THE STATE OF MARITIME PIRACY 2015: INTRODUCTION

This year's report marks the sixth year that Oceans Beyond Piracy has assessed the human and economic cost of maritime piracy. Over the years the report has evolved and our focus has expanded from piracy off the coast of Somalia to piracy in the Gulf of Guinea, and finally to piracy and robbery at sea in Southeast Asia. What has remained constant is our goal to explain and quantify the magnitude of these crimes and the profound impacts it has had on stakeholders from governments, industry, and most importantly, its victims.

For an overview of this year's key findings and analysis click here: Executive Summary

FEATURED REGIONAL VIDEOS

Somalia: A series of attacks in 2015 may serve as an indication that the stage is being set for piracy's return off the coast of Somalia.

West Africa: In the Gulf of Guinea no pirates have been successfully prosecuted allowing them to operate in the region with impunity.

SE Asia: Regional cooperation has successfully combated maritime piracy trends in South East Asia.

Read full Western Indian Ocean Report
Read full Gulf of Guinea Report
Read full Southeast Asia Report
Lomé Summit to Address African Maritime Insecurity with Signing of Charter

HEM Robert Dussey, Togolese Minister for Foreign Affairs, Cooperation and African Integration

“The adverse consequences of maritime piracy on the safety of places and people, the marine environment and the development of African States are enormous.”
Read Full Editorial

SE Asian Piracy and Armed Robbery in 2015: Highs and Lows

Singapore Shipping Association

“Africa’s experience and cooperation of the littoral states in the SOMS (Straits of Malacca and Singapore) will be valuable lessons for the authorities in the Sulu Sea area.”
Read Full Editorial

A View on Piracy and Armed Robbery in 2016

Giles Noakes, Chief Security Officer, BIMCO

“Shipping is a global industry and requires a global response to its problems. Good order at sea must be sustained by interests expressed through political decisions backed by naval force.”
Read Full Editorial

LOMÉ SUMMIT TO ADDRESS AFRICAN MARITIME INSECURITY WITH SIGNING OF CHARTER

Author: HEM Robert Dussey, Togolese Minister for Foreign Affairs, Cooperation and African Integration

Robert Dussey

The adverse consequences of maritime piracy on the safety of places and people, the marine environment and the development of African States are enormous. Indeed, the maritime economy accounts for up to 70% of GDP and ¾ (three quarters) of fiscal resources of the coastal states of Africa while landlocked States are virtually dependent on maritime trade flows passing through the states bordering oceans and seas.

Piracy severely undermines the economy of African states. It is mindful of the real threat it constitutes, with other illicit trafficking of all kinds passing through the sea, that the 23rd session of the conference of Heads of State and Government of the African Union held in Malabo in June 2014, at the initiative of His Excellency Faure Gnassingbe Essozimna, President of the Republic of Togo, decided to hold an extraordinary summit on maritime safety and security and development in Africa.

Thus, in light of the objectives of the 2050AIM Strategy, the summit which will take place in Lomé on 15th October 2016, will identify areas likely to join forces and existing means, to help secure seas and oceans and make maritime space one of the main levers of economic and social development of Africa in the context of the implementation of the 2063Vision, adopted by the African Union.

In this context, the main issue of Lomé summit is the adoption and signing, in accordance with the decision of the 26th Conference of Heads of State and Government of the AU held in Addis Ababa on 30th and 31st January 2016, of an African Charter on maritime safety and security and development. This Charter will call for appropriate measures to fight against insecurity at sea in all its forms and conducive to the blue economy in Africa for the benefit of the peoples of the continent.
SE ASIAN PIRACY AND ARMED ROBBERY IN 2015: HIGHS AND LOWS

Author: Singapore Shipping Association

Singapore Shipping Association 2015 was a year of both highs and lows for Piracy and Armed Robberies in S E Asia. From a total of 31 incidents (6 Piracy, 29 Armed Robbery and 2 Attempted cases) in the 1st Quarter of 2015, it reached a peak of 50 incidents (6 Piracy, 39 Armed Robberies and 5 Attempted) in the 2nd Quarter of 2015.

In response, both the littoral states and industry acted. In August 2015, the Jakarta Post reported the arrest of the purported mastermind behind the Orkim Harmony hijacking incident. In August & September 2015, the Littoral states stepped-up anti-piracy efforts including the deployment of a helicopter-equipped special task force (STAR) team at Johor Bahru and proposal by Malaysia’s Defense Minister for joint patrols with Thailand, Indonesia and Singapore. The Indonesian authorities had also reportedly stepped up surveillance and presence in the Straits of Malacca & Singapore. The Jakarta Post in October 2015 also reported the Indonesian authorities arresting two groups of perpetrators responsible for robberies on board ships. With the help of Interpol, the Malaysian government also set-up a forensic piracy training facility in Mersing, Malaysia.

Working in tandem, the private sector also took on a more pronounced role. Cooperation and collaboration within the region included ASF (Asian Shipowners’ Forum) and FASA (Federation of Asean Shipowners’ Association) tabling Piracy and Armed Robbery as standing agenda items. FASA also prompted its member countries to voice their concerns on Piracy to their respective maritime administrations, and at the ASEAN Maritime Transport Working Group (AMTWG) Meeting in September 2015 personally wrote to Datuk Seri Najib Tun Razak, Chairman of Asean to voice its concern. During this time the shipping community also published guides on best practices and updates including the SSA Technical Report: Importance of Distinguishing Piracy From Armed Robbery by SSA (June 2015); Guide for Tankers Operating in Asia Against Piracy and Armed Robbery involving Oil Cargo Theft (Tanker Guide) by ReCAAP, RSN IFC and RSIS (November 2015); Quarterly and Annual reports on Piracy and Armed Robbery by ICC IMB and ReCAAP. In January 2016 ReCAAP hosted the Nautical Forum 7/16 Situation on Piracy and Armed Robbery Against ships in Asia with support from MMEA (Malaysian Maritime Enforcement Agency) and in February 2016 published the “Regional Guide to Counter Piracy and Armed Robbery against ships in Asia” jointly with RSN IFC, RSIS, Intertanko, OCIMF, ASF, FASA and SSA.

The collective efforts by all the stakeholders have significantly reduced the incidents of Piracy and Armed Robberies. From the 3rd Quarter the number of incidents dropped from 40 incidents (1 Piracy, 35 Armed Robberies and 4 Attempted) in the 3rd Quarter of 2015, to 21 incidents in the 4th Quarter and finally only 2 incidents (2 Armed Robbery cases) in the period January and February 2016. These efforts and arrests have contributed to nil cases of oil cargo thefts incidents in the last four months of 2015 since August 2015 and no reports of actual incidents on board ships while underway in the Singapore Straits since November 2015.

Lately, of concern is the recent shift of attacks from the Straits of Malacca and Singapore (SOMS) to the southern Philippine waters of the Sulu Sea. The actions by the Abu Sayyaf, a terrorist group, of capturing and holding to ransom the crews of the tugs and barges has added a new dimension to piracy and armed robbery in S E Asia. The recent execution of a Canadian tourist by Islamist militants and the growing threats of such groups using piracy and armed robbery attacks as their modus operandi have raised the danger of attacks to crew and personnel to a completely new and unprecedented level. The foreign ministers of Malaysia, Philippines and Indonesia have discussed the possibility of joint patrols and other joint actions. The experience and cooperation of the littoral states in the SOMS will be valuable lessons for the authorities in the Sulu Sea area. In support of such an effort at the regional level, the SSA and FASA support the concept of a single-reporting point similar to the MTISC (Maritime Trade Information Sharing Centre) set up for Gulf of Guinea to coordinate all Asean efforts.
It is a shipping industry ambition to see the minimisation and eventual eradication of piracy and armed robbery at sea. Only then would freedom of navigation be assured without the need for additional self-protective measures and additional insurance premiums – currently necessary in many parts of the world. The industry also strongly believes that it is the responsibility of all coastal states to establish and enforce security in their territorial waters, in their Exclusive Economic Zone (EEZ) and on the High Seas under the UN Convention on the Law of the Sea (UNCLOS).

Piracy however is in the main a coastal state problem and lawlessness ashore – whatever form it takes – invariably means there will be lawlessness at sea. Within territorial waters of coastal states piracy is not recognised under UNCLOS – only “armed robbery”. Over this last 15 years we have continually seen ships physically pirated – the ship taken from the master – cargo regularly stolen and often crew held to ransom - and the incident dismissed as a local robbery event. Ship owners and their representative organisations have been at great pains to point out that the levels of violence threatened or actuated against seafarers is no different, whether armed robbery or piracy.

It is essential that all Stakeholders continue to appeal through the IMO to have coastal states reminded of their responsibilities under all conventions. It is only through political intervention at this level that coastal states attention will be continually drawn to the need to implement law enforcement measures to deter armed robbery and piracy.

There is no excuse. There is more than sufficient maritime law for any law enforcement operation anywhere beyond the shores of any coastal state. Shipping is a global industry and requires a global response to its problems. Good order at sea must be sustained by interests expressed through political decisions backed by naval force. Defence of any trading system depends ultimately on political will. There are “intimate, two-way linkages between good order at sea and good order on land.” Seapower: A Guide for the Twenty-First Century. By Geoffrey Till

It is well understood that invariably this capability nowadays is as much a resource issue; not helped by the fact that shipping and trade is so distantly removed from governments in sight and thought – and more so with their publics. For the shipping industry this global trading system however has been the status quo for some considerable time whatever the flag the ship flies. It tries on the one hand to get Governments to deal with the problem whilst willing to take the risk of continuing to trade with the concomitant risks associated for owners and for crew.

Two things need to be done now, and the shipping industry needs to make this clearer if it is to persuade governments to react and place the protection of global trading systems (resource constraints or otherwise) higher on their agendas - which should be considered in their economic and vital interests. Firstly to continue to trade a region where crews are put at severe risk and yet complain is thoroughly hypocritical unless measures to reduce that risk are applied e.g. Best Management Practices. Something the shipping industry is acutely aware of and makes significant effort to address. Secondly - at the same time however - the international community which has the power to act cannot continue to tolerate inaction from those coastal states involved and where corruption is endemic - if they wish to protect their trading systems.

Unless addressed in 2016 then the shipping industry ambitions will not be met – for yet another year.
EXECUTIVE SUMMARY

NOTABLE TRENDS IN 2015 (BY REGION)

Western Indian Ocean Region
Despite reduced spending, international efforts in the Indian Ocean continued to suppress major attacks. However, several recent hijackings of regional vessels could signal an increased threat.

Gulf of Guinea
The Gulf of Guinea is the most dangerous region for seafarers with a rise in violence across the year and an increase in kidnap-for-ransom in the fourth quarter of 2015.

Southeast Asia
Cooperative regional measures in Southeast Asia resulted in steep declines in piracy attacks in the second half of 2015.
WESTERN INDIAN OCEAN REGION KEY FINDINGS

Economic Cost

- The presence of coalition and independent deployers engaged in counter-piracy activities decreased by 15% in 2015.
- Merchant vessels are again using pre-piracy shipping routes close to the east coast of Africa and through the Mozambique Channel.
- The High Risk Area was reduced in December, 2015 which corresponded with a sharp decline in PCASP team employment.
- Fuel costs decreased by nearly 50%, resulting in significant cost savings related to naval deployments and increased speeds.

Human Cost

- The number of seafarers held hostage by pirates increased in 2015, with 108 seafarers held by pirates at some point over the course of the year.
- 78 of the 108 seafarers held were aboard vessels hijacked in 2015.
- 41 hostages remain in pirate hands as of this writing:
  - 26 crew members of the *Naham 3* have been held for 1,499 days.
  - 15 remaining crew members of the *Siraj* for 405 days.

Pirate Activity

Vessels near Somalia continue to report suspicious activity related to piracy. While many of these reports may be regional maritime commerce, OBP identified 9 incidents in 2015 which appear to present credible evidence of pirate activity.

- Restrictive reporting definitions and frameworks may be masking important indicators and warnings of increased pirate activity.
- Numerous reports from Somali sources emphasize the risk of piracy resurfing in some form if the naval presence dissipates.
GULF OF GUINEA KEY FINDINGS

Economic Cost

- States in the Gulf of Guinea region continue to increase maritime security and cooperation, but capacity is still lacking.
- Fuel costs decreased by nearly 50%, resulting in significant cost savings related to naval patrols and deployments.
- OBP estimates show that $349.1 million, 49% of total costs - was spent on Contracted Maritime Security (embarked teams, secure zone fees, contracted patrol vessels, and security escorts) in 2015.

Human Cost

- Piracy in the Gulf of Guinea was significantly more violent in 2015 than in the previous year.
- Pirate attacks in the Gulf of Guinea are the most violent of the regions studied and often include direct confrontation with the crew.
- The duration of kidnap and ransom incidents is consistent with 2014 (2 and 3 weeks of captivity) however, there has been a significant increase in violence including physical abuse and mock executions in 2015.
- Lack of piracy prosecutions and a rule of law finish continue to undermine regional efforts to combat piracy.

Pirate Activity

- The total number of attacks remained within historic norms, but the Kidnap for Ransom model is the most dangerous.
- There was only one recorded incident of cargo theft in 2015 (there were 5 in 2014).
- Kidnap for ransom attacks were directed at a greater diversity of shipping targets and are now a threat to all types of vessels.
- Increased Nigerian law enforcement patrols have forced pirates to change their business model, and pirates have had to expand their range beyond Nigerian waters in search of targets.
THE STATE OF MARITIME PIRACY 2015

SOUTHEAST ASIA KEY FINDINGS

Economic Cost

- The complexity of shipping patterns and the nature of regional responses preclude OBP’s ability to estimate aggregate costs.
- OBP has identified specific areas and incidents to illustrate the various cost factors.
- While the region has stood up rapid response capabilities and enhanced information sharing, it is difficult to isolate specific counter-piracy and robbery at sea costs for the purposes of this report.

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Human Cost

- OBP assesses that SE Asian Piracy and Armed Robbery affected 3,674 seafarers in 2015, but in most cases the perpetrators are unarmed and seek to avoid violent confrontation with the crew.
- Hijacking for Cargo Theft attacks are the most likely to result in abuse of the crew due to the prolonged duration and need to take control of the vessel. However, there has been no such attack reported since August 2015.
- The kidnap for ransom model of hijacking was largely absent in SE Asia in 2015.

Pirate Activity

- Expanded regional cooperation in maritime patrolling, information sharing, and prosecutions have effectively reversed a rising trend in piracy attacks.
- Effective cooperation developed between regional states and the shipping industry culminated with the publication of comprehensive industry guidance developed by regional organizations and industry groups.
- Since the concentration of shipping traffic and complex geography provides a favorable environment for maritime crime, the maritime community must maintain vigilance at all times.
- SE Asian piracy has seen spikes over the last 15 years, but the region has proven capable of suppressing piracy when challenged.
MAIN MESSAGES:

WIOR: Despite reduced spending, international efforts in the Indian Ocean continued to suppress major attacks. However, several recent hijackings of regional vessels could signal an increased threat.

