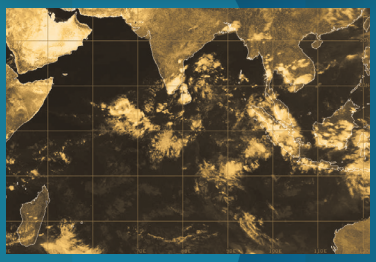

STIMSON

Indian Ocean Rising:

Maritime Security and Policy Challenges

The following paper is part of a forthcoming series exploring maritime and security policy issues in the Indian Ocean, to be released in the summer of 2012. Together, the papers will examine emerging trends and challenges in the ocean realm, including the international deployment of naval power, the commercial shipping industry, offshore energy development and natural resources management, the future of the Law of the Sea, and evolving pressures on the marine environment.

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Countering Piracy, Trafficking, and Terrorism: Ensuring Maritime Security in the Indian Ocean

Rupert Herbert-Burns

Multiple sources of insecurity afflict many of the countries that rim the Indian Ocean. These challenges include simmering conflicts between Persian Gulf states; terrorism in Pakistan, Sri Lanka, India, and Saudi Arabia; insurgency in Yemen and Iraq; state failure, civil war, and famine in Somalia; high-volume trafficking of drugs from Afghanistan via Pakistan and Iran; and piracy and armed robbery at sea. Not all of these security concerns have occurred at peak intensity at the same time, and thus it is arguable that they have been addressed 'sufficiently' on an 'if and when' basis. Even so, these risks threaten one of the most critical strategic and trading spaces in the world. The Persian Gulf remains the global market's most important source of crude oil, while the northern Indian Ocean constitutes a key sector of the globe's east-west-east trading belt. For this reason, it is all the more remarkable that these issues have not previously caused a greater holistic security breakdown in the Indian Ocean Region (IOR).

As trends that have particularly worrisome security implications continue to evolve, it is conceivable that the conflated pressures of insurgent conflict, terrorism, political insecurity, illicit trafficking of all kinds, and piracy and vessel hijacking will outstrip the international and regional community's ability to effectively respond to those issues in a sustained fashion. Decision-makers must now confront the logic of adopting a 'management' approach to these challenges. However, successful management of a security challenge of this magnitude, complexity, and interconnectedness requires policy coherence, imagination, longevity of participation, and considerable resources. Amidst the existential pressures of geopolitical fragility, internal political upheaval, insurgency, famine, and inter-state tensions, there is now a growing danger that the specific threats from terrorism, trafficking, and piracy will not get the resources and policy attention they require, and could therefore increase further in the near term and beyond.

The purpose of this paper is to offer a concise appraisal of the current state of the primary maritime security challenges in the IOR, explore in greater detail the evolution of some key trends, and offer some pointers for policymakers and stakeholders as to what solutions and strategy adaptations might be worth considering going forward.

Current Security Situation

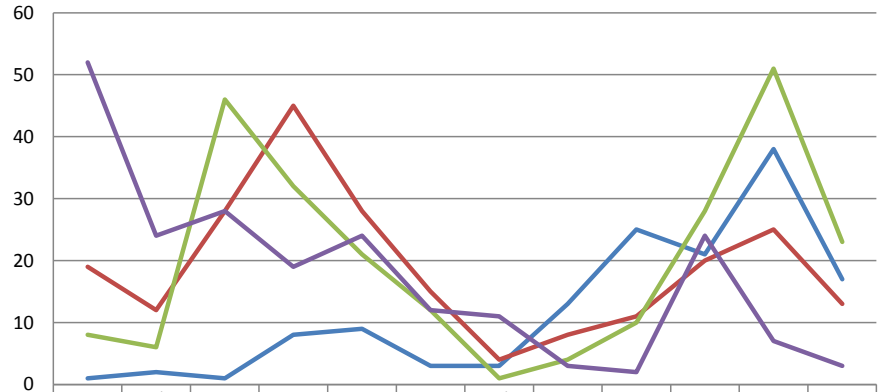
Piracy & Armed Robbery in the Indian Ocean

In the 3rd quarter of 2011, maritime security concerns in the Indian Ocean continued to be dominated by piracy and armed robbery at sea, specifically the hijacking of merchant vessels by well-armed Somalia-based pirates. By the end of 2011, 214 vessels had been attacked, 31 hijacked (a 14% success rate), while 8 vessels remained under capture awaiting release and of payment of ransoms, 497 seafarers had been held captive, and 10 seafarers had died. Piracy Attack Groups (PAGs) are increasingly well armed, highly motivated by the prospect of very large ransom payments (average payment is currently $5.4 million), and many are using captured merchant vessels as motherships to stage further attacks.

During 2011, there were typically 35-45 warships and auxiliaries deployed in the Indian Ocean on counter-piracy operations drawn from some 28 states, and there remain three dedicated counter-piracy coalition forces — The EU's counter-piracy task force EU NAVAL FORCE (otherwise referred to as EU NAVFOR or Operation Atalanta), NATO's Standing Naval Maritime Group (SNMG) 1 and 2, and Combined Task Force 151 (CTF-151). Due to the operational necessity of concentrating these clearly limited resources in the most vital areas, the great majority of naval assets are deployed in the Internationally Recognized Transit Corridor (IRTC), and off the eastern Somali coast. Nevertheless, the area affected by Somali piracy remains vast — approximately 2.5 million square miles, encompassing all parts of the Arabian Sea, Gulf of Aden, Gulf of Oman, and the southern Red Sea. The operational inability of even a vastly increased naval presence to secure this oceanic-sized space has meant that merchant vessels transiting or operating in the affected areas must implement their own anti-piracy measures, which are characterized by risk avoidance, and anti-boarding and hardening measures as set forth in the latest Best Management Practices version 4 (BMP-4) – a set of shipping industry guidelines for merchant vessel crews that give detailed information on the optimum practical and operational measures that should be implemented to deter and prevent attack and boarding by Somali pirates in the high risk area (HRA). Furthermore, the hiring of armed private security teams is now becoming the norm rather than the exception. This serious risk-mitigating measure is being increasingly driven by the realization that naval forces cannot provide sufficient protection, and because hull insurance underwriters and P&I clubs are refusing to offer acceptable war risk premiums unless armed security teams are embarked.

