

# **FINAL REPORT**

## **DEFINITIONAL MISSION FOR INTEGRATED DEEPWATER SYSTEM IN SOUTHERN AFRICA**

**September 2003**

TDA03-Q-076

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The U.S. Trade and Development Agency (USTDA) advances economic development and U.S. commercial interests in developing and middle income countries. The agency funds various forms of technical assistance, feasibility studies, training, orientation visits and business workshops that support the development of a modern infrastructure and a fair and open trading environment.

USTDA's strategic use of foreign assistance funds to support sound investment policy and decision-making in host countries creates an enabling environment for trade, investment and sustainable economic development. Operating at the nexus of foreign policy and commerce, USTDA is uniquely positioned to work with U.S. firms and host countries in achieving the agency's trade and development goals. In carrying out its mission, USTDA gives emphasis to economic sectors that may benefit for U.S. exports of goods and services.

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# **I. Executive Summary**

## **A. *DM Trip Overview***

On behalf of the U.S. Trade and Development Agency (USTDA), Finance Specialists LLC (CA), a California-based international consulting firm, represented by Kristina Peterson (DM Consultant), conducted a multi-sectoral, multi-country Definitional Mission (DM) in South Africa and Mozambique during the weeks of July 14-27, 2003. Additional information was gathered through research about Namibia's maritime security situation. The focus of the DM was to analyze potential export sales related to the U.S. Coast Guard's new Integrated DEEPWATER System (IDS) program and other U.S. maritime security products and services to South Africa, Namibia, and Mozambique.

## **B. *General Project Description***

The USCG has an aging and obsolete fleet of ships and aircraft that are very expensive to operate and maintain. Up until now the USCG has not invested in new technologies for decades. The IDS program is the largest acquisition program ever undertaken by the U.S. Coast Guard (USCG). As presently approved, it will include \$17 billion in new acquisitions over a twenty year period, with an additional ten year period of life cycle support. It is designed to provide an affordable solution to the multi-faceted maritime needs of the United States. The IDS procurement process focused on sixty-seven measures of operational effectiveness, the primary goal of which is to allow the Coast Guard to effectively respond anywhere along a 2500 mile stretch of coastline within 30 minutes. The two priorities of the IDS program, according to the June 11, 2001 program charter, are to increase the operational effectiveness of the USCG's capital assets and to reduce the total cost of ownership. These priorities should be of significant importance to developing and middle-income countries which have significant military, economic and politically motivated maritime missions to accomplish, but limited resources to devote to maritime programs. The DM addresses the missions that various organizations in South Africa, Mozambique and Namibia seek to accomplish with their maritime programs, and the missions that may be accomplished more effectively given the necessary equipment and systems.

This Definitional Mission is unique because it compares the potential for U.S. maritime security exports for both civilian and military end-users. Most U.S. government agencies have only considered sales from either a public sector (military procurement) or private sector (civilian purchases) standpoint, whereas a more integrated approach is warranted to advance increasingly urgent U.S. homeland security policy goals overseas. Besides demand, financing availability is also very important for sales to both sectors. Key policy issues raised by the DM are addressed in a separate white paper entitled "Maritime Security Issues in Southern Africa: Implications for U.S. Policy".

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**C. Recommendations and Key Considerations**

The DM Consultant has concluded that the maritime security sectors in South Africa, Mozambique and Namibia are in need of policy changes as well as systems, equipment and training upgrades. As one of our interviewees said regarding maritime security, “You can’t control what you don’t patrol”. The U.S., under the new direction of the Department of Homeland Security, has significant training expertise, superior technology and globally-competitive equipment which could be exported or otherwise transferred to these three countries to improve their ability to patrol and control their

maritime assets. There are two key drivers for sales of U.S. exports to the region: 1) demand, and 2) availability of financing.

Of the three countries, South Africa is best positioned in terms of its existing capabilities and financial position to provide most elements of maritime security in the context of U.S. Coast Guard functions. The organization that comes closest to the USCG in South Africa is the South African Maritime Safety Authority (SAMSA). SAMSA has no law enforcement authority but does provide Search and Rescue, safety training, mariner certification, and environmental pollution prevention and remediation. Fisheries protection is provided by the Department of Environmental Affairs, Marine Coastal Management (DEAT/MCM) division. At present, these two agencies only possess three patrol boats, one turboprop aircraft and some oil pollution prevention equipment to perform their missions; the rest is supplied by private companies by contract, some is leased when necessary, and some is provided on an *ad hoc* basis by the South African Air Force and Navy. DEAT/MCM is taking delivery of four new patrol boats over the next year and a half, which critics have called too slow to catch sophisticated illegal fishing vessels and not sufficiently equipped with radar, night vision and communications systems to be effective.

In terms of demand, South Africa (SA) has low demand for foreign-, especially U.S.-, manufactured vessels, some helicopters and unmanned aerial vehicles. SA production of these types of equipment satisfies most local demand and provides the country with substantial export earnings. When it does source internationally, its purchases have usually been made in Europe (UK, Sweden, and Germany, among others). This is unlikely to change for these asset classes for historical and political reasons. However, SA does have demand for U.S. monitoring, control and surveillance systems as well as avionics upgrades for C-130 aircraft and some smaller maritime patrol aircraft. These assets hold the most promise for U.S. exports.

In terms of financing, South Africa procures its military assets through ARMSCOR, paid for by the SA Treasury budget for such items. For dual-use maritime assets, the financing situation is less clear. SAMSA is administered through a fund and falls under the National Department of Transportation. MCM is administered through a fund and falls under the Department of Environmental Affairs and Tourism. The South African Police perform various other security functions that may have maritime components to them. They follow their own internal procurement process and their budget is part of the Department of Safety and Security, provided by the SA Treasury. The South African government has sufficient financial resources to purchase any of the maritime security equipment and systems it may need, but has not made the organization and operation of a "Coast Guard" a political priority to date. South Africa can easily fund its purchases from its current budget and would be able to take advantage of the many export credit agency finance schemes available to it. For equipment purchases to be used for maritime security by private sector companies, bank financing is readily available from South African and international banks for creditworthy firms, so long as the equipment does not have offensive weapon capabilities. Export credit agency schemes are also available to the private sector.

Namibia has the second highest per capita income of the three countries under consideration and is also financially capable of making investments in upgrading its maritime security infrastructure. They have been the most consistent country in actively attempting to manage their fisheries resources and in participating in international organizations towards this objective. To put Namibia's economy into perspective versus South Africa's, Namibia's total GDP in 2002 was less than 5% of SA's total GDP. However, Namibia has put more efforts into fisheries protection than the other two countries due to its historically large contribution to total GDP. The Maritime Wing of the Namibian National Defense Force has a role in augmenting civil (police) offshore patrol forces, particularly providing the means and the expertise to execute enforcement action effectively. Namibia is in the process of organizing a formal Navy, which will have official maritime security objectives.

In terms of demand, Namibia has a smaller coastline than South Africa and thus a smaller area to patrol. While it has only 4% of the population of South Africa, fishing and offshore diamond mining are important sources of foreign exchange income for the country. Like South Africa, it has an affinity for purchasing from Europe for historical and political reasons. International bank and export credit agency long-term financing is readily available to the Namibian government and private sector companies for purchase of maritime security equipment and systems.

Mozambique is one of the poorest countries in the world. As of 2002, Mozambique was listed as 170<sup>th</sup> out of 175 countries in the United Nation's Human Development Report Index. Sixty percent of its budget is derived from official development assistance (i.e., aid). Its total GDP in 2001 was less than 2% of South Africa's total GDP. In terms of demand, there is a pressing need for the government to develop a maritime security presence to fend off illegal fishing activities that are rampant in Mozambican waters. Their ability to adequately patrol their waters and enforce their fisheries laws would provide additional revenue to the government in the form of increased profits from legal fish exports, increased fees from the issuance of licenses and increased fees from the enforcement of penalties for illegal fishing.

Finance Specialists LLC (CA) makes the following recommendations to USTDA regarding follow-up activities associated with this DM:

- Develop an Orientation Visit (OV) for Southern African officials interested in purchasing new or upgrading their existing Monitoring, Control and Surveillance Systems (MCS). Invite officials and civilians involved in policy and day-to-day management of fisheries and marine environmental policy and search and rescue operations, including SAMSA, NDOT, DEAT, Pertec, Smit Marine, Namibian and Mozambican fisheries officials, USTDA, Eximbank, U.S. banks and top U.S. suppliers. The OV should showcase U.S. equipment and systems that are useful for monitoring the marine environment for illegal fishing and pollution control, and oceanographic and navigational information and communications systems. There should be input from NOAA and the U.S. Department of Commerce regarding the U.S. suppliers with the most useful and cost-effective systems, and this should drive the potential locations of the OV.
- Host a technical symposium or conference on U.S. maritime security products and services for coastal African countries, to be held in South Africa. The focus should be on civilian and military products and services where the U.S. has clear technological and/or economic competitive advantages, such as MCS, maritime patrol aircraft, unmanned aerial vehicles, and smaller patrol vessels. Foreign, regional and domestic banks and other financial institutions should be included to optimize potential financing for these imports. Include assistance or participation from the UN Food and Agriculture Organization in Rome, Italy, which has sponsored a recent paper on MCS in developing countries.
- Assist NOAA in providing training in fisheries law enforcement to fisheries officials in South Africa and Mozambique.
- Commission feasibility studies for various key countries to develop their own MCS systems based on U.S.-manufactured equipment.
- Follow-up on the following specific export opportunities mentioned during the course of the DM: Raytheon, MD Helicopters, DEEPWATER.

## **II. Mission Overview and Objectives**

### **A. Overview of DM Planning and Events**

An overview of the manner in which the definitional mission was carried out and a summary of the key meetings are provided below:

1. In preparing to undertake this assignment, Finance Specialists LLC (CA) researched the maritime security sector by consulting information from the UN Food and Agriculture Organization, the World Bank, U.S. Coast Guard, the Central Intelligence Agency, the National Oceanic and Atmospheric Administration (NOAA), the State Department, U.S. Eximbank, the Overseas Private Investment Corporation and various other resources.
2. The DM consultants, Kristina Peterson and Bert Nelson, also traveled to Washington, DC on June 13, 2003, to meet with representatives from the U.S. Trade and Development Agency, U.S. Coast Guard, the U.S. Department of Commerce, the U.S. Maritime Administration, and U.S. Eximbank and Lockheed Martin.
3. The DM consultants were instructed to speak with exporters of all types of maritime security solutions, not only those of Lockheed Martin and Northrop Grumman as part of the DEEPWATER program. The DM consultants spoke with other U.S. suppliers including Raytheon, MD Helicopters, and with NOAA's Office of Fisheries Law Enforcement.
4. In addition, the DM consultants reviewed pertinent materials and project briefings from the U.S. Trade and Development Agency, as well as material from the U.S. Foreign Commercial Service, various international press articles and internet sources.

A summary of the meeting itinerary – which was arranged with the assistance of the USTDA Johannesburg Office and the Commercial Consul of the U.S. Embassy in Johannesburg before and during the weeks of July 14 through 27, 2003 – is presented below:

July 16 – Cape Town, South Africa

- Pertec, Alastair Pettie and Todd Gaines,
- Jane's Defence Weekly, Helmoed-Römer Heitman,

July 17 – Cape Town, South Africa

- Concord Maritime Academy, Herman Zaaiman,
- U.S. Consul General, Cape Town, Valli Moosa,
- Department of Environmental Affairs and Tourism, Marine Coastal Management, Marcel Kroese,

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- Smit Marine, David Main, Eric Walker and Gordon Laing,

July 18 – Cape Town, South Africa

- Michael Movius, RRS (phone),
- University of the Western Cape, Prof. Renfrew Christie,
- South African Maritime Safety Authority, Capt. Bill Dernier,
- Regional Joint Task Force for Maritime Patrol, Capt. Johan Carstens (phone),

July 21 – Maputo, Mozambique

- Ministry of Planning and Finance, Dr. Argentina Mause and Domingos Lambo,
- Banco Standard Totta De Moçambique, Carlos Ramalho,
- U.S. Commercial Consul, James Story and Elizabeth Filipe,
- U.S. Army and Defense Attaché, Ivan Evancho,
- Ministry of Defense, Henrique Banze,
- Ministry of Fisheries, Alfredo Massinga,
- U.S. Agency for International Development, Tim Born (phone),

July 22 – Johannesburg, South Africa

- U.S. Ambassador to South Africa, Cameron Hume,
- USTDA, Lance Ludman,
- U.S. Commercial Consul, Will Center,
- U.S. Commercial Consul, Jon Kuehner,
- Aerosud, Pierre Dippenaar,

July 23 – Johannesburg, South Africa

- Denel Aviation, Grant Sampson,
- USTDA, Lance Ludman,

July 24 – Johannesburg, South Africa

- Nedbank, Arnold Bucheli, et al.,
- Rand Merchant Bank, Marlene Hesketh, et al.,
- Citibank, Simon Woodward (phone),

July 25 – Pretoria, South Africa

- BAE Systems, Stewart McIntyre,
- National Department of Transportation, Dumusani Ntuli,
- U.S. Agency for International Development, Rebecca Black.

## **B. *Mission Tasks and Objectives***

The following objectives and associated activities were established for Finance Specialists LLC (CA) by USTDA prior to the trip to Southern Africa:

- 1) Meet with USTDA's Contracting Officer's Technical Representative (COTR), Bryce Ternet, to discuss details of the contract assignment,

- 2) Meet with the DEEPWATER team, the Department of Commerce and others in Washington, DC, to discuss the DM in mid-June 2003,
- 3) Conduct discussions with financial institutions, U.S. government agencies and U.S. firms with experience in the maritime security sector, including Lockheed, Raytheon, MD Helicopters, among others,
- 4) Provide the COTR for approval a pre-visit written report of 2-4 pages containing preliminary findings on project viability, financing options, U.S. company interest in the projects, a list of contacts to be made during the visit and a pre-visit checklist of issues, information and questions to be utilized during the visit,
- 5) Travel to South Africa, Mozambique, and Namibia, if possible, to meet with relevant officials and with the U.S. Embassy in each country. The Contractor was instructed to brief and debrief the Commercial Section at the U.S. Embassy upon arrival and prior to departure on the visit. According to the USTDA representative in Johannesburg, Lance Ludman, the visit to Namibia was optional based on perceived lack of interest in meetings for the DM by the Namibian government,
- 6) Review overall economic, financial and technical viability of U.S. exports to the maritime security sectors of these three countries. This analysis should include: an assessment of each project's risks, and consequently its financial viability; the priority of the project and the political/social support it has; the likelihood and potential sources of financing; and capability and experience of the project sponsor,
- 7) Provide expert analysis on the potential procurement of U.S. goods and services for project implementation by categories and dollar values,
- 8) Assist USTDA in planning a strategy aimed at achieving the maximum possible success for project implementation and enhancing the likelihood of U.S. export sales to the project. The Contractor should use a project life-cycle approach in formulating recommendations for USTDA. This means that the Contractor's recommendations should take into consideration the entire range of USTDA program capabilities. Possible funding activities include orientation visits, technical symposia, feasibility studies, and alternative technical assistance.
- 9) Develop a sound budget and Terms of Reference (TOR) for the technical assistance and feasibility study, if recommended, or for any other recommended USTDA-funded activity.

**C. *USTDA Focus - Civilian vs. Defense-Related***

The U.S. Trade and Development Agency (USTDA) mission is to advance economic development and U.S. commercial interests in developing and middle income countries.

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USTDA's strategic use of foreign assistance funds to support sound investment policy and decision-making in host countries creates an enabling environment for trade, investment and sustainable economic development. Operating at the nexus of foreign policy and commerce, USTDA is uniquely positioned to work with U.S. firms and host countries in achieving the agency's trade and development goals. In carrying out its mission, USTDA gives emphasis to economic sectors that may benefit for U.S. exports of goods and services.

