



Maritime security in the Indian Ocean: strategic setting and features

BACKGROUND

For millennia the peoples living around the Indian Ocean have benefited from its rich trade, while the interaction resulting from these maritime exploits, whether of a cultural and religious nature, or of conquest and slavery, invariably influenced their lives fundamentally. These traditional patterns of trade and communication changed drastically when first the Portuguese and then other European powers began sailing around the Cape of Good Hope to establish trade links and empires in the East.

Initially Africa was little affected by European maritime activity as the focus was on trade with the East. Africa's primary value was to provide refuge and provisions along a long and often hazardous route. The formidable warships of the European naval powers were rapidly able to establish dominance in the Indian Ocean and projected their influence to the furthest corners of region. Naval forces were crucial for the establishment of national interests and for countering the activities of other European nations. Over the centuries, the British in particular, because of their effective utilisation of sea power, were able to create a large Indian Ocean empire. During the course of the 19th century, European navies also played an important role in maintaining good order at sea, eradicating piracy and countering slavery.

The decolonisation process after the Second World War ended British hegemony in the Indian Ocean. The subsequent Cold War was again marked by superpower rivalry in the region, enhancing the region's global strategic value. When this period came to an end, Indian Ocean countries to a certain extent rediscovered some of the economic, social and cultural facets that made the ocean the bridge between Africa, Asia and Australasia.

However, regional interaction and cohesion still leave much to be desired.

Indian Ocean security is now no longer the domain of colonial states or superpowers, but has become multifaceted and dynamic. New role players such as India and China have become major powers, and new national alliances are changing the scene. But current global realities have introduced maritime security problems as non-state actors are influencing security in the area directly and fundamentally. This is a serious development since the rich Indian Ocean maritime trade, which includes much of the world's energy trade, is crucial to the global economy. It seems that many of the lessons of centuries gone by are again being learned – rather than doing battle, navies have to project power and play a diplomatic role to maintain good order at sea.

Maritime security is a broad, somewhat amorphous area of focus, and the relevant literature covers everything from physical safety and security measures to port security, terrorism and more. A coherent definition is therefore difficult to determine, but, for the purpose of this paper, maritime security deals with the prevention of illicit activities in the maritime domain. It could be linked directly to the national security efforts of a specific country, or it could cover regional and international efforts to enforce maritime security.

This paper centres on the strategic value of the Indian Ocean and the relevant maritime security characteristics and threats. Particular attention is given to issues relevant to Africa. The paper concludes with possible solutions and highlights the importance of international and regional cooperation.

THE INDIAN OCEAN: STRATEGIC CONTEXT AND EMINENCE

The Indian Ocean is vast. Its western border is continental Africa to a longitude of 20° E, where it stretches south from Cape Agulhas; its northern border is continental Asia from Suez to the Malay Peninsula; in the east it incorporates Singapore, the Indonesian archipelago, Australia to longitude 147° E and Tasmania; while in the south it stretches to latitude 60° S as determined per the Antarctic Treaty of 1959.

Various criteria could be used to designate states as Indian Ocean states. In this paper the term applies to 51 coastal and landlocked states, namely 26 Indian Ocean Rim (IOR) states, five Red Sea states, four Persian Gulf states, Saudi Arabia, France, Britain and 13 landlocked states. Many of these states are former colonies. The landlocked states included as Indian Ocean states are dependent upon the Indian Ocean for trade and communications but, with the exception of Afghanistan, they exclude the central Asian states. This delimitation covers an area of 101,6 million km², split between an ocean area of 68,56 km² and a land area of 33,05 km². With a total population of 2,6 billion, the region represents 39 per cent of the global population and consists of a vast and diverse political, cultural and economic kaleidoscope.¹

The Indian Ocean is an area of conflict. Some conflicts are internal and remain localised, but other local and regional conflicts are of global significance and are prone to foreign political and military interference. According to a recent analysis of global conflicts by the Heidelberg Institute for International Conflict Research, altogether 42 per cent of world conflicts can be associated with Indian Ocean countries.² The list is extensive, but notable conflict areas are Israel and Palestine, Iraq, Sudan, Afghanistan, Somalia, Sri Lanka and Pakistan. Though the causes of these conflicts vary, many can be associated with weak or failed states, significant levels of poverty, poorly developed institutions, the absence of democracy, corruption, competition for scarce resources, interference by foreign powers, the global war on terror and what can be termed 'turbulence' in the Islamic world. The urgent need for both human and sustainable economic development and for improved security cooperation within the Indian Ocean region is obvious.

The region is rich in energy resources and minerals such as gold, tin, uranium, cobalt, nickel, aluminium and cadmium, and also contains abundant fishing resources. Oil and gas traversing the Indian Ocean is of great importance to the global economy. Roughly 55 per cent of known oil reserves and 40 per cent of gas reserves are in the Indian Ocean region. The Gulf and Arab states produce around 21 per cent of the world's oil, with daily crude exports of up to 17,262 million

barrels representing about 43 per cent of international exports.³

Indian Ocean ports handle about 30 per cent of global trade and half of the world's container traffic traverses the ocean. However, the Indian Ocean has some of the world's most important choke points, notably the Straits of Hormuz, Malacca, and the Bab el Mandeb. As these choke points are strategically important for global trade and energy flow, a number of extra-regional states maintain a naval presence in the Indian Ocean.

The Indian Ocean seaboard of sub-Saharan Africa has historically not been given high strategic international priority. However, as competition for scarce resources intensifies, and China and India in particular become major role-players in Africa, major Western powers are showing increasing interest in the region.

Significantly, international interest in the whole Indian Ocean region is on the rise. The reasons for this include security concerns about instability that characterises and destabilises the region, the region's vital role in oil production and its importance for energy shipments, the wealth of resources and raw materials in the region, involvement of extra-regional powers in a number of conflicts, and the rise of new regional powers and their ability to project their power.

INDIAN OCEAN MARITIME SECURITY: CHARACTERISTICS AND THREATS

During the Cold War the newly independent Indian Ocean states of Asia and Africa became subject to the competition between the superpowers. The resultant security balance in the region dissipated when the Cold War came to an end. The post-Cold War era saw the region becoming less stable, with much rivalry, competition, suspicion and turmoil.

Moreover, the maritime security environment in the Indian Ocean also underwent transformation. Because of weak government structures and a limited capacity to control maritime domains, all types of illicit activities began to flourish in many parts of the Indian Ocean. As a result, the region's maritime security challenges are now considerable and are affected by key variables such as militarisation within the region, the involvement of major and extra-regional powers, and non-traditional security threats.

Military aspects

Because of these factors, it is perhaps understandable that considerable recent international attention has focused on the maritime security abilities of state, regional and multinational role-players in the Indian Ocean. An analysis of the complex maritime security system has led Don Berlin to identify a number of principal trends.⁴ The first is the

efforts of the United States (US) and to some extent its international partners – India, Australia, Singapore, Japan, France, the United Kingdom (UK) and Canada – to maintain and expand their authority in the Indian Ocean and achieve key strategic objectives. These include attempts to hinder or limit the power and influence of countries such as China, Iran and Russia; to protect secure access to energy sources; and to counter terrorism and other security threats.

The second trend is the endeavour by countries such as China, and perhaps even Iran, Pakistan and to some extent Russia, to strengthen their positions in the Indian Ocean and increase their ability to counter the potential threats that may be posed by the US-aligned states. The third trend is the activities of the littoral Indian Ocean states, which are concerned with national or regional maritime security in relation to specific rivals within their own sub-regions, as attested to by the many maritime boundary disputes and jurisdictional claims in the region. Another trend is indicated by the efforts of IOR states to manage the large variety of transnational and non-traditional threats they face, including environmental challenges, fishing infringements, smuggling and trafficking, piracy and the security of offshore installations.

Since the Indian Ocean is an area of much geostrategic rivalry between the largest IOR states, considerable militarisation has taken place. Two of the top military spenders in the world in 2008 were Saudi Arabia and India. The armed forces of five states in the Indian Ocean region exceed 400 000 men (India – 1 200 000, Pakistan – 610 000, Iran – 440 000, Burma – 439 000 and Egypt – 423 000) and the military expenditure of ten states is above three per cent of GDP (Oman – 10,7, Saudi Arabia – 9,3, Burundi – 4,9, Sudan – 4,4, Singapore – 4,1, Djibouti – 4,1, Kuwait – 3,9, Brunei – 3,6, Bahrain – 3,4 and Pakistan – 3,1).⁵ Although military observers will be quick to point out that the size of an armed force is not necessarily an indication of an efficient, competent and well-equipped force, many Indian Ocean states are certainly placing much emphasis on their military preparedness.

Since the Cold War the US strategic umbrella in the Indian Ocean has widened. Besides its base on Diego Garcia, the US Navy also uses bases in littoral states such as Bahrain, Kuwait, Oman, Qatar and Saudi Arabia. Following the US anti-terrorism campaign in the wake of 9/11, the whole Indian Ocean region came under US military surveillance, while the US Navy was able to translate its commanding position at sea into military interventions. With the assistance of both regional and extra-regional coalition powers, the US has consolidated its naval grip on the region.⁶ In fact, the employment of highly advanced naval forces such as carrier battle groups with their surveillance, support and logistical capabilities made the 2001 invasion of Afghanistan possible. This was

essentially a maritime operation that was dependent on the long maritime reach of the US.