Figure 2.1

Piracy Attacks, 2008-2011



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	1	2	1	8	9	3	3	13	25	21	38	17
2009	19	12	28	45	28	15	4	8	11	20	25	13
2010	8	6	46	32	21	12	1	4	10	28	51	23
2011	52	24	28	19	24	12	11	3	2	24	7	3

Source: Risk Intelligence

In the beginning of 2012, piracy activity in the Indian Ocean HRA was modest compared to the same period in 2011. By mid-January 2012, for instance, there had been only two hijackings — one of a large dhow 60 nautical miles (nm) north of Bosasso in Puntland, and a second of an Italian-flagged product tanker, the *M/T Enrico Levoli*, which was hijacked some 50 nm south of Ras al Madraka, Oman. Meanwhile, seven ships were attacked in the first half of January, with most of the attacks occurring in the Gulf of Aden. However, one ship was also attacked off the Omani coast, while another was attacked approximately 50 nm east of Mogadishu in the Somali Basin. There were no attacks or hijackings in the deep ocean during this same time period. As shown in Figure 2.1, aside from the first two months of 2011, piracy attacks in the Indian Ocean during 2011 were for the most part in decline over those in 2009 and 2010.

Apart from the impact of seasonal variations on PAGs' ability to sortie in large numbers and with sufficient frequency during the monsoon months, the decline in the number of attacks (and in particular the incidents of successful hijackings) is attributed to both the greatly increased number of armed vessel protection teams on merchant vessels in the HRA, as well as the reduced numbers of large motherships deployed (a result of the limited numbers of merchant vessels in captivity). While there have been incidents of exchanges of fire between pirates and armed security teams, to date there has not been a successful hijacking of a merchant vessel with an armed team embarked. This reality has had an important deterrent effect on PAGs that once used to hijack vessels successfully with little or no resistance from crews.

At the moment, it is too early to tell whether Somali pirates will be willing, or indeed able, to regain the offensive initiative in 2012 and beyond. Currently, three outcomes are plausible:

1. The better-equipped, better-armed, and more experienced PAGs will make concerted moves to attack ships with embarked armed security personnel, using tactical acumen and far greater weight of fire (including the use of heavy machine guns if available) to defeat vessel defenders in a protracted fire-fight. Such hijacking attempts would necessitate that pirates overcome BMP defences. But successful seizures would boost captured vessel inventory and supply more motherships for attacking operations, which could better yield further successful hijackings.

2. The steady proliferation of privately contracted armed security personnel on vessels operating in the HRA, coupled with the limited numbers of decent motherships, will cement the current deterrent effect, and will dilute PAG operational capacity to the extent that attacks and successful hijackings further decline in 2012 and beyond.

3. The current status quo will be maintained. There will be an ebb and flow of attacking rates during the monsoon cycles, and a scattering of successful hijackings of vessels that are either insufficiently prepared with full BMP-4 and/or do not have an armed security team on board.

Illicit Trafficking by Sea

The sustained trafficking of illicit narcotics, weapons, and people within, and via, the Indian Ocean will persist for the medium- to long- term for several key reasons. There are numerous sources of high-volume supply for all three commodities; there are a sufficiently large number of points of export located in key countries that suffer from chronic insecurity and/or corrupt officials; there is a massive array of sea transportation available (liner and tramp) servicing all of the necessary sites of demand and consumption; and, the environment within which this activity occurs is vast and, for all intents and purposes, largely insecure, including lengthy tracts of unpatrolled coastline. While the trafficking of narcotics, weapons, and people continue to be of greatest concern, the smuggling of oil, cigarettes, charcoal, khat, endangered species, and other contraband is also commonplace.

Narcotics Trafficking

Three types of illicit narcotics dominate trafficking in the Indian Ocean — heroin/opiates, amphetamine-type stimulants (ATS), and cannabis. In terms of volume, the majority of narcotics are trafficked by land, most notably Afghani heroin bound for Russia and Europe via Central Asia, the Caucasus, Turkey, and the Balkans. Nevertheless, sea conveyance of narcotics remains substantial. A more detailed breakdown of producing countries, key ports, routes, and destinations is given in Figures 2.2 and 2.3. The flows of greatest concern are the Afghan heroin/opiate trafficking to Europe via Iran/Pakistan/United Arab Emirates (UAE), and via the Arabian Sea/Red Sea/Suez Canal shipping route.

Small Arms and Light Weapons Trafficking

Flows of illicit weapons and ammunition in this region follow the familiar logic of supply and demand, moving from source (or surplus) to areas of conflict, where they can fuel insurgency or, to a lesser extent, terrorist activity. Details are provided in Figure 2.3. The

linkages of greatest concern are flows of small arms and light weapons (SALW) from Iran to Yemen and onwards to the Eastern Mediterranean via the Suez Canal, and between the Arabian Peninsula (Yemen) and the Horn of Africa (Somalia).

Across the IOR, the most common types of weapons trafficked fall into the SALW category. Trafficked weapons in this category include anti-aircraft guns (e.g., ZU-23-2); anti-personnel mines; anti-tank guided missiles (e.g., Malyutka AT-3 Sagger); anti-tank mines (e.g., TMA-5, YM-III); assault rifles (e.g., AK-47, AK-74, G-3s, FN FAL, M-16); C-4 plastic explosives; hand grenades; handguns/side arms; heavy machine guns (e.g., DShK); man-portable air defence systems (MANPADS) (e.g., SA-7,& Strela-2); man-portable machine guns (e.g., PKM, RPK); mortars (e.g., 60mm, 80mm, and 120mm variants); rocket-propelled grenades (e.g., RPG-7, RPG-18); sniper rifles (e.g., 7.62mm SVD); surface-to-surface rockets (e.g., 122mm and 107mm Katyusha and Grad); TNT; and, ammunition for all of the above.