USTDA has traditionally supported exports for civilian and dual-use purposes, rather than purely military defense-related. As such, this DM focuses more on the civilian aspects of maritime security, especially fisheries and wildlife protection, environmental surveillance and protection, and search and rescue. It will describe the U.S. agencies involved in foreign military sales for the purposes of counter-terrorism, alien migration and drug interdiction, and customs enforcement, noting that these agencies may have sole responsibility for government-to-government sales in these sectors. Additionally, American-made products and services that may have incidental military uses are often subject to stringent export control regulations and could be restricted from being sold abroad legally, regardless of market demand.

### III. Project Background and Overview

This Definitional Mission explores potential demand for maritime security solutions in Southern Africa. It grew out of joint cooperation between the U.S. Department of Commerce and the U.S. Coast Guard to promote DEEPWATER internationally. Growing economic and security concerns, including counter-terrorism cooperation, environmental and fisheries protection, and search and rescue operations, highlight the necessity for U.S. partnership with the Southern African states regarding maritime coastal protection. There has been interest in developing this initiative by government ministries in South Africa, Namibia, and Mozambique. The purpose of the DM was to evaluate the financing ability of the potential export sales; the development priority of the exports sales for the host countries; the U.S. export potential of the sales; and the general strengths and weaknesses of the individual sales.

#### A. Background on the U.S. Coast Guard

The U.S. Coast Guard (USCG) was founded as the Revenue Cutter Service in 1790. The USCG celebrated its 213th anniversary on August 4, 2003. The Coast Guard's mission includes:

**Maritime Safety:** Eliminate deaths, injuries and property damage associated with maritime transportation, fishing, and recreational boating. The Coast Guard's motto is *Semper Paratus* ("Always Ready"), and the service is always ready to respond to calls for help at sea.

**Maritime Security:** Protect America's maritime borders from all intrusions by: (a) halting the flow of illegal drugs, aliens, and contraband into the United States through maritime routes; (b) preventing illegal fishing; and (c) suppressing violations of federal law in the maritime arena.

**National Defense:** Defend the nation as one of the five U.S. armed services. Enhance regional stability in support of the National Security Strategy, utilizing the Coast Guard's unique and relevant maritime capabilities.

**Mobility:** Facilitate maritime commerce and eliminate interruptions and impediments to the efficient and economical movement of goods and people, while maximizing recreational access to and enjoyment of the water.

**Protection of Natural Resources:** Eliminate environmental damage and the degradation of natural resources associated with pollution from maritime transportation, fishing, and recreational boating. Prevent contamination by exotic species due to improper ballasting and shipping operations. Protect against illegal dumping and improper disposal of trash and waste liquids.

The United States has 5,525 miles of border with Canada and 1,989 miles with Mexico. The U.S. maritime border includes 19,924 miles of shoreline, a 3.4 million square mile Exclusive Economic Zone (EEZ) and 350 official ports of entry.

Unlike many organizations responsible for maritime border security internationally, the USCG is responsible for both **maritime law enforcement** and **maritime domain awareness** (all non-law enforcement functions related to the maritime sector). The USCG operates in all maritime regions - inland, coastal and deep-water – in environments ranging from deep Arctic and Antarctic to equatorial on a 24-hour per day, 365 days per year basis. The seven main functions performed by the USCG are:

- Fisheries and Wildlife Protection,
- Environmental Surveillance and Protection,
- Search and Rescue and Maritime Safety,
- Counter-Terrorism,
- Alien Migration Interdiction Operations,
- Customs Enforcement and Tariff Collection,
- Drug Interdiction and Law Enforcement.

In performing the DM, Finance Specialists LLC (CA) researched each of these seven functions and how they are performed in each country. Individuals with specific knowledge about each function were interviewed in-depth.

The USCG now reports to the Department of Homeland Security (DHS), under Secretary Tom Ridge, which is a cabinet level post created by President George W. Bush on March 1, 2003. In reorganizing twenty-two previously disparate domestic agencies into one department (DHS) to protect the nation against threats to the homeland, only two agencies were incorporated into the DHS largely intact. Those two agencies were the USCG and the Secret Service. DHS is now organized along the lines of four directorates: Border and Transportation Security, Emergency Preparedness and Response, Science and Technology, and Information Analysis and Infrastructure Protection. The USCG is part of the Border and Transportation Security directorate.

## **B. U.S. Coast Guard Budget**

Until 1998, the USCG budget was approximately \$4 billion, of which half was committed to personnel costs and only \$400 mln was left for new equipment acquisitions. The USCG budget, as part of the Department of Transportation, was \$6 bln in 2002<sup>1</sup>. This climbed to \$7.1 bln<sup>2</sup> in 2003 as a result of the reorganization under the new DHS and increased mission responsibilities. Congress is actively debating budget allocations for DEEPWATER now, with some senators proposing to shorten the delivery time of all DEEPWATER assets by ten years. The ramifications of this could include a

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<sup>1</sup> “Summary of Brookings Institution Homeland Security Report”, Michael O’Hanlon, et al., May 6, 2002.

<sup>2</sup> “Budget in Brief”, U.S. Department of Transportation, Fiscal Year 2003 Summary.

\$1 billion or more increase in the 2004 USCG budget for DEEPWATER development, with the 2005 budget also increased by an as yet undetermined amount.

### **C. The DEEPWATER Program**

The Integrated DEEPWATER System (IDS) program was won by Lockheed Martin and Northrop Grumman (the Prime Contractors) on June 25, 2002. Since that time, IDS has grown to 200 full-time employees and 200 USCG personnel co-located in offices in Rosslyn, Virginia. There are 700 potential sub-contractors for the program. It will ultimately provide the U.S. Coast Guard (USCG) with three classes of new cutters and their associated smaller boats, a new fixed-wing manned aircraft fleet, a combination of new and upgraded rotary-wing aircraft fleet, both cutter-based and land-based unmanned aerial vehicles (UAVs) and a new Common Operational Picture command, control, communications and intelligence integration system, all supported by a common, fully-integrated logistics management system.

C-130 long-range aircraft are not part of the IDS program, but are available today and used by both the U.S. Coast Guard and South African Forces. The C-130 is the only South African asset capable of performing long-range missions to the Prince Edward Islands near Antarctica.

The major equipment items included in the IDS program are:

- **34 Vertical Take-Off and Landing (VTOL) recovery and surveillance helicopters.** These platforms are projected to contain about 60% U.S. content and 40% Italian content. The majority of the U.S. content is in systems, as the airframe is produced by Agusta Bell Helicopters in Vergiate, Italy. This platform is available today, however pricing and delivery are subject to specific mission configuration and systems options.
- **35 Marine Patrol Aircraft (MPA).** These platforms are projected to contain about 65-70% U.S. content and 30-35% Spanish content. The airframe is made in Spain, and the majority of the U.S. content is in the electronic systems. This platform will be available starting in 2005.
- **69 Vertical Take-Off and Landing (VTOL) Unmanned Aerial Vehicles (UAV),** more commonly known as drones. There are two main systems, the Bell Eagle Eye and the High Altitude Endurance UAV. These systems will not be available until 2006 or later, however, they may be one of the most attractive export possibilities for the IDS, depending on how they are priced.
- **8 large National Security Cutters,** available 2006,
- **25 Offshore Patrol Cutters,** available 2012,
- **58 Fast Response Cutters,** available 2016,

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- **42 Long-range Interceptors and Short-Range Prosecutor Vessels**, the availability of which will be determined by the end of 2003. Vessels of this type are available today from a number of U.S. manufacturers including Safeboat in Oregon and Trinity Marine in Texas and Bell-Halter in Louisiana.

No price lists are available at this time from the Prime Contractors for most of this hardware, and in every case, price and delivery are very configuration-specific. As a general observation, U.S. exports are not very competitive for the larger aircraft and ship platforms, since some developing countries have their own indigenous industries, which often derive competitive advantage from inexpensive labor and raw materials. Because of this, the most successful IDS exports are likely to be the most technologically sophisticated ones, especially where the overall acquisition cost is relatively affordable. This suggests that the UAVs and the many IDS electronic system packages may offer the best export potential, especially when they can be integrated or incorporated into indigenous platforms. A possible exception to this observation may be the small craft. The U.S. small craft industry is very competitive and produces some of the best quality vessels in the world. Also, as a part of the bidding process for the IDS contract, Lockheed Martin developed a proprietary computer model to define the mission requirements, possible options and best configurations for the USCG's maritime equipment needs. Consulting services such as this, along with systems integration and design, may be some of the best export opportunities for U.S. firms.

## **IV. Missions and Capabilities – U.S. Coast Guard Comparison**

### **A. South Africa**

There is no Coast Guard *per se* patrolling South Africa's coastline. South Africa relies upon a patchwork of agencies, equipment and responsibilities to perform the functions of a Coast Guard in the U.S. context. It has an EEZ of 1.04 mln square miles, one-third the size of the U.S. EEZ. The South African Navy and Air Force are not specifically tasked with responsibility for maritime security or fisheries enforcement. They view their role as primarily to defend the country from foreign military attack.

SA has had a historically important role in international arms production through its ownership of various public sector-owned organizations such as ARMSCOR and Denel, which was part of ARMSCOR until the end of apartheid. Therefore, SA has often been self-sufficient from a military equipment procurement standpoint, needing little in the way of imported equipment for its military self-defense needs. Indeed, it is a significant arms exporter to countries like Angola and Tanzania.

For historical and practical reasons, South Africa has organized its maritime security under various public and private sector organizations and authorities using the Australian model, contrary to the single-agency, "law enforcement plus domain awareness" approach in the U.S. Where they do not have the need or desire to own equipment outright, South African government agencies have contracted with various private parties to complete many of the tasks assigned to a solely public sector government agency in the U.S. These agencies have adopted a type of "pay-as-you-go" approach to maritime security, lessening the capital expenditure and operating costs of having public sector equipment and personnel standing ready to go at any time. However, the reduced costs translate into slower response times for search and rescue operations, environmental cleanup after oil spills, and law enforcement in the fisheries, customs, alien migration and drug interdiction sectors.

### **B. Mozambique**

Mozambique is another young nation, having only declared independence from Portugal in 1975, after almost 500 years of colonial rule. Upon independence, the country had a civil war from 1975 to 1992, which destroyed the economy and created deep political rifts in the country. In 1992, a ceasefire was called and Mozambique has been struggling to reach its pre-war economic growth levels ever since. As an example, in 1974, the port of Maputo was one of the busiest ports in Africa. It handled a tremendous amount of volume which was approximately 14 mln tons of cargo per year. Though traffic and cargo volume has increased at the port over the last several years, the port in the 1995-

1996 timeframe reported throughputs of only approximately 20% of what they were in 1974-75.<sup>3</sup>

The functions performed by the USCG are performed in Mozambique by the Ministry of Defense, Fisheries, Agriculture and Transportation. It has an EEZ of 493,672 square kilometers (190,607 square miles)<sup>4</sup>.

Prawn exports are the largest single export item from Mozambique after aluminum, accounting for \$81 mln in 2001, 11.5% of total exports.<sup>5</sup> Unfortunately, there is no organization effectively acting in a fisheries law enforcement capacity. This situation is routinely and viciously exploited by illegal, unreported and unregulated (IUU) fishing activities engaged in by fishermen from many nations, including Spain, China, Taiwan, Thailand and others.

### **C. Namibia**

South Africa occupied the German colony of South-West Africa during World War I and administered it as a mandate until after World War II, when it annexed the territory. Namibia achieved independence from South Africa in 1990. While still a young nation, it has a vibrant fishing industry and no Coast Guard *per se*. It has an EEZ of 536,805 square kilometers (207,261 square miles)<sup>6</sup>. The National Defense Forces (NDF) of Namibia have a Maritime Wing, which is the closest entity to a “Coast Guard” that operates in the country. In crisis or wartime, the NDF would have principal responsibility for defending Namibia's maritime domain and coastline against attack. To ensure that the NDF would be able to undertake this task when required, a professional military maritime force was created. This force trains and operates routinely as part of an offshore protection force to develop the capacity. In peacetime, the Maritime Wing augments civil (police) offshore patrol forces, particularly providing the means and the expertise to execute enforcement action effectively. Specific tasks include assisting civil (police) forces to combat illegal immigration, smuggling (arms, drugs etc.) and threats to the environment; conducting maritime surveillance, and search and rescue; and assisting the Ministry of Fisheries with enforcing the fisheries protection regime. A longer term peacetime task is the protection of offshore oil, gas, diamonds and other installations.<sup>7</sup>

### **D. Other African and Indian Ocean Countries**

**Southern African Development Community (SADC)** - SADC consists of Angola, Botswana, the Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe. SADC was established in 1992. According to the UN Fisheries and Agriculture Organization (UNFAO), SADC only accounts for 1.5% of total world fish production. It

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<sup>3</sup> “Definitional Mission Report – Development of Port Projects in South Africa, Mozambique and Mauritius”, TDA 96-003B, August 1996, p. 14.

<sup>4</sup> Claimed Exclusive Economic Zones, Earthtrends, World Resources Institute, 2003.

<sup>5</sup> The World Bank, Mozambique at a glance, September 2002.

<sup>6</sup> Claimed Exclusive Economic Zones, Earthtrends, World Resources Institute, 2003.

<sup>7</sup> Website of the Government of Namibia, [www.grnnet.gov.na](http://www.grnnet.gov.na).

had \$195 mln of fish imports and \$892 mln of fish exports in 2000 and is responsible for 7.2% of world total inland fish production.<sup>8</sup> The UN FAO considers three regions to be the areas which have the lowest incidence globally of fully exploited, overexploited, depleted or recovering fish stocks and which have some underexploited or moderately exploited stocks - the Eastern and Western Indian Ocean and the Western Central Pacific.<sup>9</sup> Therefore, there is potential for better management of fish stocks along the East Coast of Africa bordering the Western Indian Ocean, which includes Mozambique.

**Tanzania** - The U.S. Department of Commerce has received a letter dated May 2003 from the Tanzanian Ministry of Fisheries requesting assistance for improved maritime security of its fishing grounds. In 2000, Tanzania had the seventh largest inland capture fish production in the world (280,000 tons), after China, India, Bangladesh, Uganda, Indonesia and Russia.<sup>10</sup>

**Kenya** - Kenya has good shipyards, but little access to spare parts and little funding. It is not part of the South African Development Community (SADC) and has a fishing industry which is largely unregulated and inadequately patrolled and would benefit from improved maritime security. It was also 10<sup>th</sup> in the world in terms of inland capture fisheries production in 2000.<sup>11</sup>

**The Seychelles** - The Seychelles have signed a ten-year Memorandum of Understanding with the Concord Maritime Academy (Pty) Ltd. of Cape Town, South Africa, to hire the firm as a "private Coast Guard" to patrol their vast Exclusive Economic Zone of 1,288,643 sq. km. (497,547 square miles), more effectively than they can themselves.<sup>12</sup> Concord will provide all equipment, including vessels and aircraft, and will take their payment in fish. They are allowed to harvest 50,000 tons of blue fin tuna per year, for which they will subcontract to professional fishing companies with their own fishing equipment and vessels.

Concord will be involved with the direct marketing of the fish to foreign markets and will be compensated for their Coast Guard efforts in turn. The rationale for the Government of the Seychelles seems to be that, even if Concord were to improperly increase its catch, they are still likely to lose less fish revenue this way than when they were unable to police their waters themselves. Concord has also recently submitted a proposal to the government of Mozambique. (Coincidentally, the contact at Concord, Herman Zaiman, had been hosted by John Richter at the U.S. Trade and Development Agency for a 1997 Orientation Visit to the U.S. to investigate purchasing pollution control and oil spill recovery equipment. He ultimately purchased \$150,000 worth of this equipment from Slickbar Company in Texas.)

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<sup>8</sup> United Nations Food and Agriculture Organization, World Review of Fisheries and Aquaculture, p. 146.

<sup>9</sup> United Nations Food and Agriculture Organization, World Review of Fisheries and Aquaculture, p. 26.

<sup>10</sup> United Nations Food and Agriculture Organization, World Review of Fisheries and Aquaculture.

