacts, see MRAG & CapFish, 'Stop Illegal Fishing', Project No. 6, Programme, May 2008.

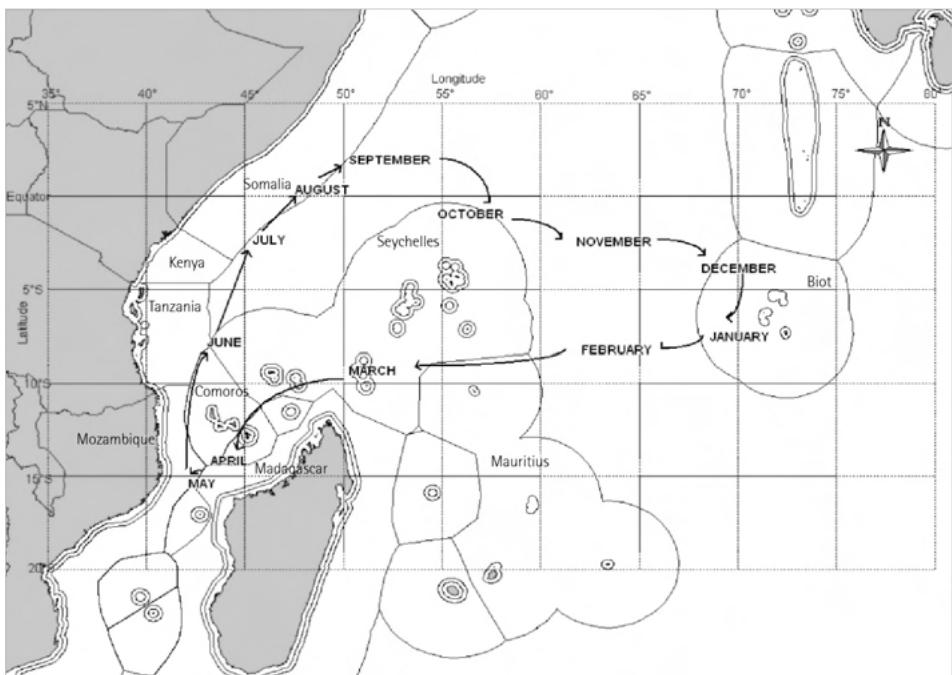


Figure 3. The seasonal migratory patterns of yellowfin and skipjack tuna through the EEZs of the coastal and island states of the Western Indian Ocean.⁸

CHARACTERISTICS AND SCALE OF IUU FISHING IN THE REGION

The impacts and scale of IUU fishing differs considerably depending on the type of fishing vessels and gear types involved, the species targeted, the level of organisation of the companies and/or fishermen involved and the potential profits.

On the one level sophisticated operators have, for instance, systematically been decimating Patagonian toothfish stocks in the Southwest Indian and Southern Oceans for the past ten years or more, despite international cooperation and efforts to curb their activities. These operators are mostly unlicensed, have vessels fitted with powerful radar systems (Figure 4) and other advanced equipment, and use elaborate schemes involving the forgery of catch documentation schemes, transhipments at sea, good communications networks among themselves and other ploys to outwit authorities. Potential profits are high and in many cases these activities have been linked to organised crime syndicates.

⁸ MRAG, *Review of Impacts of Illegal, Unreported and Unregulated Fishing on Developing Countries*, Final Report, July 2005.



Figure 4. The "black listed" IUU toothfish vessel, *Odin*⁹, was photographed in March 2006 in the Southern Ocean while rendezvousing with another IUU vessel, the *Black Moon*¹⁰. The height of the radar tower, which gives the crew better detection capabilities of patrol vessels in the area, is often an indication of IUU activities, as most legitimate fishing vessels of this class will not have similar equipment.

On another level there have been recent reports of unlicensed foreign longliners using gill nets to fish for sharks in the shallow coastal waters of Mozambique, often displacing artisanal fishermen. NGOs have also reported that local fishermen in some areas are targeting sharks, finning them and then drying the fins to sell to these passing "Chinese" fishermen, stimulating further exploitation of sharks in the inshore area.¹¹ In many of these types of cases the vessels are in a bad state of repair and living conditions on board are poor. Profits are marginal and they do not have very sophisticated systems in place to circumvent authorities. Instead they often rely on the lack of resources of coastal states to patrol their waters and enforce regulations.



Figure 5. An unlicensed fishing vessel (left) photographed in Mozambican coastal waters by the NGO "Eyes on the Horizon" (www.eoth.co.za), which was established to serve as a platform for individuals and organisations to report suspected illegal fishing activities. Local coastal communities have apparently also become involved in shark finning and sell these to passing "Chinese" fishing vessels (right). (Photos from "Eyes on the Horizon").

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- 9 The *Odin* was 'black listed' in 2006 by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) when it was known as the *Esperance Anyo*. In the space of a year it had undergone four different name changes and had been reflagged four times. By the end of 2007 it was known as *Comet* and was owned/operated by the Spanish company Credraf Associates S.A., c/o José Manuel Salgueiro of Pontevedra in Spain.
- 10 CCAMLR's Combined IUU Vessel Lists, adapted from 2003 to 2008, shows that the *Black Moon* was first listed in 2003 and has undergone eight name changes since then. It is currently known as the *Galaxy* and is operated by the Spanish company, Vidal Armadores.
- 11 Study and analysis of the status of IUU fishing in the SADC region and an estimate of the economic, social and biological impacts, MRAG & CapFish, 'Stop Illegal Fishing' Programme, Project No. 6, May 2008.

On a third level, "rogue" licensed operators are often the perpetrators of IUU activities in some fisheries. A case in point is the "respected" businessman, Arnie Bengis, former head of Hout Bay Fishing Industries, whose company was one of the rights holders in the South African south coast rock lobster fishery. While legitimately operating in the fishery his company was also involved in an elaborate scheme of overfishing, involving the bribery of government officials, falsifying export documents and smuggling fish products into the US. In 2004, Mr Bengis and two other defendants were found guilty in the US on charges of conspiracy, smuggling and importing wildlife caught in violation of foreign or state laws. They received prison sentences ranging from one to four years, and fines of about US\$ 7.5 million. The US government is currently also appealing a judgement which determined that the defendants did not have to pay compensation of more than R567 million (\$41 million) to the South African government as restitution for the overfishing of the south coast rock lobster stocks. The amount was based on a study commissioned by the government, which estimated that this was the economic loss to South Africa due to Hout Bay Fishing's activities.

A shift in management strategy from a solely TAC (Total Allowable Catch)-managed fishery to one based on a TAC and total allowable effort (TAE) to prevent overfishing was instigated in 2001. This strategy, combined with the removal of Hout Bay Fishing's vessels from the fishery (their rights were revoked in 2002) led to a strong recovery of the south coast lobster stock between 2001 and 2006 (see Figure 6, recovery in South Coast rock lobster after the Hout Bay Fishing saga).