The Indian Navy is undergoing substantial expansion with 40 ships and submarines, including two nuclear submarines and two aircraft carriers, on order. Its target is to have a 165-ship fleet by 2022, consisting of surface combatants, submarines and three aircraft carrier groups with a total of 400 MiG-29K aircraft and helicopters. As some Indian observers are keen to point out, with two aircraft carriers in operation by 2012, 'the balance of power in the Indian Ocean will tilt decisively in India's favour'.⁷ However, it has been emphasised that India seeks cooperation with IOR states and will aim to improve stability in the region.

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Maritime security in the Indian Ocean is characterised by a considerable extra-regional naval presence. Although the focus is obviously trade and energy security, many countries are also providing assistance to the maritime security forces of IOR states. The scourge of piracy and non-traditional maritime threats has furthermore led to multilateral exercises and maritime security interaction. In the light of turbulence in much of the region, ensuring good order at sea poses a daunting challenge to existing maritime security forces. In fact, many coastal navies focus on policing roles and the security of littorals.

With the possible exception of the states mentioned in Berlin's first two categories (above), a considerable number of IOR states, specifically those situated in Africa, lack the resources and budgets necessary to properly enforce their maritime sovereignty. In many instances, their navies or coastguards cannot even be considered to be token navies. The dilemma is that sovereignty must be exercised to be recognised. In the absence of this, a double jeopardy situation arises: as it is not possible to police and control the maritime domain effectively, and maritime domain awareness is low, illicit activities of all types flourish, preventing these countries from exploiting their own ocean resources properly and drawing full benefit from the potential revenue this might bring.

An African Union (AU) Protocol signed in 2003 envisaged the creation of an Africa Standby Force (ASF) consisting of five regional brigades. The ASF was to be a last resort when diplomatic efforts have failed, and would take the form of a peace mission, focussing on military and civil support, post-conflict disarmament, demobilisation and humanitarian assistance.⁸ The ASF had to be operational by 2010, but its planning lacked maritime focus. In 2010 the AU introduced a draft African Integrated Maritime Strategy (AIMS). The strategy end-state is defined as being '[c]ollaborative, concerted, cooperative, coherent and trust-building multi-layered efforts to build blocks of maritime sector activities in concert with improving elements of maritime governance results in enhanced maritime conditions, leading to reduced losses and increased benefits. These increased benefits positively contribute to environmental and socio-economic development, as well as increased national, regional and continental stability.'⁹ It implies improved cooperation between AU member states in the maritime security environment and a collective responsibility for the protection and sound management of the maritime domain.

The AU Commissioner for Peace and Security, Ramtane Lamamra, also announced in 2011 that the AU planned to have a naval component as part of the ASF: 'We intend to give the African Force a naval component in order that the territorial seas are protected, as well as the exclusive economic zone,' he said. Apart from the fight against pirates, the naval component would also tackle the problems of illegal fishing and act as 'environmental police' to counter the dumping of trash in African waters by ships 'usually from developed countries'.¹⁰

The militarisation of the Indian Ocean region, the proliferation of weapons of mass destruction, increased missile capabilities, the rise in non-traditional threats and power projection by foreign militaries have not made the Indian Ocean more peaceful. Rather, the Indian Ocean can now be regarded as the most troubled region in the world. Considerable scope therefore exists for greater security cooperation and the enhancement of peace and stability in the region.

Strategic importance of the Indian Ocean sea lanes

The security of shipping and sea lanes of communication (SLOCs) in the Indian Ocean is an issue of major strategic concern. In the first instance, sea-lane security is important to the national economies of Indian Ocean countries, specifically to their industrial and commercial sectors, since trade is their main link to global markets. The Indian Ocean is furthermore a vital transit route between the Pacific region, Africa and Europe, with vast cargoes passing through the region. Finally, the world's most

important oil and gas routes traverse the Indian Ocean.

Because of the ocean's strategic importance and the fact that the free flow of traffic can easily be interfered with, many extra-regional forces operate in its waters. Keeping the SLOCs open are vital to the global economy. Furthermore, the volatile security situation and the tensions in the Persian Gulf have stimulated foreign military intervention (the Iran-Iraq War in the 1980s, the Iraq-Kuwait War in the early 1990s, the Iraq War in 2003 and the war in Afghanistan are recent examples), while piracy, the asymmetrical threat and the flow of vital energy resources have recently caused much anxiety and the deployment of many navies.

Oil and gas are central to the economic growth and development of the contemporary world. Energy security is crucial to sustain industrial and economic progress, and to meet the growing energy demands of both developed and developing states. Since the First World War, oil has also become the most strategic resource for the conduct of wars and after the Second World War the US seems to have placed increasing emphasis on securing or possibly even controlling the oil resources of the Persian Gulf. As recent history has shown, concern about attacks by states and asymmetrical attacks on energy resources and shipping is a very real issue.

The Iran-Iraq War from 1980 to 1988, the longest conventional war of the 20th century, is mostly remembered for its severity and cost in human and economic terms. However, the war is also noteworthy for two complex forms of naval conflict: the attempts by Iraq to weaken Iran by destroying its ability to use tankers for exporting oil, which escalated into the so-called 'Tanker War', and the US-led Western naval presence in the Gulf to ensure the freedom of passage for tankers to Kuwait and the security of shipping to and from neutral Gulf countries.¹¹

The Tanker War started early in 1984 with Iraqi attacks on Iranian tankers and the oil terminal at Kharg Island. Iran reacted initially by attacking tankers carrying Iraqi oil from Kuwait, but later also attacked Gulf State merchantmen in an effort to place pressure on these states to end their support for Iraq. The attacks were mostly executed by small naval vessels, helicopters and combat aircraft. Attacks on Saudi shipping led to a Saudi F15 shooting down an Iranian aircraft in June 1984. Saddam Hussein's hope apparently was that his pre-emptive attack would result in Iran closing the Strait of Hormuz, the less than 100 km-wide choke point between Iran and Oman, thereby provoking the US into entering the war. Iran, however, restrained its response and focused on Iraqi shipping and shipping supporting Iraq.¹²

Roughly 546 commercial vessels were damaged during the Tanker War and around 430 civilian sailors were killed. As most of the attacks were aimed at Kuwaiti vessels,

Kuwait appealed to foreign powers to protect its shipping in November 1986. The US started escorting Kuwaiti tankers in March 1987 on condition that they flew the American flag. The Soviet Navy followed suite, escorting Kuwaiti tankers from April 1987 onwards.¹³

In May 1987 an Iraqi Mirage F1 fired two Exocet missiles at the *USS Stark*, mistaking her for an Iranian naval vessel. The ship was severely damaged and 37 sailors died and 21 were wounded. Iraq apologised and US, Iraqi and Saudi forces began collaborating to prevent a similar incident. Iran accused the US of assisting Iraq and mined parts of Gulf. It also attacked two Soviet naval vessels protecting Kuwaiti tankers. A number of ships struck mines, including the *USS Samuel B. Roberts* in April 1988. The explosion broke the ship's keel, blew a hole in the hull beneath the waterline and almost resulted in her sinking. The US retaliated by destroying two Iranian oil platforms, two ships and six gunboats. Tensions rose further when the *USS Vincennes* accidentally shot down an Iranian airliner on 3 July 1988 with the loss of all 290 passengers and crew.¹⁴ In the end, the substantial American and Western presence in the Gulf had led to growing clashes with Iran, which was probably a major factor in Iran's decision to agree to a ceasefire.¹⁵ Hostilities between Iran and Iraq ended on 20 August 1988 when a ceasefire in terms of United Nations (UN) Security Council Resolution 598 was accepted by both sides.

The maritime aspect of the war illustrates how vulnerable military and civilian shipping is to attack in the Persian Gulf. The narrow Strait of Hormuz is the main maritime link between the oil-rich Persian Gulf region and the rest of the world. Roughly 17 million barrels, or a fifth of the world's oil supply, moves through the strait a day. Five of the world's biggest oil producers – Saudi Arabia, Kuwait, Iran, Iraq and the United Arab Emirates (UAE) – use it for most of their energy exports. This year (2012) again, the strait has been at the centre of a tense standoff between Iran and the West following Iran's warning that it would shut the strait if Western nations did not back off on economic sanctions over Iran's apparent nuclear research programme. Closing this artery would cause considerable international response, including the likelihood of American military intervention. For Iran the strait would be the centre of gravity in any conflict with the West. Its strategic objective would probably be to mine the strait and to support this with missile attacks from launch sites on the coast and fast attack craft.¹⁶ Militarily this is certainly feasible.