<sup>11</sup> United Nations Food and Agriculture Organization, World Review of Fisheries and Aquaculture.

<sup>12</sup> Claimed Exclusive Economic Zones, Earthtrends, World Resources Institute, 2003.

## **V. Other U.S. Government Organizations and Programs Related to Maritime Security**

### **A. *The National Oceanic and Atmospheric Administration (NOAA)***

NOAA has four missions: 1) protect, restore, and manage the use of coastal and ocean resources through ecosystem-based management, 2) support the Nation's commerce with information for safe, efficient and environmentally sound transportation, 3) serve society's need for weather and water information, and 4) understand climate variability and change to enhance society's ability to plan and respond.<sup>13</sup> The National Oceanic and Atmospheric Administration is also responsible for civilian fisheries law enforcement when a case has a nexus to the U.S.

In its March 31, 2003 Strategic Plan, NOAA identified some of the following priorities for the agency:

- Integrated Global Environmental Observation and Data Management System,
- Environmental Literacy, Outreach and Education,
- International Cooperation and Collaboration, and
- Homeland Security.

As part of its mandate, NOAA provides technical training for fisheries and wildlife law enforcement agencies overseas. It also has an automated Fisheries Scientific Computer System that provides immediate access to fish stock abundance and oceanographic environmental conditions. NOAA manages a Monitoring, Control and Surveillance System (MCS) which facilitates real-time information-sharing among international fisheries enforcement officials to combat illegal and unreported fishing activities.<sup>14</sup>

### **B. *Defense Security Cooperation Agency***

The Defense Security Cooperation Agency was founded on a tradition of cooperation between the United States and other sovereign nations with similar values and interests in order to meet common defense goals. It consists of a group of programs authorized by the U.S. Foreign Assistance Act of 1961, as amended, and the Arms Export Control Act, as amended, and related statutes by which the U.S. Department of Defense (DoD) or commercial contractors provide defense articles and services in furtherance of national policies and objectives.

Foreign Military Sales (FMS) and International Military Education and Training (IMET) are two key programs included within DSCA. IMET is conducted solely on a grant basis. FMS can be conducted using cash or FMS Financing (FMF). The Foreign Military Sales (FMS) Program, a U.S. State Department program administered by the Department of Defense, is the government-to-government method for selling U.S. defense equipment,

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<sup>13</sup> U.S. National Oceanographic and Atmospheric Administration website, [www.noaa.gov](http://www.noaa.gov).

<sup>14</sup> U.S. Department of Commerce DEEPWATER briefing, Washington, DC, June 13, 2003.

services, and training. Sales in FY02 were approximately \$12.5 billion. Their mandate states that responsible arms sales further national security and foreign policy objectives by strengthening bilateral defense relations, supporting coalition building, and enhancing interoperability between U.S. forces and militaries of friends and allies. The Department of Defense has launched a major effort to reform the current foreign military sales system and to ensure that this valuable program remains viable in the future.

### **C. U.S. Coast Guard Excess Defense Articles (EDA)**

The USCG International Affairs Office has an active program to dispose of Excess Defense Articles, otherwise known as “EDA” or “legacy assets”, which includes used vessels, aircraft and other equipment, or sales of excess new construction. They have disposed of 99 ships since 1997 through this program. Besides selling legacy assets, they may sell hybrid assets, which may include retrofit of old assets with new DEEPWATER equipment. Used EDA may be given for free to eligible countries through a grant under Article 516, but they must pay for training and spares. Eligible countries may pay for EDA through FMS grant funds or State Department funds or through a reimbursable agreement (for instance, for drug interdiction) with the State Department. They may also pay for EDA directly on their own. End users must request EDA through their Ministry of Defense and this request is usually initiated through the Security Assistance Officer or Defense Attaché of the local U.S. Embassy.

At the time of the DM, the USCG had very limited amounts of EDA available, only some motorized life boats and some small boats of new construction. The USCG received a request from South Africa in November 2002 for assistance to modify and upgrade its existing fleet of C130 long-range aircraft for search and rescue purposes. The USCG aviation section was not able to accommodate the request at the time due to other work requirements. A U.S. manufacturer, Telephonic, gave estimates for the upgrades.

EDA may offer the potential for significant U.S. exports associated with retrofit, overhaul, conversion and upgrade, training, and logistics support and maintenance, however they may not be the best value solution for developing countries. EDA may be “surplus” because it is no longer capable enough to remain in the U.S. inventory, or it may have become too costly to operate and maintain. While it can be readily argued that what may be considered insufficient capability for a U.S. mission may vastly exceed the indigenous capabilities of a developing country, the ownership cost issues are not easily remedied. So, when considering programs based on legacy assets, care must be taken to ensure that the recipient can truly afford the “free” asset and that the asset, properly configured, presents a best value solution.

### **D. Security Assistance Officers at US Embassies**

Security Assistance Officers or Defense Attaché Officers are stationed at each U.S. embassy and many consulates overseas. They are responsible for fielding requests from the local governments for EDA or new equipment sales using the FMS or other program funding.

## **VI. Country Economic and Background Information**

### **A. *Regional***

Each of the three countries included in this DM report are members of the Southern African Development Community (SADC). Each has benefited from initiatives designed to advance economic development in Africa. More recent examples of these include home-grown ventures like the New Partnership for Africa's Development (NEPAD), which is a blueprint for Africa's cultural, economic and social advancement, and also internationally driven initiatives like the Africa Growth and Opportunity Act of the U.S. (AGOA). This law, which gives eligible beneficiary sub-Saharan African countries duty- and quota-free access to the U.S. market, has been described as an important opportunity to foster development on the continent.

## B. South Africa



Important statistics for South Africa<sup>15</sup>:

Land boundaries – 4,862 km (3,021 miles)

Coastline – 2,798 km (1,739 miles)

Population – 43,647,658

Ethnic groups – black 75.2%, white 13.6%, colored 8.6%, Indian 2.6%

Life expectancy at birth: 45.43 years

HIV/AIDS adult prevalence rate: 19.94% (2000 est.)

Total literacy rate: 85%

GDP: \$412 bln (2001 est.)

GDP per capita: \$9,400 (2001 est.)

Unemployment rate: 37% (2001 est.)

Budget revenues: \$22.6 bln

Budget expenditures: \$24.7 bln

Export partners: EU 33%, U.S. 20%, Japan 6%, Mozambique 2.5% (2001 est.)

Import partners: EU 41%, U.S. 11.4%, Saudi Arabia 7.3%, and Japan 7% (2001 est.)

Economic aid recipient: \$539 mln (1999)

Fiscal year: April 1 – March 31

Port and harbors: Cape Town, Durban, East London, Mossel Bay, Port Elizabeth, Richards Bay, Saldanha

Military expenditures: \$1.79 bln (FY01)

Military expenditures as % of GDP: 1.6% (FY01)

<sup>15</sup> CIA World Factbook 2002 – South Africa.

South Africa is an upper middle-income developing country with an abundant supply of natural resources; well-developed financial, legal, communication, energy and transport sectors; a modern infrastructure; and a stock exchange which ranks among the 10 largest in the world. The capital is Pretoria, while the seat of parliament is Cape Town and the Constitutional Court, South Africa's highest court, is located in Johannesburg. Within Sub-Saharan Africa (SSA), South Africa's economy was three times larger in 1996 than the next biggest economy – Nigeria. South African has 7% of the population of SSA and only 5% of the land area of the continent. It accounted for 36% of total SSA GDP in 1996.<sup>16</sup>

South Africa's economic policy over the past nine years has been shaped by the democratic government's development strategy in the areas of education, health, social development, security, land reform and poverty eradication. The government's policy decisions have been designed to promote sustainable economic growth, and to ensure that the benefits of the growth are shared across an increasingly greater spectrum of society. The South African economy grew by 3.4 percent in 2000 and around 2.2 percent in 2001, driven by a moderate recovery of investment and a strong export performance in the first half of 2001.

Crime in South Africa is perceived to be a significant threat to the country's overall stability and to the welfare of its citizens. Notwithstanding government anti-crime efforts, violent crimes such as carjackings, muggings, "smash and grab" attacks on vehicles and other incidents are regularly reported by visitors and resident Americans. Crimes against property, such as carjacking, have often been accompanied by violent acts, including murder. South Africa also has the highest incidence of reported rape in the world.<sup>17</sup>

South Africa has the largest number of H.I.V.-infected people in the world, about 5 million, or over 11 percent of its population of 43.8 million, according to the United Nations AIDS program. The figures are more staggering for the 23.7 million people aged 15 to 49; about 20 percent of them are infected. The epidemic poses a major threat to the future of South Africa's economy and security by primarily affecting young sexually active adults and incapacitating the traditional extended family system that cares for sick and orphaned relatives. So far, the epidemic has left 660,000 South African children as orphans.<sup>18</sup>

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<sup>16</sup> "Definitional Mission Report – Development of Port Projects in South Africa, Mozambique and Mauritius", TDA 96-003B, August 1996, p. 5.

<sup>17</sup> U.S. State Department, Consular Fact Sheets, 2003.

<sup>18</sup> "South Africa says it will fight AIDS with a Drug Plan", New York Times, August 9, 2003.

**C. Mozambique**



Important statistics for Mozambique<sup>19</sup>:

Land boundaries – 4,571 km (2,840 miles)

Coastline – 2,470 km (1,535 miles)

Population – 17,479,266

Ethnic groups – indigenous tribal groups 99.66% (Shangaan, Chokwe, Manyika, Sena, Makua, and others), Europeans 0.06%, Euro-Africans 0.2%, Indians 0.08%

Life expectancy at birth: 31.3 years

HIV/AIDS adult prevalence rate: 12.6-16.4% (2001 est.)

Total literacy rate: 47.8%

GDP: \$19.2 bln (2002 est.)

GDP per capita: \$1,000 (2002 est.)

Unemployment rate: 37% (2001 est.)

Population below poverty line: 70% (2001 est.)

Budget revenues: \$393.1 mln (2001 est.)

Budget expenditures: \$1.025 bln (2001 est.)

Export partners: South Africa 15.3%, Zimbabwe 5.3%, Japan 4.2%, Portugal 4% (2001)

Import partners: South Africa 40.5%, Portugal 8.4%, U.S. 1.8%, and UK 1.1% (2001 est.)

Economic aid recipient: \$632.8 mln (2001)

Fiscal year: January 1 – December 31

Port and harbors: Beira, Inhambane, Maputo, Nacala, Pemba, Quelimane

Military expenditures: \$35.1 mln (2000 est.)

Military expenditures as % of GDP: 1% (2000 est.)

In recent years, Mozambique's economic growth rates have been among the highest in the world. The government in Mozambique is beginning to move away from a centrally-planned economy through the introduction of free market reforms. The country's exchange rate is now determined by market forces, as are interest rates and prices. Government subsidies and restrictions on imports have been lifted in a bid to open up the economy, along with the reduction and simplification of import tariffs and the liberalization of crop marketing.

Other economic reforms include the introduction of a privatization program which involves the entire banking sector as well as various state-owned manufacturing operations. The serious flooding in Mozambique during 2000 and 2001 negatively affected economic growth, but with the assistance received from donor organizations, the economy recovered and the investment climate improved. The Mozal aluminum smelter project, the sugar industry, and gas export pipelines are proceeding with the backing of foreign investors. The country, however, still depends on foreign aid to assist in balancing the budget. Trade imports still exceed exports. As the country's transport and trade links with the rest of the region improve, the government is optimistic about attracting increasing foreign investment.

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<sup>19</sup> CIA World Factbook 2002 – Mozambique.

Mozambique is essentially an agriculture-based economy. The contribution of the agricultural sector, at 32% of GDP in 1999, is believed to be substantially underestimated in official statistics. More than 75% of the population is employed in the sector. The main products are maize, rice, beans, vegetables, cassava and sisal. The main export crops are prawns and shrimp, cashew nuts, cotton, copra and sugar. Agriculture has benefited from the combination of an improved economic environment, good rains in recent years and the considerable increase in output resulting from the large-scale return of refugees to the countryside since the mid-1990s. Since 1996, Mozambique has achieved virtual self-sufficiency in grains and, at present, cereal and cassava production exceeds national needs. Still, agricultural productivity remains well below the African and regional average, and the sector has considerable unexploited potential for further growth. Increases in output have also been encouraged by the rehabilitation of infrastructure, including roads, and the gradual restoration of rural trading networks. Road transport remains generally poor, however, and the more fertile northern regions remain isolated and often impenetrable.

The geographic position of the country in relation to neighboring landlocked countries and regions has historically made transport services - roads, railways, ports, shipment and transshipment - a central element of the economy and a significant foreign exchange earner. Commerce and services as a whole account for about 40 percent of GDP.

The Cahora Bassa Hydroelectric Dam, which has a capacity of 2,075 megawatts a year, is servicing a total current national consumption of around 200 megawatts per annum. Once the newly constructed aluminum smelter in Maputo (Mozal) is fully on stream, it will consume another 450 megawatts. Electricity is also exported to Malawi, South Africa, Swaziland and Zimbabwe.

Industrial development in Mozambique has been slow, due to the effects of the long civil war that destroyed the transport system and other infrastructure. The country has considerable mineral resources, and the mining industry has the potential to play a major role in the economy. Diamond exploration is presently being carried out by the Portuguese firm Tamega and large reserves of natural gas in the Pande region are likely to be exploited in the near future. The downstream oil industry is under development with several international oil companies already active in the marketing and distribution of petroleum products in the country.<sup>20</sup>

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<sup>20</sup> "SADC Trade, Industry and Investment Review 2003", SADC, 2003, [www.sadcreview.com](http://www.sadcreview.com).

#### D. **Namibia**



Important statistics for Namibia<sup>21</sup>:

Land boundaries – 3,936 km (2,446 miles)

Coastline – 1,572 km (976 miles)

Population – 1,820,916

Ethnic groups – black 87.5%, white 6%, mixed 6.5%

Life expectancy at birth: 38.97 years

HIV/AIDS adult prevalence rate: 19.54% (1999 est.)

Total literacy rate: 38%

GDP: \$8.1 bln (2001 est.)

GDP per capita: \$4,500 (2001 est.)

Unemployment rate: 30-40% (1997 est.)

Budget revenues: \$883 mln (1998)

Budget expenditures: \$950 mln (1998)

Export partners: UK 43%, South Africa 26%, Spain 14%, France 8% (1998 est.)

Import partners: South Africa 81%, US 4%, Germany 2% (1997 est.)

Economic aid recipient: \$127 mln (1998)

Fiscal year: April 1 – March 31

Port and harbors: Walvis Bay, Lüderitz

Military expenditures: \$104.4 mln (2001)

Military expenditures as % of GDP: 2.6% (FY 97/98)

<sup>21</sup> CIA World Factbook 2002, Namibia.

In an effort to take full advantage of African economic initiatives such as NEPAD and AGOA, Namibia has put in place several mechanisms to advance its economy. Since achieving independence in 1990, the country has invested heavily in the maintenance and modernization of all infrastructures. Excellent infrastructure has been considered an integral part of creating a conducive environment for business expansion and attracting new investments. Policies of national reconciliation and affirmative action have been instated and have promoted a stable and peaceful social environment.

Namibia has an open, small economy and is vulnerable to fluctuations in the world market. The present global economic slowdown has impacted on the country's economic growth rate. The estimated annual growth rate over the period 2002-2005 is 3.7%. Primary industries, including agriculture, fishing and fish processing, and mining are the mainstays of the Namibian economy. Economic growth for total production in real GDP terms in Namibia has been stable since independence. Between 1996 and 2000, the annual growth rates were between 3.2% and 4.2%. Although stable growth has been a positive factor in the Namibian economy, it has been too low to provide any substantial increase in per capita income.

The primary (raw material producing) and tertiary (services) sectors were the driving forces behind economic growth between 1995 and 2000. Average real growth in the mining sector has been below 1.5% since the mid-1990s. Ongoing investment in new mining projects is expected to turn the sector around in the near future. During the 2000/2001 fiscal year, GDP grew by around 1.6%. The fishing and fish processing sector fell by 7.7% in 2001, following a decrease in fish catches. The mining sector continued to decline due to falling production in diamonds and other mining and quarrying activities. Diamond production dropped by 5%.

