BMP4
Best Management Practices for Protection against Somalia Based Piracy
Piracy Impacts and Risk Perspectives
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Maritime Risk Symposium at Rutgers 7-9 Nov. 2011

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Best Management Practices for Protection against Somalia Based Piracy
Horn of Africa Piracy

As an industry facilitator to meet security challenges, one of the roles of the Maritime Administration is to provide useful information to both the private and public sectors in the event of a transportation crisis.

Piracy off the coast of Somalia escalated in 2008 causing a significant disruption to the Marine Transportation System (MTS), as well as endangering the life of merchant mariners. As part of the Maritime Administration action plan for addressing piracy off the Horn of Africa, pertinent information is consolidated on this site for easy access to current status and advice to counter-piracy and armed robbery. The information is intended to assist ship owners, operators, and other maritime industry representatives to be prepared to prevent seajackings.

For more specific information, a collaboration room may be accessed by registering on MarView and sending an email to Captain Robert Ford at robert.b.ford@dot.gov requesting access to the Somali Piracy collaboration website once registered.

United States National Security Council

Countering Piracy Off The Horn Of Africa: Partnership & Action Plan

Maritime Advisories

- Maritime Administration Advisories
- United States Coast Guard-Homeport
- NATO Shipping Centre (NSC)
- Maritime Security Centre - Horn of Africa (MSCHOA)
- International Maritime Bureau (IMB)
- ONI/Worldwide Threats to Shipping
- Maritime Liaison Office (MARLO) - Bahrain
- Marshall Islands
- Liberia
Counter Piracy Measures

- International Maritime Organization (IMO)/Maritime Safety Committee (MSC)
  - Guidance Circular - MSC/Circ. 623/Rev.3 - May 29, 2002
  - MSC 86/18/4 Executive Summary - March 3, 2009
  - MSC 1/Circ. 1302 - April 16, 2009
  - MSC 1/Circ. 1332 - June 16, 2009
  - MSC 1/Circ. 1333 - June 26, 2009
  - MSC 1/Circ. 1334 - June 23, 2009
  - MSC 1/Circ. 1405 - May 23, 2011
  - MSC 1/Circ. 1406 - May 23, 2011

- Factors Affecting Pirate Success in the Horn of Africa (Office of Naval Intelligence)
- Somali Pirate Tactics Pamphlet
- Best Management Practices to Deter Piracy Version 4 (August 2011); Distribution Plan (November 2010)
- Operation ATLALANTA-Self Protection Measures
- Surviving Piracy Seafarers Leaflet (EUNAVFOR-Somalia)
- Anti-Piracy Assistance Team (APAT) Information Paper; APAT Update
- Surviving as a Hostage (United Nations)
- United States Coast Guard Port Security Advisories
  - PSA 2-09 (rev 3)
  - PSA 3-09
  - PSA 4-09 (rev 4)
  - PSA 5-09 (rev 1)
  - PSA 6-09
  - PSA 8-09; Foreign State matrix (weapons aboard) as of 5/18/10
  - PSA 9-09
  - PSA 11-09 (rev 1)
- Anti Piracy Planning Chart (UKMTO)
- Weapons Used By Pirates
Information Services

- EU NAVFOR Somalia - Protection of Vessels of the World Food Program
- International Maritime Bureau - Piracy Reporting Center
- Maritime Liaison Office (MARLO), Bahrain Homepage - Gulf of Aden Commercial Maritime Concerns
- NATO/Maritime Component Command (MCC) Northwood - NATO Naval Forces in Region
- UK Maritime Trade Operations (UKMTO), Dubai
- MARLO-Bahrain Press Release 1-08-09 - Press Release regarding new task force CTF-151
- Operation Ocean Shield (NATO) - NATO Counter-Piracy Mission

Statistics

- Economic Impact (September 2010)
- Piracy Analysis and Warning Weekly (Office of Naval Intelligence)-October 27-November 2, 2011

Contact Group on Piracy Off the Coast of Somalia

- CGPCS
  Ninth Plenary Meeting
  Eighth Plenary Meeting
  Seventh Plenary Meeting
  Sixth Plenary Meeting
  Fifth Plenary Meeting
Launch of the Action Plan to promote the 2011 World Maritime Day theme: **PIRACY**