- The presence of coalition and independent deployers engaged in counter-piracy activities decreased by 15% in 2015.
- The number of seafarers held hostage by pirates increased in 2015, with 108 seafarers held by pirates at some point over the course of the year.
- Vessels near Somalia continue to report suspicious activity related to piracy. While many of these reports may be regional maritime commerce, OBP identified 9 incidents in 2015 which appear to present credible evidence of pirate activity.
- Numerous reports from Somali sources emphasize the risk of piracy resurging in some form if the naval presence dissipates.

OVERVIEW

The Last Hijacking?

Four years after the hijacking of MT Smyrni, which was the last major merchant vessel captured by Somali pirates, it would be tempting to declare Somali piracy over. It would, however, be a mistake to make this declaration as long as seafarers are still held captive by pirates. Naham 3 was captured by pirates in 2012, just over a month before pirates took MT Smyrni. Naham 3’s crew started as 29 before running into pirates, but one was killed during the hijacking, and two more have since died in captivity. The remaining 26 are still in custody as of this writing. Unfortunately, the number of seafarers held by pirates grew in 2015 because a number of small regional vessels were hijacked by Somali pirates over the course of the year, and at least 15 of the seafarers involved still remain in pirate hands.

Somali Piracy Model

Somali piracy is unique among piracy business models worldwide because of the level of community support that Somali pirates have enjoyed in the past and the ability to hold crews and their vessels for months, or even years in “safe havens” just off the coast during ransom negotiations. The ability to utilize these safe havens has degraded over the years, because of a more vigorous international naval presence and shifts in support on the ground in Somalia. As a result, their safe havens have shrunk from significant swaths of the coastline to a roughly 150nm long stretch between Haradhere and Garacad.

Somali piracy in the modern era began shortly after the fall of the Siad Barre regime in 1991, in the midst of instability and economic turmoil. Over the next decade, pirates targeted vessels off the coast of Puntland and in the Gulf of Aden in violent robberies. The first recorded incident of hijacking for ransom occurred in 1994, when two SHIFCO vessels were hijacked and held for $500,000 apiece.
The hijack for ransom model developed significantly in the early 2000s, and became the primary model by 2005, when the number of hijacking for ransom incidents jumped from 2 to 14 in a single year. Prior to 2005, a significant percentage of attacks occurred within territorial waters, and targeted smaller vessels, such as fishing vessels and dhows. As attacks became more frequent and the shipping industry responded with rerouting and increased vessel protection and hardening measures, and as naval forces began patrolling the Gulf of Aden, pirates were forced to expand their range. By 2010, pirates were able to attack vessels over 1,000nm from the Somali coast. These attacks were carried out by sophisticated Pirate Action Groups (PAGs) that could require investments as high as $30,000. The simpler, smaller PAGs operating closer to shore, however, could become operational for an investment of as little as a few hundred dollars.

Incident Breakdown

Throughout 2015, OBP recorded five dhow hijackings, a failed attack on the fishing vessel Mook Andaman 028, nine incidents suspected of being piracy-related, one armed robbery, and a number of reported suspicious incidents.

It is worth noting that of these incidents only the robbery—which involved the yacht SY Imagine in the Seychelles—was reported by major reporting centers as a piracy incident. The attack on Muhammadi was reported as a suspicious incident by some centers, along with a number of other reports categorized as false alarms.

Dhow Hijackings

The five dhow hijackings included:

- **Siraj**, 22 March
- **Jaber**, 22 March
- **Sudis**, 2 April
- **Emirates 5**, 15 May
- **Muhammadi**, 22 November

**Siraj and Jaber**

The most widely publicized incidents in 2015 were the hijackings of Siraj and Jaber. The two dhows were hijacked in late March while fishing close to the Somali shore, and the 39 seafarers from the two crews were held aboard their vessels by pirates off the Galmudug village of Ceel Huur. A ransom was reportedly paid for the vessels’ release, but the pirates reneged on the agreement. On 27 August, Jaber managed to slip its mooring and escape, and was subsequently rescued by a coalition vessel. In order to prevent the crew of Siraj from attempting to escape as well, the pirates beached the vessel and are holding the crew inland. Four crew members were rescued by Somali government forces on 5 November.
Sudis and Emirates 5

Two of these incidents, the hijackings of Sudis and Emirates 5, are suspected to have involved Al-Shabaab. The 26 seafarers aboard these two vessels are believed to have been released, presumably following a payment being made, though the actual duration of their captivity is unclear.

Muhammadi and FV Mook Andaman 028

Exactly what happened in the November attack involving Muhammadi and the fishing vessel Mook Andaman 028 is much less clear. Some reports indicate that Muhammadi was hijacked up to 300nm off the coast of Somalia on 22 November; however, it is possible the vessel was hijacked much closer to shore and then used as a mother ship to launch the attack on Mook Andaman 028. There is some indication that Muhammadi initially had eight pirates aboard, and that five pirates and one member of the crew set out to attack a nearby vessel. Around the same time, Mook Andaman 028 was reportedly attacked and potentially even boarded by pirates. The five pirates and one crew member that reportedly left Muhammadi did not return, leaving open the possibility that the incident left six people missing at sea.

What is known is that Muhammadi, with three pirates aboard, was taken to a location near the village of Ceel Hurr on 25 November, where it was held by 5 pirate guards. On 28 November, three days after arriving, the crew managed to kill the guards and escape with three injured crew. The Danish warship Absalon rendered assistance and helped to rescue the vessel. Though some details are still unknown, the facts indicate that a pirate gang was operating at some distance from shore, with the intent to hijack a foreign fishing trawler or similar type of vessel.

Suspected Piracy Incidents

In addition to the attacks described above, OBP has investigated 33 other incidents and has assessed that 9 of these reports are suspected piracy-related incidents, believed to have been probing events or soft approaches most likely perpetrated by Somali pirates. OBP has singled out these 9 incidents as the most likely to be related to pirate activity due to their locations, the profile of the vessels, and the sightings of weapons or pirate equipment. In several of these incidents embarked teams reported using a full “escalation of force” procedure, including warning shots, before the suspect skiff(s) moved away. Notably, 78% of vessels involved in these suspected piracy related incidents reported having a PCASP team aboard. Probing or soft approach-type incidents such as these may indicate that pirate gangs still retain the intent and capability to attack merchant vessels, and should be taken seriously as they may serve to warn of a continued, though undeniably diminished, pirate threat.

Trends

In addition to the incidents listed above, a number of indicators in 2015 have demonstrated that Somali pirates remain active, and still possess the intent and capability to conduct piracy attacks. These indicators include reports of active pirate action groups being organized and equipped in Galmudug and in the horn area east of Bosasso in Puntland. There is also increasing resentment along the coast related to near-shore foreign fishing, which has been echoed by statements from Somali counter-piracy focal points and a survey conducted by an OBP partner in Galmudug.

OBP received numerous reports from reliable sources over the past year that pirate kingpins had financed pirate action groups. Most of these are thought to be small PAGs, consisting of little more than a single skiff, likely costing only a few hundred dollars to finance. However, at least one report from early
2016 stated that pirates were working to secure larger boats from Yemen in order to increase their range. Reports of well-known pirate kingpins financing PAGs, coupled with incidents of pirate activity in the Gulf of Aden and off the Somali coast lend credence to the notion that Somali pirate gangs remain active.

The intent, and to some extent, the capability of pirates to carry out attacks appears to remain. The threat this poses may be exacerbated by illegal, unregulated, and unreported (IUU) fishing. The presence of foreign trawlers in Somali waters serves as an antagonism to locals, many of whom feel that these trawlers are stripping the waters of resources and threatening livelihoods. IUU fishing and reckless, sometimes violent behavior on the part of these trawlers creates a narrative that legitimizes the actions of pirates in the eyes of the local population.

The prevalence of IUU fishing, in spite of the heavy international naval presence, has given rise to significant discontent among the coastal population. A survey of piracy attitudes and motivations, conducted by Omar Sheikh Ali, a Lawyer and the Galmudug State Counter Piracy Coordinator, in early 2016 indicated that many Somalis feel that the international navies are in league with IUU fishing vessels. Many indicated that support for some pirate gangs was still maintained among a few local communities. There was strong consensus that pirate gangs may reorganize and resume activity should the international naval presence disappear.

The communicated deterrent effect of international navies is consistent with the responses of convicted pirate prisoners gathered in a survey conducted by the UNODC and OBP.

The attitudes captured in the interviews in Galmudug mirror those expressed in Puntland as well. In an August 2015 BBC report from Eyl, Somalia, a former pirate haven, a number of interviewees indicated that unless their economic prospects improved, they might return to piracy. In the words of Puntland Counter-Piracy Minister Abdallah Jama Saleh, “[the pirates] are not dead, but dormant now, so they will come definitely... straight away, no question about it [as soon as the warships leave.]”

While pirate activity in Somalia remains at a low level, it would be premature to say that pirates no longer pose a threat. Furthermore, lacking success at sea, many pirates have diversified their activities into other criminal activities such as arms smuggling, human trafficking, and protection of illegal fishing vessels. Most of the pirate kingpins retain control of armed gangs, and some, including Mohamed Garfanji, still hold seafarers hostage for ransom. Discontent among coastal communities is high, especially as they see international navies as protecting IUU fishing. Attitudes toward piracy seem more sympathetic than in recent years, and may again receive increased support should economic prospects remain dismal.
HUMAN COST

The 16 incidents recorded in the OBP database involved an estimated 306 seafarers. Of these, 299 were aboard vessels involved in suspected piracy incidents where pirates approached the vessel but did not attempt to board. The five dhows hijacked by pirates had 78 seafarers aboard, and an estimated 17 were aboard FV Mook Andaman 028 during the reported piracy attack.

In the single reported robbery incident, a husband and wife were boarded by robbers in the Seychelles and the woman beaten with a broom handle. Additionally, an estimated total of 751 seafarers were aboard among the 33 incidents not counted in the OBP dataset, but they are worth considering, as the vessel master and security team in each case were concerned enough about suspicious behavior in the High Risk Area to submit a report.

Witnesses reported that the suspected pirates were armed with firearms in at least 67% of the 9 suspected piracy incidents, as well as all 5 successful hijacking incidents and the failed attack on FV Mook Andaman 028. While the Seychellois robbers were unarmed during the yacht boarding, they did inflict blunt force trauma on the woman aboard.

Injuries and Deaths

Sadly, in addition to the comparably minor injuries inflicted upon the female yachter, three seafarers aboard Muhammadi were seriously injured during the fight to escape their pirate guards. All five pirate guards aboard the Muhammadi were reportedly killed. While this is unconfirmed, it is possible that an additional Muhammadi crewmember and five other pirates went missing during the failed attack on FV Mook Andaman 028, and they are presumed dead.

Hostages

Over the course of 2015, 108 seafarers were held hostage in Somalia at some point; 78 of these were aboard vessels hijacked during the course of the year. The 26 crewmembers of Naham 3 have been held since March 2012. The four remaining Thai crewmembers of Prantalay 12 were released on 25 February after 1,774 days in pirate hands.

Naham 3

As of the release of this report, the crew of FV Naham 3 have been held for four years and one month. They were hijacked on 26 March 2012 south of the Seychelles, over 800nm from where they are now being held in Somalia. The crew have been through a harrowing ordeal, starting with the death of one of their colleagues due to injuries sustained in the attack. More than a year after the hijacking, they were still languishing in squalid conditions aboard Naham 3; MV Albedo, the vessel they were tethered to sank. One of the Vietnamese men aboard Naham 3 bravely jumped overboard to help save the lives of the 11 surviving members of Albedo’s crew. After another month aboard Naham 3 in cramped conditions below-deck with the Albedo survivors, Naham 3 was beached, and the crew was moved ashore, where they are being held in the bush. Two additional crewmembers from the Naham 3 hostages have died of disease since their capture, and the 26 remaining hostages, all from poor families in China, Indonesia, Cambodia, Taiwan (Province of China), Vietnam, and Philippines, remain in a squalid and precarious position.
John Steed, OBP’s Horn of Africa Regional Manager, said of these remaining forgotten hostages: “Negotiations to see the release of the Naham 3 and its 26 crew...were underway through partners within the Hostage Support Partnership. However, at this time, negotiations have stalled due to unreasonable demands made by the pirates which cannot be met by a maritime charity interested in resolving the issue. The 26 crew of the Naham 3 come from poor families in Asia, and are being held on shore, abandoned by their company without insurance and with no way of meeting the unrealistic demands of increasingly desperate pirate gangs.” While the world has forgotten these seafarers, their families certainly have not. The Maritime Piracy Humanitarian Response Programme recently conducted a reassurance visit to the families of the Naham 3’s Filipino crew. The daughter of one crewmember said that she was so worried about her father that she struggled to focus on her studies. The reassurance visit was a response to multiple attempts by the pirates to contact and harass the families.

**Siraj and Jaber**

Siraj and Jaber were hijacked in March while fishing close to the Somali shore. Despite a ransom reportedly having been paid for the release of the vessels, the pirates continued to hold the vessels and crew. The crew of the Jaber managed to escape after 154 days in captivity, after which the Siraj crew were split up and moved inland to prevent escape. Four of the Siraj crew were rescued and repatriated by Galmudug forces on 5 November, 2015 after 224 days of captivity, and 15 remain captive. No further information about the conditions of the crew, or its conditions of captivity is currently available.

**Emirates 5 and Sudis**

Little information is available about the conditions in which the 26 crewmembers aboard the dhows Emirates 5 and Sudis. They are presumed to have been released, but the duration of their captivity or the circumstances surrounding their release is unclear.

**Muhammadi**

Muhammadi’s crew are believed to have been held for around six days, but may have been held for longer if their vessel was hijacked earlier than reported and used as a mothership to attack FV Mook Andaman 028. The crew escaped in a dangerous and violent gambit that left at least three of their own injured and at least five pirate guards dead.

**Prantalay 12**

After 1,774 days in captivity, the last four Thai crew of fishing vessel Prantalay 12 were freed. Sadly, 6 of their comrades died while in the hands of pirates, their families forever robbed of their presence. The Hostage Support Partnership and various private partners worked throughout their captivity to provide the medical and humanitarian support that kept the crew alive and served as the primary liaison with the families of the hostages.

**Lost Wages**

In addition to the severe physical, psychological, and emotional toll that hostages and their families experience, there is a significant financial burden on the hostages as well. All of the hostages held in 2015 were from poor families in developing nations and were presumably the primary or sole breadwinners in their homes. However, these seafarers have not and will not receive pay for their time in captivity. This amounts to a significant sum and can be crippling to their families back home. In 2015 alone, using the mandated minimum wage from the Maritime Labour Convention-mandated minimum wage of $23 a day, the seafarers of Naham 3, Prantalay 12, Siraj, and Jaber accrued approximately $415,000 in lost wages. Over the duration of their captivity so far, the crews of Prantalay 12 and Naham 3 lost $1.06 million in wages.
ECONOMIC COST
OBP estimates the total 2015 costs related to Somali piracy in the Western Indian Ocean Region to be $1.4 Billion.