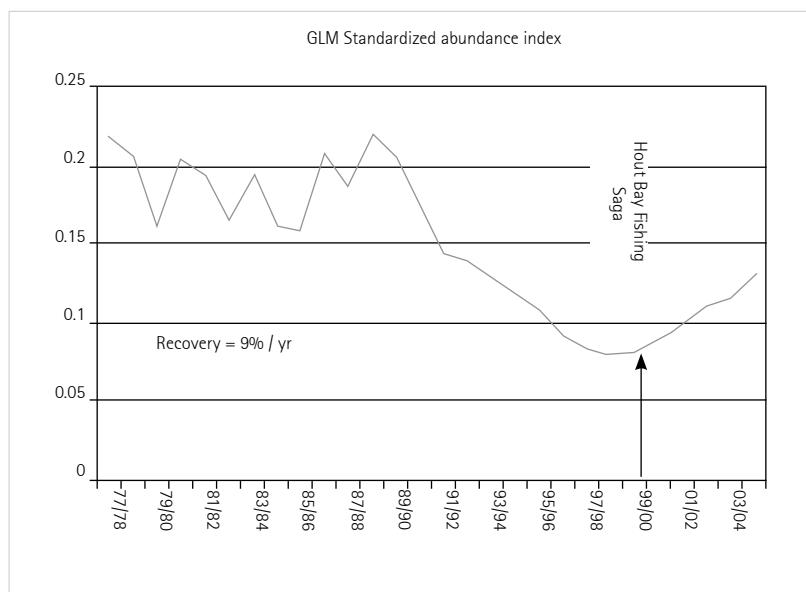


Figure 6. Recovery in the South Coast rock lobster stock after the Hout Bay Fishing saga.¹²

Another level of IUU activities involves artisanal or small-scale fishermen. Some fishermen in coastal areas use prohibited gear such as fine mesh nets (for instance mosquito nets), poison or even explosives to indiscriminately target a wide range of species. In Tanzania for instance dynamite fishing has been a problem along the coastline for many decades. Fishing

12 J.C. Groeneveld, 'Under-reporting of catches of South Coast Rock Lobster *Palinurus gilchristi*, with implications for the assessment and management of the fishery', *African Journal of Marine Science*, 25(7), 2003, pp.407-413.

with explosives is an attractive option for impoverished local communities, with its easy and high yields. In some areas communities abandoned their traditional fishing methods in favour of dynamite fishing. The impacts have been severe, and a study conducted by the IUCN in 1987 concluded that the reefs were extensively damaged and that in most areas of the Tanga Region, where dynamite fishing was rife, the percentage cover of live corals ranged from only 10 to 20%.¹³ It was estimated that each blast of dynamite instantly kills all fish and most other living organisms within a 15 to 20 meter radius and completely destroys the reef habitat itself within a radius of several meters of the blast (Figure 7 and Figure 8).



Figure 7. Shengue reef, which has been closed to fishing since 2001, showing little evidence of dynamite impact.
PHOTO: Tessa Hempson.¹⁴



Figure 8. Fungu Tongone reef, which is unprotected and has been heavily dynamited, showing extremely high urchin densities. PHOTO: Tessa Hempson.

Recent reports indicate that criminal elements have also become involved, selling dynamite to local communities at huge profits. There is a real threat to marine-based tourism, which has recently started to expand. Investments, such as those in snorkelling and scuba diving, are high-value tourism activities that could have a positive impact on the economy of coastal communities, with coastal tourism accounting for up to 22% of Zanzibar's and 17% of the mainland's GDP.

13 UCN East Africa Regional Office, The coastal resources of Tanga region, Tanzania, *Report of a preliminary study of the status and utilization of Tanga's natural resources with management recommendations*, Nairobi, Kenya, 1987.

14 The photographs in Figures 6 & 7 were extracted from Tessa Hempson's MSc Thesis, entitled *Impacts of dynamite fishing on coral reef communities of the Tanga region, Tanzania*, Postgraduate Programme in Conservation Biology, Percy FitzPatrick Institute, University of Cape Town.

FACTORS INFLUENCING IUU FISHING

The following factors are thought to influence the nature and scale of IUU activities in the region:¹⁵

- Governance and political will
- MCS Capacity
- Legal Framework and RFMO's
- Fleet characteristics
- Geographical location

Governance and political will

A significant relationship between the level of governance and the prevalence of IUU fishing has been found for Developing World fisheries.¹⁶ Operators involved in IUU fishing will often take advantage of the weak and in some cases non-existent, institutional structures in those countries with the lowest governance indexes to enrich themselves. Effective MCS and *de facto* sustainable management of resources often depends on the degree of political will and commitment to the implementation and support of any regional initiative targeting IUU.¹⁷

Monitoring, Control & Surveillance (MCS) Capacity

There are vastly different capabilities between the different coastal states in the region to effectively patrol their waters. Only South Africa and Namibia have the means to monitor fishing activities throughout their EEZs. Most of the other Southern African states have limited resources to monitor fishing within their coastal waters and very limited high seas capabilities. However, effective MCS does not only depend on the availability of offshore patrol vessels. For instance in some countries Vessel Monitoring Systems (VMS) are not always operational and their use is not properly controlled and enforced. There is also a shortage of trained fisheries inspectors and in some of the countries basic equipment such as binoculars and vehicles for shore patrols are lacking.

On the whole capacity still remains weak, although there have been considerable improvements over the past 5 years. IUU does, however, not necessarily thrive in those countries with the lowest MCS capacity, as the value of potential catches and their availability are also important drivers for IUU fishing in a particular area. MCS capacity is also not only restricted by small MCS budgets and a lack of vessels and fisheries inspectors, but also by limited knowledge of IUU activities and inadequate, and in many cases, non-existent coordination of MCS regionally.

¹⁵ Study and analysis of the status of IUU fishing in the SADC region and an estimate of the economic, social and biological impacts, MRAG & CapFish, 'Stop Illegal Fishing' Programme, Project No. 6, May 2008.

¹⁶ MRAG, *Review of Impacts of Illegal, Unreported and Unregulated Fishing on Developing Countries*, Final Report, MRAG, July 2005.

¹⁷ Study and analysis of the status of IUU fishing in the SADC region and an estimate of the economic, social and biological impacts, MRAG & CapFish, 'Stop Illegal Fishing' Programme, Project No. 6, May 2008.

Legal Framework and RFMOs

The Regional Fisheries Management Organisations (RFMOs) play a critical role in the global system of fisheries governance. They are the primary mechanism for achieving the cooperation between and among coastal states and fishing nations that is essential for the effective management of international fisheries. The main multilateral treaty that elaborates the basic rights, duties and obligations of states in this respect – the 1995 United Nations Fish Stocks Agreement – relies almost exclusively on a diverse network of RFMOs to implement its provisions¹⁸. The RFMOs with specific mandates in the region are the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the Indian Ocean Tuna Commission (IOTC) for tuna and tuna-like species. The South-East Atlantic Fisheries Organisation (SEAFO) and the South Indian Ocean Fisheries Agreement (SIOFA) have a mandate for all non-tuna species falling within their convention areas.

An important consideration for countries when planning to strengthen their MCS capabilities to counter IUU activities is that it is essential to strengthen their existing domestic legislation to ensure that it prescribes measures that are appropriate to achieve the desired fisheries management objectives and contains provisions that facilitate effective enforcement. In many cases vessels are arrested for transgressions, only to be let off with a "slap on the wrist" by the courts, usually in the form of a comparatively small fine when compared with the value of the catch. IUU operators are only deterred if there is the chance of forfeiting their catches and vessels to the state when caught in illegal activities, in other words a serious monetary loss.

There are currently limited frameworks in place between the Southern African states to allow for the exchange of data (e.g. VMS, operational data, port movement data, vessel landing information etc.), regional surveillance, regional logbook reporting schemes and regional information systems. There are, however, plans afoot to establish a regional fisheries monitoring centre, and so effective collaboration in MCS operations will hopefully improve.