Against a background of strict fiscal discipline, the 2002 budget theme was to stimulate and support economic development and employment creation. Specific policies and programs include building of new institutions, such as the Namibia Development Bank; the development of new infrastructure, including the northern railway extension and tarring of new roads; and the development of human resources through improved education and training programs, such as the establishment of Science Education Centers and a centre for Innovation, Entrepreneurship and Technology.

The government introduced its first Medium Term Expenditure Framework in 2001, incorporating measures of achievement through its Performance and Effectiveness Management Program. In the 2002 Budget, the government went one step further in its budget hearings to motivate government ministries to be accountable for their budgets and look at what they will achieve, rather than how they will spend their money. The approach aimed to provide greater certainty for ministries in planning how to deploy their resources, and greater certainty that overall expenditure plans are sustainable.<sup>22</sup>

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<sup>22</sup> "SADC Trade, Industry and Investment Review 2003", SADC, 2003, [www.sadcreview.com](http://www.sadcreview.com).

## **VII. Statistics on Maritime Security Missions and Capabilities**

### **A. South Africa**

South Africa's coastline stretches from the Orange River Mouth on the West Coast to Ponta do Ouro on the East Coast, a distance of 2,798 km (1,739 miles). South Africa's seas extend seawards between these coordinates for up to 350 nautical miles (approximately 560 km) from the low-water mark through several maritime zones to the outer limits of the continental shelf. It has 1.04 mln square miles of EEZ, not including the maritime zone around the Prince Edward Islands near Antarctica.<sup>23</sup>

As a signatory to the International Convention on Maritime Search and Rescue, 1979, South Africa provides a Search and Rescue (S&R) function in designated areas of responsibility in the South Atlantic and South Indian Oceans all the way to Antarctica. This function falls within the responsibility of the South African Search and Rescue Organization (SASAR), of which SAMSA coordinates the Maritime S&R function on behalf of the National Department of Transportation (NDOT). At a conference in 2000, South Africa was named as a sub-regional Maritime Rescue Coordination Center for the African countries bordering the Atlantic and Indian oceans.<sup>24</sup>

South Africa is a party to the International Convention for the Safety of Life at Sea, 1974 (SOLAS) and its amendments. In compliance with SOLAS, the NDOT has entered into an agreement with Telkom to provide maritime safety information to shipping comprising watch-keeping and meteorological services, as well as receipt and transmission of navigation warnings.<sup>25</sup> SAMSA manages the Telkom agreement on behalf of NDOT for a fee.

### **B. Mozambique**

Mozambique has a coastline twice the size of California, stretching from Tanzania in the north to South Africa in the South, along the coast bordering the Mozambique Channel between Mozambique and Madagascar. It shares borders with Malawi (1,569 km), Zimbabwe (1,231 km), Tanzania (756 km), South Africa (491 km), Zambia (419 km) and Swaziland (105 km). Mozambique is a party to international environmental agreements and treaties including those on Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, and Ozone Layer Protection.<sup>26</sup>

### **C. Namibia**

Namibia has a 1,572 km (976 miles) coastline and shares borders with Angola (1,376 km, 855 miles), Botswana (1,360 km, 845 miles), South Africa (967 km, 600 miles), and

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<sup>23</sup> "Conflicts between fisheries and offshore mining in South Africa's seas", Roger Field, The Ocean Resource Conflict Agency, South Africa, fieldco@iafrica.com

<sup>24</sup> South African Maritime Safety Authority, Annual Report, 2001.

<sup>25</sup> South African Maritime Safety Authority, Annual Report, 2001.

<sup>26</sup> CIA World Factbook – Mozambique, 2002.

Zambia (233 km, 144 miles). The Namib Desert runs along its coastline, famous for the lions roaming this desert area. It is party to international environmental agreements and treaties including those on Antarctic-Marine Living Resources, Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Ozone Layer Protection, and Wetlands.

#### **D. Fisheries Statistics**

##### General

Fish piracy is on the rise all over the world, as outlaw fishermen take advantage of lax enforcement on the high seas, then engage in elaborate schemes to hide where the catch came from so they can sell it in legal markets. The United Nations estimates that 30 percent of the catch in some key fisheries, such as swordfish and tuna, may be from unregulated, unreported or illegal (UII) fishing. For the valuable Patagonian toothfish (better known as “Chilean sea bass” in Western markets), a long-living creature that can grow 6 feet long in the cold, deep waters off Antarctica, some estimate the illegal catch is up to five times bigger than the legal catch, threatening the entire species.<sup>27</sup> A recent report noted a 90 percent decline in large fish species such as tuna in the last half-century. The rising price of fish, in turn, lures the poachers. Authorities believe a significant amount of this illegal catch is imported into the lucrative US market, where consumers are unaware of their role in a global crime spree. One several-month fishing trip for Patagonian toothfish can yield a catch worth \$2 million. Illegal vessel owners use flags of convenience to avoid prosecution, and fish with impunity across the world's oceans.

In 2002, NOAA was involved in confiscating a Spanish fishing vessel that had been involved in illegal fish poaching in the waters off South Africa and Mozambique. The vessel had been re-flagged at least eight times to avoid detection. Their catch of Patagonian toothfish was impounded in Boston, where they were trying to sell it in U.S. markets. The value of the catch was estimated at \$900,000 for 13 tons of Patagonian toothfish.<sup>28</sup> NOAA's General Counsel is responsible for prosecuting civilian fish poaching cases that have a nexus to the U.S. and was involved in prosecuting this and 3,000 other cases last year.

##### SADC

With the inclusion of the Democratic Republic of Congo in SADC, there are eight coastal states: Angola, Democratic Republic of Congo, Mauritius, Mozambique, Namibia, Seychelles, South Africa and Tanzania. This implies that the entire coastline on both sides of the Southern African subcontinent belongs to the member states of SADC. The Exclusive Economic Zone (EEZ) belonging to SADC coastal member States is approximately 5 million sq. km (1,930,510 miles), about two-thirds that of the U.S.

The program of the SADC Sector of Marine Fisheries and Resources aims at the development of marine fisheries in the SADC region. Marine fisheries constitute an

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<sup>27</sup> “With Fish Piracy on Rise, Agents Cast Worldwide Net”, The Boston Globe, May 18, 2003.

<sup>28</sup> “With Fish Piracy on Rise, Agents Cast Worldwide Net”, The Boston Globe, May 18, 2003.

important economic and socio-economic factor for all coastal member states of SADC in terms of national and regional food supply, employment and source of foreign currency income. According to the UN Fisheries and Agriculture Organization, it has been estimated that the catch from the sea in SADC can be increased from the current level of 1.7 million tons, up to the level of 2.7 - 3.0 million tons per year. The bulk of the increase would be derived from low-value fish (e.g. small pelagics) that will benefit the poorer part of the SADC population. Future development action is focused on the assessment of this potential and realization of its sustainable exploitation.

There is a basic difference between the fisheries resources of the East and West Coasts of SADC. Due to the upwelling phenomenon of the Benguela Current running along the West Coast of Africa, the primary fish productivity of the West Coast exceeds that of the East Coast. Up to 90% of the total catches of SADC coastal states are landed in Angola, Namibia and South Africa, where the fisheries are predominantly exploited by industrial companies. In contrast, the environmental conditions of the East Coast are more stable and there is more species diversity. Artisanal (small scale, by indigenous peoples) and recreational fisheries are more common on the East Coast where it is of high social and economic importance. This is the case in Mozambique.

The Benguela Current Large Marine Ecosystem Program (BCLME) was conceived in 1995 and developed over the next five years by South Africa, Namibia and Angola, in partnership with the Global Environment Facility and the United Nations Development Program. It is a joint initiative by the government of the three countries to manage and utilize the resources of the Benguela Current Large Marine Ecosystem in a sustainable and integrated manner. It has focused on management of mining and drilling activities, pollution, and health of the ecosystem.

The marine environment in the SADC EEZ is increasingly being subjected to mining and oil explorations and operations. This calls for strict environmental monitoring and control measures as to the utilization of minerals and oil off the coasts of respective SADC coastal States, particularly if current oil and mining explorations will result in commercial operations. Better opportunities for sound regional and global management have become a reality with the recent signing by SADC states of the Code of Conduct for Responsible Fisheries, and the UN Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks. To protect valuable fish stocks which are straddling between member states' EEZs and the high seas, SADC's West Coast states have established a regional Fisheries Management Organization for the South East Atlantic (SEAFO) to ensure compliance with UN Conventions.

#### Namibia

Namibia is a significant player in the international fishing industry, ranking among the top 10 in the world as to the value of catches. The main exploited species are hake, horse mackerel, tuna, rock lobster, monk and crab but a valuable fishery also exists for pilchard, kingklip, orange roughy and swordfish. Oyster and mussels are being farmed.

Fisheries contribution to growth has been extremely important within the economy and has helped offset a poor performance in mining caused to some extent by the decline in world mineral markets. Future growth in Namibia's economy will continue to depend on a strong fisheries contribution. Based on projected fishing activity, the forecast for the fisheries sector is to achieve a production value of N\$4.0 billion (\$553 mln) by the year 2003.

The Namibian government aims to maintain a sustainable utilization of all living marine resources to ensure maximum benefit to all Namibians through local processing and value-added products. There are many opportunities for investment in the fish processing industry as well as within mariculture. There are also significant opportunities within the fishing support industries including marketing, processing technology, packaging, storage and transport.

The value of production and exports from the sector rose sharply from around N\$500 million in 1990 to level off at N\$1.3 - 1.4 billion from 1994 to 1996 and thereafter growing sharply again exceeding N\$2.8 billion in 2000. The fishing industry suffered a setback during 2001 due to unfavorable marine conditions. Government efforts to keep the fishing stock at a sustainable level are expected to result in moderate growth in the coming years. However, continued concerns over the declining pilchard industry could impact negatively on the sector in the medium term. The fishing sector as a whole is expected to grow at about 3%t on average between 2002-2005, although the industry is vulnerable to oceanic conditions. The outlook is for further expansion in the Namibian fishery industry with a scope for a significant increase of the real value of the sector output in the medium term.

The commercial fishing fleet operating in Namibia grew consistently after independence from 214 vessels in 1991 to 332 vessels in 1996, declining to 293 vessels in 1999. There were 309 vessels in 2000. This reduction in capacity, while catches have increased, indicates a more efficient fishing fleet. The major area of growth has been in the demersal fleet, targeting hake. The largest markets for Namibian fish can be summarized as follows:

- Pilchard, canned, almost exclusively to South Africa.
- Horse mackerel is sold mainly to African countries. Various West African countries have traditionally bought horse mackerel, and some is exported to the Democratic Republic of Congo, Mozambique, South Africa and Zimbabwe.
- Rock lobster and crab are mainly exported to Japan.
- Hake is mostly exported to Europe where Spain is the largest market, but France, Germany, Italy and Portugal are also receiving considerable amounts.

Walvis Bay and Lüderitz are Namibia's only fishing ports. All fish are landed through these two ports before processing and/or transported/exported.<sup>29</sup>

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<sup>29</sup> "SADC Trade, Industry and Investment Review 2003", SADC, 2003, [www.sadcreview.com](http://www.sadcreview.com).

## **VIII. U.S. Coast Guard Functions Performed in South Africa**

### **A. Overview of SA Navy and Air Force**

All SA defense forces headquarters are located in Pretoria, the country's capital, which is far from the ocean. Cape Town, in the Western Cape Province, is the seat of Parliament and a busy sea port and fishing area, as is the city of Durban in Kabuli Natal province on the country's east coast. The SA National Defense Forces (SANDF) continue to integrate former military, black homelands forces and ex-opposition forces and have experienced a 40% reduction in their armed forces in 2001 as they continued to demilitarize after the end of apartheid.<sup>30</sup> As mentioned earlier, neither the SAAF nor the SA Navy is specifically tasked with responsibility for maritime security or fisheries enforcement. They view their role as primarily to defend the country from foreign military attack and are involved in joint maritime defense operations on a regular basis.

ARMSCOR, the Armaments Corporation of South Africa (the SA National Defense Force procurement agency), was established to meet South Africa's needs for armaments and related products and services. The Corporation has roots going back to 1948 and dates from 1977, when the South African Armaments Board and the Armaments Development Corporation were amalgamated. Five years later, ARMSCOR began to market South African products abroad, having proved that many were unique and provided superior solutions for a wide range of needs.

By the late 1980s, tension in South Africa had declined, and demand for arms reduced sharply. As a result, a reorganization of ARMSCOR's activities was needed. In 1992, ARMSCOR's manufacturing facilities were therefore made the responsibility of a new state-owned company, Denel, after which ARMSCOR devoted itself to international and domestic procurement for the South African and regional security forces.

The procurement process for defense purchases in SA is as follows: 1) the armed services do their force design plans, 2) ARMSCOR manages the tender process, 3) three bidders are usually chosen, and 4) they negotiate to choose a final winning bidder. Purchases are funded through the SA Ministry of Defense budget. The SA Police Services (SAPS) are part of the Department of Safety and Security and have a similar, but not linked, procurement process.

### **B. South African Air Force**

The SA Air Force has focused heavily on fighter jets lately, as evidenced by the \$8.7 bln purchase in 1999 of 28 Gripen and 24 Hawk fighter jets from BAE Systems (UK) and Gripen (Sweden) several years ago, and the development of the capable Atlas Cheetah series of indigenous aircraft. BAE has \$8.7 bln in offset obligations as a result of this contract, \$1.5 bln which has or will be spent on subcontracting to SA companies, and \$7.2 bln which it needs to spend on "national industrial participation" projects in SA.

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<sup>30</sup> International Institute for Strategic Studies, 2001.

BAE is investing in about 30 offset projects in, among others, the timber processing, auto manufacturing and tourism sectors at present to earn credits towards its offset obligations.

SAAF is also currently buying six CASA 295 aircraft. However, these do not have the range they need for Antarctic patrol and to reach the Prince Edward and Marion Islands. They operate twelve C-130 planes, which other than Nimrod or P3 aircraft, are the only planes that can reach the Prince Edward and Marion Islands for far offshore search and rescue and Antarctic supply purposes. The SAAF operates a command force out of Cape Town for maritime patrol.

### **C. South African Navy**

The SA Navy is currently purchasing four corvettes (frigates) from Blom and Voss Shipyards in Germany, with an option for a fifth. These purchases were negotiated through ARMSCOR. The SA Navy also has an operations office in Germany. They are also purchasing three submarines, with an option for a fourth. They are considering purchasing sixteen 20-30 meter inshore patrol vessels, to locate two in each harbor for port security. According to sources, they will most likely purchase from German shipyards if purchase is approved. They also view most American-built vessels as too big or too small for their purposes. Pertec, the premier ship chandlery firm in SA based in Cape Town, has entered into a technology transfer agreement with Raytheon Anschutz (Germany) so that they will be manufacturing various key components for the four submarines locally.

### **D. Local Contractors to the SAAF**

Aerosud, a local SA systems integrator and the only SA company authorized to make parts for Boeing, was involved in upgrading the Saab's C47 aircraft for SAAF maritime patrol. Five C47s were supposed to be dedicated to maritime patrol. Aerosud outfitted one recently and then the SAAF took over; it has not upgraded another one yet. These aircraft have no radar or FLIR (forward-looking infrared, i.e., night-vision equipment) onboard, just binoculars for patrolling the more than one million of square miles of SA's EEZ.

Denel, as noted above, manufactures attack helicopters, aircraft undercarriage and fuselage component as well as an extensive range of related items and technologies. It also makes parts for Boeing 747s. It is a private company now since it was spun off from ARMSCOR, but its stock is 100% owned by the SA government. It has acted primarily as a defense contractor selling to the SAAF up until now, but wants to branch off into more commercial and civilian-oriented projects in the future.