Costs of Deterring Piracy
OBP estimates that the international community spent about $1.3 billion on measures designed to keep vessels safe from pirates in 2015, primarily through naval deployments, embarked guards, vessel hardening, increased speed and rerouting, and prosecutions and imprisonment. Of these measures, navies have presented the most visible and conventional mechanism for preventing or responding to piracy attacks.

INTERNATIONAL NAVAL ACTIVITIES
All told, the estimated total cost of counter-piracy naval operations was around $323 million, a 56% drop in naval costs from 2014. As mentioned above, this dramatic cost decrease is due to a reduction in the number of assets deployed, a decrease in the number of days on station, a shift in the type of assets utilized, and a roughly 50% drop in fuel costs for both aviation and surface assets.

International naval forces assessed by OBP can be effectively divided into two categories: coalition forces including Combined Maritime Forces CTF-151, NATO Operation Ocean Shield, and EUNAVFOR Operation Atalanta—and independent deployers such as China, India and Russia. While their mandates vary, the coalition forces are mainly tasked with deterring and disrupting pirate activities, as well as escorting humanitarian aid, while the independent deployers are largely limited to protecting commercial traffic through the Internationally Recommended Transit Corridor (IRTC) in the Gulf of Aden. South African assets assigned to Operation Copper to patrol the Mozambique Channel under the auspices of the Southern African Development Community have also been included in these calculations.

Deconfliction between coalition forces and independent deployers is achieved through the Shared Awareness and Deconfliction (SHADE) conferences hosted regularly in Bahrain by Combined Maritime Forces (CMF). These meetings are designed to facilitate coordination among all countries, naval partnerships, and industry organizations involved in counter-piracy off East Africa.

On average, a total of 19 coalition and independent deployer vessels were on station and engaged in counter-piracy operations throughout 2015. Though the number of coalition assets employed in counter-piracy operations remained comparable to 2014, the time on station dropped by 45%. This reduction was only partially offset by an increase in time on station by independent deployers. Overall, the amount of time on station dedicated to counter-piracy operations was 15% lower than in 2014.

The Naval Effect
A survey of imprisoned pirates in Somalia found that the presence of international navies was cited as a deterrent more often than any other counter-piracy measure.

A more recent, informal survey conducted in piracy-prone areas along the coast in Galmudug, Somalia uncovered a similar sentiment among the local population.

Several statements intimated that the international navies were preventing the pirate gangs from reorganizing, but represented a temporary solution, effective only as long as their presence is maintained.
The 15% drop in time on station belies a shift in capacity, as the type of assets deployed, as well as the specific missions they are engaged in, have changed over the course of the year. Smaller offshore patrol vessels are supplanting frigates, and as the burden shifts from international coalitions to independent deployers, counter-piracy activities are becoming more concentrated on escort operations.

### Asset Operation

The 15% drop in days on station, combined with fewer assets and a shift toward non-Western, independent deployers, lowered naval expenditures. This reduction was amplified by collapsing fuel prices. The total cost of naval asset deployment is estimated to be $299 million.

### Administrative Budgets

The cost of maintaining Coalition operational headquarters, theater headquarters aboard flagships, and personnel transportation—separate from national operational expenditures—amounted to roughly $18 million.

### SHADE Conferences

With an average of 101 total delegates from more than 30 countries, travel and accommodation across all three conferences is estimated to have cost around $373,000.

### Vessel Protection Detachments

In addition to conducting counter-piracy patrols and escort operations, EUNAVFOR provides Autonomous Vessel Protection Detachments (AVPDs): teams of soldiers that travel aboard some vulnerable merchant vessels while they transit the Best Management Practices Version 4 High Risk Area (BMP4 HRA). Most of these AVPDs escort ships contracted by the World Food Programme (WFP) to deliver aid to African ports in the BMP4 HRA. In 2015, AVPDs escorted 36 WFP vessels and 1 African Union Mission in Somalia (AMISOM) shipment at a cost of around $5.2 million.

### Armed Guards

As AVPDs are only available to WFP or AMISOM vessels and a few specific flag states, many shipping companies have turned to privately contracted armed security personnel (PCASPs) from private maritime security companies (PMSCs) to help deter pirates. (BMP4) leaves the decision of whether to hire guards up to individual shipowners and operators, with the caveat that guards should be used within a layered set of security measures and not as a substitute for BMP4 recommendations.

Changes in the rate of PCASP employment, team size, and composition tell a story of reduced threat perception and a need to cut costs. As 2015 progressed, PMSC teams were utilized less and less frequently, and when they were employed, shipping companies increasingly opted for smaller and less expensive teams. In total, OBP estimates that the shipping industry spent around $618 million on guards for cargo and tanker vessels.  

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![AIS tracks of counter-piracy naval forces (L) independent deployers, (R) coalition deployers](image-url)
Rate of Employment

The percentage of vessels reporting embarked guards dropped 18% over the course of the year. The rate of use dropped sharply between November and December, indicating that shrinking the HRA had a significant effect on perceptions around the need to utilize armed teams. This effect was most pronounced off the coast of India, which is not included in the new HRA. The percentage of vessels carrying teams there dropped by more than 20%, compared to an 8% drop within the HRA. Overall, PCASP teams were on board for roughly 32% of transits in the HRA. Though the rate of use decreased, OBP data suggest that more teams overall were embarked on vessels at the end of the year than at the beginning, due to growth in traffic over the course of the year.

Team Size

The trend toward three-man teams and away from four man teams observed in 2013 and 2014 continued in 2015. At the start of the year, three and four man teams were used with roughly equal frequency, but by the end of the year, more than 63% of teams had only three members, a shift driven by cost considerations.

Anecdotally, some flag states have permitted the use of two-man teams—contrary to industry guidance provided by BIMCO’s GUARDCON contract and others—which offer additional savings. This development is worth noting, but as no hard data is available, it has been excluded from the calculations here.

Team Composition:

The UK still dominates the industry, with 40% of the PMSCs registered there. The next largest home country is Cyprus, making up 16%, followed by the US at 6%. No other country hosts more than 5%. Each home state has different regulations governing PMSC operations, with varying cost and oversight implications.

Although UK personnel make up less than 24% of team members, they are involved in more than 50% of teams. UK-only teams make up less than 12% of the total, now surpassed by Greek-only teams. The percentage of Indian-only teams is growing, at over 8%. This too appears to be a cost-saving measure, as UK personnel are paired with less costly counterparts, or bypassed altogether in favor of homogenous non-UK teams.
Ship Protection Measures

Use of vessel hardening measures such as razor wire and other passive defense measures has been recommended since at least the first version of the Best Management Practices, released in February 2009. These recommendations have been refined and expanded in each subsequent version and have been considered to among the most basic BMP procedures for at least the past six years. As such, OBP assumes that existing vessels operating with the Western Indian Ocean Region (WIOR) have been outfitted, at the owner’s discretion, with ship protection measures (SPMs) prior to 2015. However, as several types of passive defense measures, such as sandbags and razor wire, will need to be replaced occasionally, OBP has attempted to calculate this replacement cost. The estimated cost of refitting vessels and replacing corroded or damaged SPMs was approximately $5.5 million in 2015.

### Cost of Ship Protection Measures

<table>
<thead>
<tr>
<th>Rate of Use</th>
<th>Estimated Number of Vessels</th>
<th>Equipment</th>
<th>Unit Cost</th>
<th>Units per Ship</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCHOA Registration</td>
<td>10,300-11,350 vessels</td>
<td>Razor Wire</td>
<td>$4 per meter</td>
<td>550-1500m</td>
</tr>
<tr>
<td>Est. Equipment Usage Rate</td>
<td>80%</td>
<td>Sandbags</td>
<td>$1 per bag</td>
<td>550 bags</td>
</tr>
<tr>
<td>Yearly Refit Rate</td>
<td>15%</td>
<td>Warning Signs</td>
<td>$140 per sign</td>
<td>3 signs</td>
</tr>
</tbody>
</table>

Increased Speed

Steaming at increased speed through the High Risk Area is a key element of the Best Management Practices. In the past, this practice has constituted a significant proportion of total counter-piracy costs, as higher speeds greatly increase fuel consumption. In 2015, the costs incurred by increased speed in the HRA dropped significantly, but less due to a change in behavior than a dramatic decrease in the price of fuel, which fell by 49.5% from 2014 to 2015. This collapse in fuel costs, coupled with changing market dynamics, actually led to a slight overall increase in steaming speeds globally. These global average speeds were used as a control in order to identify vessels whose increased speed in the HRA is likely a response to the increased piracy threat in those waters.

Overall, the percentage of vessels transiting the HRA at increased speeds in 2015 increased slightly over 2014, due primarily to the largest vessel categories. As these vessels are less vulnerable to piracy, this change in behavior may be due to changes in market conditions and reduced fuel costs rather than piracy concerns.

The behavior of the far more vulnerable vessels, those fewer than 200 meters long, is more likely indicative of perceptions of the threat posed by Somali pirates. This category displays a distinct and steady decline in the percentage of vessels steaming at higher speeds.

The cost of increased speeds as a piracy counter-measure is estimated to be $272 million.
Rerouting

At piracy’s apex many vessels in transit between the Gulf of Aden and the southern tip of India chose to reroute along the coastlines of the Arabian Sea to avoid the more exposed direct route. This diversion could add as much as 600nm to the route, costing extra time and fuel. However, as with the 2013 and 2014 State of Piracy reports, OBP analysis indicates no statistically significant rerouting of this type in 2015.

While the vast majority of vessels are not engaged in significant rerouting across the Arabian Sea, most vessels do still adhere to the IRTC while in the Gulf of Aden, rather than the shortest-distance route. Additionally, a very small number of vessels do still appear to be engaged in some form of rerouting.

Notably, some vessels take a straight-line route from the end of the IRTC to the EUNAVFOR operational boundary at 65°E, which forms the eastern boundary of the recently revised HRA. As this behavior predates the HRA changes, it is likely related to naval operations.

Among vessels transiting between the Persian Gulf and the southern tip of India there does appear to be rerouting. However, piracy is not definitively the impetus for this detour. As analysis of the Automatic Identification System (AIS) data and discussion with industry experts did not reveal any convincing explanations for this behavior, though it is plausible that these vessels are rerouting due to a perceived piracy threat. If this is the case, one expects to see a normalization of this traffic along a more direct route following the adjustment to the HRA.

The outcome of the study of traffic patterns in 2015 is less about how different vessels behave due to the threat of piracy than it is about a return to pre-piracy shipping routes. The graphic below demonstrates the “normal” pre-piracy shipping lanes in 2000, the adaptation of shipping traffic during the rise of piracy in 2007, the reaction of the shipping industry to BMP4 in 2009, and the return to “normal” shipping patterns by 2015. The primary shipping lane along the east coast of Africa through the Mozambique Channel has returned to within 300nm of the Somali Coast.

Prosecution and Imprisonment

Costs for prosecutions and imprisonment remained roughly the same between 2014 and 2015. Overall, the net number of pirates held did not change, but there were two notable changes in status.

One of the alleged pirates awaiting trial in India, 28-year-old Abdi Chama, died of tuberculosis while in custody awaiting trial in Mumbai. Alternatively, there was one Somali pirate arrested for piracy in 2015. He was identified as a member of the pirate gang that hijacked MB Susan K on 8 April, 2011 based on forensic evidence after the attack. Unfortunately for his case, this evidence was matched when he immigrated to Europe and applied for asylum in Germany. Bizarrely, this young man was not the only Somali asylum seeker with apparent ties to piracy arrested in Germany in 2015, and is the third to have been arrested and convicted of piracy in Germany in the past few years.
Notably, the trial of famed pirate kingpin “Afweyne” Mohamed Abdi Hassan and his accomplice “Ticeey” Mohamed Moalin Aden was held in Bruges, Belgium. The two were accused of involvement in at least 24 hijacking and abduction cases, including that of MS Pompei in April 2009. They were arrested as part of an elaborate sting operation, in which they were invited to Brussels supposedly to serve as advisers for a piracy documentary. Afweyne was sentenced to 20 years for the Pompei hijacking, and Ticeey was sentenced to 5 years for involvement in Afweyne’s criminal gang. Additionally, six pirates held by Spain were convicted of piracy and membership in a criminal group for their attack on Izurdia in November 2012. Finally, the failed appeal by five of the Somali attackers convicted for the April 2010 USS Ashland attack resulted in an extension of their sentences from 30–42.5 years to life.

The continuing identification and prosecution of pirates demonstrates the necessity of evidence collection and information-sharing systems. The sustained commitment to rule of law and justice, in terms of prosecutions and imprisonment of convicted pirates, cost roughly $7 million in 2015.

Counter-Piracy Organizations

Counter-piracy organizations and projects like those below work alongside military and other security operations to build capacity, support information-sharing and situational awareness, coordinate initiatives, and support victims. OBP has attempted to capture all the organizations that can be attributed to countering piracy, but realizes that this list may not meant to be exhaustive. It does, however, provide another tool to measure the cost of counter-piracy activities in 2015.

Other Costs Associated with Piracy

In addition to costs incurred combatting or preventing piracy are those costs incurred as a consequence of piracy, such as ransoms paid to recover hostages and increased labor costs and insurance rates. OBP estimates that these cost amounted to $129.2 million for 2015.

Expenditures:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Cost (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ransoms</td>
<td>$0.0</td>
</tr>
<tr>
<td>Labor</td>
<td>$49.9</td>
</tr>
<tr>
<td>Insurance</td>
<td>$79.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$129.2</td>
</tr>
</tbody>
</table>

Ransoms

The four remaining Thai hostages from Prantalay 12 were released on 25 February 2015, after 1,774 days in captivity. Originally taken on 18 April 2010, the Taiwanese-flagged (Province of China) fishing vessel was used by pirates as a mother ship before it eventually capsized in July 2011, when the remaining crewmembers were moved on shore. Of the 24 original crewmen, 6 succumbed to illness while in captivity. Another 14 hostages from Myanmar were released before the vessel’s capsizing in May 2011. No publicly available information exists surrounding any payments that may have been made to facilitate the release of these remaining four seafarers. In August 2015, 34 members of the crew of FV Al Amal were rescued by the Puntland Maritime Police Force from a high piracy risk area after their ship went aground. The crew was repatriated by the Hostage Support Partnership (HSP) in cooperation with the Kenyan Government who funded the rescue flight.