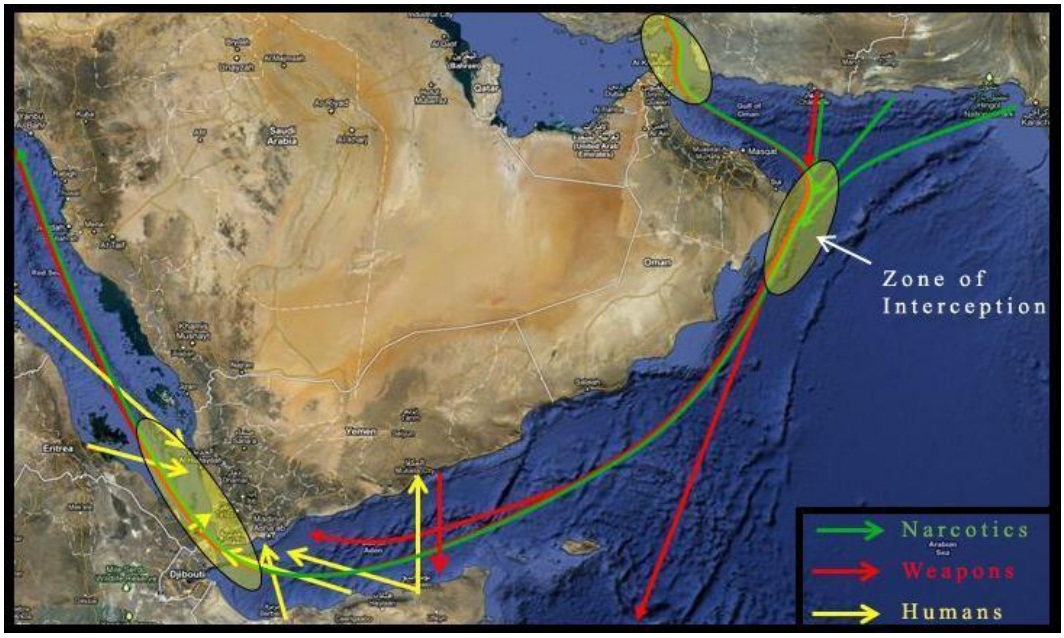
Human Trafficking

There are numerous source countries for illicitly trafficked people in the IOR with the associated dangers of loss of life at sea and abuses of trafficked persons by organised criminals. Two main maritime flows stand out:

1. From the southern Red Sea and Horn of Africa to the southern Arabian Peninsula.
2. From the Asian subcontinent to the eastern Arabian Peninsula and Persian Gulf.

The sea area of greatest concern remains the Gulf of Aden and southern Red Sea, where high-volume trafficking persists between Bosasso and Berbera in Somalia and Yemen. Currently, the largest numbers of refugees in Yemen are Somali nationals. This is ironic given that Yemen is in a state of virtual civil war, and indicative that the situation in Somalia is so bad that thousands of people each year are compelled to travel to another conflict-torn country to escape their own. Trafficked persons also cross to Yemen from Eritrea and Sudan, and to a lesser extent from Djibouti. For those persons that survive the transit, many are trafficked onwards to Saudi Arabia and the Gulf states and sold into sexual and/or domestic servitude.

Figure 2.2. Smuggling Routes and Zones of Interception



The map above illustrates the sea pathways for drugs, SALW, and human trafficking. There are other maritime pathways outside the scope of this view, notably SALW bound for the southern Somali ports from the Makran coast of Iran and Pakistan, and opiates and cannabis bound for the major Kenyan, Tanzanian, and Mozambican ports from the Makran and southern Iranian coast. The map shows likely and forced areas of trafficking convergence, which offer potential zones of interception concentration for security forces.

When assessing illicit trafficking within and via a maritime space, six key features are required:

1. Source countries
2. Points of export (ports/harbours/coastlines)
3. Transhipment nodes/countries (if/where applicable)
4. Means of transportation (vessel type)
5. Sea transportation routes
6. Destination countries/ports

Figure 2.3. Maritime Trafficking in the Indian Ocean Region

	Narcotics			Small arms & light weapons	Human
	Opiates	ATS	Cannabis		
Key source countries	Afghanistan, Laos, Myanmar, Pakistan, Thailand & Vietnam	Australia, Bangladesh, India, Indonesia, Iran, Malaysia, Myanmar, South Africa & Thailand	Afghanistan, India, Philippines, South Africa & Sri Lanka	Ethiopia, India, Iran, Iraq, Mozambique, Myanmar, Pakistan, Somalia, South Africa, Sri Lanka, Sudan, Thailand & Yemen	Afghanistan, Bangladesh, Comoros, Egypt, Eritrea, Ethiopia, India, Iraq, Madagascar, Malaysia, Maldives, Myanmar, Sudan, Tanzania, Thailand & Yemen
Potential points of sea export/ departure	Pakistan (Karachi, Gwadar, Port MBQ); Iran (Bandar Abbas, Charbahar & Jask)	Bangladesh (Chittagong); India (Mumbai, Chennai), Indonesia (Jakarta); Iran (Bandar Abbas, Charbahar, Jask); South Africa (Durban)	Pakistan (Karachi, Gwadar, Port MBQ); Iran (Bandar Abbas, Charbahar & Jask)	Iran (Bandar Abbas, Charbahar, Jask); Yemen (Hodeidah & Aden)	Djibouti, Somalia (Bosasso & Berbera); Eritrea (Massawa & Aseb); and, Sudan (Port Sudan)
Transhipment points	India (Mumbai, Chennai, Calcutta, Kochi), Kenya (Mombassa), Mozambique (Nacala Porto, Pemba, Maputo), Oman (Salalah & Muscat); South Africa (Durban), Tanzania (Dar es Salaam) & UAE (Jebel Ali)	India (Mumbai, Chennai, Calcutta, Kochi), Kenya (Mombassa), Mozambique (Nacala Porto, Pemba, Maputo), Oman (Salalah & Muscat); South Africa (Durban), Tanzania (Dar es Salaam) & UAE (Jebel Ali)	India (Mumbai & Chennai), Kenya (Mombassa); South Africa (Durban); Sri Lanka (Colombo) & UAE (Jebel Ali)	India (Mumbai, Chennai, Kochi), Kenya (Mombassa), Mozambique (Maputo); Somalia (Mogadishu, Kismayo & Bosasso) South Africa (Durban), Tanzania (Dar es Salaam) & UAE (Jebel Ali); Eritrea (Massawa & Aseb); and Sudan (Port Sudan)	India (Mumbai, Chennai, Calcutta), Kenya (Mombassa), Oman (Salalah & Muscat); Tanzania (Dar es Salaam) & UAE; Yemen (Hodeidah, Mocha, Red Sea coast & Hanish Island group)
Primary sea transportation routes	Malacca - Bab el Mandeb & Suez Malacca - Durban & Cape Aghulas Persian Gulf - Cape Agulhas Persian Gulf - Sri Lanka/Malacca Persian Gulf - Suez	Malacca - Bab el Mandeb & Suez Malacca - Durban & Cape Aghulas Persian Gulf - Cape Agulhas Persian Gulf - Sri Lanka/Malacca Persian Gulf - Suez Singapore - SE China/Taiwan/Japan Western Australia - Sunda Strait	Malacca - Bab el Mandeb & Suez Malacca - Durban & Cape Aghulas Persian Gulf - Cape Agulhas Persian Gulf - Sri Lanka/Malacca Persian Gulf - Suez Singapore - SE China/Taiwan/ Japan Western Australia - Sunda Strait	Malacca - Bab el Mandeb & Suez Malacca - Durban & Cape Aghulas Persian Gulf - Cape Agulhas Persian Gulf - Sri Lanka/ Malacca Persian Gulf - Suez Singapore - SE China/ Taiwan/Japan Western Australia - Sunda Strait	Malacca - Bab el Mandeb & Suez Malacca - Durban & Cape Aghulas Persian Gulf - Cape Agulhas Persian Gulf - Sri Lanka/ Malacca Persian Gulf - Suez Singapore - SE China/ Taiwan/Japan Western Australia - Sunda Strait
Destination regions/ countries/ ports	Major European ports		Major European ports	Somalia (Kismayo, Mogadishu, Haradhere, & Bossaso); Yemen (Hodeidah & Aden); Eritrea (Massawa & Aseb); Sudan (Port Sudan) & Gaza, Lebanon and Syria (via Suez)	Bahrain, Iran, Kuwait, Qatar, Saudi Arabia, UAE & Yemen
Means of transportation	Container vessels (TEUs), Dhows, Fishing vessels, General cargo vessels & Go-fast boats	Container vessels (TEUs), Dhows, Fishing vessels, General cargo vessels & Go-fast boats	Container vessels (TEUs), Dhows, Fishing vessels, General cargo vessels & Go-fast boats	Container vessels (TEUs), Dhows, Fishing vessels, General cargo vessels & Go-fast boats	Container vessels (TEUs), Dhows, Fishing vessels, General cargo vessels & Go-fast boats