### **E. Local Contractors to the SA Navy**

RRS/Reutech of Cape Town, a part of Reunert Group (which is one-third owned by European Aerospace Defense Systems, part of the French conglomerate Thomson) is outfitting the SA Navy's new corvettes with their domestically-manufactured radar systems. They also provide anti-aircraft tracker systems for the SAAF. RRS attended

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the meeting with Rear Admiral Olsen of the U.S. Coast Guard to introduce the DEEPWATER system to the South African community in April 2003.

Pertec, the premier ship chandlery, marine navigation and communications firm in South Africa, said that the four new corvettes purchased by the SA Navy are outfitted with locally-made electronic warfare communications equipment from Grintek Group.

#### **F. Opportunities for DEEPWATER**

Of the planned DEEPWATER assets, sources said the following may be of interest in South Africa:

1) Aircraft – SA has a clear requirement for both coastal and long-range maritime aircraft. The SAAF is currently looking at the CN-235 Maritime, which may be overkill for the coastal mission and cannot perform the long-range mission. The maritime C-130 variant would have the range and endurance for long-range missions. A government-to-government package to sell C-130s in SA could have potential, if priced right and if SA could overcome the opposition to buying American.

2) Surveillance and Communications Systems (C4I) – U.S. surveillance systems may be competitive and of interest in the South African defense market, especially FLIR (forward-looking infrared) latest-generation night vision equipment suited to the coastal environment and other latest generation electronic surveillance equipment (assuming export control approval can be obtained for their sale). However, the SANDF is currently engaged in upgrading its systems and, since it uses very little U.S. equipment, this might make systems integration difficult. Some South African companies commented that they were better at systems integration than U.S. companies, though this may be a local bias that might be overcome with better marketing and more effective liaison.

3) UAVs – The SA Navy's four new corvettes have an open requirement for a shipboard UAV, but most likely with a smaller deck and hanger footprint than the UAVs developed for DEEPWATER. Additionally, the price of the U.S.- manufactured UAVs is probably out of SA's league for the moment.

4) Vessels – The proposed long-range interceptor may be attractive to the SA market, but more details are needed to compare it with local designs (produced at local prices). The long-range interceptor and fast response cutter might have potential in other SADC countries. SA has little experience in the protection of offshore oil platforms and since this is a major growth industry in the region, the SA Navy, Special Forces and DEAT may be willing to learn from others in this area. For most larger vessels, the SA Navy is likely to continue buying from Germany. U.S. small craft manufacturers might have a competitive advantage because of the quality and performance of their products and the economies of scale afforded by their large production runs.

## **G. Fisheries and Wildlife Protection**

### **1. Ministry**

The Marine and Coastal Management (MCM) Department is responsible for fisheries and aquatic wildlife protection under the Department of Environmental Affairs and Tourism (DEAT). DEAT's minister, Valli Moosa, is part of the South African federal government's cabinet, reporting to the President, Mr. Thabo Mbeki. MCM issues fishing licenses, administers South Africa's vessel monitoring system (VMS), and enforces laws regarding fisheries. About 90% of the fishing vessels in SA are now equipped with VMS, as required by MCM. The World-Wide Automatic Identification System (WWAIS) for vessels will be required by 2004 globally for passenger and hazardous cargo vessels, high speed craft and any vessel over 50,000 tons. WWAIS is very useful in congested waterways and is now required for any vessel passing through the Panama Canal. SA expects to implement WWAIS before the 2004 deadline.

Of the vessels licensed to fish SA waters, 25% are vessels less than 25 meters, 10% are vessels over 25 meters, 25% are squid catching vessels, 25% are rock lobster or abalone-catching vessels. The balance is composed of various other vessels. The VMS helps in terms of enforcement in that it locates the positions of vessels fishing legally and that is usually where the poachers are as well. SA also forward-reports VMS information to Namibia when vessels leave SA waters for Namibia. Namibia reportedly does not yet have that capability.

### **2. Priority and political/social support**

MCM has a ZAR 34 mln (\$4.5 mln) budget for fisheries law enforcement functions to prosecute what it conservatively estimates as ZAR 1.2 bln (\$130 mln) in losses annually from IUU fishing activities. It owns few vessels and one aircraft, and is forced to ask for help from the SAAF or SA Navy or SA Police Service when it tries to catch illegal fishing vessels. These organizations may or may not be available at any time to assist MCM, and when they do assist, MCM must pay their fuel costs.

Regarding enforcement, MCM is currently unarmed and calls upon the SA Air Force to do routine patrols for one hundred hours per month, for which they are paid by DEAT. The SAAF is also occasionally called upon to perform non-routine overflights when poachers have been located at sea. The SAAF occasionally does not respond because it is busy with other missions and does not see fisheries enforcement as its mandate. If illegal fishermen are caught near-shore, the SA Police Service (SAPS) is called in to make the arrests.

### **3. Organizations functioning in sector**

MCM is the organization tasked with fisheries enforcement for SA. MCM has a five-year, fixed price contract signed in 2000 with Smit Marine, a 160 year old Dutch-owned company, for crew manning and maintenance of its eight vessels, including its Antarctic supply and three research vessels. Fuel charges are not included in the contract and are billed at cost. This contract was authorized under the most recent Medium Term Expenditure Framework three-year plan approved the SA Treasury. Smit Marine is also

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active in the maintenance of onshore and offshore petroleum operations terminals, with 45% of their contracts for terminals work, and 55% for sub-sea contracts. Smit has operations in South Africa, Gabon and Nigeria.

Pertec is the premier ship chandlery in South Africa and has the exclusive contract to provide Vessel Monitoring Systems to SA fishing vessels. They said 90% of all SA fishing vessels have now implemented VMS on three approved systems 1) GSM modem for inshore, long-line vessels, 2) Inmarsat-C for offshore trawlers and long-line vessels, and 3) Inmarsat D (which is still in the approval phase) for hand-line and close inshore lobstering vessels. They noted that only military surveillance systems are manufactured domestically and most surveillance, navigation and fisheries or other monitoring systems for civilian use are imported to SA.

They felt that SA companies did not have the competitive edge for communications systems. They import terrestrial communications equipment from Raytheon Anschutz (Kiel, Germany), Furuno (Japan), and Skanti. Their navigational and oceanographic equipment suppliers are RDI of San Diego, Furuno, Raytheon Anschutz, Magellan, Leica, and Navman. Their satellite communications suppliers include Inmarsat (US), Iridium (US), Argos (US), Qualcomm (US), and Thrane & Thrane (Denmark), of which they are one of only seven Thrane & Thrane certified service centers in the world and the only facility in Africa. Other players in the field, not carried by Pertec, include Orbcomm (US/Canada/Malaysia), Stellar Satellite Communications (US subsidiary of Israeli firm), and Boatracs (US).

#### **4. Current equipment and systems**

Four small patrol boats and one Patanavia twin engine turboprop aircraft are currently owned by MCM. The aircraft is loaned to the South African Maritime Safety Authority (SAMSA) when it is needed for near-shore prosecution of oil pollution violations. The VMS required for all SA vessels is procured by each boat owner from Pertec. Pertec is the sole supplier of VMS to all vessels fishing legally in South Africa waters.

In reviewing the new equipment that will be available under the DEEPWATER program, MCM did not see U.S. vessels as being competitive with South African-built vessels from a financial or quality viewpoint. As for aircraft, they currently purchase 100 hours per month from the SAAF for patrol law enforcement. If they were to purchase fixed wing aircraft, they were most familiar with CASA aircraft (Brazil and Spanish content, produced by Embraer). MCM was familiar with Agusta Bell helicopters and felt that they could do the manning and maintenance without outsourcing. However, only one of the new vessels under construction (the 78 meter vessel) will be able to carry a helicopter and this vessel is not currently equipped with a hangar that would protect the helicopter in SA's rough seas.

As for navigation, communications and surveillance systems available for fisheries law enforcement, MCM was interested in FLIR latest-generation night vision equipment, but they noted that the U.S. would not give export approval. They would be most interested in electronic surveillance equipment, some of which they could buy locally from Denel.

But MCM would not necessarily buy locally if U.S. equipment was available. The VMS reports the position of a trawler every few hours, by satellite or GSM, to an operations center at DEAT. When the four new patrol boats are fully operational, they will have access to this information in real time.

### **5. Current equipment and systems (decision-makers)**

Marcel Kroese of MCM was the decision-maker for the purchase of the four new patrol boats that are scheduled to begin delivery in November 2004. Three 48 meter vessels are now being built by Far Ocean Marine in Cape Town. The 78 meter vessel's hull was built in Romania and is being outfitted in Darmand, the Netherlands. These will replace three small, old patrol vessels which will be scrapped.

### **6. Revenue, expenditures, costs**

MCM is financed through the Marine Living Resources Fund, a public sector fund. It aims to finance activities related to the management of sustainable utilization and conservation of marine living resources as well as the preservation of marine biodiversity and the minimization of marine pollution. Other socio-economic objectives include broadening access to resources by restructuring the industry to address historical imbalances and promote economic growth in the SA fishing industry. The Fund is financed from its own revenue as well as money appropriated by Parliament, in terms of Section 10 of the Marine Living Resources Act. Its own revenues are derived mainly from fish levies, fishing permits, harbor fees and the proceeds of the sale of confiscated fish products.<sup>31</sup> It also allows its Antarctic supply and three research vessels to be chartered by other organizations up to 130 days per year.

MCM's annual budget is ZAR 560 mln (\$74.67 mln), of which ZAR 140 mln (\$18.67 mln) was used this year for vessel procurement, and ZAR 420 mln (\$56 mln) for all other expenses. Of this ZAR 420 mln, only ZAR 34 mln (\$4.5 mln) was earmarked to pay for fisheries enforcement in South Africa's 1.04 mln square miles of its EEZ.

### **7. Control of budget for function**

The budget is approved by the SA Treasury as part of the three-year Medium Term Expenditure Framework. MCM's funding is derived from the Marine Living Resources Fund.

### **8. Sources of potential revenue**

MCM estimates that the total legal landed catch in the SA EEZ is ZAR 4.2 bln (\$560 mln) (FOB) per year. It estimates that it loses ZAR 1.2 bln (\$160 mln) per year to illegal fishing. This estimate takes into account poaching of Patagonian toothfish (Chilean sea bass), the amount of illegal abalone confiscated per year, the high seas fisheries long line poachers and the amount of illegal exports sold to U.S. and European Union markets. MCM estimates that foreign vessels can take as much as three times their legal limit when poaching in the territorial waters off Marion Island 2500 km (1553 miles) away from the South African coast.

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<sup>31</sup> Department of Environmental Affairs and Tourism: Business Plan 2003-2004.

## **9. Special initiatives**

Marcel Kroese of MCM mentioned that he knows Dale Jones, Chief of Fisheries Law Enforcement, at NOAA and would be very interested in receiving additional fisheries law enforcement training for his organization. He also mentioned that a key problem in enforcement is document certification – matching up inventories of import and export documents to trace the *actual* versus *reported* amounts and types of fish caught in SA waters.

## **H. Environmental Surveillance and Protection, and Search and Rescue**

### **1. Ministry**

The mission of South African Maritime Safety Authority (SAMSA) is “to serve the maritime industry and the nation by ensuring safety of life and property at sea, preventing pollution of the sea by ships and promoting South Africa as a maritime nation”<sup>32</sup>. It was established in April 1998 and is organized under the Minister of Transport, and performs statutory and representative functions on behalf of the Minister of Transport and the National Department of Transport (NDOT). It is directed and controlled by a non-executive board. SAMSA executes its designated functions at an operational level, whereas NDOT functions at a strategic level from which it develops transport policy and strategic direction for the agencies.

### **2. Background**

Some key statistics from SAMSA’s 2001 annual report:

- a total of 934 ships with a gross tonnage of 549,889 tons are registered under the SA flag,
- 52 casualties to SA flagged ships,
- a total of 777 inspections of foreign flagged ships, of which 27 were detained,
- 16 oil pollution incidents were investigated, of which 8 originated from foreign flagged ships,
- a total of 1613 of 1899 candidates passed various examinations conducted by SAMSA,
- a total of 79 lives were saved; 2 bodies were recovered and 14 persons were lost at sea,
- 3,728 safety certificates issued (of 4,847 surveys conducted).

### **3. Priority and political/social support**

SAMSA is a relatively new agency, like the post-apartheid government itself. It controls oil pollution prevention by ensuring that vessels calling at South African ports adhere to international pollution prevention standards as established in the relevant international Conventions and adopted under the auspices of the International Maritime Organization (IMO). It also manages South Africa’s search and rescue operations when they are more than 15 miles from port (if closer than 15 miles, the S&R function is handled by the Harbor Masters, who report to the National Port Authority, formerly known as Portnet). It no longer receives operating subsidies from the government since 2002 and is self-

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<sup>32</sup> South African Maritime Safety Authority, Annual Report, 2001.

funding through collection of direct user charges, levies on shipping and service fees charged to the government.

#### **4. Organizations functioning in sector**

SAMSA works with the SAAF, the SA Navy, MCM and private contractors such as Smit Marine and Canadian Helicopter Company, as necessary, to perform its functions. It is responsible for oil pollution prevention and fines vessels that pollute. In 2001, it prosecuted 15 contraventions of the pollution prevention acts and collected ZAR 633,000(\$84,400) in fines from various SA and foreign-flagged vessels. It also has the authority to hire private organizations to perform oil spill clean-up or S&R functions when its own equipment or that of the SAAF or SA NAVY is unavailable. SAMSA manages the government's five-year ocean-going tugboat contract between the DOT and the salvage contractor Smit Marine for oil spill clean-up and salvage operations. This contract will be re-tendered in April 2005. SAMSA directs Smit to clean up and tow away disabled vessels when these casualties occur. Smit makes money by cutting up the ships locally or towing them to India for scrap.

SAMSA will occasionally allow an "Admission of Contravention" by which the party guilty of polluting admits its activities and pays 75% of the total fine it would be responsible for if convicted in SA courts.

#### **5. Current equipment and systems**

SAMSA does not own any maritime aircraft or vessels itself, rather relying on a patchwork of other organizations to fulfill its missions. When it needs aircraft for S&R or oil pollution prosecution, it calls on MCM's one aircraft, or aircraft from the SA Navy or if necessary, it hires a private helicopter service (Canadian Helicopter Company, among others) to perform the mission. It is charged a set rate by these private companies for performing a specific mission. If it needs vessels for a mission, it asks the SA Navy or MCM or Smit Marine for assistance.

The oil pollution combating equipment that was formerly in SAMSA's charge has been transferred to DEAT for use or storage by the Marine Pollution Division. The equipment is located in Cape Town. SAMSA does own 6 large Yokohama fenders for ship-to-ship oil transfer purposes. These are kept in the Smit Marine facility in Cape Town together with a quantity of oil transfer hoses and pumps. A wide range of oil pollution combating equipment is held at various South African ports by a number of organizations, including the oil refineries, the National Port Authority and the State Fuel Fund facility at Saldanha.

Smit Marine purchases its vessels and salvage equipment worldwide, looking for the best price. It purchases dive equipment from Europe primarily and fabricates some special equipment for its own use in Cape Town.

## **6. Current equipment and systems (decision-makers)**

Though SAMSA owns few equipment assets other than oil pollution control fenders, the decision-maker for the purchase of new equipment and systems would be the CEO in consultation with the Executive Manager of Operations, Capt. Bill Dernier.

## **7. Revenue, expenditures, costs**

SAMSA's 2002 annual report was not yet available when Finance Specialists LLC (CA) met with them. SAMSA had assets of \$6.65 mln in 2001. Fines, penalties, forfeitures, interest and accumulated interest income was \$386,104 in 2001 and was held in the Maritime Fund SAMSA administers for the MOT. Its revenues in 2001 were \$4.3 mln consisting of direct user charges, levies on shipping and services fees charged to the SA Government. It no longer receives grants from the SA Government and appears to be a well-run, self-funding agency.