Access to energy resources is crucial for sustaining the growing industrial and economic progress, and meeting the energy demands of India and China. To India, energy security is at the core of its foreign policy approach and it has apparently adopted a long-term strategy to procure energy products from all over the world, to protect offshore

platforms and to ensure the security of ships carrying oil and gas to India. This places considerable pressure on the Indian Navy, which is very aware of its peacetime responsibility of safeguarding SLOCs, coastal zones, installations and shipping.¹⁷ Much emphasis is also placed by India on good cooperation between the navy, the coast guard, the maritime police and other agencies. Economically, India encourages domestic and international cooperation with foreign energy companies. It accepts that the energy drive and growing maritime threats posed by non-state actors increases the security responsibilities of its navy.¹⁸

The narrow Strait of Hormuz is the main maritime link between the oil-rich Persian Gulf region and the rest of the world

The growing competition between China and India is also evident in the Indian Ocean context and some IOR countries have expressed concern about increasing Chinese presence in the region. It seems that the flow of energy and trade is China's first concern, but its activities do certainly have implications for countries with positive economic growth, such as India. China is also exerting more and more political and economic influence over Africa as it invests billions of dollars in industries such as oil, mining, transport, electricity generation, telecommunications and infrastructure. In return it is securing access to energy resources and raw materials, which are crucial to its development and growth. Some consider China's efforts to secure energy resources as the beginning of a new era of focus on the 'geopolitics of energy', which would impact on development, bring about competition and even result in conflict. In fact, this situation, which can be termed a power struggle for energy, has the potential of becoming a defining characteristic of this century.¹⁹

Indian observers often emphasise that China's offer of military assistance in conjunction with economic help is aimed at gaining influence in the region. China's recent expansion of its maritime power has included the construction of an aircraft carrier. Its ambitions in the Indian Ocean are causing India considerable concern and its military and political relationship with India's neighbours is even at times referred to as a process of strategic

encirclement. By participating in anti-piracy operations off the Horn of Africa, China has demonstrated its capability to sustain out-of-area operations. Naval vessels from Japan and the Republic of Korea have also been deployed to the Horn of Africa and it could appear that their presence is not only aimed at protecting their shipping, but to establish a counter to China.²⁰ Divergent views certainly exist on the implications of Chinese naval expansion and its impact on the Indian Ocean. The question that arises is whether capability denotes intent. Not necessarily so, but intent can develop quickly.

Seeing that so much of the seaborne energy supplies of the world traverse the Indian Ocean, it is obvious that the region's security problems, both ashore and at sea, often cause international concern. As other states are also keen to protect their supplies, naval power is increasingly being used to provide energy security and minimise threats to SLOCs.

Maritime piracy

Maritime piracy, which in this discussion includes hijacking for ransom, robbery and criminal violence, is very prevalent in the Indian Ocean. In the early 1990s, attacks on ships using shipping lanes around South-East Asia (Indonesia, Malaysia, Thailand and the Philippines) and Africa began to increase as organised crime became involved. Although incidents of piracy seem to have decreased in the wider Indian Ocean since 2003, it increased along the east coast of Africa in the latter years of the first decade of this century owing to increasing activity linked to Somalia. Statistics of the International Maritime Bureau (IMB) indicate that of the 406 reported pirate attacks around the world in 2009, 297 occurred in the Indian Ocean region (Table 1).²¹ In 2010, piracy attacks in the same area increased to 311. The large number of pirate attacks and hijackings off the Horn of Africa, specifically around Somalia and in the Gulf of Aden, is of great public concern, often making international headlines, and has resulted in considerable international reaction. A notable success in the fight against piracy has occurred in the Malacca Straits, where attacks have dropped significantly because of aggressive patrols by the littoral states, and interstate maritime cooperation.²²

Attacks in South-East Asia and around the Indian subcontinent usually occur at anchorages or in approaches. As this type of attack is often conducted by thieves armed with handguns, knives or machetes, many attacks are unreported. Piracy around Somalia is different – the pirates are well armed and use a range of weapons, including automatic weapons, handguns and rocket-propelled grenades. Attacks take place while ships are underway, mostly but not exclusively in the Gulf of Aden or off the coast of Somalia. Pirates often use mother ships

to enable them to conduct operations far from their bases and as such attacks have even taken place off the coasts of Kenya, Tanzania and the Seychelles. Ships are boarded or the pirates induce the ships to slow down by firing at them. If a vessel is boarded and captured, it is sailed to the Somali coast and the pirates then demand a ransom for the ship and its crew.²⁴

The lack of maritime security around the Horn of Africa causes a great deal of international concern as they not only threaten commerce, but also peace and regional stability, international trade and international energy flows. The pirates often operate from Somalia's semi-autonomous Puntland province and specific parts of southern Somalia where there is no government authority and no law enforcement. The hijacking of ships for ransom is most common and such activities clearly have an economic motive.

Piracy around the Horn of Africa has increased alarmingly since the late 1990s. By 2005 Somalia was a piracy hotspot with 35 recorded attacks and 15 hijackings, a figure that increased to 45 attempted and 19 successful hijackings by April 2006.²⁵ Piracy was declared a crime after the Union of Islamic Courts (UIC) seized Mogadishu in mid-2006. In an effort to re-establish regular trade, the UIC captured pirate centres and ports, and brought about a dramatic decrease in piracy in the latter half of 2006.²⁶ However, following the ousting of the UIC by Ethiopian and Somali troops at the end of 2006, the situation deteriorated rapidly once again.

During 2007 pirate attacks off Somalia more than doubled to 31, but this paled in significance to the 111 reported attacks and 42 successful hijackings in 2008, which constituted nearly 40 per cent of the 293 attacks reported internationally in that year. Discrepancies exist between the various sources reporting piracy statistics and some sources even claim that Somali pirates were involved in as many as 166 attacks in 2008. However, the reporting of the IMB of the International Chamber of Commerce (ICC) is considered to be reliable.²⁷ Notwithstanding the international naval presence around the Horn of Africa in 2009, 217 incidents were attributed to the Somali pirates, who managed to hijack 47 vessels and took 867 crew members hostage. Somalia accounted for more than half of the 406 reported international incidents of piracy and armed robbery in 2009.

The fact that the successful hijackings were proportionately less in 2009 compared to the number of incidents can be ascribed to a variety of measures, such as greater vigilance and evasive tactics by ships, the involvement of private security companies, controlled sailings and active antipiracy patrols by a large contingent of international naval vessels. However, these measures resulted in the pirates changing their approach: ships

TABLE 1: PIRACY IN THE INDIAN OCEAN REGION: ACTUAL AND ATTEMPTED ATTACKS²³

South-East Asia								
	2003	2004	2005	2006	2007	2008	2009	2010
Indonesia	121	94	79	50	43	28	15	40
Malacca Strait	28	38	12	11	7	2	2	2
Malaysia	5	9	3	10	9	10	16	18
Myanmar		1				1	1	
Singapore	2	8	7	5	3	6	9	3
Thailand	2	4	1	1	2		1	2
Indian Subcontinent								
Bangladesh	58	17	21	47	15	12	17	23
India	27	15	15	5	11	10	12	5
Sri Lanka	2			1	4	1		
Africa								
Egypt					2			2
Eritrea		1			1			
Kenya	1	1			4	2	1	
Madagascar		1	1		1			
Mozambique	1				3	2		
South Africa	1							
Tanzania	5	2	7	9	11	14	5	1
Horn of Africa								
Gulf of Aden*	18	8	10	10	13	92	116	53
Red Sea*							15	25
Somalia	3	2	35	10	31	19	80	139
Rest of the Indian Ocean								
Arabian Sea*		2	2	2	4		1	2
Arabian Gulf	1							
Gulf of Oman							1	
Other Indian Ocean*			1				1	
Iran	2			2	2			
Iraq		1	10	2	2			2
Oman*					3		4	
Saudi Arabia				1				
Seychelles						1		
UAE		2						
Year Totals	277	206	222	166	171	200	297	311

*The attacks in the Gulf of Aden, Red Sea, Arabian Sea, Indian Ocean and Oman are all attributed to Somali pirates.

were fired at more indiscriminately to force them to stop or reduce speed, and operations were extended to areas where the pirates were less prone to the scrutiny of naval vessels, for example beyond the internationally recognised transit corridor, the well-policed transit route through the Gulf of Aden. Attacks also occurred further out to sea and even off the coasts of Tanzania, the Seychelles, Madagascar and Oman, as well as in the southern Red Sea, Bab El Mandeb and the Arabian Sea.²⁸

In 2010 Somalia pirates were responsible for 48 of the 53 vessels hijacked internationally. The Gulf of Aden saw 53 attacks and 15 hijackings (compared to 117 and 20 respectively in 2009). The pirates continued to intensify their activities beyond Somalia's coast, operating as far south as the Mozambique Channel. This development can to a large extent be attributed to the international naval presence and on-going antipiracy operations in the Gulf of Aden, which managed to thwart 70 attacks.