**IMO ORCHESTRATING THE RESPONSE**

IMO Headquarters

21 July 2011
Piracy by Location – Total 266
(During the period of January ~ June 2011)
Piracy Incident Map
(During the period of January ~ June 2011)

Total attacks Gulf of Aden, southern Red Sea – 38
Total attacks east coast Africa & Indian Ocean - 125
Worldwide Incidents
Total Attacks Worldwide: 335
Total Hijackings Worldwide: 35

Incidents Reported for Somalia
Total Incidents: 188
Total Hijackings: 24
Total Hostages: 400
Total Killed: 8

Current Vessels Held by Somali Pirates
Vessels: 16
Hostages: 301
"Pirates:
More aggressive tactics
More violent attacks
Bolder and larger attacks
Better organized"
“Since August 2008 where approximately 50% of attacks were successful, on a 12 month rolling average the pirate success ratio has been reduced to its current level of below 20%.

The figures for the first six months of this year (187 attacks leading to 22 hijacks) indicate that 88% of attacks are being defeated, largely by proper application of BMP3.

On 1 January 2011 there were 28 ships and 656 seafarers being held. At the official launch of the Action Plan on 3 March 2011, this had risen to 30 ships and 714 seafarers.

At present (20 July) there are 22 ships and 464 seafarers being held, a significant reduction, but indicative that the situation is far from acceptable.” - IMO July 2011
BMP4
Best Management Practices

EUNAVFOR – Observed Compliance with BMP3

Chart Title

- Red line: total number of observed ships
- Green bar: number of ships which were non-compliant with BMP3
- Blue bar: ratio of BMP3 non-compliant ships
- Black line: Linear (ratio of BMP3 non-compliant ships)

Time Period:
- Oct-Dec 2010
- Jan-2011
- Feb-2011
- Mar-2011
- Apr-2011

Chart Title
Piracy off the Horn of Africa has become an increasingly serious problem over the last few years. In 2008, over 100 attacks, including over 40 successful seizures, resulted in hundreds of people taken as hostages. Seafarers in the Gulf of Aden and the Indian Ocean were subjected to assaults with automatic gunfire and RPGs, beatings, and extended confinement.

Piracy is having an enormous impact on the world's trade transport industry. It has increased shipping insurance premiums along one of the world's most traveled routes to near-prohibitive levels, and damaged littoral economies by forcing the diversion of vessels around the Cape of Good Hope. According to a report by the One Earth Future Foundation, maritime piracy is costing the international economy between 7 to 12 billion US dollars per year.

Contact Group on Piracy Off the Coast of Somalia (CGPCS)

“Pursuant to UN Security Council Resolution 1851, the Contact Group on Piracy off the Coast of Somalia (CGPCS) was established on January 14, 2009 to facilitate the discussion and coordination of actions among states and organizations to suppress piracy off the coast of Somalia. This international forum has brought together more than 60 countries and international organizations all working towards the prevention of piracy off the Somali coast.

It has increased shipping insurance premiums along one of the world's most traveled routes to near-prohibitive levels, and damaged littoral economies by forcing the diversion of vessels around the Cape of Good Hope. According to a report by the One Earth Future Foundation, maritime piracy is costing the international economy between 7 to 12 billion US dollars per year.”
Oceans Beyond Piracy Project

“The world urgently needs to develop a robust system to manage piracy now, before a larger crisis erupts. Through collaboration with stakeholders from all sectors -- industry, civil society, and government -- the Oceans Beyond Piracy Project (OBP) is attempting to develop innovative, unique solutions. In line with OEF's vision, the Oceans Beyond Piracy Project is bringing together all affected stakeholders to establish partnerships under the framework of an inclusive global governance system. The project is made up of three components:

1. The OBP Global Working Group
2. The National Working Groups
3. Supporting Research”
Project Team: The Economic Cost of Piracy
Anna Bowden (Project Manager)
Kaija Hurlburt, Charles Marts, Andrew Lee, Eamon Aloyo

Acknowledgements
Sincere appreciation goes to experts in the field who kindly devoted their time to reviewing our work, and contributing crucial insight:

- Peter Chalk, RAND Institute
- Peter Sand, BIMCO
- Professor Pierre Cariou, World Maritime University, Malmö, Sweden
- Dr. Adolf Ng, Hong Kong Polytechnic University
- Dr. Theo Notteboom, ITMMA, University of Antwerp, and Antwerp Maritime Academy
“At the end of 2010, around 500 seafarers from more than 18 countries are being held hostage by pirates. Piracy clearly affects the world’s largest trade transport industry, but how much is it costing the world? One Earth Future (OEF) Foundation has conducted a large-scale study to quantify the cost of piracy as part of its Oceans Beyond Piracy project. Based on our calculations, maritime piracy is costing the international economy between $7 to $12 billion, per year.”
The Human Cost of Somali Piracy

Piracy Attacks in 2010

Step 1: Officially Reported Data
- 4,185 Seafarers Attacked by Pirates with Firearms
- 1,432 Seafarers on Vessels Boarded by Pirates
- 1,090 Seafarers Taken Hostage

Step 2: Data from Unofficial News and Media Sources
- Mistreatment of Hostages by Somali Pirates
  - None or Did Not Report 41%
  - Human Shields 23%
  - Abuse 15%
  - Abuse & Human Shields 21%

Seafarers attacked
Citadel survivors
Seafarers taken hostage
Seafarers abused & tortured
Forced collaboration/human shields
• 80% of world trade by sea, 93,000 merchant vessels & 1.25 million seafarers
• 430 piracy attacks across the globe
• 2010: 800+ seafarers held hostage

Project Reasoning
• What is the economic cost of piracy?
  – Analysts noted the difficulty in calculating costs
  – An economic analysis would assist policy makers and stakeholders.
• Look at: Horn of Africa, West Africa, Malacca Strait
Direct (First Order) Costs of Piracy:

- Ransoms
- Insurance Premiums
- Deterrent/Security Equipment
- Re-routing Vessels
- Naval Presence
- Piracy Prosecutions
- Piracy Deterrence Organizations
Contemporary Piracy in 2010 - OBP

- Spectacular increase in ransom payments in 2010:
  - January: $7 million MV *Maran Centaurus*
  - November: $9.5 million paid MV *Samho Dream*

- 2005 average ransom = $150,000
- 2010 average ransom = $5.4 million

- To estimate the total ransom value paid in 2010: $5.4 million x 44 successful hijackings = $238 million
- Total paid in 2009: $3.4 million x 52 hijackings = $177 million
- 2009 + 2010 = $415 million
Contemporary Piracy in 2010 - OBP

Five main types of Marine Insurance:

1. ‘War Risk’ (designated by Lloyds Market Association).
   - GOA designated war risk zone 2008
   - Indian Ocean designated war risk zone January 2011
2. Kidnap & Ransom
   - Estimated by insurance companies to increased tenfold 2008 to 2009
3. Cargo: goods travelled by a vessel
4. Hull: damage to the ship (sinking, collision, capsizing)
5. P & I (Protection and Indemnity): Liability, etc.
To calculate the cost of insurance premiums:
- Take two largest premiums related to piracy: war risk and K&R
- Multiply by 90% of ships transiting the Gulf of Aden (27,000 ships).
- Then create a lower bound estimate (10% of ships) and upper bound estimate (70% of ships):

<table>
<thead>
<tr>
<th>Direct Costs of Piracy</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidnap &amp; Ransom Surcharge</td>
<td>$540 million</td>
<td>$540 million</td>
</tr>
<tr>
<td>War Risk Premium Surcharge</td>
<td>$4.05 billion</td>
<td>$4.05 billion</td>
</tr>
<tr>
<td>TOTAL INSURANCE COSTS (if all ships purchased)</td>
<td>$4.59 billion</td>
<td>$4.59 billion</td>
</tr>
<tr>
<td>Lower Bound Estimate (10%)</td>
<td>$459 million</td>
<td>$459 million</td>
</tr>
<tr>
<td>Upper Bound Estimate (70%)</td>
<td>$3.213 billion</td>
<td>$3.213 billion</td>
</tr>
</tbody>
</table>
Contemporary Piracy in 2010 - OBP

Total costs per year: $363 million to $2.5 billion

<table>
<thead>
<tr>
<th>Equipment/Personnel</th>
<th>Cost per transit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonic Deterrent</td>
<td>$1,250</td>
</tr>
<tr>
<td>Barbed/Razor Wire</td>
<td>$12,000</td>
</tr>
<tr>
<td>Sandbags</td>
<td>$1,200</td>
</tr>
<tr>
<td>Electric Fences</td>
<td>$40,000</td>
</tr>
<tr>
<td>Licensed Security Guards</td>
<td>$80,000</td>
</tr>
<tr>
<td><strong>Total Per Ship, Per Transit</strong></td>
<td><strong>$134,000</strong></td>
</tr>
</tbody>
</table>
Re-routing Ships to Avoid Piracy

For some vessels, especially ‘low and slow’ moving ships, which are at the greatest risk of piracy attack, avoiding risk zones altogether may be a safer or cheaper option. Total excess costs of re-routing to those ships is estimated to be about $2.4 - $3.0 billion per year.