## **8. Control of budget for function**

The Minister of Transport allocates budget for SAMSA and requires SAMSA to administer the Maritime Fund.

## **9. Sources of potential revenue**

SAMSA experiences longer response times to S&R requests and oil spills than if it owned its own aircraft, vessels and other equipment. If SAMSA owned its own long-range maritime patrol aircraft, patrol vessels and oil pollution prevention equipment and tugs, it could more swiftly and vigorously prosecute and fine SA and foreign-flagged polluters. Additionally, if the SA judiciary were to standardize their rules of evidence with regards to prosecuting oil pollution offenders, SAMSA could bring more polluters to justice and perhaps levy higher fines and penalties.

## **10. Special initiatives**

SAMSA takes a leading role in Africa as a sub-regional Maritime Rescue Coordination Center. It represents South Africa at various meetings of the International Maritime Organization and related organizations.

The International Maritime Organization (IMO) is a specialized organization within the United Nations established for the purpose of developing international maritime standards, promoting safety in shipping, and preventing marine pollution from ships. Since the terrorist attacks of September 11, 2001, the IMO and other similar international organizations such as the World Customs Organization and the International Labor Organization have been developing a new maritime security system that contains essential elements for enhancing global maritime security.

The IMO adopted amendments to the International Convention for the Safety of Life at Sea (SOLAS) and an International Ship and Port Facility Security (ISPS) Code that are designed to parallel domestic requirements for U.S. facilities and vessels required under the MTSA. The ISPS Code requires ships on international voyages and the port facilities that serve them to conduct a security assessment, develop a security plan, designate

security officers, perform training and drills, and take appropriate preventive measures against security incidents.

A new Maritime Security Advisory Committee was organized within the South African government in March 2003 in order to prepare for compliance with the new ISPS code by July 2004. Mr. Dumisani Ntuli of the NDOT heads up the committee, which includes members from the SA Police Service, SA National Defense Force, Department of Home Affairs, Department of Agriculture and the National Port Authority. Mr. Ntuli commented that South Africa will have a new maritime policy by March 2004 and that South Africa needs a Coast Guard in the U.S. context. He said that they meet USCG representatives at IMO meetings and that they would welcome USCG technical assistance to assist their policy deliberations. He felt that there should be more coordination on a technical level between SAMSA and the USCG.

## ***I. Counter-Terrorism***

### **1. Ministry**

Several different SA agencies are responsible for the functions that are now incorporated under the new U.S. Department of Homeland Security. These agencies fall under several different ministries: Ministry of Defense (SA National Defense Forces, including SAAF, SA Navy), the Ministry of Safety and Security (SA Police Services), and the Ministry of Transport (National Port Authority), to name just a few of the key agencies in SA.

### **2. Priority and political/social support**

To date, South Africa has not had terrorist attacks of the magnitude of the U.S. 9/11 attacks. In 1998, some domestic terrorists blew up some restaurants in Cape Town. Since that time, the SA government and people have not been targeted to the extent the U.S. government and people have by international terrorist organizations.

### **3. Special initiatives**

South Africa has recently signed an agreement with the U.S. to engage in enhanced port security efforts, which are outlined in further detail below.

## ***J. Alien Migration Interdiction Operations, Customs Enforcement and Tariff Collections, and Drug Interdiction and Law Enforcement***

### **1. Ministry**

These functions are largely fulfilled by the armed SA Police Service (SAPS), under the Ministry of Safety and Security and the Customs Department, under SA Revenue Service in the Ministry of Finance. SAPS came into being in 1994 after the amalgamation of the eleven independent policing agencies that existed before the South Africa's transition to democracy. SAPS works in conjunction with Customs to apprehend smugglers and collect appropriate customs duties. SAPS also have their own elite Special Forces which have their own equipment and secret reporting structure and

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missions. There is also an SAPS organization called the Scorpions which pursues the recovery of assets gained through criminal activities, such as drugs, smuggling other than drugs, and fraud.

## **2. Priority and political/social support**

According to the SAPS, the advent of democracy in South Africa in 1994 demanded a fundamental reassessment and transformation of the nature and style of policing. Given the high indigenous crime and murder rates in South Africa, these functions are given somewhat less importance than prosecuting purely domestic criminal activities on land. As part of its Three Year Strategic Plan for 2002-2005, the SAPS is developing the following initiatives: 1) incorporating the Border Police and other organizations into the organized crime task groups to combat organized crime at ports of entry, 2) developing procedures regarding the control of illegal persons and goods over borders, 3) including SA National Defense Force units in organized crime task teams for conducting border control operations, and 4) developing a strategic plan for the control of borders.

## **3. Organizations functioning in sector**

SAPS and the Customs Department are the primary organizations performing these functions in SA.

## **4. Current equipment and systems**

SAPS owns its own boats to patrol the coast, harbors and dams. They also own their own helicopters.

## **5. Current equipment and systems (purchase decisions)**

Much to the chagrin of most SA defense contractors, the SAPS does not coordinate its procurement efforts with the SA National Defense Forces for any types of equipment purchases. It purchases directly from various manufacturers and does not go through ARMSCOR.

## **6. Revenue, expenditures, costs**

The budget of the Department of Safety and Security will have increased by an annual average of 10.2% between 1998/99 and 2004/05, rising from ZAR13.9 billion to ZAR22.9 billion (in 2003/04, the SAPS budget is \$2.8B). The fastest growth is seen in the budget for Crime Prevention, which grows at an annual average of 10.7%, while the slowest growth is in the budget for Protection Services. The effect is a substantial change in the proportions of the budget allocated to different programs.<sup>33</sup>

## **7. Special initiatives**

The U.S. Department of Homeland Security, through the Customs Department, has a new initiative called the Container Security Initiative (CSI). CSI is a partnership with other governments to target and inspect high-risk vessels in foreign ports before those containers are shipped to the U.S. Another DHS initiative is the Customs Trade

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<sup>33</sup> Strategic Plan For The South African Police Service - 2002/2005.

Partnership Against Terrorism (C-TPAT). This is a joint government-business initiative designed to build cooperative relationships that strengthen the overall supply chain and border security.<sup>34</sup>

South Africa signed the U.S. Container Security Initiative with the U.S. in June 2003. Durban, through which 70% of Africa's containerized traffic flows, became the first African port to sign the agreement. A U.S. Customs and border protection unit is to be stationed at Durban's port to inspect U.S.-bound containers to prevent weapons of mass destruction being shipped to the U.S. The agreement requires both parties to exchange information and work together to identify, screen, examine and seal high-risk containers and station customs officials at each other's seaports that handle significant volumes of direct container traffic between the two countries.<sup>35</sup>

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<sup>34</sup> "Semiannual Report to the Congress", Department of Homeland Security, Office of Inspector General, October 1, 2002 – March 31, 2003, dated April 30, 2003, pp. 11-12.

<sup>35</sup> Business Day (South Africa), Friday, July 25, 2003.

## **IX. U.S. Coast Guard Functions Performed in Mozambique**

### **A. Overview of Mozambican Navy and Air Force**

The Mozambican Air Force has 7 transport aircraft, 8 training aircraft, and nine helicopters.<sup>36</sup> Of the helicopters, most are non-operational. The Mozambican Navy has no ships and there is no Coast Guard *per se*. Since 1996, the Ministry of Defense has wanted to buy two to three patrol boats for fisheries protection and for smuggling prevention but has not received budget for these. The defense budget was US\$87 million in 2000 (estimated 1.4 billion metical), down from US\$94 million (1.2 billion metical) in 1999.<sup>37</sup> The total size of the armed forces is estimated at 10,600 to 11,600 personnel, of which 9,000 to 10,000 are in the army. Conscription of two to three years has been introduced but in practice is highly selective. The navy has 600 personnel and the air force 1,000. Due to downsizing, no significant procurement has taken place recently and none is expected. The rebel forces of the Renamo movement have now been demobilized or integrated into the national armed forces and police forces.

The Ministry of Defense is aware that the U.S. has given Madagascar four to seven vessels and the Seychelles two vessels as Excess Defense Articles (EDA) in the past few years. They said that they wanted to build up their own seagoing capacity since the lack of one has encouraged lots of illegal activity. They said they preferred to build their own seagoing capacity rather than relying on a neighbor like South Africa for maritime security.

Mozambique is currently involved with two committees within SADC: 1) Inter-state defense and security and 2) Interstate policy and security. These committees are tasked with consideration of various regional security proposals for maritime security.

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<sup>36</sup> Institute for Security Studies, 2001, South Africa, [www.iss.co.za](http://www.iss.co.za).

<sup>37</sup> Institute for Security Studies, 2001, South Africa, [www.iss.co.za](http://www.iss.co.za).

## **B. Fisheries and Wildlife Protection**

### **1. Ministry**

Fisheries protection falls under the Ministry of Fisheries (Fondo do Pescado).

### **2. Priority and political/social support**

Illegal fishing is a major problem in Mozambique. The prevalent species are tuna, snapper, grouper and shrimp. The World Wildlife Fund (WWF) is concerned at reports that illegal, unlicensed vessels are fishing in Mozambique waters, using techniques that have left an estimated 40 marine turtles dead since the start of 2003. The turtle carcasses are washing up on Mozambican beaches, often beheaded or with their throats cut. Tourists have reported that the vessels are operating within the Bazaruto Archipelago National Park, recently celebrated as a “Gift to the Earth” by WWF and the people and government of Mozambique. The boats are said to be of Chinese, Korean, or Taiwanese origin, and are using long-lines to catch sharks — possibly for the lucrative shark fin market in East Asia.

Operating outside the law, these illegal fishing vessels cannot be controlled by regulations or by zoning to exclude activities in sensitive areas. In the past months, WWF has alerted the Mozambique Navy, supplied them with available information and pictures, and transported a contingent of military officers to Bazaruto. However, WWF is concerned that Mozambique's navy is relatively helpless to respond as they have neither boats nor helicopters for patrolling. In addition, the culprit vessels are suspected to be armed.

The illegal long-line fishery is adding to the already heavy pressures on Mozambican turtle populations from the shrimp trawling industry. A recent study estimated that each year, shallow-water shrimp trawlers operating in Sofala Bank in central Mozambican waters kill between 1,900 and 5,400 marine turtles caught as bycatch. Legislation requiring the use of Turtle Exclusion Devices (TEDs) could be implemented through the appropriate changes to Mozambique's fishing regulations. A review of these regulations is happening currently.<sup>38</sup>

The Indian Navy had two vessels stationed in Maputo Port during the recent July 2003 African Union meetings and they reported lots of near-shore illegal fishing activity. The sector is also rife with corruption at senior government levels acting as fronts for the Koreans and other nations. According to USAID Maputo, some very important people are getting rich from the illegal fishing trade.

Despite these issues, the International Cooperation Department of the Ministry of Planning and Finance said that the environment is the main issue for government policy and not fisheries particularly. There was a large oil spill around 1996 which wiped out

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<sup>38</sup> World Wildlife Fund, “Beheaded Turtles washing ashore in Mozambique”, January 29, 2003, [www.panda.org](http://www.panda.org).

the small scale fishing industry. The fishermen protested and the government began to give them subsidies to compensate them for their lost catches. The government supports conservation of natural resources and training for small-scale fishermen. Small-scale fishermen are considered the biggest contributors to the Mozambican fishing industry and yet they do not attract enough investment. Also, there are few boats equipped with refrigeration equipment so it is difficult to build an export industry around these small fishermen.

### **3. Organizations functioning in sector**

The Ministry of Fisheries mentioned that they had received a proposal from the Nimrod Group of the UK to provide fisheries enforcement services but wanted the Mozambican government involved (i.e., not a private Coast Guard structure like Concord proposed). They said they rejected the proposal because they were not sure about the group's reputation.

The World Wildlife Fund has an office in Maputo. They have successfully lobbied to have Turtle Exclusion Devices (TEDs) included in fishermen's nets so that rare loggerhead and other types of turtles will not be killed as bycatch. Indeed, there was a television show on a South African network recently that showed that many rare turtles were washing up headless on Mozambican beaches because fishermen were cutting them out of their nets.

Italy has been involved in training of the Mozambican police.

### **4. Current equipment and systems (purchase decisions and decision-makers)**

Due to downsizing, no significant procurement has taken place recently and none is expected.

### **5. Revenue, expenditures, costs, control of budget for function**

Military expenditure declined rapidly after the end of the civil war. It constituted 2.4% of GDP in 1999, compared to 10.1% in 1990. Health expenditure in 1998 was 2.8% of GDP.<sup>39</sup>

The Ministry of Foreign Affairs created International Cooperation Departments (ICD) within each Ministry to work with donor aid organizations and other public sector partners to manage the aid flows (whether money or goods and services) received by Mozambique. According to the government finance representatives that spoke with us, the 2002 capital expenditure budget for fisheries conservation (mostly subsidies to small fishermen) was 176,254.30 bln metical, which, if correct, would translate into \$7.7 mln. The 2002 operating expenditures budget for Ministry of Fisheries was 29,908.4 bln metical. The government expected the budget for 2004 to be the same. They said that fishing license fees were 13,223.4 bln metical (\$58,000) in 2002. The Ministry of

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<sup>39</sup> UN Development Program, Human Development Report, 2001.

Fisheries disputed all of these numbers and said that his budget was 94,000 bln meticals (\$4 mln) in 2002.

## **6. Sources of potential revenue**

The U.N. FAO has identified the West Indian Ocean as one of just three areas globally which has the lowest incidence of fully exploited, overexploited, depleted or recovering fish stocks and which have some underexploited or moderately exploited stocks. For ecological reasons, it would seem that it is in the Mozambican government's interest to manage this resource in a sustainable manner. For economic reasons, sustainable management could pay rich dividends to the people and government of Mozambique in terms of increased licensing revenue and revenues from fines and forfeitures of impounded vessels if they had an effective maritime security presence.

## **7. Special initiatives**

The Ministry of Fisheries has stated that it wants technical assistance from the U.S. to quantify fishing revenues lost to illegal fishing and would also like more training in fisheries law enforcement from NOAA, if possible.

### **C. *Environmental Surveillance and Protection***

#### **1. Ministry**

This is handled by the Ministry of Environmental Coordination.

#### **2. Priority and political/social support**

This function has little support and no budget except for aid from foreign governments or non-governmental organizations (NGOs) like the World Wildlife Fund. As stated above, there was a large oil spill around 1996 which wiped out the small scale fishing industry. The fishermen protested and the government began to give them subsidies to compensate them for their lost catches.

### **D. *Search and Rescue***

#### **1. Priority and political/social support**

The Mozambican government has no sea-going capability and so is unable to perform search and rescue operations.

### **E. *Counter-Terrorism, Alien Migration Interdiction Operations, Customs Enforcement and Tariff Collections, Drug Interdiction and Law Enforcement***

#### **1. Ministry**

Responsibility for counter-terrorism efforts falls under the auspices of the Ministry of Defense and the police. Customs enforcement is handled by the Ministry of Finance. Portos E. Caminhos de Ferro de Mozambique (CFM) is the Mozambican Ports and Railway Authority and they have their own port police for customs enforcement. Drug interdiction is handled by the Ministries of Defense and Interior. Alien migration interdiction is handled by the police.

## **2. Priority and political/social support**

The Ministry of Defense said they were concerned with the illegal drugs and arms smuggling between South Africa and Mozambique. However, they are ill-equipped to stem the flow.

## **3. Control of budget for function**

Given the state of interdiction and enforcement for the above sectors, it seems that the Mozambican government has committed too few resources to these areas.

## **X. U.S. Coast Guard Functions Performed in Namibia**

### **A. Overview of Namibian National Defense Force**

The Namibian National Defense Force had 9,000 personnel in 2001.<sup>40</sup> At independence, Namibia had no defense force and it had to be built from scratch. Since then, significant progress has been made. Former members of the People's Liberation Army of Namibia (PLAN) and the South West Africa Territory Force (SWATF) were demobilized and many of them were recruited into a unified Namibian National Defense Force (NDF). The Defence Amendment Act (Act 20 of 1990) sets out a variety of legal requirements for the composition and organization of the NDF. The Defence Policy Paper approved by the National Assembly in March 1992 presents policy guidelines for the development of the Ministry of Defense and the NDF.