But by the end of 2010 Somali pirates still held 28 ships and 638 hostages. In November they received the highest ransom payment to date, \$9,5 million for the release of the *Samho Dream*, a South Korean tanker hijacked in April 2010.²⁹ Since then other high ransoms have been collected, notably \$12 million for the Kuwaiti-owned tanker *Zirki* and \$13 million for the tanker *Irene* in April 2011, the highest-known ransom paid to pirates.³⁰

Piracy in the Indian Ocean is not abating – quite the opposite. Two hundred and sixty six pirate attacks occurred in the first six months of 2011. Attacks ascribed to Somali pirates were up from 100 for the comparable period in 2010, but fewer vessels were hijacked (21 compared to 27) because of more effective anti-piracy measures.³¹ Indications are that piracy is now also growing in the South China Sea and in other parts of the Indian Ocean, such as Chittagong in Bangladesh where ships at anchor or approaching the anchorage are targeted specifically.³²

As unhindered SLOCs across the Indian Ocean are of strategic importance to international shipping and the flow of energy shipments, great concern exists about the large number of attacks on oil and gas tankers. The capture of the *MV Sirius Star* on 15 November 2008 was significant because of the location of the attack 450 nautical miles south-east of Kenya, and the fact that it was carrying two million barrels of oil, worth \$100 million, equal to a quarter of Saudi Arabia's daily output. It is believed that a captured Nigerian tug acted as the pirate mother ship. Although it was the biggest ship hijacked to date, the fully-loaded ship was low in the water and probably easy to board.³³

Port security

Despite an immense wealth in resources, the Indian Ocean region is noted for its economic insecurity, with a number of its states being aid-dependent. In 2005 the largest recipients of official development assistance were Afghanistan, Indonesia, Pakistan and Vietnam, while several African states received development aid in excess of 40 per cent of their total value of imports.³⁴

A healthy seaborne trade can contribute much towards the economic development of a region, and safe harbours with well-functioning port infrastructure will facilitate trade and development. However, ports are attractive criminal targets because of the concentration of so much valuable merchandise in one location. The location and layout of ports often inhibit security measures, while berthed or anchored ships with unarmed crews are vulnerable targets, an aspect that is exploitable by organised crime and terrorists. Ships can also be high-profile targets offering considerable political and propaganda value. The attack on the *USS Cole* in Aden in 2000 has shown that even highly sophisticated warships can be threatened by low-tech attacks.

The IOR is endowed with many good, albeit often neglected ports. Many of the ports do, however, suffer from serious security problems and are prone to a variety of illicit activities. Some IOR countries lack efficient customs and excise controls. African countries in particular lose shipping business because of such problems.

The majority of piracy incidents reported in the Indian Ocean region occurred while ships were lying at anchorage, in roadsteads or were berthed. The attacks were generally opportunistic as ships were boarded for purposes of theft. For example, in 2009 the four attacks and one attempted attack that occurred in Tanzania took place on ships that were anchored, the 12 reported attacks in India were all on berthed or anchored ships, and of Malaysia's 16 reported attacks two occurred on berthed vessels and six on anchored ships.³⁵ Of the 14 ports worldwide in 2009 that reported more than three incidents, the following ports or anchorages were in the Indian Ocean or adjacent to it: 17 incidents in Chittagong, Bangladesh (the highest in the world), three incidents each in Kakinda and Kochin, India, three incidents each in Balongan and Belawan, Indonesia, four incidents in Sandakan, Malaysia, and five incidents in Dar es Salaam, Tanzania.³⁶ It should be noted that many incidents in ports and anchorages go unreported as shipmasters and shipping companies are often reluctant to become involved in potentially lengthy and futile prosecution processes.

Environmental security

Insufficient emphasis is placed on environmental security in the Indian Ocean, which is particularly serious since the degradation of the environment, climate change and the overexploitation of ocean resources are threatening the interests and futures of all the region's countries and peoples. Sea temperatures in the Indian Ocean are rising quicker than elsewhere in the world, while more severe weather patterns and rising sea levels will most likely have adverse effects on natural systems and societies. They will increase the likelihood of flooding, resulting in loss of life and damage to property, as illustrated by recent tsunamis and cyclones. The existence of communities residing on low-lying islands such as the Maldives will be severely threatened. African countries are also likely to be affected adversely by climate change owing to the risks posed to food production and water resources. Since close to 40 per cent of Asia's roughly four billion inhabitants live within 100 km of the coast, climate change is likely to affect their quality of life and security.³⁷

The quality of coastal marine systems and seawater in the Indian Ocean is also deteriorating because of land-based pollution such as sewage, drainage and discharge, and marine-based pollution caused by shipping (spillage, ballast water), drilling and mining. Illegal waste-dumping is

also of serious concern, in particular as the extent thereof is unknown.

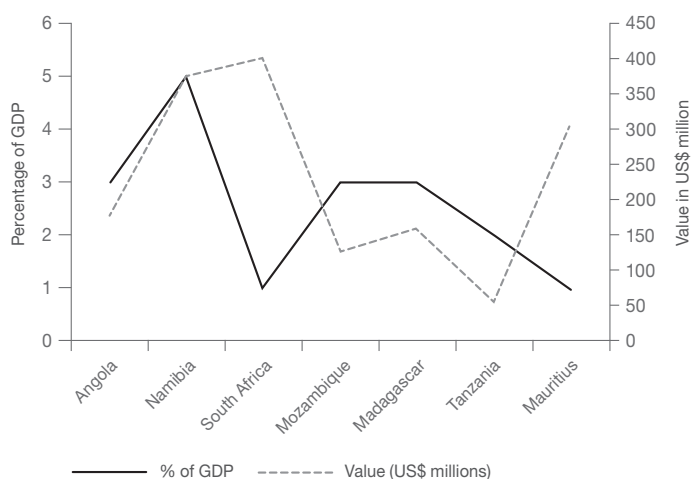
The waters off Somalia, in particular, have been badly affected as they are within easy reach of industrial countries, public awareness is low and influential locals have allowed toxic waste dumping to occur, usually in exchange for foreign currency payments. After the Asian tsunami, broken hazardous waste containers washed ashore in Somalia and, according to the UN Environmental Programme (UNEP), Somalia has been a dumping ground for hazardous waste since the early 1990s. It is much cheaper for European companies to dispose of waste here than in other parts of the world, with, according to earlier estimations, the cost being as low as \$2,50/t compared to \$250/t elsewhere. Organised crime in Italy has been linked with this practice in particular.³⁸ It is uncertain whether illegal waste dumping continues, but a UN report has warned that it can have serious health implications since industrial, hospital and chemical wastes can include uranium and radioactive wastes, leads, and heavy metals like cadmium and mercury. Because little information about the extent of such dumping is available, the exact impact cannot be calculated.³⁹

Ocean resources security

Because of the growth in global prosperity and technological advances, competition for resources in and under the oceans, specifically energy and protein, is intensifying. World energy consumption is growing significantly, particularly in Asia and the Middle East. The fast-growing Indian and Chinese economies are forecast to be the key energy consumers in the future. As national efforts to control energy sources and to secure energy shipments are increasing, some observers contend that energy competition may result in conflict. However, a counter view is that it is in the common interest of the powers concerned to maintain a stable trading environment.⁴⁰

Fishing is important to Africa. Annual catches account for over seven million tonnes and have an export value of about \$2 700 million. The industry provides income to roughly 10 million people and fish is an important and often cheap source of protein, providing 22 per cent on average in Africa and rising to as high as 70 per cent in some instances.⁴¹ The example provided by the Southern African Development Community (SADC) is noteworthy, even though Namibia and Angola are not part of the Indian Ocean region. Income generated by fisheries is highest in South Africa and Namibia, which are advantaged by the cold Benguela current. In the case of Namibia, fishing contributes between 5 per cent and 10 per cent of GDP, compared to around 3 per cent in Tanzania and Madagascar (Figure 1).

Figure 1: Value of commercial fishing and contribution to GDP in SADC⁴²



Tuna fishing is of particular importance in the western Indian Ocean, where catches are more than three times that achieved in the east. The processed value of catches in the west is estimated at €2 000 and €3 000 million a year. The Exclusive Economic Zones (EEZ) of SADC countries that are part of the IOR overlap with the tuna fishing area, and many French and Spanish vessels are fishing here under negotiated access rights in accordance with agreements between the EU and individual states.

Illegal, unreported and unregulated (IUU) fishing is a major international problem as it is estimated that 75 per cent of global fishing stocks are already fully exploited or overexploited. The culprits are often 'seasoned and sophisticated foreign-flagged operators' that decimate ocean resources and also venture into coastal waters where they compete with local subsistence fishermen for depleted resources. But foreigners are not the only problem, since local fishermen often under- or misreport catches and use illegal fishing gear, or employ dynamite or poison fishing since these methods are more lucrative than traditional methods.

African countries, which often lack the ability to patrol their own waters, are the worst hit and they therefore suffer serious economic losses and protein shortages. Somali pirates have claimed, and a number of analysts have repeated this, that illegal fishing was an underlying cause and the justification for piracy. Though some of the early incidents may have been a form of coast-guard action against large-scale poaching, pirate behaviour has not been consistent with this contention and profit is without doubt the motive. Nevertheless, the notion of acting against illegal fishing contributes to the pirates' local legitimacy and probably adds to the difficulties of fighting it.