IUU Fleet characteristics

Most illegal fishing in the region is carried out by foreign vessels crewed by Chinese, Koreans, Spanish, Russians and Indonesians. Vessels often operate under "Flags of Convenience"¹⁹. In the industrial and semi-industrial fisheries zone violations by these vessels occur frequently, however the true scale is poorly known. Vessels involved in transgressions often have joint venture partners in these countries, but in many cases these partners do not have much control over sea-going operations. The authorities often license such vessels, but due to the lack of thorough at-sea and port inspections, compliance with regulations is often low. In some cases fishing licences are issued to vessels without them ever entering the ports, or being inspected by officials of the issuing country. Conversely vessels that are not issued licences are still permitted to be "based" at the coastal state's port, where their movements within that coastal states EEZ is not monitored (e.g. by VMS).

¹⁸ 'Managing International Fisheries: Improving Fisheries Governance by Strengthening Regional Fisheries Management Organizations', *Chatham House Briefing Paper*, EEDP BP 07/01, March 2007.

¹⁹ A flag of convenience ship is one that flies the flag of a country other than the country of ownership. Cheap registration fees, low or no taxes and freedom to employ cheap labour are the motivating factors behind a shipowner's decision to 'flag out'. (International Transport Workers' Federation – www.itfglobal.org/flags-convenience

Most unreported fishing is probably within the domestic fisheries and also in the offshore fisheries, again by the Asian longline class-type vessels. This situation is true for fisheries in Mauritius, Madagascar, Mozambique, Tanzania and Angola. As previously mentioned most of the Indonesian and Taiwanese flagged vessels do not routinely use logbooks and when they do, they do not record and/or report all the species they catch in any useable format for management purposes. In South Africa and Namibia unreported fishing offences are often committed by their own nationals and/or on vessels flying their own flags. This is probably due to the effective MCS capacity in both these countries and their insistence that most vessels fishing in their waters have to fly their flags, ensuring better state control over their activities.

Unregulated fishing is predominantly found in the artisanal sector, and is prevalent in all the SADC countries with the exception of Namibia and South Africa. In these countries their nationals are often involved in IUU fishing in their own waters. Transgressions are mostly under- and or misreporting, fishing of prohibited species or exceeding catch limitations on bycatch species, high grading of catches at sea (dumping) etc. Vessels involved in IUU practices are usually also licensed by the authorities and flagged in these countries. Incursions by foreign-flagged vessels are rare and when it occurs, such as in the case of Patagonian toothfish at the Prince Edward Islands, it is due to exceptional circumstances. In the latter case a combination of the remote location and harsh conditions made enforcement difficult.

Geographical location

Countries located within or close to areas or regions of rich resources experience a higher demand from operators who are keen to exploit these resources. With an increase in demand there will always be operators who will try to evade the law for financial gain. Inadequate capacity, lack of information or knowledge and no functional legal framework to control IUU activity are indeed secondary issues to geography, and once in place can only attempt to control these activities, otherwise they is likely to flourish.

CASE STUDIES

Patagonian toothfish of the Prince Edward Islands

In early 1996 a Norwegian longliner, the *Krill*,²⁰ left Cape Town harbour in search of the elusive Patagonian toothfish. Rumours abound in the local South African industry about the possibility of finding fishable stocks of this commercially valuable species. Approaches had already been made by a number of local fishing companies to the Sea Fisheries Research Institute (SFRI),²¹ the directorate of the Department of Environmental Affairs and Tourism (DEAT) which was mandated to manage South Africa's fisheries, for permission to do exploratory fishing within the sub-Antarctic waters under the jurisdiction of CCAMLR. South Africa as a signatory to the Convention could authorise her vessels to fish within the Convention Area. The Prince Edward

20 The *Krill* was renamed to *Explorer* later in 1996 and flagged to Panama. It was apprehended by French authorities in 1997 when fishing without a license in the Crozet EEZ. It was later sunk by the French navy off Reunion when abandoned by the owners.

21 Currently known as Marine and Coastal Management (MCM).

Islands group, which consists of the larger Marion Island, which has a scientific base station and the uninhabited Prince Edward Island are South African territory with a 200 nautical mile EEZ (Figure 9). Despite this, permission to fish these waters could only be granted once South Africa had notified CCAMLR of its intention to commence with an exploratory fishery. The Commission convenes only once a year in November – December, and in January 1996, when the *Krill* set off on its voyage, South African vessels were not permitted to fish in CCAMLR waters and would only be granted licences at the end of 1996, after the Commission had convened in Hobart, Australia.



Figure 9. A nautical chart showing the Prince Edward Islands, lying more than 1700 km southeast of South Africa. The EEZ of the islands is shown in red. The northern boundary of CCAMLR in this region is at 45° S, which means that the northern part of the EEZ and a section of Africana Rise on the eastern boundary of the EEZ, falls outside CCAMLR waters.

The *Krill* also did not have permission to fish in CCAMLR waters, but they and their South African joint venture partners were hoping that Patagonian toothfish could be found on the high seas, in areas outside of national jurisdiction. Within two weeks of departing from Cape Town the first toothfish were caught on Africana Rise, in an area east of South Africa's EEZ and north of the CCAMLR boundary (see Figure 10, the Norwegian flagged longliner *Krill*).

Word spread quickly among South African and Norwegian industry contacts of catch rates of 15-20 tonnes per day, and at US\$10-20/kg a number of vessels were readied to catch toothfish. At the same time British authorities at South Georgia, a British sub-Antarctic island in the Southwest Atlantic Ocean clamped down on illegal fishing activities of Chilean and Argentinean longliners. Toothfish catch rates had also declined and many vessels took the opportunity to look for new fishing grounds (see Figure 11, Argentinean and Chilean flagged vessels). At the same time a number of Norwegian and South African-owned longliners headed for the lucrative new fishing grounds. By the end of 1996 reports indicated that between 40 and 60 longliners were illegally harvesting toothfish at the Prince Edward Islands. In contrast only five vessels were licensed to legally catch toothfish. By early 1998 most of the pirate vessels had already started to move on to more lucrative fishing grounds around the French-controlled Crozet archipelago and Kerguelen Island and later on to the Australian Heard & McDonald Islands.



Figure 10. The Norwegian flagged longliner, *Krill*, on its passage to the fishing grounds in the vicinity of Marion Island in January 1996 (left) and the first toothfish processed during the voyage (Photos: M. Purves).