Terrorist Threat in the Maritime Domain

In the Indian Ocean, there has been little in the way of maritime terrorist activity since the early part of the last decade, when Al Qaeda was still a significant concern from the point of view of attack operations and advanced operational planning under the leadership of Abd al-Rahim al-Nashiri (captured in November 2002). The considerable weakening of AQ has effectively neutralized their operational maritime capability, but not its strategic aspirations. It now seems clear that AQ-Core will rely upon affiliates to conduct operations of high complexity. Given their current potency in Yemen and the high-profile nature of their intent to attack international targets, the most relevant affiliate is Al-Qaeda in the Arabian Peninsula (AQ-AP). Currently, there is no evidence to suggest that AQ-AP has the capability to mount an attack against vessels at sea, at anchor, or in port. However, in February 2010, AQ-AP's deputy commander, Said al-Shihri, publically declared the group's interest in closing the Bab al-Mandeb (BAM) and bringing the straits under the protection of Islam. There were no hints of how this highly ambitious goal might be achieved, but it could not be done without directly attacking transiting vessels.

There have also been indications that AQ-AP would like to advance their alliance with an AQ affiliate on the other side of the Gulf of Aden, Al-Shabaab, to assist them in this respect. AQ-AP could not threaten BAM in any lasting or permanent way; however, their ability in the short to medium term to attack individual vessels should not be discounted, particularly those ships calling at Yemeni ports or terminals or transiting close to the Yemeni coastline. Furthermore, the continued presence of large numbers of foreign warships in the IRTC, as well as tankers carrying crude to the West, also serves to sustain and focus their ideological vigour in the long term. Currently, there is no evidence that Al-Shabaab has a maritime attack capability or is actively planning maritime operations.

The other contemporary maritime terrorist threat comes from the Abdullah Azzam Brigades (AAB), which has demonstrated the capability to attack shipping in the Persian Gulf. Formed after 2004, AAB is an AQ-affiliated cellular Islamist terrorist group operating in various countries in the Levant and parts of the Arabian Peninsula. On July 28, 2010, an AAB maritime cell attacked the laden Japanese-owned very-large crude carrier (VLCC) *M.Star* at night as she was transiting the Strait of Hormuz. The explosives-laden attack craft was detonated close to the starboard side of the vessel beneath the superstructure. Fortuitously, the blast damage was not sufficient to cause crippling damage and the tanker proceeded to a port in the UAE.

The fortunate outcome notwithstanding, the incident itself is of considerable significance as an act of maritime terrorism. The attack was executed by an Islamist terrorist group not previously judged to have a maritime operations capability; the assault was conducted against a moving target at night (previously Islamist terrorists had only managed to attack merchant vessels at anchor or berthed at a terminal); and, it was executed in the world's most critical trading chokepoint in one of the most militarized maritime spaces in the world. It is far from certain whether AAB could mount another attack of this kind. However, it must be assumed by security forces, militaries, and the international shipping community that it can, and that such an attack will be conducted without warning and may, in the next instance, be far more destructive, not only for the vessel itself but also for the sea area in which the attack occurs.

Key Evolving Security and Industry Trends

Merchant Vessel Motherships

Using a mothership to support long-range and/or extended sea deployment Somali PAG operations in the Indian Ocean has been a feature of the Somali piracy threat for several years. The traditional mothership has typically been a dhow or small fishing vessel used to tow and support two to three attack skiffs for PAGs operating in distant hunting grounds and deep-ocean shipping lanes. Captured merchant vessels have been used for logistical support and refuelling in limited ways since 2008, but pirates began using hijacked vessels in more complex attacking operations in 2010. For instance, the now-released general cargo vessel *M/V Izumi* was used directly in an attack against the tanker *M/V Torm Kansas* in November 2010. Aside from her role as a launch platform for the attacking skiffs, *Izumi* closed to within small arms range of the target vessel and pirates on board provided fire-support for the attackers. Other examples of vessels being used as long-range motherships (effectively mobile forward operating bases) have included *M/Vs Eagle, Hannibal II, Motivator, Orna, Polar, Shiuh Fu No.1*, and *York*. These kinds of vessels — general cargo vessels and product/chemical tankers — have given PAGs the following key operational and tactical advantages and capabilities:

- All-weather/all-season capability: These vessels enable PAGs to deploy into hunting grounds and stay on station year round, regardless of monsoon seasons.
- Attack fire-support platform: Though not commonly used in this way, vessels of this size are ideal for mounting heavier weaponry that could be used for sustained fire-support, or in a direct vessel-to-vessel attack role. [Heavier weapons could conceivably include the Russian-designed DShK 12.7mm (.50 cal) heavy machine gun (HMG), which has been widely used ashore on Somali 'technicals.']
- Hostage shield: The vessel's crew always remains on-board to operate the ship. As such, they constitute an ideal 'human shield' as hostages should naval forces intercept the mother-ship and attempt to re-capture her.
- Logistical support: The ship's bunkers, stores, food, communications, and accommodation can provide long-term support for greatly enlarged PAG teams (of up to as many as 50 pirates). Cutting and other tools the vessel may carry are also ideal for enabling attackers to breach even heavily fortified citadels on target ships.
- Oceanic range: These vessels give the PAGs long-range capability either to seek out distant targets or remain in/near hunting grounds for sustained periods.
- Sustainable high speeds: Generally, merchant vessels can travel at up to at least 10 knots, even in heavy weather, enabling them to move at least 240 nautical miles in a given 24-hour period. This is significant, as a PAG can arrive without warning to attack in an area not previously determined as a high threat sector for transiting shipping.

This very serious capability enhancement notwithstanding, the existence and use of mothership vessels also gives security forces an opportunity to track the PAGs using them, and thus issue advance warnings to mariners approaching sectors of ocean where such ships have been sighted or are estimated to be heading.

Use of Armed Guards on Merchant Vessels

Ship owners' and charterers' use of privately contracted armed security personnel (PCASP) to protect their vessels transiting HRA of the Indian Ocean is fast becoming the norm — rather than the exception — for companies choosing to take a more proactive stance in protecting their vessels by employing specialist security firms. However, this approach has raised crucial questions regarding the quality, capability, and professional integrity of the rapidly growing number of companies offering their services. This issue is important for three principal reasons:

- Effectiveness in deterring and defeating an armed pirate attack.
- Safety of the crew, given the presence of weapons and armed men on board vessel.
- Robust legal protocols (including appropriate liability agreements) and comprehensive insurance cover.

As the use of PCASP has proliferated, the international shipping community has recognized the importance of ensuring that all the vital criteria listed above are met. Most significantly, the International Maritime Organisation (IMO) has set forward important guidelines for ship owners, operators, masters, and flag states in the selection of PCASP. The guidelines and recommendations contained within IMO MSC.1/Circ.1405 and 1406 (May 2011) clearly and concisely establish what interested parties need to be aware of and demand regarding PCASP, prior to agreeing upon contracts for their use. Following an operation risk assessment undertaken by the owner/operator, key due-diligence criteria concerning the private military security company (PMSC) include: financial position; insurance cover; management experience; maritime experience (e.g., number of armed transits undertaken); understanding the threat and capacity to provide continuous threat intelligence provision; licenses for firearms use and legal transport; suitable weapons selection; thorough vetting of security personnel (military records and criminal checks, etc.); and personnel maritime and security training and qualifications.[1]

As long as Somali piracy is a major security problem, shipping companies' use of PCASP will remain widespread. Indeed, if the threat remains at current levels, the ability of many companies to obtain war risk hull and machinery insurance cover and P&I cover will be linked to the level of security preparedness undertaken. For some insurers, this can include the requirement for PCASP as part of a rigorous security risk assessment and the proper implementation of BMP.

From the perspective of other key actors, such as international naval forces and governments, the increasing deployment of three-and four-man armed security teams on-board merchant vessels is a positive development. However, there is also cause for concern. On one hand, this more robust security offers deterrence and protection for a number of transiting vessels

that could not possibly be protected throughout the HRA by the very limited numbers of warships deployed at any given time. Conversely, as the number of armed security teams proliferates and their preparedness to use lethal force becomes an acknowledged part of the operational risk assumed by PAGs seeking target ships, there could be an increase in the levels of fire-power and aggressiveness on the part of Somali pirates. Such an escalation is likely to make the task of deterring and disrupting piracy in the Indian Ocean more problematic for naval commanders and policymakers. As the era of the PCASP evolves throughout 2012 and beyond, governments and decision-makers in the shipping industry will be monitoring whether the use of armed protection generates ever-greater deterrence, or fuels increased aggressiveness of hijackers willing to assume greater risks in order to capture ships.

Petroleum Exploration & Production (E&P) in the East African Littoral

Prolific oil and gas E&P has a long history off Africa's west coast, primarily Namibia, Angola, Cameroon, and Nigeria. However, oil experts are increasingly speculating that Africa's eastern coast could represent one of the few remaining major petroleum frontier regions in the world. Over the last several decades, seismic surveys have revealed an abundance of natural gas deposits and promising signs of oil from Somalia to Mozambique, along a geological structure known as the Davie Fracture Zone. As a result, numerous international oil companies (IOCs) and national oil companies (NOCs) are increasing their upstream operations (seismic surveying and exploratory and wildcat drilling) off Kenya, Tanzania, Mozambique, and Madagascar.

In early 2010, Texas-based Anadarko Petroleum Corp. announced the confirmation of a giant gas play off the Mozambique coast in the Rovuma Basin,[2] and comprehensive seismic surveys have been conducted to determine the full extent of the reserves. Kenya, Tanzania, and Mozambique are issuing more offshore exploration licenses, which has in turn attracted a number major petroleum companies, including Anadarko, BG Group, CNOOC, Eni, ExxonMobil, Petrobras, PETRONAS, Shell, Statoil, and Total.[3] GB Group, which made two important gas discoveries off Tanzania in 2010, has said that discovery "success is starting to gain momentum" and that depending on the size of fields, there could even be liquid natural gas (LNG) export potential to markets in Asia. Separately, Dominion Petroleum spent $40 million in upstream activity in Tanzanian and Uganda in 2010, while upstream activity in Tanzania's territorial waters and EEZ is being led by major companies such as BG Group, ExxonMobil, Shell, Eni, and Petrobras.[4]

Most current E&P activity revolves around gas, with the most promising areas for prolific yields in the deep-water blocs. However, there is also confidence of significant potential for oil deposits off the Somali coast, with some analysts speculating there may be reserves of up to 10 billion barrels in the northern sector of the basin.[5] Currently, however, the chronic insecurity situation in Somalia and continued vessel hijackings throughout the Somali Basin are preventing seismic surveying and exploratory drilling.