It has not been possible to assess or verify ancillary costs expended to negotiate the release of these seafarers, such as post-release transport costs, or costs for medical care, psychological care, and humanitarian support for the crews and their families. The negotiations benefited from donations of pro bono expertise from a number of negotiation experts and international lawyers. While in the past the vessel owners or operators have typically paid ransom expenses, the payments made to secure the release of these men were made by private charities.
Labor Costs:

Hazardous Duty Pay

Seafarers working on ships traversing the WIOR are recognized as enduring increased personal risk due to the threat of piracy. As a result, several collective bargaining agreements developed through the International Bargaining Forum (IBF), International Transport Workers’ Federation (ITF), ITF, and national seafarers’ unions have identified specific areas within which seafarers are entitled to additional pay, in addition to the right to refuse passage without penalty. Between the IBF HRA, Warlike Operations Area, and the Extended Risk Zone, OBP estimates that seafarers were entitled to $50 million in hazard pay in 2015. This is a decrease of over 53% from 2014, due primarily to the removal of the IRTC from the IBF HRA which occurred in July 2014. This results in a 49% decrease in eligible transits for 2015.

Piracy Watch Overtime Pay

Another labor cost for consideration is the overtime accrued by seafarers standing piracy watch while transiting the HRA. Additional piracy watches are not only mundane, stressful, and physically taxing due to the longer hours, they can represent an added expense for the shipping company. If two additional crewmembers are on piracy watch it could cost as much as $1,073 to $2,922 for an HRA transit or between $173 and $472 per day.

Insurance

War Risk Insurance

OBP utilized premiums paid in 2014 by Hellenic War Risk club (HWR) members to estimate the total War Risk Added Premiums (WRAPs) paid for transiting the WIOR Listed Area in 2015. Assuming that the Indian Ocean Listed Area accounted for 50% of all WRAPs in 2015, and that the change in net premiums was −20%, the additional premiums paid by vessels transiting the WIOR Listed Area totaled around $65.2 million. Importantly, this drop in premiums primarily reflects market pressures rather than reduced risk perception.

Cargo Risk Insurance

The threat of piracy in a given region may also trigger higher cargo insurance premiums. Cargo insurance, unlike Hull War Risk or K&R Insurance, is not purchased by the shipping company, but by the cargo owners. There is significant variation across the types of policies and what they cover, and the premium varies based on a number of factors. The nature of cargo insurance is such that a comprehensive estimate of piracy-related costs is impossible. However, one can deduce whether or not the costs associated with this type of insurance were likely higher or lower than they were in the previous year based on the risk score assigned to the region by the Joint Cargo Committee.

Kidnap & Ransom Insurance

In addition to the WRAPs, a significant number of vessel operators take out kidnap & ransom (K&R) insurance as additional protection for the vessel’s crew. OBP used data from interviews with maritime insurance experts to gauge the rate of use and cost per transit of K&R policies. The total cost was then vetted against an assessment of the global K&R market. OBP estimates that in 2015, approximately 12% of all vessels transiting the HRA bought K&R insurance at an average cost of $1,500 per transit, totaling $14 million. An alternative method of estimating the WIOR K&R insurance cost, and a check of initial calculations, is to assume that it makes up between 3% and 5% of the global market. The global K&R market is estimated
to be between $250 and $300 million in net premiums. This indicates that the shipping industry in the WIOR paid between $8 and $15 million in K&R insurance premiums. OBP’s estimate of $14 million falls within this spectrum.

Based on the in the Lloyd’s Joint Cargo Committee Risk Score for the Gulf of Aden, it can be deduced that cargo insurance rates for the Gulf of Aden continued to drop during 2015. However, Somalia was added as a risk area in July 2015, which may indicate that rates within Somali territorial waters increased.

REFERENCES

1. The last major merchant vessel hijacked by Somali pirates was MT Smyrni, hijacked with 26 crew roughly 250nm south of Oman on 10 May 2012. The Suezmax tanker and its crew were held by the pirate gang of leader Issy Yulux near Baraal, in northern Puntland, for 304 days before their release on 10 March 2013 after a reported $14.5 million ransom payment. Smyrni’s crew had the good fortune of being aboard a vessel carrying crude oil worth roughly $130 million.


6. Multinational counter-piracy operation reported 58 false alarms (any reported suspicious activity that is subsequently discounted as a piracy act following further analysis or reporting; false alarms may be recorded for analytical purposes in order to provide trends in potential pirate activity) and 3 suspicious activity incidents (any observed activity that could potentially be leading to a piracy act—such activity may be related to observed movement and behavior as well as intelligence; this may include, but not be limited to, one or more of the following: sudden changes in course towards a vessel and aggressive behavior, activity inconsistent with known patterns and behavior adopted by the local maritime community, vessel observed has previously been linked with piracy activities).


19. The UNODC Hostage Support Programme and various private donors were instrumental in providing the medical and humanitarian support that ultimately kept the crew alive until their release and served as the primary source of information to family members of the hostages.

20. Pirates rate navies as number 1 deterrent: http://obp.ngo/publications/somali-prison-survey-report-piracy-motivatio...


22. Meetings were each attended by roughly 100 delegates. The 35th SHADE conference was held 1 April, the 36th SHADE conference was held 16 June, and the 37th SHADE conference was held 15 December.

23. These sums are based on a reported average cost of $19,250 for three-man teams and $23,500 for four-man teams. The weighted average cost per team was then multiplied by the transit estimates for cargo and tanker vessels over 120m for the low range, and cargo and tanker vessels over 75m as well as towing vessels for the high range.

24. Based on vessel reporting to the Maritime Security Center- Horn of Africa (MSCHOA) throughout 2015.

31. We retained the 2013 estimated rate of use for razor wire and sandbags at 80%.
32. The number of sandbags is an estimation of sandbags required to construct three PCASP firing positions.
33. OBP assumes that 15% of vessels needed to refit in 2015.
35. Another Susan K. Kidnapper Caught?” North German Broadcasting, 21 August 2015, http://www.ndr.de/nachrichten/niedersachsen/oldenburg_ostfriesland/Weite...
43. Ibid.
47. “IBF LIST of Warlike and High Risk Designations, with Main Applicable Benefits as of 22nd February 2016,” http://www.itfseafarers.org/files/seasedocs/33553/IBF%20Warlike_High%2...
49. Given that the Maritime Labor Convention was in force for the majority of flags in 2015, and that several stakeholders have indicated the importance of this cost, it has been included in this year’s report.
50. Cost assumes the following: An average crew size is 21, with 12 seafarers eligible to stand additional piracy watches. Two additional seafarers stand watch during each watch of the day, resulting in a total of 4 hours of overtime each day for each of the 12 crewmembers (See Graham Gerard Ong-Webb, “Piracy, Maritime Terrorism and Securing the Malacca Straits,” ISEAS 2006).
53. This cost was assessed for 2015, and has continued to drop in 2016.
PIRACY AND ROBBERY AGAINST SHIPS IN THE GULF OF GUINEA: 2015

MAIN MESSAGES:
GoG: The Gulf of Guinea is the most dangerous region for seafarers with a rise in violence across the year and an increase in kidnap-for-ransom in the fourth quarter of 2015.

- States in the Gulf of Guinea region continue to increase maritime security and cooperation, but capacity is still lacking.
- The duration of kidnap and ransom incidents is consistent with 2014 (2 and 3 weeks of captivity) however, there has been a significant increase in violence including physical abuse and mock executions in 2015.
- Increased Nigerian law enforcement patrols have forced pirates to change their business model, and pirates have had to expand their range beyond Nigerian waters in search of targets.

OVERVIEW
Piracy in the Gulf of Guinea started 2015 with a series of violent, high profile incidents. By the first week of February, 6 people had already been killed in pirate attacks, 58 held hostage during hijackings, and 3 kidnapped.

These events set the stage for a year in which fewer incidents were reported—54 attacks as opposed to 67 in 2014—but with significant human costs.

The year began with significant uncertainty related to Nigeria’s March 2015 presidential elections. The Niger Delta states, where many pirate gangs base their operations, were an important base of support for then-President Goodluck Jonathan. Key figures, such as Government Ekpemupolo—known more commonly as Tompolo—had indicated that trouble might be on the horizon should Jonathan lose the election.1

Tompolo, a former Movement for the Emancipation of the Niger Delta warlord, had secured a significant maritime security deal to provide patrol vessels for the Nigerian Maritime Administration and Safety Agency (NIMASA) through his company Global West Vessel Specialists Limited. This deal was procured with the support of the NIMASA Director General, Patrick Akpobolokemi, whose tenure was in jeopardy without Goodluck Jonathan’s support.2

The uncertainty of this arrangement, and the potential effects of regime change on maritime security provision, led some to forecast an increase in piracy events leading up to and following the election.3
Incidents By Location

OBP aggregated incident reports to create as comprehensive an outlook as possible. The dataset excludes reports of incidents occurring while vessels were berthed and incidents not requiring the perpetrators to utilize a boat to approach the victim vessel. Of the 54 incidents recorded in OBP’s dataset, 29 occurred within territorial waters, and are therefore not categorized as piracy under the UN Convention on the Law of the Sea.

The remaining 25 incidents occurred in international waters, but all fell within the Exclusive Economic Zones (EEZs) of Gulf of Guinea states. While the nature of incidents within and without territorial waters may frequently be indistinguishable, the key element is jurisdictional. Incidents which occur outside of the territorial waters of a given state fall under universal jurisdiction, regardless of whether they happen within a specific state’s EEZ.

Models of Piracy and Armed Robbery in the Gulf of Guinea

Robbery

This report defines robbery as any incident in which the intent is to board the vessel and steal ship stores, equipment, and/or the crew’s personal effects. The robbers are usually armed with guns, knives, or other light weapons. However, in some occurrences, particularly those within port or anchorage areas, the robbers may be unarmed. In these instances, they attempt to avoid the crew, steal items of interest, and then slip away undetected.

Hijacking for Cargo Theft

Hijacking for cargo theft is the most complex of the three piracy models and requires a much more sophisticated and coordinated effort. Vessels carrying petroleum products are targeted and attacked specifically for their cargo. Once the vessel is hijacked the crew is often forced to navigate to a remote location where the cargo can be siphoned either to another vessel or to a storage facility on land. The refined product then finds its way into the black market. Over the past few years, this has been the model for which Gulf of Guinea pirates are most infamous.

Kidnap for Ransom

Kidnap for ransom incidents became the most pervasive piracy model in 2015, and these attacks have continued escalating into the first quarter of 2016. In most of these attacks, pirates carry out an attack with the explicit intent to kidnap several members of the crew, usually ranking officers and/or engineers; occasionally, kidnap for ransom attacks are opportunity-based when prospective captives are discovered on the crew, or the original attack objective is thwarted. The kidnapped crew are then taken to an undisclosed location on land while negotiations are carried out. This type of incident can be completed quickly, enabling the kidnappers to escape before any security response can intervene.
Incident Breakdown

Kidnappings made up the majority of successful incidents in 2015, followed by robberies. Only one successful incident of hijacking for cargo theft was recorded during the year. Gulf of Guinea pirates and robbers also significantly expanded the types of vessels targeted. While tankers were targeted in more than 50% of attacks in 2014, this percentage dropped to 18% in 2015.

Robbery

In 2015, OBP recorded 18 instances of robbery and attempted robbery in the area of interest.

Robbery in Ports and Anchorages

Of the 18 robberies, 12 occurred in or near port and anchorage areas. Robbers were only reported to be armed in four of the dozen, and armed with a firearm in just one. Only two robberies in ports and anchorages occurred within Nigerian waters. In all, 226 seafarers were aboard the vessels targeted, 5 of whom were reportedly threatened.

Robbery at Sea

The remaining six robberies occurred at sea, outside of major ports and anchorages. Five of these six occurred within Nigerian territorial waters, mainly along the coast near small communities or river inlets, and only one in international waters. The latter incident, which involved MV Ocean Splendor, occurred more than 100nm off the coast of Ghana and was likely perpetrated by pirates seeking to hijack a tanker for cargo theft. The presence of firearms was reported in all but one of the robberies at sea, and incidents targeting local traffic were especially violent. OBP estimates that 160 seafarers were involved in these incidents.

Hijacking for Cargo Theft

Only one vessel, MT Mariam, was successfully hijacked and had its cargo stolen, though there are several other instances in which pirates were likely attempting this type of attack.

There are a few possible reasons why the rate of hijacking for cargo theft dropped so dramatically from years past. The first is improved patrolling of Nigerian waters, which over the past few years has forced pirates to conduct attacks farther and farther from the coast. The second is the drop in oil prices, which has reduced the profitability of cargo theft.

While MT Mariam was hijacked within roughly 70nm of the Nigerian coast, it was later rescued by the Ghanaian navy. The pirates had hijacked the vessel and then siphoned the cargo somewhere in between the Nigerian and Ghanaian EEZs. In total, attacks in the category of Hijacking for Cargo Theft and related incidents affected 42 seafarers and left 4 dead.
Kidnapping for Ransom

The most concerning trend in 2015 was a significant rise in the percentage of incidents involving kidnapping, and a change in the types of vessels targeted. In 2014, 16% of the 67 total attacks had involved kidnapping for ransom. The majority of those incidents targeted small offshore supply vessels and tugs, though three incidents did involve small coastal tankers. By contrast, 15 of 54 incidents (28%) involved kidnappings in 2015. 13 of these attacks were successful. The kidnappers’ targets and range expanded significantly as well.

In addition to attacking offshore supply vessels, pirates successfully kidnapped seafarers off of two small general cargo vessels, the supertanker MT Kalamos, and several floating production storage and offloading vessels (FPSOs). The targeting of merchant vessels, as opposed to small offshore supply vessels, has continued and accelerated in the first quarter of 2016.

Kidnapping for ransom incidents are heavily concentrated off of the Niger Delta region, particularly in areas with significant levels of offshore oil production. In most kidnapping incidents the pirates board the vessel after firing at the bridge to suppress any opposition and intimidate the crew, and then proceed to isolate the ranking officers and engineers, who net the highest ransoms. Time permitting, the pirates loot the vessel as well, sometimes spending a few hours aboard. They then escape with the three or four crewmembers who will be held onshore during negotiations.

This model provides a high return on investment for the pirates, yielding ransom payments as high as $400,000, as in the case of MT Kalamos, after holding the kidnapping victims for only a few weeks. On top of the monetary settlement, discussions with industry experts have indicated that the pirates often ask for other items, such as electronics, once a ransom amount is agreed upon.

The Case of MT Kalamos

One of the most high-profile incidents to occur in West Africa in 2015 was the attack on MT Kalamos. The Malta-flagged vessel was waiting at an oil terminal just off Bonny, Nigeria, with 23 crew on board when it was attacked by pirates. According to reports, pirates approached the ship by speedboat and the alarm was quickly sounded by the Kalamos captain, alerting the crew to retreat to the citadel.