Though the scale and impact of IUU fishing differs

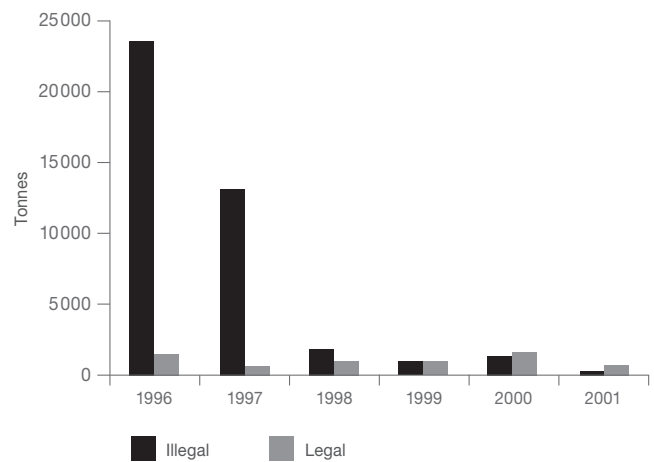
across the region, it is a pressing concern all round. Even countries as far apart as South Africa and Australia have cooperated in this sphere. In April 2001 the Australian government requested South African assistance to intercept a Spanish trawler, the *Sao Tomé*, that had been fishing illegally in the Australian EEZ. Two vessels of the South African Navy (*SAS Protea* and *SAS Galeshewe*), with an Australian team on board, intercepted the poacher about 400km south of Cape Agulhas with the unarmed Australian civil patrol vessel *Southern Supporter* still in hot pursuit.

Two years later, during a similar operation, the *SAS Drakensberg* and the Antarctic exploration vessel *SA Agulhas* assisted with the interception of another trawler, the *Viara I*. General Peter Cosgrove, Chief of the Australian General Staff, emphasised the ‘wonderful spirit of cooperation’ between the defence forces, which had ensured an effective outcome.⁴³

In the south-west Indian Ocean and Southern Ocean sophisticated IUU fishing operators have decimated Patagonian toothfish stocks. After it became evident early in 1996 that lucrative catches of Patagonian toothfish were possible, many trawlers hurried to participate in the ‘rush’. Catch rates were between 15 and 20 tonnes a day and sold for between \$10 and \$20/kg, in some cases even \$26. Britain quickly clamped down on illegal fishing around her southern dependencies, after which much of the focus moved to the fishing grounds around the South African Prince Edward Islands and later to the French-controlled Crozet archipelago, Kerguelen Island and the Australian Heard and McDonald Islands. By the end of 1996, 40 to 60 vessels were fishing around the Prince Edward Islands. Of these, only five were licenced to catch toothfish (Figure 2). The South African authorities soon enforced strict controls against landing illegal toothfish in South Africa, but the effect was merely that the shore-based operations moved to Port Louis in Mauritius, Maputo and Beira in Mozambique, and Walvis Bay in Namibia. The loss to South Africa was estimated at over R3 000 million at the time.⁴⁴ Because of the high levels of IUU fishing, the stock never recovered. Some illegal fishing is still reported in the area.

Coming at a time when the SA Navy had not yet acquired its new frigates, South Africa had no high-seas fishery patrol capacity and there were thus no patrol vessels operating in the rough sub-Antarctic waters for any extent of time. Aerial patrols were conducted and some suspect vessels were photographed in the Prince Edward Islands EEZ, but their excuse was usually that they exercised the right of innocent passage. Vessels need to be boarded if proof of illegal activities is to be obtained, requiring ocean-going vessels with sufficient endurance and sea-keeping capability.

Figure 2: Legal compared to IUU Patagonian toothfish catches from the Prince Edward islands during the late 1990s⁴⁵



Though countries bordering the eastern Indian Ocean and South China Sea experience pressing maritime security concerns such as smuggling, trafficking and pollution, IUU fishing is perhaps the more important concern for these states. For centuries the sea has provided sufficient fish stocks and abundant employment opportunities, but this has changed as a result of growing populations and improved fishing technology. With intense competition for fish stocks, IUU fishing is massive, with unregistered and foreign vessels plundering the seas. Foreign fishing vessels often intrude into rich regional fishing grounds, making them attractive targets for pirates. According to a May 2004 statement by the Director of the North Sumatra Fishery Office, an estimated 8 000 fishing boats or two-thirds of the province’s fishing fleet were not operating because of the threat of piracy. The Indonesian government estimates that losses resulting from IUU fishing are around \$4 000 million a year, which is substantial when compared to the estimated cost of piracy worldwide.⁴⁶ Ironically, the states that are most adversely affected by IUU fishing in the Indian Ocean can hardly afford to suppress it.

Problems with IUU fishing can largely be ascribed to insufficient patrolling. Although regional and international fishery governance bodies exist, it is recognised internationally that there is an urgent need to strengthen the capacity of these bodies, enforce control measures and enhance cooperation. Maritime security is closely linked to illegal fishing activities, not only because of its serious impact on environmental security, but also because illegal fishing vessels are often used to traffic in humans, arms and drugs, as well as for other illicit activities. Since much money is involved, illegal operators are adept at lying about catches, falsifying customs declarations and circumventing port control measures. They can even be well armed.

Smuggling and human trafficking

Organised crime, trafficking and smuggling are increasingly linked to global patterns of violence. Drugs and arms smuggling is rife in much of the Indian Ocean. The sea provides an easy way for international crime syndicates, unscrupulous traders and non-state actors to distribute their wares, or to provide belligerents with highly sophisticated weapons. Because of the prevalence of conflicts and insurgencies, arms smugglers find a ready market in areas such as the Horn of Africa, Afghanistan, Sri Lanka and Indonesia. It is estimated that as much as 95 per cent of 'hard' drug production occurs in conflict zones, for example heroin and cannabis in Afghanistan. Organised crime is also engaged in much of the counterfeit trade, which includes everything from cigarettes to famous brand-name fashions and medicines. It is estimated that as much as 50 per cent of all pharmaceuticals sold in Africa and Asia could be counterfeit.⁴⁷

Stimulated by political instability, poverty and a lack of order in many developing countries, international migration has become a significant concern. People from areas that offer few opportunities are constantly looking for illegal ways of moving to countries in the developed world. However, more often than not, human trafficking exploits the vulnerable and the desperate. According to UN estimates, there are currently more than 12 million people in forced labour, bondage, forced child labour and sexual servitude.

Large international trafficking networks operate across the Indian Ocean. After arms and drugs, trafficking in human beings is the best source of income to organised crime, but, shockingly, it appears that human trafficking is now beginning to replace drugs as the second largest source of income since 'bodies can be replaced'.⁴⁸ No countries are immune to trafficking as they are source countries, transit countries, destination countries or all three. This issue requires far more serious international attention than what it currently receives.

Smugglers can use everything from pleasure boats to small fishing vessels and containers. A major source of concern is container traffic. As more than seven million large and small containers are moving around the world every day, the ability of port and customs officials to check their contents effectively is limited. Recent experience has indicated that containers are used to smuggle everything from al-Qaeda operatives and armaments to illegal waste. This certainly falls in the realm of maritime security and calls for more effective law enforcement.⁴⁹

The non-state and asymmetrical threats

Recently, the number of non-state actors affecting security has grown substantially. It also appears that greater links are being forged between global crime

syndicates, insurgents and terrorist groups. Because of weak governments, poor border controls and insufficient maritime domain awareness, such groups can often operate unimpeded. Radical Islamist groups influence security in a large part of the IOR. Analysts have suggested that groups linked to or affiliated with al-Qaeda seem to be present in at least Afghanistan, Egypt, Indonesia, Iraq, Pakistan, Saudi Arabia, Somalia and Yemen.⁵⁰ Though their activities have been mainly land-based, grisly examples exist within the maritime domain.

Attacks can be launched from the sea, or vessels can be used for the purpose of infiltration or gunrunning. The so-called '26/11' terror attack in Mumbai in 2008 was a seaborne attack. It is also known that the explosives used in another terror attack in India in March 1993 were landed in Mumbai. To India, this highlighted the vulnerability of its coastal areas, and made it aware of an urgent need to upgrade and coordinate coastal and maritime security. As a result, the Indian Navy was given overall responsibility for coastal security in coordination with other agencies.⁵¹

Containers are used to smuggle everything from al-Qaeda operatives and armaments to illegal waste

The *Achille Lauro* incident in October 1985, which involved the hijacking of this Italian cruise ship by members of the Palestine Liberation Front (PLO) and the killing of a hostage, indicated that maritime terrorism is a real threat and that states need to consider potential responses. The worst such attack at sea occurred in Manila Bay, Philippines, on 27 February 2004 when a bomb, ostensibly planted by the Abu Sayyaf Islamist separatist group, resulted in the destruction of the passenger ferry *SuperFerry 14* and the death of 116 people.⁵² Although Jemaah Islamiyah, the most prominent Islamist terrorist group operating in Indonesia, was implicated in a plot to target US Navy vessels en route to Singapore in 2001, they have not been active in the maritime domain.⁵³

The Gulf of Aden has been the scene of a number of incidents. An al-Qaeda attempt to ram a boat loaded with explosives into the *USS Sullivan* in Yemen failed in January 2000 as the boat sank under the weight of its lethal payload.⁵⁴ But the next attempt was successful: on 12 October 2000 the *USS Cole*, an Arleigh Burke-class destroyer equipped with the Aegis system, was alongside

in Aden for refuelling. Two men in a small boat packed with explosives rammed the ship. The explosion left a gaping 13m hole in the ship's side and caused 17 fatalities and an estimated \$100 million in damage. The attack revealed a meticulous planning capacity and a trained capability in handling explosives.⁵⁵ After this attack, the emphasis shifted to port security, but the 9/11 attacks in the US quickly centred the international focus on airport security.