The increase in offshore activity has necessitated the contracting of seismic survey vessels and drill ships by oil companies large and small. Given the vulnerability of these kinds of vessels and the operational profiles — very slow steaming for seismic runs, restrictions in

ability to manoeuvre with deployed seismic arrays or static with set drill strings, and the numerous support vessels required — the security complications are considerable. As of early 2012, there is less concern with regards to Islamist terrorist threats, although Somalia-based Al-Shabaab remains a potential threat to foreign interests and personnel in Kenya (and to a lesser extent, in Tanzania). Nevertheless, going forward, piracy and vessel hijacking still present the most serious security challenge for these kinds of upstream operations in the Somali Basin and Mozambique Channel. Given the capacity for these kinds of companies to accept and absorb high risk in order to achieve success, and their considerable resources for utilizing comprehensive security, however, the steady increase in offshore operations in eastern Africa presents an intriguing opportunity to help deter and impede Somali piracy.

The current number of warships deployed on counter-piracy operations is never going to be sufficient to diminish the threat, and clearly the warships that are available cannot be everywhere they are needed. Still, it is conceivable that if increasing numbers of private maritime security assets (e.g. well-armed escort craft and embarked PCASP) are deployed in these waters on a more or less permanent basis protecting seismic survey groups, drill ships, and offshore support vessels, then the net effect on littoral security could be significant. Indeed, if this kind of security were also complemented by augmented Kenyan, Tanzanian and Mozambique naval and/or coastguard services, PAGs' ability to move and attack at will could be further limited. This is essentially an incremental, self-fuelling phenomenon. As more E&P operations deploy in the region, there will be a concomitant upswing in the security needed and deployed. In turn, this increased security — both actual and perceived — will encourage other companies to enter the region, necessitating additional security assets, and so on. Already, this process is somewhat underway; however, it could be accelerated with some international assistance for additional coastal patrol vessels and training for the three countries highlighted above.

Reality Check: Implications of the Interaction between AQ-AP and Al-Shabaab

The full extent of practical (or operational) ties between Yemen-based AQ-AP and Somalia-based Al-Shabaab is not possible to ascertain definitively, particularly from open-source material. This is very important to note, as there is far too much speculation by some media outlets in parts of the Middle East, Africa, and Asia regarding the seemingly impending threat of an AQ-AP/Al-Shabaab alliance — a union that could potentially threaten shipping in the region, specifically in the Gulf of Aden and Bab al Mandeb (BAM). Nevertheless, more credible reporting during 2010 and 2011 does indeed demonstrate that links between the two groups do exist, and that the development of this cooperation has been encouraged by senior AQ leadership. In July 2011, reports indicated that U.S. intelligence officials and senior military officers have voiced concerns over the support that Al-Shabaab has been receiving from AQ-AP, specifically in the form of weapons, fighters, and explosives training. Some commentators in Washington have also suggested that the efforts of Islamist extremists on both sides of the Gulf of Aden are converging to the extent that we are seeing the emergence of a 'conflation of jihadi conflict zones' in this strategically vital space.[6]

If an operational alliance between the two groups' expeditionary-capable cells were to emerge, this would certainly be a concern for policymakers and military commanders in US Central Command (CENTCOM), NATO, EUNAVFOR, and others. However, undue concern is precipitous. Currently, Al-Shabaab is under considerable pressure to retain control over its territorial stronghold in the southern parts of Somalia due to the effects of the chronic drought and military advances by government and troops from the African Union Mission in Somalia (AMISOM).[7] (Al-Shabaab has forbade most international aid agencies from distributing famine relief in areas under its control, which is prompting thousands to travel to areas of Mogadishu controlled by the transitional federal government (TFG) to get aid.) Furthermore, the leadership has also publicly conceded that there have been serious divisions and infighting amongst regional leaders, which has dented their organizational and combat effectiveness, and emboldened their enemies.[8]

Although Al-Shabaab remains a key force in the country and the group's leader, Ahmend Abdi Godane, has hinted at wanting to broaden the group's operational reach, there is currently little or no capacity to initiate an international maritime-capable force. AQ-AP is better placed geographically, logistically, and technically to develop a maritime cell capable of attacking vessels off the Yemeni coast. Recognizing this threat, the CIA in September 2011 labelled AQ-AP as the 'most dangerous' of the extremist AQ affiliates.[9]

AQ-AP has made notable gains in southern Yemen and is certainly taking full advantage of domestic political upheaval and insecurity, but it will remain under pressure to maintain its operational tempo and capacity on land. At this juncture, despite a declared intent to implement maritime operations in the Gulf of Aden, AQ-AP is unlikely to have the operational bandwidth and flexibility to conduct strike operations against shipping whilst it is tied up on shore.

Looking forward, the intent for greater operational congruence between AQ-AP and Al-Shabaab is clear, and in time this could include a maritime attack dimension in the Bab al Mandeb, Gulf of Aden, or Horn of Africa. However, the increased likelihood of this will depend on a lessening of pressure on both groups on land, more focused maritime-capable/experienced cell leadership and operation design, and greater determination by Al-Shabaab to properly develop a discernable maritime cadre. These conditions could emerge at some point in 2012-13.

Potential Policy Responses

This paper's objective has been to provide a concise status report of the form and extent of piracy and vessel hijacking; analyze the trafficking of illicit drugs, SALW, and persons; and highlight the extant threat from maritime-based terrorism. It has also sought to examine in greater detail some important evolving trends. Given that these serious security challenges are occurring amidst other substantial geopolitical and humanitarian problems in the region, two interrelated concerns are manifest going forward:

- These challenges will, in all likelihood, intensify in the years ahead.
- There are not enough resources (principally military) being provided to address these problems.