Despite the presence of two armed guards on the ship, a pair of pirates boarded the vessel and were able to take two seafarers hostage. In the ensuing commotion, the Nigerian guards engaged in a shootout with the pirates, and one of the hostages was tragically shot and killed in the crossfire. The pirates were then able to escape with three members of the crew (two Greeks and a Pakistani).

During the escape, one crewmember was pushed overboard by the pirates, hitting the anchor chain and breaking both of his legs. While the kidnapped seafarers were eventually released, no one was ever arrested or prosecuted following this incident.
From kidnap to rescue, victims are held for roughly three weeks, on average. They are frequently held on small islands in the Niger Delta in camps with other hostages, many of whom are local victims of kidnapping.

Anecdotal evidence suggests that many of the gangs carrying out attacks against offshore support vessels and tankers at sea are the same as or are linked to the groups that kidnap local Nigerians. This indicates that incidents in the riverine are inextricably linked to incidents at sea, and therefore warrant greater attention by international actors.

Torture, Injury, and Death

Though there are few publicly available reports on the treatment the hostages receive, what little has been relayed indicates that kidnaped seafarers are beaten, tortured, made victims of mock executions, denied medical treatment, and fed limited rations. In the 13 successful kidnapping attacks that occurred in 2015, 25 regional seafarers and 19 international crewmembers were held hostage for ransoms. In the course of the attacks, four seafarers received minor injuries, four sustained major injuries, and six people, including one Nigerian maritime policeman, were killed; 329 seafarers were aboard vessels where their colleagues were kidnapped and some were killed.

Trends

While the anticipated spike in kidnappings prior to the March presidential election did not materialize, the elections dramatically impacted maritime security and will reverberate well into 2016. Most important will be the fallout from the sacking and indictment of former NIMASA head Akpobolokemi, the cancellation of Global West Vessel Specialists Ltd.’s contract, and the warrant for Tompolo’s arrest. Despite an initial spike following President Muhammadu Buhari’s election, the number of attacks steadily diminished through September of 2014. However, once it became clear that Tompolo’s contract would not be continued, and that Global West was the target of an Economic and Financial Crimes Commission corruption investigation, the number of attacks slowly climbed through the end of the year.

With six kidnapping incidents in the first quarter of 2016 alone, and a steady rate of attacks and kidnapings through the writing of this report, it is clear that efforts to combat piracy in the region have successfully reduced incidents of hijacking for oil theft, however, much more remains to secure seafarers from the threat of kidnapping.
Incidents of Piracy in the Riverine Areas of the Niger Delta

Though often overlooked in discussions of piracy in the Gulf of Guinea, incidents of piracy in the riverine areas of the Niger Delta seem to be closely linked to piracy against commercial ships operating off the coast. This is particularly true of kidnapping incidents, as anecdotal reporting indicates that many of the local kidnapping victims are held on tiny islands in the Delta alongside kidnapped seafarers. OBP catalogued a total of 17 incidents in 2015 while researching piracy events in region.

The recorded incidents demonstrated a high degree of violence, as 16 Nigerians were killed and 24 kidnapped in the attacks; however, the recorded attacks are likely only a fraction of the total incidents that occurred in the region as there is a general reluctance to report.

According to former president of the Nigerian Trawler Owners Association, Margaret Orakwusi:
"It’s just like the sea pirate attacks; most of the attacks are not being reported. Probably out of frustration by the owners of the vessels. You know when you continuously report and nothing is happening and the victims are not helped..."

HUMAN COST

While the total number of incidents in 2015 was less than in 2014, the human cost—both in terms of casualties and severity of incidents, as well as the aggregate number of seafarers affected—was higher. In all, 1,225 seafarers were aboard vessels involved in piracy or robbery incidents. Of these, 876 were aboard vessels fired upon or boarded by pirates. Just under half of the incidents recorded in 2015 involved the use of weapons. The criminals were armed with firearms in the majority (81%) of incidents involving weapons. Piracy attacks in the GoG are frequently characterized by heavily armed perpetrators who readily resort to violence. The danger is compounded when pirates are under the influence of drugs or alcohol during the attacks. This can make their behavior unpredictable, and has sometimes resulted in violent abuse.

In total, 23 seafarers were killed, 4 sustained major injuries, and 15 others received minor injuries. 44 were kidnapped, 11 threatened, and 58 were forcibly detained during hijackings for cargo theft, robbery, or use as a mothership. Robbery and kidnapping incidents caused the greatest number of casualties, particularly in incidents targeting local or regional traffic.

Psychological Impact

The threat of attack by pirates in West Africa is constant, and the insecurity is both psychologically and emotionally taxing for those working in the region. Vessels operating in the Gulf of Guinea often loiter in the region for extended periods of time, increasing the risk of an attack and inflicting a psychological toll on even the seafarers who do not fall victim to an attack. There is increasing evidence that the stress and abuse suffered by seafarers may have serious long-term effects. Analysis of the long-term impact of piracy on seafarers indicates that of those seafarers who were held hostage, up to 26% experienced some form of post-traumatic stress disorder.
Friendly Fire

In addition to the threat posed by pirates, seafarers in the Gulf of Guinea may be concerned about the risks they face due to poor oversight of contracted security. Regulations regarding the use of armed guards vary throughout the region. There have been a number of instances in recent years where seafarers have been caught in the crossfire between pirates and embarked armed guards. When pirates attacked MT Kalamos on 3 February 2015, pirates boarded the vessel and grabbed two seafarers to use as human shields. Despite the captain’s pleas to not shoot, the contracted security team engaged in a firefight with the pirates and killed one of the crewmembers. Ultimately, weak and inconsistent regulation forces seafarers to rely on unqualified but heavily armed guards.

Impunity for Pirates

Very few suspects were arrested for piracy-related crimes in the region, and no prosecutions were conducted. Absent prosecutions, seafarers have little incentive to report the crimes, especially as many of the crewmembers continue to work in the region following a piracy incident and may have to face their attackers again. This contributes to chronic underreporting in the region, further exacerbating endemic maritime insecurity.

Cost to Families

Lieutenant Nikos Dagre, the seafarer killed aboard MT Kalamos, had previously expressed great concern over his trips through the Gulf of Guinea, at one point saying, “There are very dangerous things there. I will not travel there again.” Sadly his words proved prescient, and have continued to haunt his family. It is essential to remember that these seafarers have families and loved ones who shoulder their own burden of the human cost. Lieutenant Dagre’s family related:

“We have waited four days and the body has still not arrived. We cry and are tormented by his death, and we don’t know when his body will be here.....we cannot realize what happened from one moment to another. Our Nick was crazy about his child, a boy 2.5 years old, young, optimistic and full of dreams...”

The impact of piracy on seafarers and their families demands adequate post-incident care and support for victims and their loved ones. While many international seafarer’s organizations have focused attention on victims of Somali piracy, it is unclear whether seafarers in West Africa have access to similar care.

Impact on Regional Seafarers

While international seafarers are profoundly impacted by maritime insecurity in West Africa, local seafarers and fishermen also suffer greatly from regional piracy. It is difficult to obtain comprehensive reports on the number of attacks on local traffic, as statistics and the international community are focused primarily on attacks against large commercial vessels. However, local newspaper reports indicate that the passenger and fishing vessels that frequent the waters around Nigeria endured numerous attacks in 2015.

Nigerian maritime expert Captain Thomas Kemewerigha has said of the situation: “Pirates are having a field day on these vessels as the areas are not patrolled by the Nigerian Navy or NIMASA, hence leaving the seafarers on board these vessels, defenseless, which has in some cases lead to loss of lives and valuable properties of seafarers...”

The incessant attacks have significantly impacted local industries that rely on the maritime space. In particular, the fishing industry has been devastated by piracy. According to the Nigerian Trawler Owners Association, industrial fishing companies lost nearly $596 million between 2003 and 2011 alone due to pirate attacks. The number of Nigerian fishing trawlers has fallen...
from 250 to fewer than 100. This has important implications for the country, as fishing is an important industry responsible for many jobs. According to the former head of the Nigerian Trawler Association, Margaret Onyema-Orakusi, “Piracy has decimated the fishing industry; 100,000 jobs have been lost and Nigeria now imports more than 80% of its fish.”

The pirate activity throughout Nigeria is not only impacting international traffic, it is also profoundly affecting important local industries, demonstrating the urgency of the piracy problem.

ECONOMIC COSTS OF PIRACY AND ROBBERY

OBP estimates the total 2015 costs related to piracy and armed robbery in the Gulf of Guinea to be $719.6 million.

Costs Related to Deterring Piracy

The international community, regional states, and the shipping industry incurred significant costs dedicated to combatting or preventing piracy through capacity building, naval operations, contracted security, and ship protection measures. Those costs are estimated to have totaled $635 million dollars for 2015.

TOTAL COSTS RELATED TO DETERRING PIRACY

<table>
<thead>
<tr>
<th>Counter-Piracy Measure</th>
<th>Cost (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Naval Activities</td>
<td>$8.4</td>
</tr>
<tr>
<td>Information Sharing/Maritime Situational Awareness</td>
<td>$12.7</td>
</tr>
<tr>
<td>Regional Naval Activities</td>
<td>$37.6</td>
</tr>
<tr>
<td>NIMASA Counter-Piracy Expenditures</td>
<td>$217.8</td>
</tr>
<tr>
<td>Security Escorts</td>
<td>$7.3</td>
</tr>
<tr>
<td>Security Patrols</td>
<td>$136.8</td>
</tr>
<tr>
<td>Secure Zones</td>
<td>$8.2</td>
</tr>
<tr>
<td>Embarked Contracted Maritime Security</td>
<td>$196.8</td>
</tr>
<tr>
<td>Ship Protection Measures</td>
<td>$3.9</td>
</tr>
<tr>
<td>Prosecution and Imprisonment</td>
<td>$0.0</td>
</tr>
<tr>
<td>Counter-Piracy Organizations</td>
<td>$5.2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$634.8</strong></td>
</tr>
</tbody>
</table>

Security provision in the Gulf of Guinea is not cleanly separated into traditional public security provided by navies and law enforcement agencies and private security provided by private security teams and services. Instead, it is best understood as a spectrum, moving from traditional public security, such as international naval efforts, to public-private partnerships, which provide escort and patrol vessels, administer secure zones, and facilitate embarked public security teams.

International Naval Activities

Foreign naval activities in West African waters generally comprise capacity-building and training, rather than law enforcement action. France maintains a continuous naval presence through Operation Corymbe, the US and UK navies operate in the region regularly, and others conduct patrols and exercises as well. In addition to the force presence, each year sees a host of training and capacity-building events. Major multinational exercises include: NEMO, a quarterly event under the auspices of Corymbe; Obangame Express, an annual maritime safety and security exercise led by the US; and AMLEP, the operational component of international capacity-building program African Partnership Station. OBP estimates the cost of these counter-piracy activities to be $8.4 million. These international efforts are designed to support regional navies, whose efforts form the front lines in combatting piracy in the region.
Regional Naval Activities

During 2015 at least 55 Nigerian naval vessels were actively deployed in Nigerian waters. These vessels were joined by naval assets from various regional states, including Ghana, Cameroon, Togo, Benin, and Côte d’Ivoire. On average, OBP estimates that 11 regional naval vessels were on station at any given time, incurring corresponding counter-piracy costs of roughly $37.6 million. The true cost may be considerably higher, as some states and vessels do not consistently use the Automatic Identification System (AIS), or engage mostly in irregular patrols or specific incident response.

While most regional navies serve a dual naval and coastguard function, the Nigerian Maritime Administration and Safety Agency (NIMASA) is tasked with working alongside the Nigerian Navy to combat piracy—in fact, NIMASA’s 2015 budget of $726 million was nearly double the Navy’s $379 million. Given NIMASA’s mandate, OBP estimates that roughly 30% of those funds are dedicated to maritime safety and security, implying around $218 million spent on counter-piracy efforts.

Public-Private Partnerships

In addition to patrols by traditional state security forces, there are a number of hybrid models at work in the Gulf of Guinea, with multiple public-private partnerships in place to augment state capacity. Their mandates include conducting patrols, operating secure zones, escorting commercial traffic, and protecting offshore oil facilities.

Escort & Patrol Vessels

Policy statements from Nigeria specify that operating escort vessels is the only security service permitted in territorial waters, though this does not appear to be true in practice. Several small fleets of these vessels run by companies like Specialized Vessel Services and Strickland Services Limited help bolster the Navy and NIMASA. In addition to patrols, these vessels provide security to vessels in transit to and from Nigeria, between secure zones and ports, and to riverine ports such as Warri, Onne, and Port Harcourt. Other private companies administer the secure zones, such as Ocean Marine Security Limited in Nigeria. These services are used in lieu of embarked armed guards, and tend to cost more per vessel. The relationship between these vessels and the Nigerian Navy is unclear, as there is significant overlap between their activity and that of traditional “NNS” Nigerian naval vessels. OBP analysis indicates that on average, 32 vessels are actively providing escorts, conducting patrols, and protecting secure areas.

AIS tracks of Nigerian Naval activity in 2015
OBP has broken the cost of these vessels into two categories: costs related to specific escort services and a more general operating cost for the constant security presence that these vessels apparently provide. This second category represents a minimum estimated operating cost, not the total contracted cost to the end user.

### Security Escorts

<table>
<thead>
<tr>
<th>Lagos Security Escorts</th>
<th>Annual Escorts</th>
<th>Average Cost per Escort</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various routes between 40nm marker, SAA, Pilot Station, and Berth</td>
<td>429</td>
<td>$8,000</td>
<td>$3,432,000</td>
</tr>
<tr>
<td>Delta Port Escorts</td>
<td>Annual Escorts</td>
<td>Cost per Escort</td>
<td>Annual Cost</td>
</tr>
<tr>
<td>Lagos to Warri</td>
<td>13</td>
<td>$37,500</td>
<td>$487,500</td>
</tr>
<tr>
<td>Warri to Onne</td>
<td>10</td>
<td>$56,000</td>
<td>$560,000</td>
</tr>
<tr>
<td>Lagos to Onne</td>
<td>44</td>
<td>$64,000</td>
<td>$2,816,000</td>
</tr>
<tr>
<td><strong>TOTAL ESTIMATED COST</strong></td>
<td></td>
<td></td>
<td><strong>$7,295,500</strong></td>
</tr>
</tbody>
</table>

### Security Patrols

The operating cost of the roughly 32 privately-run patrol vessels identified as being operational at any given time is estimated to be between $128 and $146 million for 2015. These vessels appear to provide a near-constant security presence, particularly around oil production infrastructure.

As such their services are assumed to be contracted annually, rather than per use like the OMS escorts listed above.