- Estimate that 10% of ships re-route
- Use estimated costs for 300,000 DWT VLCC & 10,000 TEU Container Ship
- Work out cost of hire and fuel per day. Multiply by excess days taken to travel (around 10). ($2.4 to $3 billion per year)
Contemporary Piracy in 2010 - OBP

- 27+ countries contribute forces off Horn of Africa, 35-45 vessels
- Calculate costs using GAO estimation for US cost/vessel/steaming day = $83,000
- Multiply by total vessels and annual rates
- Total costs of 43 vessels = $1.3 billion
- + Administrative budgets EU Operation Atalanta, CTF 151, NATO Operation Ocean Shield, and independent nations’ expenditures
- Total costs = $2 billion per year
Contemporary Piracy in 2010 - OBP

Indirect Costs of Piracy:

• Regional Trade
  – E.g. Kenya import costs ↑ $24m, exports ↑ $10m per month

• Fishing Sector
  – E.g. Nigeria $600 million, 50,000 jobs

• Tourism
  – E.g. Seychelles, Kenya, Singapore

• Oil Industries

• Foreign Direct Investment

• Food Price Inflation
  – Likely largest effect, large humanitarian consequences

• Loss of revenue from transiting Suez Canal (Egypt)
  – Using estimate 10% ships re-route x average Suez fee $300,000 =
    total loss to Egypt $642 million per year
**Secondary (Macroeconomic) Costs**

**Best Management Practices for Protection against Somalia Based Piracy**

**Contemporary Piracy in 2010 - OBP**

<table>
<thead>
<tr>
<th>Country</th>
<th>Indicated Loss Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>$642 million</td>
</tr>
<tr>
<td>Kenya</td>
<td>$414 million</td>
</tr>
<tr>
<td>Yemen</td>
<td>$150 million</td>
</tr>
<tr>
<td>Nigeria</td>
<td>$42 million</td>
</tr>
<tr>
<td>Seychelles</td>
<td>$6 million</td>
</tr>
<tr>
<td><strong>Total Macro Costs</strong></td>
<td><strong>$1.25 billion</strong></td>
</tr>
</tbody>
</table>
Contemporary Piracy in 2010 - OBP

**Total costs: $7 to $12 billion per year**

<table>
<thead>
<tr>
<th>Cost Factor</th>
<th>Value (Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ransoms: excess costs</td>
<td>$176 million</td>
</tr>
<tr>
<td>Insurance Premiums</td>
<td>$460 million to $3.2 billion</td>
</tr>
<tr>
<td>Re-Routing Ships</td>
<td>$2.4 to $3 billion</td>
</tr>
<tr>
<td>Security Equipment</td>
<td>$363 million to $2.5 billion</td>
</tr>
<tr>
<td>Naval Forces</td>
<td>$2 billion</td>
</tr>
<tr>
<td>Prosecutions</td>
<td>$31 million</td>
</tr>
<tr>
<td>Anti-Piracy Organizations</td>
<td>$19.5 million</td>
</tr>
<tr>
<td>Cost to Regional Economies</td>
<td>$1.25 billion</td>
</tr>
<tr>
<td><strong>TOTAL ESTIMATED COST</strong></td>
<td><strong>$7 to $12 billion per year</strong></td>
</tr>
</tbody>
</table>
Reflecting higher costs stemming from a jump in piracy off the Somali coast, A.P. Moller-Maersk AS raised its emergency-risk surcharge.

Maersk's container-freight division increased the fee on each 40-foot container shipped through risky waters to $200–$500 from $100–$400, to pass on some of the company's rising costs to customers, said Erik Rabjerg Nielsen, the division's head of daily operations.

He estimated that Maersk's antipiracy costs will rise to $200 million this year from $100 million last year as ships are forced to sail faster and longer to prevent hijackings and crews ...
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Thank You. Questions?