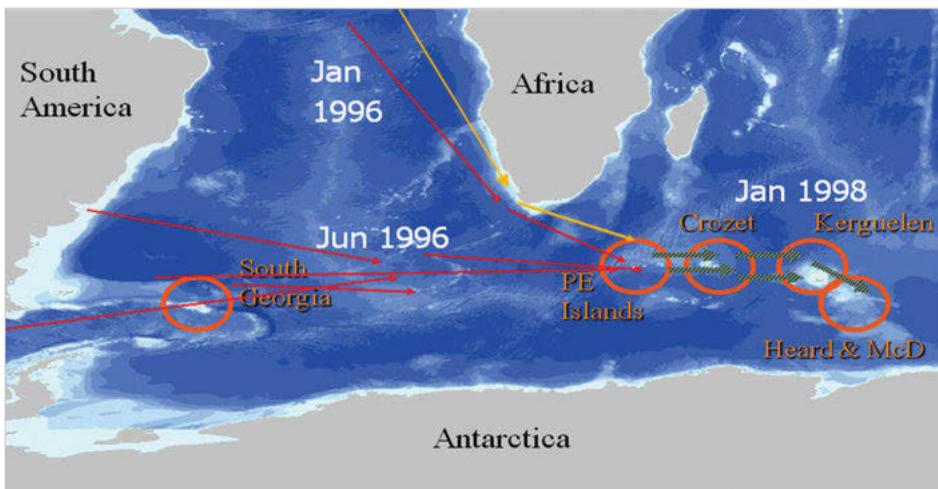


Figure 11. Argentinean and Chilean flagged vessels, often with Spanish backing, started moving eastwards from fishing grounds at South Georgia, Chile and the Patagonian shelf, six months after the *Krill* started catching toothfish in the vicinity of the Prince Edward Islands in January 1996. A number of Norwegian and South African-owned longliners also headed for the lucrative new fishing grounds. Towards the end of 1997, after catch rates started dropping at the PE Islands, most of the pirate vessels continued their eastward journey to explore the more lucrative fishing grounds around the French controlled Crozet and Kerguelen Island and the Australian Heard & McDonald Islands.

The Prince Edward Island fishery became synonymous with rampant poaching by foreign vessels between 1996 and 1998, which led to a near collapse of the stocks. Within the first two years it was estimated that more than 36 000 tons of toothfish were landed by more than 60 IUU vessels in ports in South Africa, Namibia & Mauritius. The estimated value of this loss to South Africa

was more than R3 billion.²² Catch rates never recovered after the initial high incidence of IUU fishing, and the fishery is currently regarded as marginal. Sightings of IUU vessels fishing in the area are still occasionally being reported by observers on sanctioned vessels, although the IUU fleet has since mostly moved on to other, more profitable, fishing grounds.

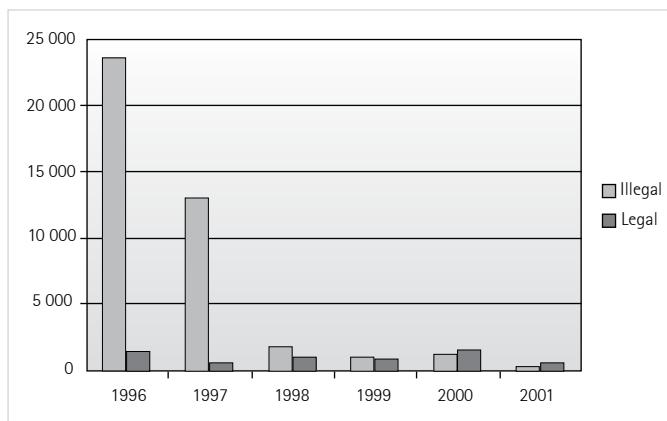


Figure 12. A comparison of legal vs estimated IUU catches of Patagonian toothfish taken from the Prince Edward Islands in the late 1990s (data from Purves, 1997 and Brandão et al. 2002).

The damage to the resource was mostly done in the first three years after the discovery of the fishing grounds. By mid-1998 most of the IUU vessels had already shifted their operations further eastwards.

South African authorities were caught off-guard by how quickly the IUU fishery developed as well as the number of fishing vessels involved. Initially most of the IUU vessels were discharging their catches in South African ports, primarily Cape Town, claiming that their catches were made on the high seas outside the Marion and CCAMLR zones. With no definite proof that this was not true, it was legally difficult to refuse these vessels entry into South African ports, and for a while they got most of their provisions and bunkers from South African companies as well. As it became more obvious that the majority of the toothfish longliners were operating illegally within the Prince Edward Island EEZ, stricter controls were implemented. Legislation that was already in place, which required all foreign fishing vessels to apply for a gear permit when entering the South African EEZ, made it possible to screen vessels and refuse port entry to those suspected of IUU activities. Subsequently most of these vessels shifted their shore-based operations to Port Louis in Mauritius, Maputo and Beira in Mozambique and Walvis Bay in Namibia. The upside of having most of the initial toothfish landings in South African ports

22 Known landings in ports in South Africa and Namibia were 23,600 t in 1996 and 12,670 t up to June 1997 (a total of 36,270 t for the first 1.5 years of the fishery). See M.G. Purves, 'Catch rates and length composition data of the longline fishery for *Dissostichus eleginoides* at the Prince Edward Islands: 1996-1997', SC-CAMLR-XVI/86/28, 1997. Using a conversion rate of 1 US Dollar = 4.44850 South African Rand and a market price for toothfish of US\$18.60 per kg [ex-vessel prices during this period were claimed to be as high as US\$22-26 per kg; Source: A.J. Oppenheim, 'The Plight of the Patagonian Toothfish: Lessons from the Volga Case', *Brooklyn Journal of International Law* 30(1), 2005, pp.293-328].

was that authorities could get a good indication of the levels of catches that had been taken from South African waters.

When the fishery initially developed South Africa also did not have good high seas fisheries patrol capabilities. Naval vessels were not ideally suited to the rough sea conditions of the sub-Antarctic waters and were costly to operate, while fisheries patrol vessels were mostly suited to coastal duties. Some aerial patrols were done and suspected IUU vessels were photographed within the Prince Edward Islands EEZ. Their usual defence of "innocent passage" or *force majeure* made it clear that vessels would have to be boarded while engaged in illegal activities, or shortly thereafter, to obtain proof of their activities, such as freshly caught or processed fish, recently used fishing gear, or fishing logs indicating illegal activity.

Some of the original IUU vessels and operators have remained active in the illegal toothfish fishery for many years. The vessels of one of the well-known IUU operators, Vidal Armadores²³ of Spain, have over the past few years started switching from bottom longlines to bottom gill net gear (Figure 13), and have slipped in and out of South African ports on numerous occasions. Reports indicate that many of these gill netters are also targeting deep water sharks in the Mozambique Channel and south of Madagascar. The alkylglycerols and squalene found in the shark liver oil are highly prized commodities, fetching high prices in some markets where it is used as an anti-cancerous agent and for boosting the immune system.



Figure 13. Gillnet fishing for toothfish onboard the IUU fishing vessel *Black Moon*²⁴, operated by Vidal Armadores, in October 2005 (left). The supply tug, *Toto* (right), which was flagged in Belize and operated from Durban, was suspected of doing fuel transhipments to a number of IUU vessels. The vessel in the foreground is the *Black Moon*.

23 Antonio Vidal Pego was found guilty and was sentenced on 14 November 2006 in the Southern District Court of Florida in connection with charges related to obstructing justice and an attempt to import and sell illegally possessed toothfish. He was sentenced to four years probation and ordered to pay a \$400,000 fine. Vessels belonging to his company are still thought to be actively involved in IUU fishing activities.

24 The *Black Moon* first appeared on the CCAMLR's black list as the *Dorita* in 2003. It is currently believed to be sailing under the name *Galaxy* and has undergone 7 name changes since being placed on the black list.

Tristan da Cunha Rock Lobster – Using genetic profiles to catch pirates²⁵

The rock lobster *Jasus tristani* occurs in the southern Atlantic Ocean, with populations restricted to the Tristan da Cunha Archipelago (4 islands), Gough Island (400 km to the southeast) and Vema Seamount, roughly 2000 km northwest of Tristan. The Tristan archipelago and Gough Island are UK territories, and Ovenstone Agencies (Cape Town) currently have exclusive rights to land lobster caught in these waters, which are managed by the Islanders. Vema Seamount is in international waters.