Piracy and Vessel Hijacking

The oceanic area now threatened by Somali PAGs is vast (over 2.5 million sq. miles), and security of this space could never be assured, even with hundreds of warships. Nevertheless, the 35-45 warships collectively provided by many states that are routinely deployed in the IRTC and in parts of the Somali Basin are woefully inadequate. There are some short-term solutions to this problem. Most of the Gulf Cooperation Council (GCC) states have decent-sized naval forces and numerous patrol vessels with adequate range to patrol the Gulf of Oman, which has seen a greatly increased PAG presence during the last two years with the advent of merchant vessel motherships. The Gulf States rely heavily on shipping for their economic prosperity, especially to secure the flow of crude oil exports. This reality should be matched with far more robust and sustained naval patrolling by Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE. Western powers that have replenishment capabilities could provide logistical support to an augmented GCC patrol effort. Meanwhile, on the northeastern and eastern side of the HRA, India and Pakistan could likely provide more sea and air surveillance resources to ensure better security nearer to their EEZs. (Indeed, India's National Shipowner's Association, figuring that piracy costs the global shipping trade $9 billion annually, has formally urged the Indian government to back the creation of a maritime anti-piracy force under UN command.)[10] Additional Maritime Patrol Aircraft (MPA) and Unmanned Aerial Vehicle (UAV) assets based in the Seychelles, Kenya, Tanzania, Oman, and Madagascar would further enhance current levels of maritime domain awareness (MDA). Additionally, those states with sufficient warships, such as the U.S., UK, China, France, Germany, Japan, and Turkey, could provide additional frigates and destroyers to extend the patrolling footprint deeper into the HRA, guided by improved MDA and intelligence.

Ever since the piracy threat began to grow in 2008, MDA has improved considerably due to the efforts of the United Kingdom Maritime Trade Organisation (UKMTO), the Maritime Security Center – Horn of Africa (MSC-HOA), and various combined task forces. Nevertheless, more could be done to harness the surveillance and threat-reporting capability of all of the merchant vessels in the HRA, which could potentially expand the intelligence-gathering capacity for military forces by an order of magnitude. This would prove particularly important in helping to track motherships. In the longer term, an internationally-supported financial program to boost the naval and coastguard capacity of

countries such as Kenya, Tanzania, Mozambique, Madagascar, Mauritius, and the Seychelles would better enable these states to provide far better maritime security in their own backyard. From a technical perspective, some studies still need to be done to determine the optimum offshore patrol craft these states would need for counter-piracy in these waters.

Illicit Trafficking

Interdiction and seizure of narcotics trafficked by sea depends upon three key factors:

1. timely, accurate intelligence
2. effective security screening and reliable officials at points of export, transhipment, and/or landing
3. capacity for interception at sea (e.g., coast guard, marine police, and/or naval vessels)

For the most part, the reliability of effective cargo screening and the integrity of customs and security officials cannot be relied upon at any of the points of export, transhipment, or landing in the region. Thus, international forces must rely upon meaningful intelligence, deterrence, and at-sea interdiction. Already, intelligence has led to some significant arms trafficking intercepts at sea. In March 2011, for instance, the Israeli Navy intercepted the Liberian-flagged *M/V Victoria,* which was found to be transporting 50 tons of weapons, including six C-704 anti-ship missiles. In November 2009, the Israeli Navy also seized 320 tons of weapons on board the *M/V Francop*, including 600 122mm Katyusha rockets. Previously, the Israel Defense Force (IDF) had seized the *M/V Santorini* in 2001 and the *M/V Karine-A* in 2002, both of which were trafficking very large consignments of illicit arms. All of these weapon shipments originated in Iran. There have also been some drugs shipments seized in Aden, Hodeidah, Mombassa, Dar es Salaam, Jebel Ali, and Karachi in recent years, but most of the largest consignments of sea-trafficked illicit opiates still make it through to major European container ports such as Rotterdam, Antwerp, Hamburg, Bremerhaven, Valencia, Felixstowe, and Gioia Tauro.

In regards to human trafficking, arguably the largest concern in the region is trafficking by organized criminal groups across the Gulf of Aden and Red Sea. This is problematic for several reasons, including the very large volume of trafficked persons from Africa bound for the Arabian Peninsula; the high death toll on these very dangerous crossings in overcrowded, unseaworthy vessels; and, the cover opportunity for the transfer and exchange of terrorist fighters from Al-Shabaab and AQ-AP across the Gulf of Aden. The points of departure for trafficking of persons across this divide are well-known, as are the drop-off points and routings. The difficulty is that with virtually all available international and regional naval and coast guard assets dedicated to counter-piracy operations, there is little or no spare capacity for trafficking interdiction. This is unlikely to change in the short to medium term. This security concern is best tackled at the ports of departure rather than at sea. However, given where the primary ports are located and the fact that many of the smaller trafficking craft leave from more remote, unpatrolled coastlines, the challenge is substantial. In this respect, coalition forces and the UN must continue to strengthen cooperation with the security forces and port authorities in Somaliland (particularly the Somaliland Navy, which

has a good number of well-armed ships manned with trained crews). The reduction in human trafficking from this side of the Gulf of Aden is best affected before they put to sea.

Maritime Terrorism

Addressing the threat of maritime terrorism in this region is achieved by having excellent intelligence coupled with the precision forces (special forces and advanced aerial assets) needed to thwart a terrorist attack before a group's operation moves into the execution phase. The groups of greatest concern in this region are AAB, AQ-AP, and, to a reduced extent, Al-Shabaab. The US has boosted the numbers of its UAVs (including the advanced *Reaper*) to provide enhanced aerial surveillance and strike capability in the region, with reported increases in the number of UAVs based at Camp Lemonier in Djibouti, Ogaden in Ethiopia, and the Seychelles. The use of UAVs in a strike role against terrorists has been highly effective in Pakistan and Yemen. However, there remain concerns over mistaken targeting and collateral damage due to out-of-date or erroneous intelligence.[11] Intelligence coverage of AQ-AP and Al-Shabaab appears to be of a high order, but much more needs to be done to improve the coverage of AAB, which prior to its surprise attack on the *M.Star* in the Strait of Hormuz, had not been credited with a maritime strike intent, much less a capability to execute such an ambitious and complex operation.