The Maritime Wing is about to be formally organized as a Navy, according to informed sources. It has three middle-sized lightly armed patrol boats (50, 45 and 24 meters), one Cessna Caravan and six Cessna 02 aircraft for coastal patrol and approximately six helicopters. Specific tasks of the Maritime Wing of the Namibian NDF include assisting civil (police) forces to combat illegal immigration, smuggling (arms, drugs etc.) and threats to the environment; conducting maritime surveillance, search and rescue; and assisting the Ministry of Fisheries with enforcing a fisheries protection regime. A longer term peacetime task is the protection of offshore oil, gas, diamonds and other installations.

The British Military Advisory Training Team (BMATT) program covered the period from April 1990 – March 1995. From the outset, the main roles envisaged for the NDF were: to ensure the maintenance of sovereignty and territorial integrity; to provide assistance to the civil authorities and to the civil community when required; to undertake ceremonial functions and to assist the process of reconciliation. Namibia also operates a civilian police force.<sup>41</sup>

According to the Namibian Ministry of Defense, its procurement policy is to purchase the best quality equipment, and materiel available provided that it: 1) suits Namibia's terrain, climate, personnel, storage, accounting and other requirements, 2) can be logistically supported, maintained and repaired in Namibia, as far as is practicable, 3) can be delivered to or supplied in Namibia within the required timescale, and 4) is available at the cheapest possible all-inclusive price, and with the most favorable terms of payment. Goods manufactured within Namibian owned and staffed companies are given preference provided that the above conditions are met. The MOD intends to trade freely throughout the world. Given the nature of defense, however, NDF has vowed not to become dependent on any one source of supply. In 2001, it purchased \$25 mln in conventional arms imports and made exports of \$25 mln in conventional arms.<sup>42</sup>

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<sup>40</sup> International Institute for Strategic Studies, 2001.

<sup>41</sup> Website of the Government of Namibia, [www.grnnet.gov.na](http://www.grnnet.gov.na).

<sup>42</sup> International Institute for Strategic Studies, 2001.

According to a South African bank, the government of Namibia just purchased five to six vessels from South American boatyards.

## **B. Fisheries and Wildlife Protection**

### **1. Ministry**

Established in 1991, the Ministry of Fisheries and Marine Resources was tasked with the sustainable utilization of Namibia's fish resources. Before independence, the former administration had jurisdiction over territorial waters 12 nautical miles offshore, while the remainder was managed by the International Commission for South East Atlantic Fisheries (ICSEAF). Some of the stocks fished under ICSEAF jurisdiction were inherited in an extremely over-fished state, primarily due to over-fishing by Eastern bloc trawlers, and a process of rebuilding the stocks was embarked upon. Investment in vessels, facilities on land and getting Namibians involved in the fishing industry were all set as major targets and have been pursued ever since.

Alongside these activities measures have been adopted to assure the sustainability of resource utilization in the long run. By implementing stringent fisheries management policies, Namibia is now well on course with the complex process of re-building fish stocks. Namibia established a 200 nautical mile Exclusive Economic Zone (EEZ) and has successfully managed to eliminate illegal fishing activities by foreign fleets. Special incentives for fisheries industrial development have attracted foreign and local interests and shore based processing plants have grown both in number and in diversity.

Namibian vessels are increasingly active in waters outside the Namibian EEZ, i.e. waters of other countries and the high seas. This means that it is broadening its focus from being purely a coastal state protecting its resources from potential illegal foreign fishing and developing its local industry to recognizing and facilitating the legitimate interests of the Namibian industry in operating elsewhere, while ensuring that the interests of other countries are respected and international goals for the conservation of high seas resources are met.

### **2. Priority and political/social support**

Namibia appears to be more advanced than South Africa for the time being in the area of fisheries management protection due to its key importance to the national economy. It is also headquarters for a number of regional and international fisheries conservation and management initiatives, as noted below.

### **3. Organizations functioning in sector**

The Ministry of Fisheries, Policy, Planning and Economics (PPE) Department, exists to manage development of the fisheries sector both nationally and internationally and incorporates fisheries administration.

The Benguela Current Large Marine Ecosystem Program is operated out of Windhoek, the capitol, as a joint initiative of the governments of South Africa, Namibia and Angola.

The regional Fisheries Management Organization for the South East Atlantic (SEAFO) will be located in Namibia, which through its Ministry of Fisheries and Marine Resources also hosts the Interim Secretariat that will be operating until the Convention enters into force and its Commission has been established. The SEAFO Convention text was signed on April 20, 2001 by coastal states – Angola, South Africa, Namibia and United Kingdom of Britain (on behalf of St. Helena and its dependencies of Tristan da Cunha and Ascension Island) and deep-water fishing nations - European Community, Iceland, Norway, Republic of Korea and United States of America.

The SEAFO convention is the first international fisheries agreement establishing a regional organization to manage and conserve straddling fish stocks following the adoption of the UN Fish Stocks Agreements in 1995. The Convention provides for a management regime ensuring long-term conservation and sustainable use of fish resources on the high seas of the South East Atlantic Ocean. SEAFO is responsible for the imposition and maintenance of such regime through the establishment and implementation of conservation measures. The area demarcated under the Convention covers a sizeable part of the high seas of the South East Atlantic Ocean.

One of the main tasks of the Interim Secretariat is to implement the various interim obligations in the Convention which includes the collection and circulation to Contracting Parties of catch data and register of fishing vessels fishing in the Convention Area.

Pertec of Cape Town, South Africa, sells most of the maritime communications and navigation systems purchased in Namibia. They also sell to customers in Angola and Kenya. Some of their customers in Namibia and Angola are Russian fishing companies.

#### **4. Current equipment and systems**

Namibia has received two fishing research ships as aid from Japan and one research ship from Norway. Both Denmark and Norway have donated fishing patrol vessels to the country for enforcement. The Norwegian Maritime Training Academy is also based in Walvis Bay. The Ministry of Fisheries Marine Resources operates two patrol boats out of Walvis Bay and a few other smaller vessels.

#### **5. Revenue, expenditures, costs, control of budget for function**

The Ministry of Fisheries and Marine Resources, Policy, Planning and Economics (PPE) Department manages the collection of fees generated by fishing activity and manages the collection and preparation of information and fishery statistics.

The Ministry of Fisheries and Marine Resources has the following fees and levies that are payable to it by the fishing industry:

Quota Fee	Quota fees are charged to the holders of rights to exploit certain commercial fisheries. Once right holders have accepted their quota allocation, they become liable for the payment of a quota fee, whether the fish is caught or not.
Bycatch Fee	Namibian vessels are required to bring all catches to shore. To prevent them from targeting species that they do not have a license for, a bycatch fee is charged, at a rate depending on the species.
Sea Fisheries Fund Levy	Sea fisheries fund levies are used to fund fisheries research.
License Fees	Fees payable for licenses / permits to, fish / licenses for premises, vehicles or vessels used as factories

## 6. Special initiatives

NOAA has reportedly spoken with Namibian fisheries law enforcement officials, who have requested training. This needs to be followed up.

### ***C. Environmental Surveillance and Protection, Search and Rescue, Counter-Terrorism, Alien Migration Interdiction Operations, Customs Enforcement and Tariff Collections, Drug Interdiction and Law Enforcement***

#### 1. Ministry

The Ministry of Environment and Tourism is tasked with environmental protection. The other functions are handled by the police or the Maritime Wing of the Namibian NDF.

#### 2. Priority and political/social support

Recent environmental effects have brought into sharper focus the inter-relationship between fish stocks in Namibia, South Africa and Angola, respectively, within the Benguela Current System and have encouraged the Namibian government to give greater priority to collaborative efforts to manage this system and its stocks holistically.

#### 3. Organizations functioning in sector

The Maritime Wing is about to be formally organized as a Navy. Specific tasks of the Maritime Wing of the Namibian NDF include assisting civil (police) forces to combat illegal immigration, smuggling (arms, drugs etc.) and threats to the environment; conducting maritime surveillance, search and rescue; and assisting the Ministry of Fisheries with enforcing a fisheries protection regime. A longer term peacetime task is the protection of offshore oil, gas, diamonds and other installations.

The Benguela Current Large Marine Ecosystem Program is operated out of Windhoek. Part of its mandate from the UNDP is to coordinate efforts to control marine pollution and ensure that oil pollution contingency plans are complementary in South Africa, Angola and Namibia.

## **XI. U.S. Export Potential**

### **A. U.S. Suppliers of Goods and Services to the Maritime Security Sector**

There are many current U.S. suppliers of goods and services to the maritime security sector globally. Below is a subset of these suppliers which were directly mentioned during the DM:

- Telephonics provides avionics upgrades to C130 aircraft and have bid on providing these upgrades to the SAAF. The radar upgrades for the SAAF Oryx and C130 aircraft have been valued at \$12 mln.

- DEAT-MCM in South Africa has been in discussions regarding leasing Lockheed Martin LU-38 aircraft upgraded by U.S. company, Basler Turbo Conversions. These aircraft would cost \$6 mln per unit. The current budget of DEAT only allows for a leasing option and there is concern that the lack of resident management skills at DEAT adversely impacts their ability to integrate and manage these types of assets at this time. Basler began converting DC-3s in 1991, with the South African Air Force as its first customer.

- Basler also has an opportunity to provide aircraft upgrades to the Namibian Air Force to upgrade its S&R capacity as required by the South Atlantic Maritime Protocol. Potential value of the exports could be \$9 mln per unit.

- Raytheon manufactures high frequency wave surveillance radar systems that could be useful in locating illegal fishing activities. They also produce several types of fixed-wing aircraft, such as the B1900, King Air 350s and Hawker 800s, which would be ideally suited to near-shore maritime air patrol, according to various sources.

- MD Helicopters of Arizona manufactures 100% U.S. content light-utility helicopters used by many police and drug interdiction organizations worldwide. They were sold after the merger of McDonnell Douglas and Boeing to a Netherland Antilles-based Dutch company. They have a potential sale to the Namibian police force under discussion now.

- Monitoring, communications and surveillance systems and equipment are supplied by RDI of San Diego, Inmarsat (US), Iridium (US), Argos (US), and Qualcomm (US), Orbcomm (US/Canada/Malaysia), Stellar Satellite Communications (US subsidiary of Israeli firm), and Boatracs (US).

## **B. Current Exports**

Total U.S. exports to South Africa topped \$4.2 bln in 2001.<sup>43</sup> U.S. exports to South Africa consisted primarily of aircraft and parts, machinery and mechanical appliances, and vehicles and parts. Maritime security exports are not possible to determine since they cut across many different industries. U.S. representation and marketing for Raytheon, Pratt & Whitney, Gulfstream and Bell-Textron Helicopter in South Africa is provided by National Airways & Finance Corp. Limited (NAC). Comair is the representative for MD Helicopters and Cessna. Both representatives sell U.S.-manufactured aircraft throughout Africa for American companies, but may not necessarily be staffed by American employees.

## **C. Competition**

South Africa produces many similar types of equipment to those that are included in the DEEPWATER program. BAE Systems mentioned that, locally, SA can source SEKA UAVs (drones) from Kentron, part of Denel, Rooivalk helicopters from Denel, which are made under French license in South Africa, and Oryx/Westland/Agusta helicopters, which are internationally competitive in price and quality with comparable U.S. equipment. BAE felt that Raytheon's shore-based long-range radar was competitive in SA and that the SA defense industry was missing information integration systems that are commonly available in the U.S.

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<sup>43</sup> U.S. Eximbank, Africa Country Profiles, 2003.

## **D. Potential Exports by Category and Dollar Values**

### **1. Aircraft**

- Concord Maritime Academy, Cape Town, is considering the purchase of either Hawker 800 or King Air 350 aircraft to patrol the waters around the Seychelles as their “private Coast Guard”. They mentioned that they like Raytheon products.
- Namibia’s police force is considering purchase of some light utility helicopters from MD Helicopters.
- South African Forces currently operate mostly C-130B aircraft, with a few C-130F aircraft. The latest C-130J aircraft is a significant improvement over its predecessors and offers greatly increased performance, better reliability and reduced maintenance and ownership costs. Upgrading/retrofitting the South African fleet to C-130J aircraft might be a potential export program that could be performed in conjunction with Denel, Aerosud or some other local partner and that could pay real dividends in terms of increased mission capabilities and lower operating and maintenance costs.

### **2. Vessels**

- Concord Maritime Academy is outfitting its small high-speed patrol boats and is considering powering them with Caterpillar engines. They are looking to buy four engines for approx. \$2 mln each.

### **3. Surveillance Equipment**

- Concord Maritime Academy is considering the purchase of Raytheon Canada’s high frequency long range radar system for use in the Seychelles and for the other countries it is hoping to attract to its “private Coast Guard” approach.

### **4. Monitoring, Communications and Surveillance Systems**

- Pertec imports navigational and oceanographic equipment from RDI of San Diego. Their satellite communications suppliers include Inmarsat (US), Iridium (US), Argos (US), and Qualcomm (US). Other players in the field, not carried by Pertec, include Orbcomm (US/Canada/Malaysia), Stellar Satellite Communications (US subsidiary of Israeli firm), and Boatracs (US).

### **5. Consulting Services**

- As a part of the bidding process for the IDS contract, Lockheed Martin developed a proprietary computer model to define the mission requirements, possible options and best configurations for the USCG’s maritime equipment needs. With Lockheed’s interest and valid inputs, this model and related program development and management services could be sold as a consulting service to countries attempting to develop maritime security, environmental protection, or customs and border patrol programs. Using the model, it would be possible to help customers define their programs and develop their acquisition strategies by either defining the minimum program to realize a specific requirement or to achieve the maximum performance against a requirement with a set budget.

## ***E. Opportunities for Cooperation and Joint Ventures***

Denel is seeking to align itself with Lockheed Martin and to obtain accreditation from it to be able to perform C-130 aircraft maintenance in SA. It said it wanted to be able to create South African solutions for South African purchase. It sees the maritime sector as a growing market with equipment needs that necessitate more frequent operations and patrols. They are looking to shift from military customers to more civilian customers, since they see the military market as relatively flat (“you only need so many jet fighters”). They felt that Lockheed should establish an office in South Africa.

## ***F. Local Currency Financing***

### **1. South Africa**

Financing for U.S. exports to the maritime security sector fall into two categories: 1) civilian, non-defense related export financing and 2) defense-related foreign military sales financing or aid. When the articles to be exported are not offensive or defensive weapons, they should qualify for potential U.S. Eximbank support and commercial bank loans. The DM focuses on these types of civilian exports due to USTDA’s mandate. Defense-related equipment is usually financed or given as aid at a government-to-government level and usually has no commercial bank involvement. This has an impact on availability of financing for dual-use products.

The top South African banks dominate the domestic and regional bank market. These banks include ABSA, Nedbank, Rand Merchant Bank (part of FirstBank), and Investec. The export credit agency of South Africa, ECIC, performs functions similar to those of U.S. Eximbank in supporting South African exports. The South African banks can provide loans, leasing and tax-structured financing for vessel and aircraft deals.

There are several foreign banks with branches in South Africa including Citibank, ABN AMRO Bank, and Deutsche Bank, among others. The foreign banks have some ability to lend for the short- and medium-term in South African rand (ZAR). However, due to the currency funding mismatch, they inherently are at a disadvantage to local South African banks that fund themselves and lend primarily in ZAR and can do so for long tenors at lower cost than foreign banks.

Thus, foreign banks will usually team with local banks for deals which are a mix of imports and locally-produced products and services. The foreign banks will usually lend in USD or EUR under export credit agency guarantees from their home country or other OECD countries. Given that US Eximbank and ECGD are 100% guarantees of principal and interest in case of default, banks consider these to be 0% risk-weighted assets and most central banks do not require them to hold reserves against these loans in case of default. The other European export credit agencies often cover 95-99% of principal and interest in case of default, and as such, require banks to provision for a small portion of residual risk (which often drives up the fees that banks charge to make these types of loans). For the 15% down payment portion of each transaction amount that is not covered by U.S. Eximbank, the local South African banks are often involved in

providing down payment financing. Nedbank specifically mentioned providing down payment financing for exports for Barlow, the Caterpillar affiliate in South Africa.