The Tristan fishery has a long history of IUU fishing activity going back several decades, and vessels that land lobster catches in Cape Town often declare that they have been caught legally at Vema Seamount. These declarations needed to be questioned, because intensive commercial exploitation at Vema in the 1960s depleted the lobster resource there severely. Ovenstone's vessels regularly visit Vema, and in recent times they have reported very low catch rates, confirming that the Vema stock has not yet recovered.

Apart from the legal catches from Tristan and Gough Islands by Ovenstone's, at least four foreign flagged vessels have regularly been landing *Jasus tristani* in Cape Town, and based on their applications to land lobsters, the tonnage appears to have been increasing over the years (Table 2).

Vessel	Jade	Espadarte	Avo Musico	Avo Rato	Total (tonnes)
Flag	Portugal	Togo	Portugal	Portugal	
2000	15				15
2001	48.3				48.3
2002	61				61
2003	32	7			39
2004	27	20		4	51
2005	31	35	12		78
2006	30.6		8		38.6
Total (tonnes)	244.9	62	20	4	330.9

Table 2. Catches of Tristan lobsters landed in Cape Town harbour from 2000 to 2006.

VMS tracks showed that the *Espadarte* fished at Vema Seamount en route to Tristan da Cunha and Gough Islands, where it spent most of its time (Figure 14). During some of the trips inside the Tristan da Cunha EEZ the vessel had a licence to fish for finfish with a longline.

25 This case study was also reported in MRAG & CapFish, 'Study and analysis of the status of IUU fishing in the SADC region and an estimate of the economic, social and biological impacts', Project No. 6, 'Stop Illegal Fishing' Programme, May 2008..

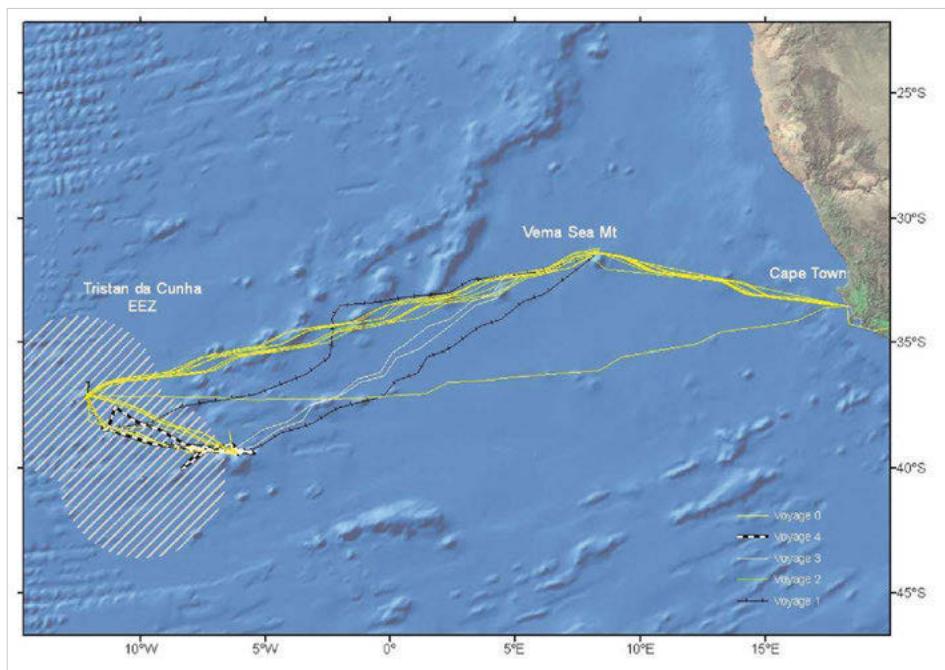


Figure 14. The VMS tracks of the *Espadarte* between November 2004 and August 2006.

The *Jade* (Figure 15) had an experimental licence to fish for octopus on the seamounts around Tristan, but a high bycatch of lobsters during these trips was suspected. The vessels had been observed to carry lobster traps, and the landings reported from these trips included bluenose, octopus (*Octopus vulgaris*) and lobster.

Cross-referencing port entry records with applications for gear permits, (which is a prerequisite for any foreign flagged vessel to enter a South African port), and invoices of catches between January 2005 and January 2007 showed that the *Jade* entered Cape Town harbour without applying for a gear permit 3 times. Invoices from the *Jade* for 14 February 2005, after the vessel entered port without a gear permit on 9 February, showed lobster sales of 5 064 kg. On 27 July 2005, another date on which the *Jade* entered without a gear permit, it landed 4000.5 kg of lobster. These large quantities are very unlikely to have come from Vema Seamount, and based on the VMS records, sightings by islanders and other vessels, it most likely consisted of illegal catches made at the Tristan archipelago, and particularly at Gough Island. A CPUE series furthermore suggests that more lobster is caught at Gough Island than can be explained by legal catches alone.

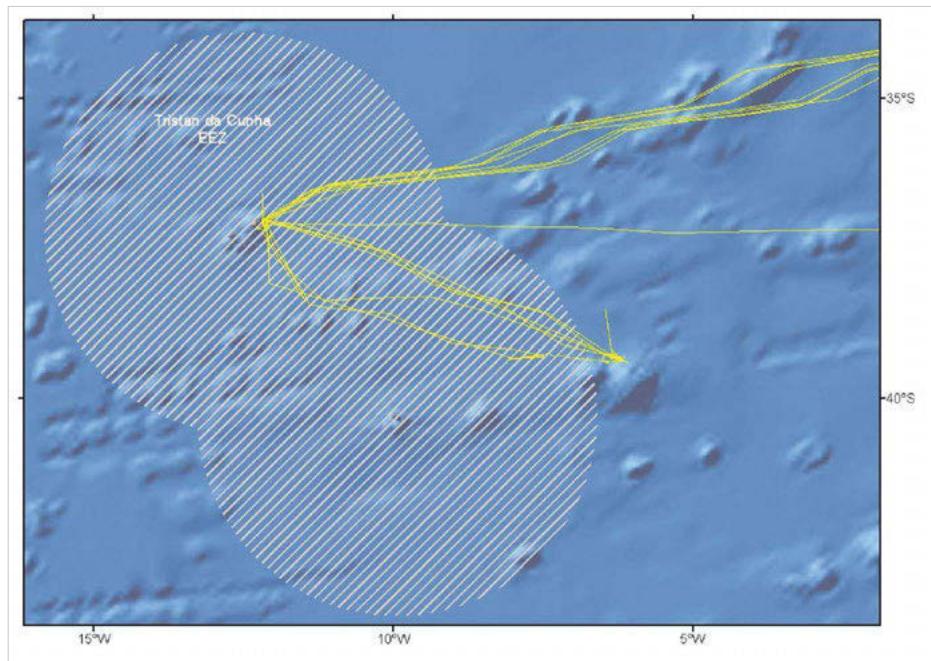


Figure 15. The VMS tracks of the *Jade*, showing the vessel entering the Tristan EEZ during periods when it did not have a licence to fish inside the economic zone.