Two years later, on 6 October 2002, the potential danger posed by an asymmetric attack at sea was dramatically illustrated when the French super tanker *Limburg* was rammed amidships by an explosive-laden dinghy in the Gulf of Aden, a few kilometres off Yemen. The ship burned fiercely and much of her cargo spilled into the sea. The attack is believed to have been executed by al-Qaeda operatives in Yemen and represented the group's first successful attack against an oil target. The oil price rose immediately, while Yemen lost millions in port revenues as international shipping decreased.⁵⁶

Such attacks have not only occurred off Yemen, as indicated by the attack on the Japanese oil tanker *M Star* in the Strait of Hormuz on 28 July 2010. But this attack did not cause serious damage and injured just one crew member.⁵⁷ The ship was loaded with two million barrels of oil destined for Japan, which receives roughly 90 per cent of its oil from the Middle East, much of it from the Gulf. Emirati officials reported that the explosion was caused by 'homemade explosives' and an armed group linked to al-Qaeda claimed responsibility. As the crucial question is the source of this attack, the coasts in the region are being watched closely.⁵⁸ The attack has fuelled concerns about the security of shipping in this volatile strait.

Of significance is the fact that vessels, even merchant vessels, can be used as weapons of war and that not even warships are exempt from possible harm. Furthermore, it has become obvious that a very effective way of disrupting the global economy is to attack oil supplies or supply routes. Shipping around Somalia and in the Gulf of Aden is particularly vulnerable.

Outsourcing security

Non-state actors, such as security companies, are increasingly being used to enhance security in the Indian Ocean region, both on land and ashore. Many foreign security companies operate in Africa and Africans are often recruited to perform security-related duties in volatile situations such as Iraq and Afghanistan. Security companies also assist with reforms in post-conflict situations.⁵⁹ This raises concerns since private security companies are usually insufficiently regulated, and the movement of private security personnel into and out of countries is not subject to a coherent policy framework.

If not properly controlled and understood, the security

industry has the potential of having a major security impact in Africa. Considering its increasing central role, it could impinge on a state's capacity to control instruments of violence. The industry's employment of large numbers of former soldiers and policemen, who possess high levels of skills and knowledge, could add to the vulnerability of a state. Security companies could even become forces onto themselves if they are not controlled properly and regulated.⁶⁰ Such organisations must therefore be engaged carefully and frameworks must be developed to ensure proper accountability. Security companies should contribute to enhancing the security of the peoples of Africa, but nothing more.

Many private security companies are involved in combating piracy. Their support to the shipping industry includes a variety of techniques and services, ranging from the training of bridge officers to designing evasive manoeuvres and providing physical security. A number of nonlethal antipiracy measures are available to deter pirates, such as the use of high-tech sonic cannons, electrified handrails, placing extra crew on watch, drenching approaching boats with foam sprayers or high-pressure fire hoses, spraying decks with a slippery substance, etc.⁶¹ Most shipping companies do not arm their ships and crews as many experts, insurers, the IMB and the International Maritime Organisation (IMO) do not endorse arming merchant vessels for the reason that it could increase levels of violence.

How effective is private security? It certainly is a deterrent, but often security guards on ships are not armed for the reason given above. Blackwater, a private security concern, offered a vessel to escort ships through the Gulf of Aden and shipping companies had also appealed for more naval support. Security guards have a mixed record with regard to deterring piracy. In November 2008 five pirates succeeded in boarding and hijacking the Singaporean chemical tanker *Biscaglia* from a small open speedboat in the Gulf of Aden despite the presence of three unarmed, ex-Royal Marine security guards working for a British security firm. The security guards promptly leapt overboard, were rescued by a German naval helicopter and were taken to a French frigate.⁶² In another incident in April 2009, when pirates attacked the cruise ship *Melody*, security guards exchanged gunfire with the pirates and used a fire hose to beat off the attack.⁶³

According to some estimates, as many as 35 per cent of ships traversing the Gulf of Aden may be employing armed guards. Since naval deployments to the region have been cut and governments such as the US see armed guards as the solution, there is concern in the shipping industry that what was seen as a temporary solution is becoming permanent.⁶⁴

Private security companies have also provided a

contentious service to shipping companies and pirates. Ship owners would negotiate, sometimes for months, before paying ransom to the pirates. Ransoms were initially paid through *hawala*, a system of informal money-transfers that used Somalis abroad as contacts. As the amounts paid grew in size and ransom payments became more regular, ship owners contracted private security companies to deliver the cash by speedboat, or to drop it from a helicopter or aircraft.⁶⁵

Private security companies are not welcome in all cases. IOR countries with extensive coastlines, such as Indonesia and Malaysia, are intent on protecting their own sovereignty and ocean resources. Accordingly, they have taken full political responsibility for controlling piracy. Indonesia, for example, will not allow other countries or private security companies to guard international ships passing through its side of the Malacca Strait, and has made it clear that it will object strongly to 'any security guard escorting ships in its waters'.⁶⁶

POSSIBLE RESPONSES

Though the purpose of this paper is not to analyse responses to maritime security problems in the Indian Ocean, a few incomplete remarks pertaining to the role of naval forces and coast guards, the international reaction to piracy and the potential contribution of regional cooperation in enhancing security in the Indian Ocean are perhaps relevant.

With a shift away from the former emphasis on conventional responsibilities, navies are redefining their roles. The complexity of maritime threats, specifically from non-state actors, and the current nature of maritime violence have demanded a new set of naval responses, causing the traditional distinction between the conventional and constabulary roles of navies to wither. Warships of many nations are present in the Indian Ocean and they are used for a variety of tasks, ranging from participation in conflicts such as in Iraq and Afghanistan to escort duties.⁶⁷ Their recent responsibilities have centred on diplomatic roles and maintaining good order at sea. As naval diplomacy includes maritime coercion, alliance building and international maritime assistance, such as training and capacity-building, navies can contribute greatly to the achievement of international or regional stability. Furthermore, navies are versatile instruments capable of providing valuable assistance in maintaining good order at sea. This can range from the protection of a nation's maritime resources to performing constabulary roles at sea.

There is a high degree of naval activity in the Indian Ocean as many countries are participating in maritime security operations. Warships have been given the responsibility of protecting the maritime security objectives

of their states or groups of states. Though unilateral actions by states are common, naval cooperation in the Indian Ocean is occurring on a scale never seen before. An interesting feature of this is that that naval cooperation is more visible than naval coercion.

The most obvious international cooperation in the Indian Ocean is in the sphere of counter-piracy, but because of the vast quantity of commercial traffic sailing along the Horn of Africa and the size of the area, it is a difficult task. The IMB has commended international navies for their part in preventing many attacks in that area. Although it is unrealistic to expect navies to cover the area fully, the naval contribution is specifically valued for 'increased intelligence gathering coupled with strategic placement of naval assets [that] has resulted in the targeting of suspected Pirate Action Groups before they became operational'.⁶⁸

The complexity of maritime threats ... and the current nature of maritime violence have demanded a new set of naval responses

Attacks in the Gulf of Aden between January and September 2010 were substantially lower than during the corresponding period in 2009, dropping from 100 to 44.⁶⁹ According to some analysts, the presence of so many naval units in the region and the robust counter-terrorist response by states and navies 'has discouraged the pirates from joining forces with any terrorist organisation'.⁷⁰ However, as mentioned above, it seems that because of the large naval presence here, pirates have chosen to extend their area of operations with many hijackings taking place further off the coast of Somalia.

The international concern over energy shipments and deficiencies in the international legal framework is reflected by a series of UN Security Council resolutions against which naval operations are set. Resolution 1814 of 15 May 2008 requests states and regional organisations to provide naval protection to vessels of the World Food Programme. Resolution 1816 of 2 June 2008 authorises states cooperating with the Transitional Federal Government (TFG) of Somalia to enter the territorial waters of that country and to use 'all necessary means' in antipiracy operations in a manner 'consistent with the relevant provisions of international law'.⁷¹ This clearly acknowledges the fact that Somalia does not have the maritime capacity to enforce law and order in its own waters.