### Cost of Patrol/Security Vessels

<table>
<thead>
<tr>
<th>Companies Operating Patrol/Security Vessels</th>
<th>Individual Vessels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialized Vessel Services</td>
<td>11</td>
</tr>
<tr>
<td>Strickland Services Limited</td>
<td>7</td>
</tr>
<tr>
<td>Ocean Marine Security Limited</td>
<td>2</td>
</tr>
<tr>
<td>Aquashield Oil and Marine Services Limited</td>
<td>1</td>
</tr>
<tr>
<td>Starzs Investments Company Limited</td>
<td>3</td>
</tr>
<tr>
<td>Zomay Marine &amp; Logistics Limited</td>
<td>4</td>
</tr>
<tr>
<td>Global Spectrum Energy Service Limited</td>
<td>1</td>
</tr>
<tr>
<td>Tamrose Ventures Limited</td>
<td>3</td>
</tr>
</tbody>
</table>

**ESTIMATED TOTAL COST** $127,718,000 - $145,861,000
Secure Zones

In addition to the security measures already discussed, Ghana, Togo, Benin, and Nigeria have each established “secure zones” near major ports. These are clearly demarcated areas where vessels can safely anchor to wait for a berth or conduct ship-to-ship cargo transfers.

In Nigeria, a private company provides the physical ships, maintenance, and logistics, and performs all scheduling and billing of clients, while the armed forces supply the security personnel and weaponry. In Ghana, the Ports & Harbour Authority is responsible for providing security patrols. In Benin and Togo, however, patrols are only conducted in response to incidents, and security is provided through embarked teams of public security service personnel. OBP estimates that operating these zones cost $8.2 million in 2015.

COST OF SECURE ZONES

<table>
<thead>
<tr>
<th>Country</th>
<th>Zone</th>
<th>Estimated Number of Vessels</th>
<th>Rate of Use</th>
<th>Equipment</th>
<th>Unit Cost</th>
<th>Units per ship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>Secure Anchorage Area</td>
<td>535</td>
<td>80%</td>
<td>Razor Wire</td>
<td>$4 per meter</td>
<td>550-1500m</td>
</tr>
<tr>
<td></td>
<td>Ship-to-Ship (STS) Zone</td>
<td>849</td>
<td>80%</td>
<td>Sandbags</td>
<td>$1 per bag</td>
<td>550 bags</td>
</tr>
<tr>
<td></td>
<td>Other Areas</td>
<td>5,156</td>
<td>80%</td>
<td>Warning Signs</td>
<td>$140 per sign</td>
<td>3 signs</td>
</tr>
<tr>
<td>Benin</td>
<td>Secure Zones</td>
<td>720</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Togo</td>
<td>Secure Zones</td>
<td>4,500</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>Ship-to-Ship (STS) Zone &amp;</td>
<td>517</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anchorage Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>12,277</td>
<td>N/A</td>
<td></td>
<td></td>
<td>$8,164,500</td>
</tr>
</tbody>
</table>

Embarked Contracted Maritime Security

Because Private Armed Security Teams (PAST) are prohibited by every littoral state in the Gulf of Guinea, embarked armed teams are drawn from a state’s armed forces or law enforcement agencies, to protect the ship while it is in that country’s waters. This arrangement—private contracting of public personnel—in theory enables commercial vessels to maintain security while allowing the coastal state to retain its sovereign monopoly on the use of force. However, only a limited number of private companies have obtained the MoUs authorizing them to contract such teams. Ship operators may also choose to hire unarmed advisors, usually to serve as liaisons between the crew and the embarked military team. OBP estimates that hiring these security teams and liaisons cost $196.8 million in 2015.

Ship Protection Measures

Active security measures such as embarked contracted security teams and use of patrol vessels are only available within territorial waters or in designated areas, and are intended to supplement other vessel protection measures. These Ship Protection Measures (SPMs) are laid out in the “Guidelines for Owners, Operators, and Masters for Protection against Piracy in the Gulf of Guinea Region.” The Guidelines suggest that vessels utilize the Maritime Trade Information Sharing Center-GoG (MTISC-GOG), implement SPMs such as enhanced watch-keeping and vessel hardening, and limit the use of AIS and lighting at night. Each vessel operator is responsible for conducting a vessel-specific risk assessment to determine the appropriate SPMs.

COST OF SHIP PROTECTION MEASURES
As with previous reports, OBP has compiled a list of some of the more frequently recommended and used SPMs to show the estimated average acquisition and implementation cost per vessel. Since piracy has been a recognized threat in the GoG for a number of years, OBP presumes that most ship owners who intend to do so have fitted their vessel with hardening measures already. As such, expenditures are primarily limited to refitting worn or damaged kit and equipping vessels new to the region. OBP estimates the cost of SPMs to be about $3.9 Million.

Prosecution & Imprisonment

It continues to be difficult to calculate costs associated with prosecution and imprisonment of pirates in West Africa, as countries in the region do not release that data. OBP has thoroughly reviewed open-source documents and reports from counter-piracy institutions and has found no information about specific piracy prosecutions in 2015.

While there were high-profile arrests throughout the year, including the arrest of eight pirates from MT Miriam made by the Ghanaian Navy, there was no follow-up prosecution reported. West African nations generally do not have domestic legislation against piracy, which limits the ability of states in the region to prosecute incidents. Because of that, and in the absence of further information indicating prosecution of individuals for acts of piracy in 2015, OBP is unable to estimate a cost for this category.

Counter-Piracy Organizations

In recent years the international community has also developed a number of initiatives to support regional efforts to combat maritime crime.

<table>
<thead>
<tr>
<th>Counter-Piracy Mechanism</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMO West and Central Africa Maritime Security Trust Fund</td>
<td>No additional Contributions in 2015</td>
</tr>
<tr>
<td>EU Maritime Transport Support</td>
<td>$1,778,726</td>
</tr>
<tr>
<td>EU Critical Maritime Route in the Gulf of Guinea Project (CRIMG)</td>
<td>$1,600,854</td>
</tr>
<tr>
<td>OBP West Africa</td>
<td>$212,522</td>
</tr>
<tr>
<td>INTERPOL West African Police Information System (WAPIS)</td>
<td>$1,334,045</td>
</tr>
<tr>
<td>Association Pour La Securite Maritime (ASECMAR)</td>
<td>$320,171</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$5,246,318</td>
</tr>
</tbody>
</table>

Other Costs Associated with Piracy

In addition to costs dedicated to combatting or preventing piracy are those costs incurred as a result of piracy, such as ransoms paid to recover hostages, increased insurance rates, and higher labor costs. These costs are estimated to have been at least $84.9 million.

Ransoms Paid

Given the highly confidential nature of ransom negotiations, actual sums paid are rarely made public. Publicizing ransom payments can result in inflated ransom demands and expectations, further increasing costs and prolonging negotiations. Consequently, obtaining accurate information about sums paid, the amount of time victims were held, and even the total number of kidnappings is difficult. In order to estimate total ransoms paid in 2015, OBP used an average amount based on a range developed through discussions with experts involved in hostage recovery. In total, OBP estimates that $1.6 million in ransoms was paid to recover kidnap victims in the 12 incidents recorded below.

It is important to note that this $1.6 million is an estimate of only the monetary sums provided to secure the release of kidnapping victims. In addition to monetary compensation, pirate gangs may also ask for other items, ranging from alcohol to electronics, usually added in as the negotiations near a close. The monetary and non-monetary ransom sums are in turn only a fraction of the total costs associated with securing the release of kidnap victims. Not included here are the costs of a response team, ransom drop and security personnel, medical treatment, hotels, flights, and repatriation. In addition to these direct costs, there are other expenses related to the incident, including the opportunity cost for personnel involved in the negotiation and recovery work, damage to the vessel, lost charter fees, replacement crew wages, etc. All told a kidnapping incident incurs significant costs above and beyond the ransom itself.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Cost (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ransoms</td>
<td>$1.6</td>
</tr>
<tr>
<td>Stolen Goods</td>
<td>$0.4</td>
</tr>
<tr>
<td>Labor Costs</td>
<td>$40.6</td>
</tr>
<tr>
<td>Insurance Costs</td>
<td>$42.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$84.9</td>
</tr>
</tbody>
</table>
Value of Stolen Goods

Robbery is the most basic and most ancient of piracy models. Often, robbery at sea is an opportunistic crime, and in many hijackings for cargo theft or kidnappings the perpetrators rob the vessel and crew of valuables as well. The value of stolen goods, whether ship stores, crewmembers’ belongings, or both, is rarely reported. In all, OBP estimates the value of stolen goods and cargo to be roughly $400,000.

In 2015 there were eight incidents in which ships stores and equipment were stolen, resulting in roughly $45,000 worth of losses. In at least two of these incidents the crew was robbed as well. Between those two incidents and a third involving the theft of the crew’s belongings in addition to the crude oil cargo, seafarers in the GoG were robbed of personal belongings worth an estimated $39,000.

The value of the 1,500mt of crude oil stolen in the MT Mariam incident is estimated to be $327,000.

Labor Costs:

Hazardous Duty Pay

Seafarers working on ships traversing the Gulf of Guinea are recognized as incurring an increased personal risk due to the threat of piracy and armed robbery. As a result, several collective bargaining agreements developed through the International Bargaining Forum (IBF), International Transport Workers’ Federation, and various national seafarers’ unions have identified specific areas within which seafarers are entitled to additional pay, in addition to the right to refuse passage without penalty. Seafarers transiting the Gulf of Guinea IBF High Risk Area (HRA) in 2015 were entitled to at least $40.5 million.

Captivey Pay

In the event that they are taken and held hostage, seafarers are entitled to captivity pay for the duration. This pay is estimated as the base wage plus 35%. In keeping with past reports, OBP assumes that only 40% of captured seafarers received the remuneration to which they were entitled. By this reckoning, seafarers kidnapped in 2015 collected approximately $79,000 in captivity pay.

Piracy Watch Overtime

A cost that hasn’t been captured in previous years’ data is the overtime accrued by seafarers standing piracy watch while transiting the HRA. Additional piracy watches are not only mundane, stressful, and physically taxing due to the longer hours, they are an added expense for the shipping company. If two additional crewmembers are on piracy watch it could cost as much as $865-$2,358 for a transit through the GoG War Risk Insurance Listed Area, or between $173 and $472 per day.

Insurance Costs

Hull War Risk Insurance

OBP utilized the reported additional premiums paid in 2014 by members of Hellenic War Risks Club (HWR) to generate an estimate of the total cost of War Risk Added Premiums (WRAPS)
for transiting the GoG Listed Area in 2015. Assuming that the Gulf of Guinea accounted for 15% of all WRAPs in 2015, and that the change in net premiums was −5%, the calculations indicate the total cost of additional premiums incurred by vessels transiting the GoG Listed Area in 2015 were around $23.2 million.

**Cost of K&R Insurance**

In addition to the war risk insurance premiums, a number of vessel operators take out kidnap and ransom (K&R) insurance as additional protection for their vessel’s crew. OBP used data from interviews with maritime insurance experts to gauge the rate of use and cost per transit. The total cost was then measured against an assessment of the global K&R market to check for accuracy.

OBP estimates that in 2015, approximately 35% of all vessels transiting the GoG Listed Area bought K&R insurance at an average cost of $2,400 per transit, totaling $16.5 million. An alternative method of estimating the GoG K&R insurance cost is to assume that it makes up between 6% and 8% of the global market. The global K&R market is estimated to be between $250 and $300 million in net premiums. This indicates that the shipping industry in the GoG paid between $15 and $23.8 million in K&R insurance premiums. Our estimate of $19.0 million falls along the conservative end of this spectrum.

**Cargo Risk Insurance**

The threat of piracy in a given region may necessitate increased cargo insurance premiums. Cargo insurance, unlike Hull War Risk or K&R insurance, is not paid by the shipping company, but by the owners of the cargo. There is significant variation across the types of policies and what they cover, and the premium varies based on a number of factors. The nature of cargo insurance is such that a comprehensive estimate of the piracy-related costs is impossible. However, one can deduce whether or not the costs associated with this type of insurance were likely higher or lower than in the previous year based on the risk score assigned to the region by the Joint Cargo Committee in their Cargo Watchlists.

**REFERENCES**

18. Estimate based on budgeted numbers
19. RMRCs are estimated at two-thirds the cost of the MTISC-GoG
21. Approximate costs identified through discussions with various stakeholders.
25. This estimate is predicated upon an estimated 3,700–3,900 individual vessels operating in the Gulf of Guinea and a usage rate for razor wire, warning signs, and sandbags of 80%, as in the WIOR. The calculation further assumes that one-quarter of these vessels refitted in 2015.
26. This is based on the available online wholesale price of $3.55 per meter of galvanized concertina razor wire and an average vessel length of 230 meters and width of 35 meters, which is equal to 530 meters of razor wire to cover the entire exterior of the vessel.
27. The estimated number of sandbags is based on a reasonable estimation of sandbags required to construct three PCASP firing positions.
29. Ibid.
32. $500mt is roughly equivalent to 7,050 barrels, at $46.385 per barrel, the average Brent Price for crude oil per barrel between 9 and 12 January: https://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=94&pid=57&aid=32 (barrels per MT) https://www.quandl.com/data/EIA/PET_RBRTE_D-Europe-Brent-Spot-Price-FOB... (price per barrel).
33. “IBF List of Warlike and High Risk Designations, with Main Applicable Benefits as of 22nd February 2016,” http://www.itfseafarers.org/files/sealsodocs/33553/IBF%20Warlike_High%2...
34. Based on an average daily crew cost of $3,442 derived from: https://www2.deloitte.com/content/dam/Deloitte /global/Documents/dttl-er-challengeindustry-08072013.pdf. This is multiplied against an average IBF HRA transit time of 5 days, and the number of transits calculated for the area. OBP’s transit calculations for the GoG IBF HRA are significantly lower than in 2014, and this is likely due to the manner in which the transits are calculated.
36. Cost assumes the following: An average crew size is 21, with 12 seafarers eligible to stand additional piracy watches. Two additional seafarers stand watch during each watch of the day, resulting in a total of 4 hours of overtime each day for each of the 12 crewmembers (See Graham Gerard Ong-Webb, “Piracy, Maritime Terrorism and Securing the Malacca Straits,” iSEAS 2006). Overtime is defined as shifts longer than 8 hours a day, resulting in over 48 hours a week, and is assessed at 1.25x base pay by the Maritime Labor Convention (http://www.itfseafarers.org/what_wages.cfm (link is external)). The lower bound of the overtime cost is assessed by minimum wage as defined by the Maritime Labor Convention ($2.88 per hour) and the upper bound is assessed at the average hourly wage ($8) of seafarers assessed here: https://www2.deloitte.com/content/dam/Deloitte/global/Documents/dttl/er-challengeindustry-08072013.pdf, http://www.itfseafarers.org/files/sealsodocs/33553/IBF%20Warlike_High%2...
PIRACY AND ROBBERY AGAINST SHIPS IN SOUTHEAST ASIA: 2015

MAIN MESSAGES

2015 saw a rise in piracy for first half of year – however, increased activity from regional states prompted second-half decline
- Demonstrates value of increased patrolling, incident response, arrest & prosecution
- Key arrests in oil theft syndicates, along with lower oil price, have reduced capability and intent

Rising piracy was checked and reversed by regional state efforts
- PatROLS, response, and legal finish have discernable impact
- Degraded capability and intent to steal oil

OVERVIEW

In 2015, Oceans Beyond Piracy (OBP) recorded 199 incidents of piracy and robbery against ships in the Southeast Asia area of interest (as defined by OBP). These incidents involved an estimated 3,674 seafarers. Going strictly by the numbers, Southeast Asia (SEA) has the most reported incidents of any region in the world, but this doesn’t tell the whole story.