Besides loans, the local South African banks mentioned that there is a trend by the SA Treasury to encourage different parts of the government to raise their own financing for specific infrastructure projects. Nedbank was a Lead Arranger for the recent Pakwena Highway toll road project (ZAR 3.5 bln, \$467 mln), which was partially funded by a local bond issue. A high-speed rail line between Pretoria and Johannesburg is also under discussion for local bond financing.

The local South African banks that the DM consultant spoke with were conceptually interested in financing U.S. exports of equipment for the maritime security sector in South Africa. They had experience with aircraft, ship and trade financing, and have worked with foreign export credit agencies. As is the case the world over, banks need to be given a specific borrowing request before they can assess risks and quote financing rates. Without a “real deal” to discuss, all banks are willing to meet and discuss their risk appetite in generalities before they have hard data to bring to their credit committees for approval.

The local SA companies that import and export significant amounts of equipment seem to be poorly served by the local banks for their trade finance needs. Many local firms were not aware of some relatively unsophisticated trade financing techniques, whether import or export, that are commonplace in the U.S. market. Local banks seemed to be somewhat less innovative and aggressive in their marketing efforts to local exporters than their U.S. counterparts. Many local firms only accept cash upfront as payment for domestic or intra-regional sales of U.S. products. By not offering extended financing terms to local and regional buyers, there are fewer sales of U.S. goods and these are restricted to companies with sufficient excess cash flow to pay upfront.

The banks also commented that South Africa has not really focused on maritime security as a priority up until now. Priorities such as black empowerment, increasing the rights and economic status of historically disadvantaged individuals, combating crime and stabilizing the economy have taken precedence over maritime affairs and counter-terrorism efforts.

## **2. Mozambique**

Banco Standard Totta de Moçambique (BSTM) is one of the top banks in Mozambique, with total assets of \$280 mln and 20% of the local market. It is partially owned by Standard Bank of South Africa. Eight percent of its deposits are short-term (sight or 3-6 months). It claims 3% non-performing assets and a return on equity of 44% last year. They claim to be the only local bank following international accounting standards (IAS) and KPMG is their auditor. They prefer not to make loans to the government due to their poor repayment record. They said that the metical (MZM, the local currency) had depreciated 29% against the South African rand in the past twelve months, making imports from South Africa more expensive.

As Lead Arranger, BSTM issued \$4.2 mln (in metical equivalent) for the Mozambican government last year. It held \$2 mln of the issue, and owns other Mozambican government short-term bills and long-term bonds. BSTM also raised \$7 mln in 10 year local currency financing for a sugar mill rehabilitation project in Beira. The loan rate was 5% over MIBOR (LIBOR for meticals). The loan structure called for one year of construction, two years' grace period and seven years' repayment.

### **3. Namibia**

The top banks in Namibia are First National Bank of Namibia, Standard Bank of Namibia, Bank Windhoek, Agribank of Namibia, Namibia Post Savings Bank City Savings and Investment Bank and Commercial Bank of Namibia. The Namibian market is very small (population of 1.8 mln people) and as such, there has been a fair amount of investment in the country from foreign banks, especially South African banks, rather than home-grown development of the local bank market. Bank Windhoek is owned 36% by ABSA Group Limited of South Africa and Standard Bank of Namibia is owned 100% by Standard Bank Group Limited of South Africa. Nedcor Investment Bank of South Africa owns NIB Namibia and an equity stake in the Commercial Bank of Namibia.

The Namibian Dollar (NAD) is pegged on par with the South African rand exchange rate against the U.S. dollar. Namibia sources more than 80% of its imports from South Africa which means inflation developments in these two countries are closely correlated. Besides large amounts of investment by South African banks in Namibia, Namibian banks are able to lend in ZAR as well as NAD. Large projects in Namibia can be funded by the Namibian banks themselves. However, it is not unheard of that local financing in Namibia is provided by South African banks directly. Nedbank of South Africa has provided financing in Namibia in the past. Despite the appearance that the Namibian bank market runs in parallel to the South African bank market, Namibian banks were charging 1% over comparable South African bank rates. The Namibian Central Bank forced them to reduce this gap to 0.25% over South African bank rates in 2002.<sup>44</sup>

### **G. *International / Foreign Currency Financing***

Of the three countries discussed in this DM, only South Africa has been rated by an international credit rating agency. In May 2003, Standard and Poor's (S&P) raised its long-term foreign currency ratings on South Africa from 'BBB-' to 'BBB', and its local currency ratings from 'A-/A-2' to 'A/A-1'. Standard and Poor's also affirmed South Africa's 'A-3' short-term foreign currency ratings, declaring the outlook for these ratings as "stable". This was the fifth ratings upgrade South Africa had received from S&P in the eighteen months prior to May 2003, when Fitch Ratings upgraded South Africa's long-term foreign currency rating from 'BBB-' to 'BBB'.<sup>45</sup> With the upgrading of its sovereign rating, South Africa will be able to raise international bond funding more cheaply in global markets.

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<sup>44</sup> Annual Report 2002, Standard Bank Namibia.

<sup>45</sup> [http://www.safrika.info/doing\\_business/economy/fiscal\\_policies/creditratings-080503.htm](http://www.safrika.info/doing_business/economy/fiscal_policies/creditratings-080503.htm).

Rand Merchant Bank of South Africa provided pre-delivery financing to Kenya Airways, prior to its acquisition of Boeing aircraft in the late 1990's with U.S. Eximbank guarantees.

In January 2003, the U.S. Overseas Private Investment Corporation (OPIC) approved a \$125 mln guaranty facility that will support Citibank's lending efforts throughout Africa, with an initial focus on Angola, Botswana, Cameroon, Ethiopia, Kenya, Mali, Mozambique, Nigeria, Senegal, Tanzania and Uganda. The facility is to mobilize long-term capital for investment in sub-Saharan Africa. This facility could be attractive for U.S. companies setting up manufacturing or aquaculture facilities in Sub-Saharan Africa.

Approved in June 2003, OPIC is providing a \$29.6 mln loan to rehabilitate the existing rail and port system operating in the Nacala Corridor between Mozambique and Malawi. The project assists Mozambique in restoring its physical infrastructure, much of which was destroyed during the two-decade civil war.

According to BSTM in Mozambique, State Street Bank of the U.S. may potentially be interested in Mozambican sovereign risk.

At the moment, Citibank is not operating in Mozambique but has considered a representative office there.

## ***H. Regional Financing***

SADC is a regional organization funded by its twelve member states. According to U.S. Eximbank, it has not yet been approved as an Obligor for any U.S. Eximbank-approved transactions.

## ***I. Multilateral and Bilateral Support***

### **1. U.S. Eximbank**

The U.S. Export-Import Bank provides insurance, loans and loan guarantees to support U.S. export sales. It has supported \$2 billion in U.S. exports to sub-Saharan Africa since it was founded nearly 70 years ago. It is officially responsible for civilian equipment exports and prefers that the ultimate buyer of equipment is not defense-related (i.e., not Ministry of Defense). They prefer to work with buyers such as the Ministry of Finance or Ministry of Environment.

Eximbank can support any exported item that is over 51% U.S. content. The amount Eximbank can support is always a maximum of 85% of 100% of the U.S. content in the item. Eximbank can provide up to 12 year guarantees for South Africa and Namibia private and public sector buyers, subject to their credit requirements. It is only open for one year for Mozambique government borrowers, due to existing defaults on prior Eximbank deals with Mozambique.

Eximbank's Environmental Exports Program offers enhanced medium- and long-term loan and guarantee support for environmental projects, products and services. These enhancements include:

- Local cost coverage equal to 15 percent of the U.S. contract price.
- Capitalization of interest during construction.
- Maximum allowable repayment terms permissible under OECD guidelines. (Repayment terms may not exceed those specified in Ex-Im Bank's Country Limitation Schedule.)

These features are intended to substantially improve the competitive position of U.S. environmental exporters. In addition, Ex-Im Bank will aggressively use its tied aid resources to offset foreign concessionary financing offers for environmental projects. Exports qualifying for enhance support under this program include products or services for foreign environmental or renewable energy projects or facilities, or the export of products and services *specifically* used to aid in the prevention, abatement, control, or mitigation of air, water and ground contamination or pollution, or which provide protection in the handling of toxic substances and wastes, subject to Ex-Im Bank's determination.

Exports of the following types of products, which may be applicable to maritime security exports, are generally considered eligible:

- Instruments to measure or monitor air or water quality
- Emission or effluent pollution control equipment
- Services to upgrade environmental regulations
- Environmental assessments, ecological studies, environmental engineering and training services
- Ecological monitoring equipment
- Hazardous and toxic material handling devices

Ex-Im Bank's Sub-Saharan Africa Advisory Committee represents various sectors of the U.S. economy that have experience doing business in Africa. The committee will meet three times in 2003. Eximbank can also guarantee loans that are denominated in ZAR. Eximbank has Master Guarantee Agreements with various banks in the region: in Mozambique, with BSTM and Banco Internacional de Mozambique (BIM). BSTM imported \$1.5 mln of Mack trucks from the U.S. last year under the MGA.

## **2. U.S. Maritime Administration Agency (MARAD)**

MARAD's Title XI program provides guarantees by which banks can make long-term, low interest loans to foreign buyers of U.S.-built vessels. It can finance the retro-fit of foreign-flagged, but U.S.-built vessels as well. It has relationships with all the major U.S. shipbuilders, including Ingalls, Bollinger, Avondale, Halter Marine, Northrop Grumman/General Dynamics. Up until now, MARAD has never financed purchases of vessels by sovereign buyers (such as Department of Defense or Ministry of Fisheries-type entities). While they could conceivably guarantee a sovereign buyer, it seems

unlikely that Title XI financing would be applicable to support any exports of the DEEPWATER program. Additionally, South Africa has a healthy and lower cost domestic shipbuilding industry that would make U.S.-built vessels prohibitively expensive for them.

### **3. Overseas Private Investment Corporation Funds**

OPIC is setting up a Global Private Equity Fund. The responses to the Request for Proposal (RFP) were due by August 25, 2003. OPIC is also setting up a targeted private equity investment fund program, or fund-of-funds, the EFSI. The responses to the RFP were due August 18, 2003. Both of these funds would be available to mobilize equity funding for projects with substantial U.S. investment in, for instance, the aquaculture sector in South Africa, Mozambique and Namibia. Rand Merchant Bank of South Africa is involved in the development of one of these funds.

### **4. World Bank – IFC, IBRD, IDA**

The International Bank for Reconstruction and Development has agreed in principle to fund part (\$350 mln of the \$500 mln sought) of the project rehabilitating Mozambique's rail links with Malawi in the Nacala Corridor and Zimbabwe. The IBRD's contribution will come in the form of technical assistance and low interest loans.

The IFC has a relatively small (\$207.6 mln) existing portfolio in South Africa, of which \$95.4 mln accounts for loans and \$112.2 mln accounts for equity in South African companies. Its largest loan is to African Bank (\$41.2 mln), and second largest to FirstRand Bank (\$27 mln). As an upper middle income developing country, South Africa represents a small percentage of the IFC's overall investment portfolio.

### **5. Other Development Agencies and Non-Governmental Organizations**

The Government of South Africa organized the first donor conference for South Africa in Pretoria in April 1996. There are around 30 donors active in South Africa, and these are predominantly engaged in grant-making and technical assistance in a wide range of sectors. In 2001, the South African government received \$428 mln in official development assistance (ODA), of which 75% was bilateral. The top ten donors of gross ODA in 2000-2001 (average) were: the EC (\$110 mln), the U.S. (\$96 mln), the U.K. (\$57 mln), Germany (\$39 mln), the Netherlands (\$30 mln), Sweden (\$29 mln), Japan (\$17 mln), Denmark (\$16 mln), Norway (\$16 mln) and France (\$16 mln)<sup>46</sup>. There are also numerous nongovernmental organizations active in South Africa.

The Government of Mozambique received \$935 mln in ODA in 2001, accounting for about 60% of its total national budget. Seventy-four percent of the ODA was bilateral. The top ten donors of gross ODA in 2000-2001 (average) were: the U.K. (\$134 mln), Portugal (\$106 mln), the U.S. (\$104 mln), the International Development Agency of the World Bank (\$79 mln), the EC (\$78 mln), the Netherlands (\$74 mln), Denmark (\$48

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<sup>46</sup> Organization for Economic Cooperation and Development and the World Bank, [www.oecd.org](http://www.oecd.org), [www.worldbank.org](http://www.worldbank.org).

mln), Sweden (\$44 mln), Germany (\$44 mln) and the African Development Fund (\$36 mln).<sup>47</sup> The World Wildlife Fund is one of the many donors and non-governmental organizations active in Mozambique.

The Government of Namibia received \$109 mln in ODA in 2001, 68% of which was bilateral. The top ten donors of gross ODA in 2000-2001 (average) were: the EC (\$39 mln), Germany (\$22 mln), Sweden (\$15 mln), the U.S. (\$12 mln), Finland (\$7 mln), Norway (\$5 mln), Japan (\$4 mln), the U.K. (\$4 mln), the Netherlands (\$4 mln) and Luxembourg (\$4 mln).<sup>48</sup>

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<sup>47</sup> Organization for Economic Cooperation and Development and the World Bank, [www.oecd.org](http://www.oecd.org), [www.worldbank.org](http://www.worldbank.org).

<sup>48</sup> Organization for Economic Cooperation and Development and the World Bank, [www.oecd.org](http://www.oecd.org), [www.worldbank.org](http://www.worldbank.org).

## **XII. Recommendations for USTDA**

Finance Specialists LLC (CA) makes the following recommendations to USTDA regarding follow-up activities associated with this DM:

- Develop an Orientation Visit (OV) for Southern African officials interested in purchasing new or upgrading their existing Monitoring, Control and Surveillance Systems (MCS). Invite officials and civilians involved in policy and day-to-day management of fisheries and marine environmental policy and search and rescue operations, including SAMSA, NDOT, DEAT, Pertec, Smit Marine, Namibian and Mozambican fisheries officials, USTDA, Eximbank, U.S. banks and top U.S. suppliers. The OV should showcase U.S. equipment and systems that are useful for monitoring the marine environment for illegal fishing and pollution control, and oceanographic and navigational information and communications systems. There should be input from NOAA and the U.S. Department of Commerce regarding the U.S. suppliers with the most useful and cost-effective systems, and this should drive the potential locations of the OV.
- Host a technical symposium or conference on U.S. maritime security products and services for coastal African countries, to be held in South Africa. The focus should be on civilian and military products and services where the U.S. has clear technological and/or economic competitive advantages, such as MCS, maritime patrol aircraft, unmanned aerial vehicles, and smaller patrol vessels. Foreign, regional and domestic banks and other financial institutions should be included to optimize potential financing for these imports. Include assistance or participation from the UN Food and Agriculture Organization in Rome, Italy, which has sponsored a recent paper on MCS in developing countries.
- Assist NOAA in providing training in fisheries law enforcement to fisheries officials in South Africa and Mozambique,
- Commission feasibility studies for various key countries to develop their own MCS systems based on U.S.-manufactured equipment.
- Follow-up on the following specific export opportunities mentioned during the course of the DM: Raytheon, MD Helicopters, DEEPWATER.

### **XIII. Additional Sources**

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Pocket Guide of Southern African Aerospace Contacts 2002, U.S. Commercial Service, Southern Africa, 15 Chaplin Road, Illovo 2196, South Africa, tel. +27-11-442-3761/3770/8818, e-mail [Johannesburg.office.box@mail.doc.gov](mailto:Johannesburg.office.box@mail.doc.gov), [www.ussatrade.co.za](http://www.ussatrade.co.za) .

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