Cooperation between the Tristan Government, the South African Department of Environmental Affairs and Tourism (Marine and Coastal Management), and Ovenstone's to deter illegal catches of *Jasus tristani* led to attempts to establish the origin of some of the catches through genetic profiling, to establish whether it was caught on Vema, as claimed, or illegally within Tristan's EEZ. Although genetic differences were found between the lobster populations at Vema and Tristan, results were inconclusive (Von der Heyden et al. 2007)²⁶. Studies are continuing, and it is likely that the authorities will soon be able to verify and prove the origin of *Jasus tristani* from their mitochondrial DNA. Other initiatives to deter IUU fishing on this resource include the monitoring of landings in South African ports, the use of fishing vessels for surveillance, skippers as honorary Fisheries Inspectors, *ad hoc* visits by the Royal Navy, and development of ordinances that will allow for prosecution of IUU operators apprehended in Tristan waters.

²⁶ S. von der Heyden, J.C. Groeneveld & C.A. Matthee, 'Long current to nowhere? – Genetic connectivity of *Jasus tristani* populations in the southern Atlantic Ocean', *African Journal of Marine Science*, 29(3), 2007, pp.491–49.

NAVAL SHIPBUILDING IN THE LIGHT OF NEW MARITIME SECURITY IMPERATIVES

Henning Waschk

Since the end of the Cold War maritime security challenges have changed. The former bipolar world order called for a balance of power and concentrated on blue and brown water navy operations. Coast guards were mainly concerned with safeguarding a state's territorial waters up to twelve nautical miles.

The impact of globalization and the breakdown of this bipolar world order have since led to a quite different scenario.

Problems such as illegal fishing, waste dumping, trafficking of narcotics, arms, and people, protection against piracy – always a concern of coast guards – have increased in line with the increase of global trade volumes. The extension of Exclusive Economic Zones up to 200 nautical miles is a benefit, but comes with additional responsibilities.

Furthermore, the requirement to protect harbours and coastal installations from terrorist attacks has been added to the list since 9/11.

The flow of traffic and crime is a cross-border problem that affects not only individual countries but regions as a whole. This results in the need for trans-national cooperation between navies, coast guards and other governmental authorities, not only between states, but also within countries.



Figure 1: Increase of tasks within traditional mission types

This change has had a direct impact on the structures and configurations of both navies and coast guards worldwide. Projecting power from the sea deep into the littorals, countering asymmetric threats and expeditionary operations, including disaster relief, are only some examples of the proverb "do more with less", as security and defence budgets are always strained. This requires cost-effective solutions in different categories.

What can a naval shipbuilder such as ThyssenKrupp Marine Systems contribute to these efforts? The following article explains the requirements and trends in naval shipbuilding from our point of view.

THE OBJECTIVE OF TKMS

When ThyssenKrupp Marine Systems was asked to act as a sponsor for an international conference on "Maritime Security in Southern African Waters" at the Wallenberg Centre, Stellenbosch University, our immediate reaction was: Yes, of course.

The reason for our commitment can be easily explained: We, as a naval shipbuilder, need to have a sound understanding of our customers and their needs, which result from their very specific maritime security environments and socio-economic conditions.

This understanding is a pre-condition not only for doing business, but – and this is even more important – for delivering products and services that fulfil our customers' expectations.

Our products not only have to fit perfectly into the present spectrum of technical and operational requirements of the world's coast guards and navies. It is also extremely important that they can be adapted to any future changes in the parameter setting of our customers' operational theatre.

A STRONG GROUP OF COMPANIES

The roots of TKMS lie in the combined experience of several leading European shipyards, among them Blohm + Voss, HDW, Kockums and Hellenic Shipyards. Together these shipyards contribute their unique capabilities and innovations to naval shipbuilding.

Having built over 160 naval surface ships and 160 submarines worldwide (50% of them locally constructed) since 1956, TKMS sees itself as a leading prime contractor that aims at creating long-lasting partnerships with its customers.

The capability to offer comprehensive solutions by finding appropriate financing schemes, creating and conducting training, consulting and assisting in local infrastructure for construction, maintenance and training, constant life-cycle support, systems engineering, system integration and project management are capabilities that go beyond traditional shipbuilding philosophies.

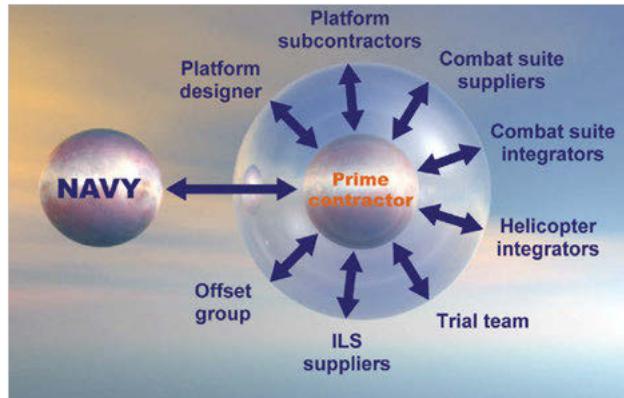


Figure 2: Prime contractor competencies of TKMS

With this experience in mind we have developed a dedicated product portfolio with a range of fast patrol boats, offshore patrol vessels, corvettes, frigates and amphibious vessels and submarines.



Figure 3: TKMS product portfolio according to today's missions and tasks

This product portfolio, including the well-known MEKO® Modularity Concept, has been developed over the past decades in order to deliver technical solutions that cover the complete operational requirements of navies and coast guards and to deliver excellent platforms for local cooperation with regard to construction and transfer of technology.

The Meko Design Concept

Initial ideas for the MEKO® (short for "multipurpose combination") design concept at Blohm + Voss date back to 1969. The first MEKO frigate, the *NNS Aradu* for the Nigerian Navy (delivered in 1981), introduced this concept of modularity and interface standards for weapons and electronic equipment in naval shipbuilding for the first time.



Figure 4: The first MEKO® frigate, N.N.S. Aradu for Nigeria

Over the past decades, this design concept has been constantly developed further to encompass not only weapons and sensor modules but also mast, propulsion, and power generation modules.

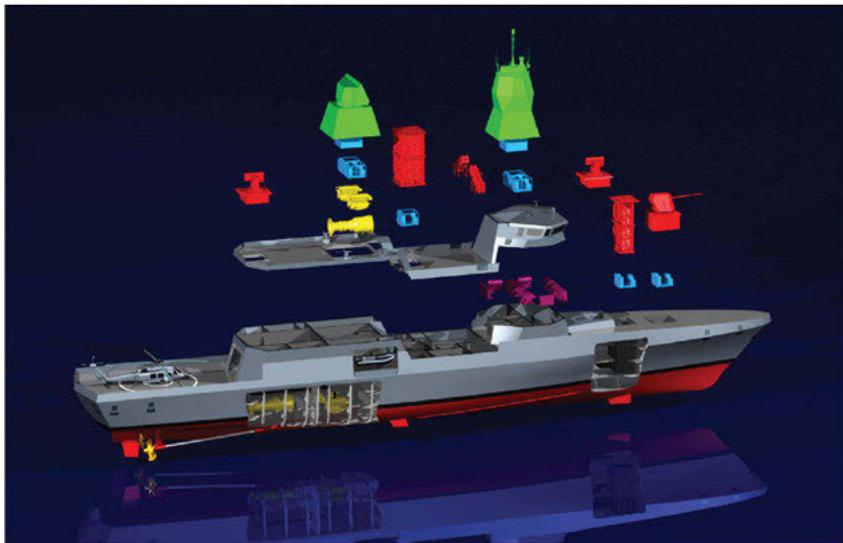


Figure 5: The MEKO® modularity concept

Furthermore the MEKO® design philosophy of today includes aspects such as survivability (e.g. redundancy and compartment autarchy), signature reduction (e.g. RCS, infrared, acoustic) and upgradeability. The next step of MEKO® evolution is mission modularity.