The SEA area of interest encompasses over 5.3 million square nautical miles and territorial waters of thirteen states. (By comparison, the United States, its territories, and its territorial waters cover only 3.3 million square nautical miles.) Over the course of 2015 cargo and tanker vessels transited this area more than 263,000 times, making it the most heavily trafficked region in the world.

Although the highest concentration of robbery against ships was in the Straits of Singapore and Malacca, incidents were reported in places such as Vietnam, the southern Philippines, and western Java. As a result, there is no singular “Southeast Asian piracy”: the region in fact comprises several disparate and distinct maritime locales with their own endemic geographic—and criminal—characteristics and challenges.

The year was characterized by two very different trends: a rising number of incidents between January and August, followed by a dramatic decrease in the Straits of Malacca and Singapore and South China Sea through the last four months of the year, which has been sustained into the first quarter of 2016 (see IMB’s numbers for Q1 here and ReCAAP ISC’s numbers here). This reversal followed a series of arrests of suspected gang members and kingpins, the development of industry guidance, and an increased law enforcement presence in the most affected waters, particularly by Singapore, Indonesia, and Malaysia. In late March and April 2016, three vessels were hijacked and the crew abducted off East Sabah and South Philippines. These incidents are not analyzed in this report, but more information can be found in a special report by the ReCAAP ISC here.
The calendar shows examples of actions by Southeast Asian nations and the maritime industry to reduce incidents of piracy and armed robbery in this region.

The majority of incidents counted and discussed within this report are in fact robbery against ships, not piracy.
Dataset and Methodology

OBP aggregated incident reports from multiple sources to create as comprehensive an outlook as possible. The dataset excludes incidents where vessels were berthed in port and incidents where the perpetrators did not need a boat to approach the victim vessel. The vast majority of incidents counted and discussed within this report were in fact robbery against ships, not piracy, as they occurred within territorial waters. While the nature of robberies against ships and acts of piracy may frequently be indistinguishable to the seafarers affected, the key distinction is jurisdiction. As stated in the Regional Guide to Counter Piracy and Armed Robbery Against Ships in Asia, “the key principle of respecting a coastal State’s sovereignty takes precedence over enforcement action in their area of jurisdiction.” As a result, the coastal states bear the responsibility for responding to reports, investigating crimes, and pursuing and prosecuting perpetrators, unless a prior agreement exists allowing other states to take action.

Business Models

Unarmed Robbery
This category covers incidents where the criminals are reportedly unarmed and generally attempt to avoid detection or confrontation in order to steal ship stores or the crew’s belongings and then escape. This type of incident frequently occurs aboard vessels that are at anchor or drifting close to a port or anchorage, and generally poses the smallest threat to the crew.

Armed Robbery
In these incidents the criminals are reportedly armed, and are more likely to physically engage the crew. These can occur on vessels that are moving or stationary, both near the coast and farther at sea.

Hijacking for Cargo Theft
These are incidents where perpetrators take control of a vessel in order to steal its oil product cargo. While not the primary impetus for the attack, this type of incident often involves theft of the crew’s belongings as well as ship stores and equipment. Hijackings also involve the most contact between pirates and crew, as the perpetrators must control the ship long enough to offload some or all of the cargo, which can increase risk of physical or psychological violence against the crew. Typically, these attacks targeted vessels carrying marine fuels or other refined product. Hijacking for cargo theft is also more likely than robbery to occur in international waters, and as a result be classified as piracy. Such incidents require the highest level of sophistication and planning, and are purportedly linked to transnational organized crime syndicates.

Varying threat levels notwithstanding, from seafarers’ perspective all of the above models effectively constitute home invasion, with malefactors gaining unauthorized entry into the places they both work and live.
Incident Breakdown

Over half of incidents in OBP’s area of interest were unarmed robberies and attempts (53%). Just under one-third were armed robberies and attempts (30%), and the remainder were hijacking for cargo theft (6%). In total, these incidents involved an estimated 3,674 seafarers. OBP has recorded an additional 21 incidents in which perpetrators failed to board the vessel, indicating an 89% boarding rate amongst reported incidents.

For the purposes of this report, an attempt is an incident where perpetrators successfully boarded a vessel but were deterred before successfully robbing the vessel or offloading its cargo.

Unarmed Robberies and Attempts

While a few unarmed robberies might be classified as piracy, the vast majority occurred within territorial waters, clustered primarily near ports and anchorages and in the Singapore Strait. Forty-five percent of all unarmed robberies occurred within or near the Singapore Strait; of those unarmed robbery incidents targeting underway vessels, 80% occurred in the strait.

Over half of the incidents within the strait were concentrated along a 31nm-long stretch in the eastbound lane of the traffic separation scheme. In all, an estimated 2,194 seafarers were aboard vessels involved in this type of incident. Of these seafarers, two were injured and one was forcibly detained (e.g., tied up and gagged or locked in a cabin).

Armed Robberies and Attempts

As with unarmed robberies, the vast majority of armed robberies occurred within territorial waters, and while a similar percentage (46%) occurred in or near the Singapore Strait, the remaining incidents were not concentrated near ports and anchorages. Armed robberies were much more likely to occur aboard steaming vessels than stationary ones, and had a fairly high (64%) success rate.

According to incident reports and anecdotal accounts, armed robbers in SEA primarily carry knives and pipes. The knives are generally used for intimidation and as a burglary tool, while the pipes are used as weapons to
Hijacking for Cargo Theft and Attempts

Twelve vessels were hijacked in order to steal the petroleum product cargo on board. This type of incident requires the most organization and planning of any form of piracy or robbery against ships in SEA and has frequently been linked to criminal syndicates on shore. Hijackings also involve the most contact between pirates and crew, as the perpetrators must control the ship long enough to offload some or all of the cargo, which can increase risk of physical or psychological violence against the crew. Typically, these attacks targeted vessels carrying marine fuels or other refined product.

Hijackings for cargo theft occurred at nearly twice per month in the first half of 2015, setting a pace to surpass 2014. However, following a concerted effort by regional nations, the number of reported hijackings dropped to zero from September through December, a trend which has persisted through the first quarter of 2016.

With the exception of the MT Rehobot hijacking, which was a significant outlier, the attacks appear to be clustered in two distinct groups: one operating within the Malacca Straits, the other between the Malay Peninsula and Borneo.

All hijackings for cargo theft, excepting that of the MT Rehobot, occurred along maritime routes frequented by smaller tankers, Malaysian or Thai-flagged tankers in particular, carrying fuel from refineries to ports in the region. All of the targeted vessels were small local tankers with the exception of David Tide II, an offshore tug. Vessels of this type are extremely vulnerable because they travel predictable, oftenrecurring routes and have a very low freeboard. Furthermore, because of the need to make frequent port calls, some potentially effective vessel hardening measures, such as razor wire, become difficult or impossible to implement between stops.

Unsuccessful Incidents

In both unsuccessful hijackings for cargo theft, targeting MT Orkim Harmony and MT Sun Birdie, the Malaysian Maritime Enforcement Agency (MMEA) successfully recovered the vessel before the criminals were able to offload the cargo.
**MT Sun Birdie**

*Sun Birdie* was carrying marine fuel oil, which is commonly targeted by pirates in the region, when hijacked just off Pengerang in the Singapore Strait. The MMEA located and recovered the vessel within 12 hours of the hijacking and arrested seven of the perpetrators. Two others had jumped overboard to avoid detention and were picked up by Challenger Premier, a passing vessel which turned the two over to the MMEA. The perpetrators were tried for gang robbery and sentenced to 10 years in prison and one stroke with a rotan cane.

**MT Orkim Harmony**

*MT Orkim Harmony* was carrying petrol, which is more dangerous to siphon and is not frequently targeted by pirates in SEA. It was hijacked southwest of Pulau Tinggi, an island off the coast of the Malay Peninsula, not far from where *MT Phubai Pattra 1*, a Thai-flagged tanker, was hijacked in February 2015. *Orkim Harmony* was located after a week, and the perpetrators were arrested by Vietnam after fleeing the vessel. During the course of the attack the Indonesian cook was shot, and he had to be airlifted for medical treatment following the rescue.

Two ringleaders behind the attack were arrested later by Indonesia. The eight suspects arrested by Vietnam are awaiting extradition to Malaysia to face trial.

**Outliers**

**MT Rehobot**

The *MT Rehobot* hijacking is a significant outlier among instances of hijacking for cargo theft. The hijacking occurred on the eastern side of Sulawesi near the Celebes Sea, 890nm east of any other incident of this type, making it by far the easternmost of the South China Sea hijackings. The perpetrators hijacked *MT Rehobot* at around 23:30 local time the night of 28 January. Armed with long knives, they forced the crew to abandon the vessel in life rafts in the middle of the night. *MT Rehobot* was found nearly a month later, run aground near Mati City in the Philippines. The cargo of 1,100mt of diesel fuel was reportedly stolen, along with the navigational equipment.

**MT Lapin**

*MT Lapin* was the northwestern-most hijacking for cargo theft in 2015, and occurred in the Strait of Malacca, 60nm northwest of Kuala Lumpur. Lapin is a small, Thai-flagged coastal tanker which was carrying 2,000mt of bunker fuel. The perpetrators hijacked the vessel on the evening of 13 February and siphoned off all of the bunker fuel along with 5mt of diesel. After robbing the crew and stealing the ship stores, the perpetrators destroyed the vessel’s communications equipment and tied up the crew. Before leaving the vessel they threatened the crew and told them that they had left an improvised explosive device on board. The crew was
able to free themselves the next morning, and on 15 February they managed to contact Thai authorities with the help of a passing vessel. An explosive ordinance disposal team determined that the device was a fake, and the Thai navy rendered assistance to the crew.\footnote{11}

**TB David Tide II**

The only non-tanker to be hijacked in 2015, *TB David Tide II*, is a Vanuatu-flagged multipurpose offshore vessel. On 22 March, it was hijacked while towing a barge 18nm due east of Pulau Tioman at around 22:15.

The pirates were armed with guns and knives, and upon boarding apprehended and robbed the crew before siphoning 200,000 liters of the tug’s diesel bunker. The pirates stole ship stores and equipment as well before destroying the communications and CCTV equipment and escaping\footnote{12}.

**HUMAN COST**

**Injuries**

Despite 199 recorded incidents in the region in 2015, only 12\% of incidents reportedly involved injuries, with minor injuries in 21 incidents and major injuries in two. In total, 450 seafarers out of 3,674 were aboard a vessel on which a colleague was injured.

One of these major injuries came during the hijacking of *Orkim Harmony*, where the cook was shot in the upper leg, and had to rely on the emergency facilities onboard until he could get to a hospital.\footnote{13} Incidents involving injuries were clustered primarily in Indonesian waters in the eastbound lane of the Traffic Separation Scheme near the Singapore Strait. In these incidents, 28 crewmembers were reported as being injured during the attacks.

**Weapons**

Pirates and robbers were armed in 38\% of incidents in Southeast Asia in 2015. Pirates were far more likely to confront seafarers when armed: A total of 772 seafarers, involved in 21\% of incidents, were aboard vessels where one or more seafarers had a direct confrontation with criminals; 166 of these seafarers were directly threatened by the perpetrators.

**Forcible Detention**

Across 17 incidents, pirates and robbers forcibly detained 19 seafarers. This often occurred when a seafarer on duty happened to discover the perpetrators as they boarded the vessel or while they were stealing ship stores or equipment. In these instances, the criminals would often assault, tie, and gag the seafarer to keep him from sounding the alarm. Seafarers who were forcibly detained remained in that state until they were discovered by other members of the crew or were able to free themselves.
Crew Held Hostage

The only seafarers held hostage by pirates and armed robbers were onboard vessels hijacked for cargo theft, of which there were 12 instances. In one incident, involving MT Rehobot, the crew was forced to abandon ship in a life raft. A total of 167 seafarers were aboard the other 11 vessels. The seafarers were held hostage for periods ranging from less than a day to more than a week. While the seafarers were detained, their captors looted the vessels, stole the crews’ belongings, forced them into cramped quarters, denied them medical treatment, and assaulted them.

The majority of incidents in Southeast Asia were nonviolent, with perpetrators generally attempting to avoid confrontations with the crew. However, the level of violence associated with incidents increases when the perpetrators are armed and when there are more criminals involved. While the average number of criminals involved in an incident was four, as that number increases, so does the potential for violence. Incidents involving minor injuries involved an average of six criminals, and the average size of the gang for incidents involving confrontation of any type was seven. In incidents of hijack for cargo theft an average of 13 pirates or armed robbers were involved.

ECONOMIC COST

Efforts to Deter Piracy and Robbery Against Ships

As a new addition to OBP’s coverage of SEA, we have highlighted a few specific cost areas with an eye toward analyzing the overall counter-piracy initiatives in this region. The response to piracy and robbery against ships in SEA appears to have had a significant impact on the rate of incidence in the region. These efforts have included increased commitment to naval and coastguard counter-piracy patrols, establishment of rapid response teams, development of industry guidance, and the arrest and prosecution of gang members and kingpins.

Naval and Maritime Law Enforcement Response

As the vast majority of incidents in SEA take place in the territorial waters of regional nations, the responsibility to provide a maritime law enforcement response rests solely with these countries. However, as counter-piracy patrols and incident response are only part of the wide array of maritime duties for regional naval and law enforcement agencies, the aggregate cost of dedicated counter-piracy patrols is difficult to isolate. The figure displays 2015 Automatic Identification System reports for naval and law enforcement vessels around the Straits of Malacca and Singapore (SOMS).