Security Council Resolution 1838 of 7 October 2008 supports the earlier resolution and urgently requests states to participate actively in the fight against piracy off Somalia 'by deploying naval vessels and military aircraft' to cooperate with the TFG and to continue with the protection of ships of the World Food Programme.⁷² With the adoption of Resolution 1846 of 2 December 2008 the international community's mandate was extended for another 12 months.⁷³ In Resolution 1851 of 21 December 2008 the Security Council invites states and regional organisations participating in the antipiracy operations to conclude so-called 'ship rider agreements' with states willing to prosecute pirates and to assist with the process.⁷⁴ States were also encouraged to cooperate and establish international cooperative mechanisms in the fight against piracy. A Contact Group on Piracy was established as the principal contact point between states and regional organisations.

Somali piracy is a significant threat to international maritime security and commerce, and the political, geostrategic, economic, humanitarian and naval consequences thereof have a global impact

The international naval and maritime security response comprises two main cooperative groups: the European Union (EU) Operation ATALANTA, which includes ships from France, Germany, Greece, Italy, the Netherlands, Norway, Spain, Sweden and the UK, and the US-led CTF 151, with ships of the US, UK, Turkey, Denmark, Singapore, South Korea and other potential states participating from time to time. In addition, independent naval vessels from China, India, Malaysia, Japan, Russia, Iran and Saudi Arabia, to name a few, were also conducting operations in the area. Most of these vessels operated in the Gulf of Aden and much goodwill and a cooperative attitude exists between the navies. Some navies provide escort vessels or will place special forces on board merchant vessels, although this service is generally only provided for ships flying their flag.

Despite warnings that it has the potential to increase the levels of violence, many observers have called for merchantmen to be armed since they consider private

security measures and arms an important visual deterrent. Individual ships have adopted many different on-board deterrents, ranging from rudimentary measures such as fire hoses and deck patrols to a non-lethal electric screen with loudspeakers emitting a high-pitch noise. In an unconventional approach, Chinese sailors have even used Molotov cocktails to fight off pirates that attacked their vessel.⁷⁵

With naval deployments to the region being reduced, the shipping industry is reluctantly turning to private security companies. No ship with an armed security detachment on board has yet been hijacked, but many believe it is only a question of time. If such a detachment was to come under serious attack and it resulted in casualties, it would certainly pose a problem with regard to command structures on board, legal authority, responsibility and liability.⁷⁶

The practical, logistical and financial challenges of fighting piracy remain substantial. It seems that much of the threat has moved from the Gulf of Aden to the east coast of Somalia, and even much further into the Indian Ocean. As the area is vast, the element of surprise rests with the pirates, whose skiffs are difficult to detect. Coordination between international forces needs to be improved and greater contact with merchantmen is necessary.⁷⁷

Somali piracy is a significant threat to international maritime security and commerce, and the political, geostrategic, economic, humanitarian and naval consequences thereof have a global impact. The world community's short-term response to piracy off the Horn of Africa has been multinational naval patrols, diplomatic efforts and private security involvement. The fight against Somali piracy can also be seen a useful way for states to maintain a presence in the strategically important Indian Ocean.

However, in the long term, piracy can only be addressed by means of a comprehensive multi-layered approach that involves political, military and societal measures, and strengthens regional security capabilities, improves intelligence gathering and sharing, brings about more effective law enforcement, and enhances multinational cooperation on land and at sea. In essence, though, the problem will remain as long as pirates find sanctuary in Somalia. The real solution therefore lies in restoring government authority in that country and ensuring that law and order is enforced at sea and ashore.

Port security can be improved through better situational awareness, which is achieved by employing sensors, gathering intelligence, implementing patrols and improving physical security. It is important that all role players cooperate and that port authorities adhere to the international regulations applicable to port security.

Although much still needs to be done to improve port security in the IOR, in a number of cases security has been enhanced through international assistance and input by specialist private security companies. Kenya has, for example, enhanced the security of its coastline and harbours. After the port of Mombasa was shown to be a soft target by American and Kenyan surveys, port security was improved by measures such as the installation of electronic surveillance systems, the introduction of physical security and ensuring a higher police and security presence.⁷⁸ The US donated security equipment and six speedboats to the Kenyan Navy, while also providing training assistance. The speedboats will help to police Kenya's territorial waters. Coastal patrols have also been stepped up.⁷⁹

Regional, sub-regional and multinational cooperation

Much can be gained from a cooperative regional approach between states that promotes consultation not confrontation, reassurance not deterrence, transparency not secrecy, prevention not correction, and interdependence not unilateralism. In such circumstances navies can contribute much towards enhancing maritime security, managing disasters, providing humanitarian assistance and limiting environmental security challenges. Regional cooperation can therefore be a force multiplier and is certainly desirable in the vast, relatively poorly policed Indian Ocean.

The Indian Ocean region is noted for its complex sub-regional geopolitical and geostrategic associations, each with its own vested interest. Cooperation occurs mostly in the spheres of economy and trade, rather than in security, and is to a large extent hampered by distrust and lack of interaction. On a sub-regional level cooperation exists in the Persian Gulf, South Asia, South-East Asia, East Africa, the Horn of Africa, Southern Africa, and the south-west Indian Ocean islands. There are overlapping regional systems in the greater Middle East, Africa and the Asia Pacific region. The following are the most pertinent examples of regional and sub-regional cooperation:⁸⁰

- *Southern African Development Community (SADC):* The Southern African Development Co-ordinating Conference (SADCC, created in 1981) became SADC in 1992. The SADC Treaty, signed by members in Windhoek, Namibia, on 17 August 1992, was put into force on 30 September 1993. SADC has 14 member states of which South Africa, Mozambique, Madagascar, Mauritius and Tanzania are also IOR-ARC members. The SADC Standing Maritime Committee has the aim of promoting regional peace and prosperity through maritime military co-operation and has three main objectives: mutual maritime security to ensure the

freedom of SLOCs, the development and maintenance of maritime capabilities in the region, and the development of a quick response maritime capacity.⁸¹

- *East African Community (EAC):* The EAC is a regional intergovernmental organisation headquartered in Arusha, Tanzania, with Kenya, Uganda, Tanzania, Rwanda and Burundi as members. It aims to improve political, economic and social development, and has the ultimate objective of establishing a political federation of East African states. In maritime terms the emphasis is on economic and safety issues rather than on security.⁸²
- *Indian Ocean Commission (COI):* The COI (*Commission de l'océan indien* in French) is an intergovernmental organisation created in 1984 with the Comoros, Madagascar, Mauritius, France and the Seychelles as members. Its objectives centre on cooperation and development in diplomatic, economic, commercial, agricultural, aquacultural, cultural, scientific, judicial and educational fields. The COI has funded various projects focusing on conservation and alternative livelihood projects.⁸³
- *The Arab League, or League of Arabian States:* The league was formed in Cairo in March 1945 and is the regional organisation of Arab states in the Middle East and North Africa. Its current membership comprises 22 states and its main aims are to improve relations and collaboration between members, safeguard independence and sovereignty, and deliberate on affairs in the Arab world. It signed an agreement on Joint Defence and Economic Cooperation in April 1950, which commits members to coordinate defence-related matters. Maritime cooperation is the responsibility of the subordinate regional economic communities.
- *The Organisation of the Islamic Conference (OIC):* The OIC was initially founded in 1969 and its membership grew to 30 states. Its aims centre on the promotion of Islamic solidarity and cooperation in the economic, social, cultural and scientific fields.
- *The Gulf Cooperation Council (GCC):* The GCC was established in 1981 in response to the outbreak of the Iran-Iraq War. Its objectives are to strengthen co-operation in agriculture, trade, industry, investment and security among its six member states. Though the GCC supports regional and international counter-terrorism efforts, it places emphasis on a distinction between terrorism and the legitimate right of people to struggle against occupation. As far as military and

maritime cooperation is concerned, GCC members aim to create a GCC defence force and members ratified a Joint GCC Defence Pact on 31 December 2000. The pact was the result of considerable military cooperation and is intended to protect the interests of member states and to provide cooperation with regard to land, air and maritime defence. Member states already cooperate on military, air force, naval and intelligence levels, and have standardised doctrine and training to a large extent.

- *The South Asian Association for Regional Cooperation (SAARC)*: SAARC was established in December 1985. It is an agreement between Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka to create an atmosphere of trust and friendship, and work towards economic and social development. Maritime cooperation is not part of the agreement.
- *The Association of South-East Asian Nations (ASEAN)*: ASEAN was established in 1967 with a twofold purpose, namely to promote economic growth and social progress, and regional peace and stability with the emphasis on the rule of law in accordance with the principles of the UN Charter. ASEAN leaders resolved in 2003 that ASEAN should rest on three pillars, namely an ASEAN security community, an economic community and a socio-cultural community. Maritime cooperation is not a core function, but has developed as part of the ASEAN Regional Forum (see below).
- *The ASEAN Regional Forum (ARF)*: The ARF comprises 27 countries, namely the ten ASEAN members and 17 'partner states'. The ARF is the principal forum for security discourse between Asian states and provides the opportunity to discuss regional security issues and develop cooperative measures to enhance peace and security in the region. On the security level the various states appear to have strong but diverse objectives. However, cooperation with regard to counter-terrorism has improved considerably since 9/11 (2001) and the Bali bombings of October 2002. Maritime security cooperation is high on the agenda and an exercise involving 22 western Pacific navies was held in May 2005. Security cooperation within the ARF has certainly been enhanced and the indications are that maritime security issues could be tackled together.
- *The Five Power Defence Arrangements (FPDA)*: The FPDA is a defence relationship based on a series of bilateral agreements between the UK, New Zealand, Australia, Malaysia and Singapore dating from 1971. The FPDA makes provision for defence cooperation

and replaces some of the former defence commitments of the UK. An Integrated Air Defence System (IADS) for Malaysia and Singapore is based in Malaysia with aircraft and personnel from all five countries being rotated. The first annual land and naval exercise took place in 1981. Exercises currently focus on air, land and naval cooperation.