Mission Modularity

3 Multi Mission Spaces for 21 Mission Modules

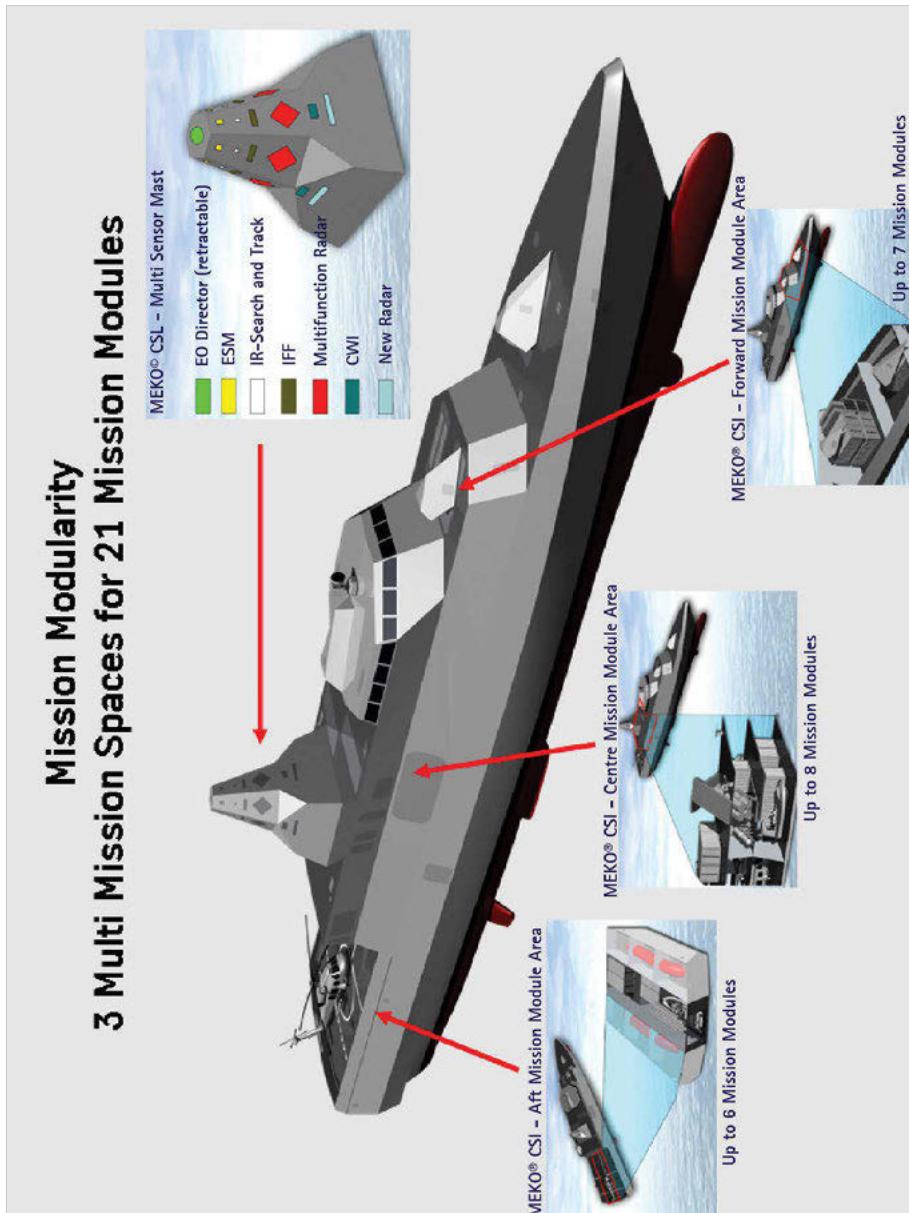


Figure 6: The MEKO® CSL Mission Modularity as the next step in MEKO® evolution

The multi-mission zones of the MEKO® CSL enable a vessel to be rapidly re-configured to different mission configurations, or to re-configure identical ships within a class.

This is achieved by mission modules that form a mission suite of systems focused on, for example, surface warfare or disaster relief. By dedicated installation routes and standard interfaces, mission modules (deployable sensor systems, hospital facilities, off-board vehicles, weapon or other sensor systems etc.) are installed in the mission module zones.

All mission modules are the size of a 20 ft container and can thus be easily transported by land, sea or air worldwide. Up to 21 mission modules can be accommodated in the module areas.

A vessel equipped with the relevant configurations can perform a wide range of roles:

- Peacekeeping missions (planning and carrying out missions in areas affected by natural disasters, humanitarian missions, SAR missions, etc.).
- Combat missions (planning and carrying out missions such as support with firepower, protection of logistics operations, support of troops in military operations, etc.).

Fast Patrol Boats

Blohm + Voss designed a 38m fast patrol boat in the 1980s. Since then these vessels have been in service with the Saudi Arabian police forces (Al Jouf class) and under a licence agreement with the Royal Thai coast guard, among others. With a top speed of 38kts and excellent sea-keeping properties, this is a very well-proven design, perfectly suited for any in-shore coast guard operations.



Figure 7: 38m Fast Patrol Boat

Offshore Patrol Vessels

In today's evolving maritime security situation, offshore patrol vessels provide cost-effective and highly flexible solutions for sustained patrol and policing missions and low-intensity naval operations, and are becoming increasingly important assets for navies and coast guard services.

The gun boat was designed by Hellenic Shipyards and approved by Germanischer Lloyd as a heavy-duty vessel (with low maintenance requirements), and has a hull with a "deep-vee" construction in the forward part and a "round-bilge" configuration in the aft part. The hull is constructed of steel and the superstructure of aluminium. The gun boat is capable of maintaining a reasonable speed in adverse weather conditions. It is equipped with antiballistic protection in critical spaces.

Four vessels of this type were constructed at Hellenic Shipyards SA for the Hellenic Navy from 2003 to 2005.



Figure 8: Gun Boat "Machitis" class

Arising from our extensive experience in high-quality container ships and special purpose commercial vessels, the Guardian OPV is designed to commercial building standards, with extensive use of commercial off-the-shelf (COTS) products, both aspects which make for a very cost-effective and robust OPV, a ship that is highly reliable and simple to operate and maintain. The incorporation of large, fast interceptor boats and excellent helicopter operations features provides the Guardian OPV with excellent surveillance, inspection and interdiction capabilities.



Figure 9: The Guardian OPV

Corvettes

As navies focus on operations in the littorals, corvettes are becoming increasingly important fleet assets. The MEKO® A-100 designs recently delivered to the Malaysian and Polish Navies were predecessors to the German Navy's five K130 corvettes.



Figure 10: The class K130 corvette "Braunschweig" for the German Navy

K 130 is optimised for littoral warfare. With this vessel a new type of ship has been introduced into the German Navy and its main focus is on surface surveillance, reconnaissance and anti-surface warfare.

The ship is capable of operating in foreign littoral waters as well as close to foreign coastlines in national or combined operations.