STAR and Quick Response Teams

In order to improve response times and better deter robbery in the SOMS, the MMEA announced in August 2015 the establishment of a Special Task and Rescue (STAR) team based in Johor Bahru. Similarly, in the summer of 2015, the Indonesian Navy deployed...
the Western Fleet Quick Response team to the Malacca Strait, supported by two helicopters based in Batam. The increased cooperation between these two nations led to the arrests of several gangs in the fourth quarter of 2015.14 15

Both the Malaysian STAR Team and the Indonesian Quick Response Team are specifically tasked with providing a maritime response to reported incidents of piracy and robbery against ships; the STAR Team also provides onboard security for select merchant vessels on a case-by-case basis.16

Coordinated Patrols
In addition to national patrols, Southeast Asian countries have enacted several agreements for carrying out coordinated patrols in the region. Examples include:

- The Indonesia-Singapore Coordinated Patrol, established in 1992, which is a collaborative effort by the Republic of Singapore Navy, the Singapore Police Coast Guard, the Indonesian Navy, and the Indonesian National Police to coordinate patrols and deter sea robberies in the Singapore Strait.17
- The Malacca Strait Patrols, which is a cooperation framework among Malaysia, Indonesia, Singapore, and Thailand, which includes the Malacca Strait Sea Patrol, the Eyes-in-the-Sky Air Patrols, and the Intelligence Exchange Group.18
- The Malaysia-Indonesia Coordinated Patrols, a biannual coordinated patrol event held between maritime agencies in the two countries.19

Cooperation and information-sharing efforts are further bolstered by the Information Fusion Centre (IFC) located in Singapore, which hosts International Liaison Officers from regional and non-regional navies and coastguards, as well as personnel from the Singapore Navy.

Another example of additional costs directly attributable to countering piracy are the joint and combined responses to attacks on merchant vessels, such as the week-long search for MT Orkim Harmony, which involved more than 30 assets (including vessels, helicopters, and surveillance aircraft) from Australia, Indonesia, Malaysia, and Vietnam. According to OBP calculations, this weeklong recovery operation cost close to half a million dollars.

Reporting and Information-Sharing Organizations
In addition to patrols at sea, SEA hosts three primary centers related to incident reporting, information fusion and analysis, and information-sharing: the International Maritime Bureau Piracy Reporting Centre (IMB PRC), the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia Information Sharing Center (ReCAAP ISC), and the Information Fusion Centre (IFC). Together with regional Maritime Rescue Coordination Centers, these three centers provide vital support to the maritime industry through incident alerts, reporting, operational response, and incident statistics and analysis.

Vessel Self-Protection and Seafarer Training
While law enforcement and naval responses play a large and important role in combatting robbery against ships and piracy in the region, the majority of incidents in SEA are opportunistic robberies. Many of these could be deterred by vessel hardening measures and increased vigilance on the part of the crew. While not foolproof, a layered approach can minimize the risk of an unauthorized boarding.

<table>
<thead>
<tr>
<th>COUNTER-PIRACY CENTERS</th>
<th>IMB PRC</th>
<th>ReCAAP ISC</th>
<th>IFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Status</td>
<td>Non-governmental organization with observer status at IMO</td>
<td>Multi-lateral agreement and MoUs</td>
<td>Multi-lateral agreements and MoUs</td>
</tr>
<tr>
<td>Funding</td>
<td>Voluntary contributions</td>
<td>Governments</td>
<td>Singapore government (and other participating governments)</td>
</tr>
<tr>
<td>Coverage</td>
<td>Global</td>
<td>Asia</td>
<td>IFC Voluntary Reporting Area</td>
</tr>
<tr>
<td>Main Network</td>
<td>Shipping industry &amp; law enforcement agencies</td>
<td>Nominated governmental focus points (civil focus)</td>
<td>Cooperating national maritime security agencies (military focus)</td>
</tr>
</tbody>
</table>
General guidance related to the prevention and suppression of acts of piracy and robbery against ships was adopted by the International Maritime Organization (IMO) Maritime Safety Committee in MSC.1/Circ.1334 in June 2009. Additionally, BIMCO, IMB, and ReCAAP ISC promulgated a booklet with practical guidance to seafarers, and a poster was produced by BIMCO and ReCAAP ISC to be placed on vessels transiting Southeast Asian waters. In 2013 the Tug Boats and Barges Guide Against Piracy and Sea Robbery was released. Further guidance was published in November 2015 with the release of the Guide for Tankers Operating in Asia against Piracy and Armed Robbery Involving Oil Cargo Theft. These documents were later incorporated into the Regional Guide to Counter Piracy and Armed Robbery Against Ships in Asia produced by the ReCAAP ISC in collaboration with the IFC, the S. Rajaratnam School of International Studies, and a number of shipping industry associations.

The Regional Guide provides recommendations for vessel hardening, risk analysis, and increased vigilance to help vessels counter the specific threats faced in SEA. In particular, the guide recommends a layered approach to vessel self-protection: a primary layer of defense such as heightened vigilance, razor wire, maneuvering, and speed; a secondary layer, including door and window hardening, gates/grates, and motion sensors/CCTV; and a final, tertiary layer of internal door hardening, a citadel, and communication equipment.

Though each vessel requires a unique risk assessment and protection plan, it is useful to illustrate some of the basic measures a vessel might employ to detect, deter, delay, and deny unauthorized access by criminals:

- Training of crew in counter-piracy measures and response, as well as International Ship and Port Security Code Level 2
- Utilizing search and deck lighting at night
- Installing a CCTV system
- Emplacing gratings to prevent access to main deck
- Locking doors to ship stores and other storage areas for tools and equipment
- Shatter/blast-proof film for bridge windows
- Hidden transmitter/tracking device
- Razor wire to secure main access points

Prosecution & Imprisonment

At least 34 gang members and kingpins were arrested in Southeast Asia throughout 2015. These include high-profile cases such as the Sun Birdie gang of nine people, who were arrested and prosecuted by Malaysia and sentenced to 10 years of prison and one stroke of the cane, as well as foot soldiers and organizers/financiers behind the Orkim Harmony and Rehobot hijackings. As of April 2016, the Malaysian authorities have finished investigating the Orkim Harmony hijacking and are awaiting extradition of the eight suspects arrested by Vietnam.

<table>
<thead>
<tr>
<th>Arresting State</th>
<th>Date (2015)</th>
<th>Related Incident</th>
<th>Number Arrested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>Jan</td>
<td>Sun Birdie</td>
<td>9 (Gang)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Feb</td>
<td>Rehobot</td>
<td>4 (Gang)</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Jun</td>
<td>Orkim Harmony</td>
<td>8 (Gang)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Aug</td>
<td>Orkim Harmony</td>
<td>1 (Kingpin)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Oct</td>
<td>Merlin</td>
<td>1 (Gang)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Oct</td>
<td>Fuel Robbery</td>
<td>4 (Gang)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Nov</td>
<td>Various incidents</td>
<td>5 (Gang)</td>
</tr>
<tr>
<td>Philippines</td>
<td>Nov</td>
<td>Rehobot</td>
<td>1 (Kingpin)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Dec</td>
<td>Orkim Harmony</td>
<td>1 (Kingpin)</td>
</tr>
</tbody>
</table>

Other less striking but high-impact arrests included the Indonesian Navy’s successful investigation and arrest of gangs operating in and around Tanjung Balai Karimun and Parit Island in the Riau Islands located in the southwestern corner of the Philip Channel. In one example, the arrest of a person involved in the robbery of MV Merlin led the Indonesian Navy to a location near Mount Salak where five additional gang members were hiding out, as well as to a large cache on Parit Island where the gang kept spare parts stolen from ships. Another man was arrested in Jakarta for allegedly buying equipment the gang had stolen from ships in the Malacca Strait.

Another example of regional cooperation to disrupt an unauthorized boarding and arrest the criminals is the case of the tug boat Permata 1. On the morning of 1 September 2015, its crew notified the Port Operations Control Centre in Singapore that their vessel was being boarded by three robbers. Fifteen

Reportedly, one or more perpetrators of the MT Joaquim hijacking were also arrested.
minutes later, the Singaporean navy vessel RSS Resilience arrived at the scene, causing the robbers to flee. The IFC in Singapore shared information about the incident with authorities in Indonesia and Malaysia, whereupon the criminals were arrested the same day by the Indonesian Navy and Permata 1 was taken back to Singapore for further investigation.25

Other Costs Associated with Piracy and Robbery Against Ships

In addition to costs incurred combatting or preventing piracy and robbery against ships are those costs incurred as a result of the crime, such as the value of stolen goods and higher labor expenses.

Stolen Goods

As described above, OBP classifies Southeast Asian piracy and robbery against ships within three basic models: unarmed robbery, armed robbery, and hijacking for cargo theft. These models are not necessarily mutually exclusive; for example, a group of pirates might hijack a tanker to steal the cargo of marine gas oil, but take advantage of the opportunity to rob the crew of their personal effects. In order to understand the economic impact of these models, OBP has estimated the cost of stolen goods in three basic categories: Personal Effects, Ship Stores and Equipment, and Fuel Siphoning.

Personal Effects

While the ships’ cargo, equipment, and stores constitute the majority of losses in economic terms, the theft of personal belongings has a direct impact on seafarers themselves. The loss of cell phones, wallets, personal documents, cash, electronics, and the like is not a mere inconvenience; a cell phone or laptop may be a vital connection to home, containing pictures of loved ones and enabling communication. Lost documents may seriously damage a seafarer’s ability to maintain employment, compounding financial distress. Based on available information, OBP estimates that the total monetary value of stolen personal belongings ranges from $194,000 to $374,000.

Stolen Cargo

Hijacking small tankers in order to transfer and sell their cargo is arguably the most lucrative (but also the riskiest and most complex) business model used by pirates in SEA. The profitability of this type of crime depends on oil prices that declined throughout 2015, perhaps partially explaining the lull in cargo theft, along with increased regional law enforcement activity against the responsible criminal networks. OBP estimates that the total value of oil product stolen in 2015 totaled $8 million.
**Piracy Watch Overtime Pay**

An additional significant cost related to counter-piracy measures is the overtime accrued by seafarers standing piracy watch while transiting the region. Additional piracy watches are not only mundane, stressful, and physically taxing due to the longer hours, they can represent an added expense for the shipping company. If two additional crewmembers are on piracy watch it could cost as much as $721-$2000 for a transit of the Malacca and Singapore Straits, or between $173 and $427 per day.

**Insurance**

OBP does not have any information indicating that insurers are charging any additional war risk, cargo or kidnap & ransom insurance premiums related to piracy or robbery against ships in Southeast Asia.

In April 2014, the Joint Cargo Committee added the Malay Peninsula, including the Singapore Strait, to its Global Cargo Watch List, and as of April 2016 that area has a risk score of 2.7 out of 10.28. Based on interviews with insurance industry experts, it is highly unlikely that underwriters would charge cargo owners additional premiums based on this score in the current market. Likewise, OBP’s research indicates that in SEA maritime kidnap & ransom insurance is utilized infrequently, if at all.

**REFERENCES**

1. Based on feedback from various stakeholders, OBP has adjusted its categories to better reflect the nature of the crimes listed in this report.
7. Source?
21. ReCAAP, Regional Guide to Counter Piracy and Armed Robbery Against Ships in Asia, p. 17
26. Given that the MLC was in force for the majority of flags in 2015, and that several stakeholders have indicated the importance of this cost, it has been included in this year’s report.
27. Cost assumes the following: An average crew size is 21, with 12 seafarers eligible to stand additional piracy watches. Two additional seafarers stand watch during each watch of the day, resulting in a total of 4 hours of overtime each day for each of the 12 crewmembers (See Graham Gerard Ong-Webb, “Piracy, Maritime Terrorism and Securing the Malacca Straits,” ISEAS 2006). Overtime is defined as shifts longer than 8 hours a day, resulting in over 48 hours a week, and is assessed at 1.25x base pay by the Maritime Labor Convention (http://www.itfseafarers.org/what_wages.cfm). The lower bound of the overtime cost is assessed by minimum wage as defined by the Maritime Labor Convention ($2.88 per hour) and the upper bound is assessed at the average hourly wage ($8) of seafarers assessed here: https://www2.deloitte.com/content/dam/Deloitte/global/Documents/dttl-er-challengeindustry-08072013.pdf. The result is between $618 and $1,057 of overtime costs per transit. The number of transits used in these calculations reflects only the number of transits reporting to the Maritime Security Center - Horn of Africa. OBP assumes that two crewmembers are on piracy watch for transits where guards are not embarked, and only one when they are.
AUDITOR’S STATEMENT

Once again BIMCO has been requested to audit the Oceans Beyond Piracy annual State of Maritime Piracy Report. We can confirm the report has maintained, if not in fact improved upon, the usual high standards and accuracy. The information contained within this report is comprehensive, informative and well balanced, which will provide many readers with information necessary for future operations in sea areas prone to piracy.

The report clearly demonstrates piracy is still prevalent in a number of areas of the world and the requirement for the implementation of protection measures after sound risk assessment and training continue to be pre requisites for sailing in these areas. The financial cost is recorded in well researched and well-presented graphics. These give a clear indication of the costs of additional security which includes the military presence, use of PMSCs, increased speeds, added insurance premiums and hazard pay to crew; which are all significant economic factors resulting from piracy.

The success of anti-piracy measures in the Western Indian Ocean are clearly indicated with, once again, no commercial ships taken hostage for ransom in 2015. The effect of the change in the HRA in the Western Indian Ocean is also indicated clearly and further time will be needed to confirm the data from the last few months of the year to see the full impact the changes have on industry trends. What appears to be a reduced threat in this region should not breed complacency however, as the report demonstrates that the military forces, adherence to BMP and PMSCs are the key safety mechanisms behind the success of anti-piracy measures.

The impact of piracy in the SE Asia region is clearly demonstrated within the report and again highlights the requirement for accurate incident reporting to ensure these crimes can be reduced in the future both in number and violence. The perpetrators of these crimes are not always highly organized but are often willing to demonstrate high levels of violence and utilize weapons to carry out their crimes.

The chapter on operations in West Africa, and in particular the Gulf Of Guinea, includes details which should be appraised by all readers when investigating the piracy trends and tactics in this region. Better and more consistent reporting in this area is still a requirement to ensure the full picture can be identified - but there have been recent improvements which have been captured in the OBP data. The information regarding safe anchorages or secure zones is particularly useful to ship operators utilizing these anchorage areas.

Seafarer’s welfare is a subject which continues to be addressed by OBP and should never be overlooked when discussing the full effects of piracy. As attacks continue and hostages are still being taken, ship operators must be made aware of the consequences of piracy in this respect and the costs of human suffering.

BIMCO is delighted to be associated with this report again and will continue to support OBP in all its future work to ensure the necessary messages to eradicate piracy are distributed far and wide. BIMCO’s ambition is to see the minimisation and eventual eradication of piracy and armed robbery at sea. Only then will freedom of navigation be assured without the need for additional self-protective measures and additional insurance premiums. By identifying the cost of piracy in all its’ forms, and its impact, attention is drawn to the plight of seafarers and the continued need of governments, and all other stakeholders in counter piracy, to remain focused on dealing with what remains a global scourge.

Angus Frew
Secretary General, BIMCO

For media inquiries or other questions about THE STATE OF MARITIME PIRACY 2015 report, please contact:

Oceans Beyond Piracy
+1.720.266.2552
info@oceansbeyondpiracy.org

Oceans Beyond Piracy is a program of the One Earth Future Foundation