- *The Indian Ocean Rim Association for Regional Co-operation (IOR-ARC)*: Following the transformation of the global security environment, the opportunity for co-operation and interaction between IOR states increased. IOR-ARC was established in Mauritius in March 1997 and a Charter was adopted. It comprises 18 member states: Australia, Bangladesh, India, Indonesia, Iran, Kenya, Madagascar, Malaysia, Mauritius, Mozambique, Oman, Singapore, South Africa, Sri Lanka, Tanzania, Thailand, the UAE and Yemen. The Seychelles announced its withdrawal from the association in July 2003, while China, Egypt, France, Japan and the UK are dialogue partners. The aim of IOR-ARC is to open the region based on four major components: trade liberalisation, trade and investment facilitation, economic and technical co-operation, and trade and investment dialogue. It does not address defence and security cooperation directly as the aim of 'open and free trade' implies maritime security. Unfortunately, because of numerous difficulties, the IOR-ARC is not really functioning.
- *Indian Ocean Naval Symposium (IONS)*: The IONS is a consultative and cooperative effort to find commonality regarding the growing asymmetric threat. The Indian Navy acted as facilitator and invited naval chiefs or the heads of maritime agencies from IOR countries. Twenty-seven naval chiefs or their representatives attended the event in February 2008 and the majority endorsed the charter in principle. The objectives of the IONS are to expand it to the next level of cooperation, create allied maritime agencies, establish a high degree of interoperability, share information to overcome common trans-national maritime threats and natural disasters, and maintain good order at sea.

At the sub-regional level, the most effective organisations are probably ASEAN, SAARC, SADC, the GCC and the COI. Since regional organisations such as the AU, the Asia-Pacific Economic Cooperation (APEC) and ARF partly overlap the region, they are also linked to the Indian Ocean Region. But a clear and coherent geopolitical system for the Indian Ocean does not yet exist and prospects for developing such an organisation are uncertain as many of the extant organisations seem not to be effective in getting

real commitment or focusing the actions of member states. Some hope could be placed on the IOR-ARC concerning economic cooperation, and the UN Ad Hoc Committee on the Indian Ocean on peace and security matters.⁸⁴

The IONS initiative is currently in its infancy, but could develop to the next level of cooperation and expand its membership. A need exists for a parallel group or a working group that can address wider maritime security matters and bring together a range of regional and extra-regional countries to assist with capacity building and policy development.⁸⁵ The initial response to IONS was positive and consensus was reached at the first meeting. Although progress was made at two further meetings (the last being in South Africa in April 2012), for IONS to have an effective impact on Indian Ocean maritime security, political will is necessary and proper permanent structures need to be established.

The efforts of IOR countries to cooperate and achieve lasting maritime security will be hampered by the fact that the countries, navies, coast guards and maritime forces in the region differ greatly. Political and cultural diversity in the region stems from the fact that some states are former colonies linked to the British Commonwealth, others are Islamic republics or kingdoms, while some states are emphatically disinterested in alignment. In military terms, the size, type of platforms used, weapons, doctrine, tactics and air assets are divergent.

One of the critical issues to be addressed in the Indian Ocean is maritime domain awareness, which implies an essential cognisance of all activities in or adjacent to a country's territorial waters (12 nautical miles from the coast), the contiguous zone or coastal waters (24 nautical miles from the coast) and the EEZ (200 nautical miles from the coast). Effective control over such vast domains is certainly a daunting task for most IOR states. Furthermore, the sheer size of the Indian Ocean and the scope of its maritime security problems make it difficult to control, even given an ideal situation of good regional cooperation.

CONCLUSION

Discussion in this paper concentrated on the Indian Ocean's strategic value, maritime security characteristics and threats, possible solutions, and international and regional cooperation. Nations in the region are keen to facilitate vibrant maritime commerce and economic activities at sea since these underpin economic security. At the same time they endeavour to protect their maritime domains against ocean-related threats such as piracy, criminal activities, terrorism, pollution, etc. These objectives can best be achieved by blending public and private maritime security activities, and by tackling maritime threats by integrating their efforts, ideally within a specific legal framework. Cooperation on maritime security is essential,

since virtually all nations benefit from maritime activity.

Indian Ocean countries have a long history of trade, culture and military interaction with the rest of the world. Today the Indian Ocean's traditional status as an international trade highway is more significant than ever before, while international military presence in the ocean is unprecedented. The reason for the latter is the region's vast resources, specifically energy resources, the strategic importance of the shipping traversing its waterways and the maritime security problems being encountered.

Although the Indian Ocean region is experiencing marked development and economic growth, security concerns often dominate the agendas of its states. Multinational coalitions under the leadership of the US have been or are engaged in conflicts in Iraq and Afghanistan. Although there are diverse reasons for these conflicts, they cannot be divorced from the significant strategic value of the Middle East's energy resources and the rise of radical Islam.

Today the Indian Ocean's traditional status as an international trade highway is more significant than ever before, while international military presence in the ocean is unprecedented

The maritime security problems that have arisen are to a large extent linked to failed or weak states. Specific challenges are piracy, asymmetrical threats, the illegal trafficking in people, the smuggling of arms and drugs, resource security and environmental threats. Because the region's maritime security problems have the potential of disrupting the global economy, energy security and SLOCs, they have become important international issues. Many extra-regional powers have a stake in Indian Ocean maritime security and deploy forces in the area. To fight piracy, the UN Security Council has passed a series of resolutions calling for international assistance and various multinational task forces and independent naval units operate in the waters off the Horn of Africa.

China is a newcomer to the Indian Ocean and its expanding influence is welcomed by some, but viewed with suspicion by others. China has recently concluded military agreements with Indian Ocean countries and deployed ships to participate in antipiracy operations, thus illustrating

its capacity to project power into the region. Its presence should be used as an opportunity to involve it in interoperability and Indian Ocean states should be encouraged to share security problems with the country. They will have to get used to the Chinese presence in the region, whether

The need to have a structure that addresses maritime security capacity-building and involves both regional and extra-regional countries is evident

they like it or not. As India's maritime diplomacy in the Indian Ocean and South-East Asia is well ahead of China's, it should take the initiative of establishing an environment that is conducive to working with China. In this endeavour it is important to separate the military and security dialogue with China from ideological disputes over issues such as Tibet and Taiwan.

It must be emphasised that transoceanic security cooperation in the region is very important. Regional, sub-regional and international organisations can contribute much in this regard. India is considered by many to be the leader in the Indian Ocean and the Indian Navy's IONS initiative is welcomed in many circles because of

its potential to improve maritime security cooperation. As many extra-regional powers with a stake in Indian Ocean security do not participate in the IONS, calls are being made to include such powers in the dialogue and for them to assist with regional maritime security and capacity-building. Indian Ocean states should, however, define their own security concerns, although this may be difficult to achieve in practice because of political issues and regional concerns.

African states have a large stake in the Indian Ocean and many have significant maritime security problems. It is important that they improve their maritime security and participate as equal partners in the Indian Ocean security debate. Although this seems obvious, in practice it may not be that easy to achieve since the landward security concerns of African IOR states are usually dominant and many African countries lack maritime capacity.

One of the objectives of the IONS is to encourage capacity-building. Though each sub-region has its own unique challenges, the capabilities required to deal with maritime security are often the same. The need to have a structure that addresses maritime security capacity-building and involves both regional and extra-regional countries is evident. Great potential exists for the international community and regional organisations to improve international cooperation, to strengthen security in the region, and to create a broad-based Indian Ocean security strategy that is acceptable to all. This is certainly a difficult undertaking. In the meantime, specifically in maritime security terms, the Indian Ocean has rough seas ahead.

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ABOUT THIS PAPER

The Indian Ocean is an economic, energy, cultural and military highway of considerable strategic importance. As maritime power in the Indian Ocean and power projection into it are common historical features, Indian Ocean maritime security is multifaceted and dynamic. This paper deals with maritime security in the Indian Ocean and focuses on the strategic value of the Indian Ocean, maritime security characteristics and threats (specifically military aspects, sea lanes of communication, maritime piracy, port security, ocean resource security, smuggling and human trafficking, non-state threats and the outsourcing of security), as well as potential responses such as sub-regional and multinational cooperation.

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Published by the Institute for Security Studies

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Design and printing by COMPRESS.dsl

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ISS Paper No 236

ISSN 1026-0404



This publication was made possible by generous funding from the governments of the Netherlands, Norway, Sweden and Denmark.

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