Furthermore the vessel is capable of contributing to joint operations with fire support against stationary land targets.



Figure 11: The Visby class STEALTH corvette for the Swedish Navy

Another type of corvette in the product portfolio of TKMS is the Visby class Stealth corvette in service with the Swedish Navy.

The Visby, with its smooth exterior hull and superstructure made of non-magnetic composite materials, concealed onboard equipment and low-signature construction, is barely visible to radar and sets new standards with regards to the stealth properties of naval surface vessels.

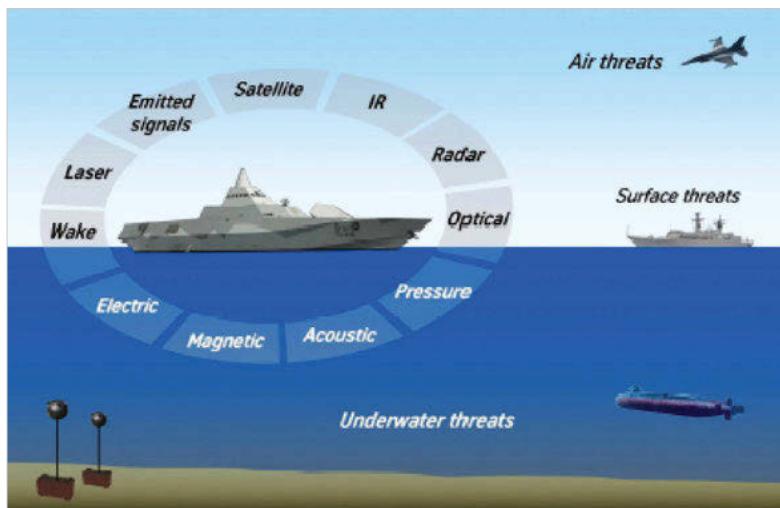


Figure 12: VISBY GHOST™ technology: Genuine HOlistic STealth for the entire spectra

Visby is a ghost ship in every aspect, designed to blend into all types of environmental background noise. Visby's visual details are minimal. Everything possible has been hidden: equipment, weapons and active sensors are built into the structure or concealed under hatches. Antennas are flush mounted, behind frequency-selective surfaces. Visby's hard-edge hull and flat-surface superstructure limit radar reflection to four main directions. Radar-absorbing material is used wherever low-signal properties are difficult to achieve.

Frigates

The MEKO® A-200 is the latest operational product of the tough and versatile MEKO® frigate and corvette line of 60 ships serving 11 navies worldwide. The A-200 is a general-purpose frigate built for combat, featuring the revolutionary CODAG-WARP propulsion, all-round stealth and superb sea-keeping and helicopter operations.

The main features of the MEKO® A-200 include the following:

- Complete new approach to hull shaping.
- Dramatic reduction of radar, infra-red, acoustic and magnetic signatures.
- CODAG/WARP water jet/ propeller propulsion.
- Funnel elimination.
- Kevlar®/ceramic/steel sandwich armour panels.

Four of these vessels were delivered to the South African Navy between 2005 and 2007. They have since proven their operational capabilities.



Figure 13: The MEKO® A-200 frigate for the South African Navy

Amphibious Vessels

The MHD 200 is designed to meet mission requirements for a wide range of strategic challenges, particularly to provide the ability to rapidly and effectively transport adequate land forces and their equipment from secure bases to where needed and sustain them; to project these forces ashore by helicopters or from landing craft where the required communications infrastructure such as secure ports and airfields are not available, and to provide a secure in-theatre command and control platform for the operation.



Figure 14: MHD 200 – The superior sea-lift and sea-base vessel

The MHD 200 platform is an invaluable asset for sea-based helicopter operations. With a large dock integrated into the vessel it provides transport facilities for about 800 embarked personnel.

Submarines

ThyssenKrupp Marine Systems is the world market leader when it comes to non-nuclear submarine production with 169 boats for 20 navies contracted world wide since 1960.

Like all her predecessors, Class 209/1400mod is a compact and reliable submarine featuring the most recent technology, high combat strength, extraordinary battery payload and low signatures. Her comprehensive mission profiles include not only maritime defence and conflict prevention, but also surveillance and intelligence gathering tasks. She is also ideally suited for special operation missions.

In order to increase their indiscretion rate, Class 209 boats may be equipped with a Fuel Cell or Stirling plug-in section for air-independent submarine propulsion. Such integration can be done during a regular midlife modernisation and leads to a considerable increase in submerged endurance.



Figure 15: The U209/1400 MOD class submarine "Queen Modjadji" for South Africa

THE CONCEPT OF INDUSTRIAL PARTNERSHIP

As prime contractor we take complete responsibility for delivering a "turn-key" solution to our customers. This includes integral life-time support, training, education for First-of-Class and follow-on purposes, as well as technical and management assistance. Furthermore we conduct cooperation programmes for the assembly and modernisation of naval surface vessels and submarines in the customer's country. We offer competent assistance in infrastructure modernisation and upgrades for local construction and services. Solutions for financing and technology transfer complete our products and services portfolio.

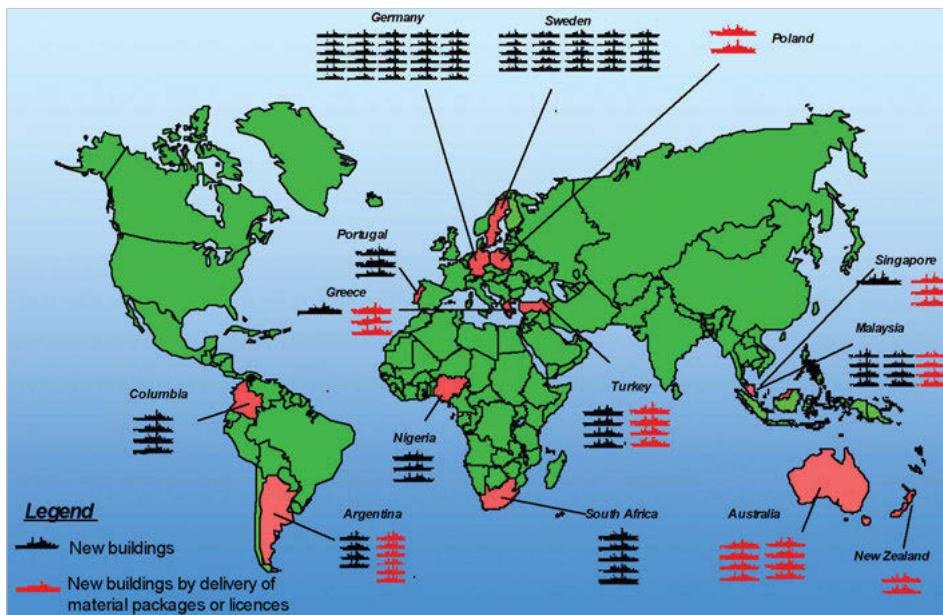


Figure 16: 50-year Track Record: TKMS Frigate and Corvette Deliveries 1957- 2008

CONCLUSION

Supporting this conference, the first of its kind in Southern Africa, was a special and unique experience for ThyssenKrupp Marine Systems. Not only listening to all the valuable presentations, but also participation in the lively discussions gave us direct first-hand information on Southern African maritime security concerns and their economic impacts. We hope that this structured academic exchange will further facilitate security cooperation within the Southern African region.