Maritime Security Developments in the IOR Out to 2030

Due to enduring and in some cases growing demand for narcotics in Europe and parts of the African continent, drug trafficking from Central Asia (via Pakistan and Iran) will persist, with Africa remaining both a key transit hub and a destination for opiates. Human trafficking and displaced people migration to Asia from Africa will continue in the same volumes across the southern Red Sea and the Gulf of Aden until countries in the Horn of Africa (principally Somalia) become more stable, possibly toward the end of this decade. Indeed, only when Somaliland and Puntland have more robust policing and legal forces will the disruption of organized criminal gangs engaged in human trafficking be truly effective. This could become possible with meaningful and sustained assistance from the wealthy regional states, in particular those from the GCC.

Somalia will likely become more secure in the coming decade, as neighbouring states and the country's transitional federal government (TFG) collectively push to weaken Al-Shabaab in the south the country. If the TFG can be given sustained assistance to fortify security in the country, particularly on the coast, this will diminish the ability of pirate groups based in Haradhere, Hobyo, and Eyl to sortie into the Somali Basin at will. In time, leading regional states will need to help Somalia with developing a reliable coast guard of its own to help police its own ports and coastline. However, this level of security is unlikely to be fully implemented by 2020.

Illegal, unregulated, and unreported (IUU) fishing will continue in the western Indian Ocean's most important fishing areas, most notably in the important tuna grounds in the waters around Mauritius, Comoros, Madagascar, the Seychelles, and Reunion. Currently, albacore, yellow-fin and big-eye tuna are being fished to the maximum limit deemed possible by conservationists. However, IUU has long been a growing threat, both to key fish species

and to the economies of the island states where the fish are hunted. Though the Indian Ocean Commission has been able to help some states with satellite and radar surveillance to curtail IUU, the navies and coast guards of these states are too small to cope with the vast areas of ocean in which this activity occurs. Patrol boats based in the Seychelles and Mauritius have made arrests where and when possible. However, if tuna stocks in the IOR are to have any chance of being maintained, island states in the western and southwestern IOR will require assistance in the form of additional patrol vessels, intelligence, training, and funding.

As offshore exploration and production for oil and gas evolves along Africa's east coast from Mozambique northwards to Somalia, more private- and government maritime security will be put in place. On one hand, this will improve maritime security in the littorals where this activity is concentrated — northern Mozambique, Tanzania, and Kenya. On the other hand, however, as the offshore industry expands, infrastructure, ports facilities, and support shipping will likely be tempting targets for armed robbery, piracy, kidnappings, and sabotage for a range of actors, including pirates, organized criminal gangs, terrorists, and insurgent groups (some of which have yet to emerge or be identified). This is not to suggest that insecurity will be seen on the scale witnessed in the waters off Nigeria in recent years; however, the industry and those countries concerned will need to be prepared for this risk.

Historically, the settlement of territorial disputes has been one of the most protracted areas of geopolitical conflict. In most instances, the dispute is benign, rendering it virtually dormant. Nevertheless, several disputes in the IOR have the potential to become flashpoints in the coming decades, and will need to be addressed with care. As of early 2012, key disputes include the lack of agreement to settle the maritime boundary between Iraq and Iran in the Shatt al Arab waterway; unresolved maritime boundaries between Indonesia and Timor Leste; and, the dispute between the UAE and Iran over sovereignty of the Tunb Islands and Abu Musa Island in the southern Persian Gulf.

Viewed from afar, there appear to be a daunting number of maritime security threats and challenges in the IOR, both extant and potential, and insufficient resources to address them. Indeed, the mere fact that the IOR constitutes the world's largest swath of maritime space falling under the Lloyd's Market Association Joint War Committee 'Hull War, Piracy, Terrorism, and Related Perils Listed Areas' signifies that the region will arguably remain the maritime area with the greatest array of security challenges for the foreseeable future.[12] However, while the resources that a very large and diverse group of states has devoted to addressing these challenges have never been adequate to the task, the largely successful coalition-building and joint task-force development projects have been impressive. With the appropriate leadership, this kind of multilateral effort can be built upon in the future to bring far greater weight to bear on the key aforementioned challenges. Key states and coalitions must continue to lead these projects, especially the US and the EU. At the same time, other key states must come forward to forge regional multilateral solutions to address piracy, hijacking, trafficking, IUU, terrorism, and the integrity of EEZs. The most notable states in this group include Australia, India, Saudi Arabia, UAE, Oman, Pakistan, Iran, and South Africa. While not all these states and powers will be (or can be) grouped to address every challenge, opportunities for security cooperation and confidence-building measures (CBMs) in the IOR exist in abundance.

Many of these CBMs and coalitions will be instigated in diplomatic forums, but, as has been discussed by other commentators, analysts, and policymakers, there also exists the possibility to study and address the security challenges faced by the IOR out to 2030 in *maritime centers of excellence* (MCEs) based in the region. Key locations for MCEs in the coming years might include Singapore, Dubai, Mumbai, Abu Dhabi, and Kuala Lumpur. Already, several universities and think tanks in some of these locations are undertaking important research in these areas. Policy initiatives advanced by well-funded MCEs might even be the catalyst required to build some cooperative regimes for the IOR along the lines of the Association of Southeast Asian Nations (ASEAN) and Asia-Pacific Economic Cooperation (APEC).

Notes

1 Risk Intelligence, *MaRisk,* Maritime security risk monitoring and analysis system.

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6 *Ibid.*

7 Farouk Chothia, "Could Somali famine deal a fatal blow to al-Shabab?" in *BBC African Service*, August 9, 2011, http://www.bbc.co.uk/news/mobile/world-africa-14373264.

8 *Ibid.*

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10 Associated Press, "Indian shipowners say piracy costs tops $9 billion annually, demand UN maritime force," in *The Washington Post*, October 3, 2011.

11 Frank Gardner, "US uses drones to target al-Qaeda in the Horn of Africa," in *BBC,* September 21, 2011, http://www.bbc.co.uk/news/world-africa-15012962.

12. Lloyd's Market Association (Joint War Committee), "Hull War, Strikes, Terrorism and Related Perils," August 1, 2011, http://www.lmalloyds.com/Web/market_places/marine/JWC/JW_Bulletins/JWLA019.aspx.

Note: Listed Areas – Indian Ocean/Arabian Sea/Gulf of Aden/Gulf of Oman/Southern Red Sea – These waters are enclosed by the following boundaries: a) On the north-west, by the Red Sea, south of Latitude 15° N; b) on the west of the Gulf of Oman by Longitude 58° E; c) on the east, Longitude 78° E; d) and on the south, Latitude 12° S.

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