Countering Maritime Piracy: An Analysis of "Best Practices"

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Abstract While many anti-piracy recommendations for ships transiting the Gulf of Aden and adjacent waters make sense, there is little beyond anecdotal evidence of their effectiveness. Using the maritime piracy data provided by the International Maritime Organization from 2008 to the present, this paper presents an empirical study of the tactics and techniques used by vessels off the coast of Somalia in their attempts to counter pirate attacks. This study looks closely at what techniques ships have actually and successfully used against pirate attacks; and documents the common actions (or inaction) of vessels that were actually captured by pirates. In this way, we should have a considerably clearer picture of the ***true effectiveness*** of the recommended best practices.

Keyword: *Maritime Piracy, Somalia, Gulf of Aden, Anti-Piracy Measures*

1. Introduction

The threat of maritime piracy off the coast of Somalia has increased significantly in recent years. The International Maritime Organization has long advised mariners to remain at least 200 nm off the Somali coast when transiting the Gulf of Aden to and from the Red Sea. Despite these warnings, pirate attacks – and particularly ship hijacking and hostage taking – are on the rise, making Somali waters some of the most dangerous in the world.

At least three trends in maritime piracy in Somalia have been particularly worrisome. First, Somali pirates have acquired the ability to operate well offshore, now well over 200 nautical miles from land. This is significantly different from piracy in other parts of the world, where attacks tend to be significantly closer to shore. Second, pirates in Somalia have been targeting relief vessels from the World Food Program, impacting the ability of the international community to respond to the humanitarian crisis in the country. Third, many of the attacks on vessels are actually hijacking for ransom. Unlike national governments (most of which have adopted a strict "no negotiations" policy in response to all ransom demands), ship owners are actually highly motivated to pay. If they do not, they will not be able to find crews for their vessels in the future. Hostage-taking is especially problematic in Somalia: For example, of the 292 crew members taken hostage in 2007 worldwide by pirates, 154 were taken in Somalia [1].

At approximately US $2-3 million paid per ship in ransom on average, hijacking for ransom has become a lucrative business in Somalia. The recent rise in attacks since 2008, and the number of hostage-taking incidents, led to a UN resolution (sponsored by France, Panama and the United States) allowing foreign military vessels to pursue pirates into Somali territorial waters and to apprehend them. However, as empirical evidence will show, while the various international coalition forces (for example, the Combined Task Forces 150 and 151, and Operation Atalanta) assisted by the naval forces of non-coalition countries, have possibly had a deterrent effect on maritime piracy in the Gulf of Aden region, their utility in stopping attacks that are *actually underway* has been extremely limited. This has meant that mariners are generally left to themselves as "first responders" to maritime pirate attacks. What, then, are the most effective measures ships can take to prevent themselves from being captured or taken hostage by pirates in this increasingly dangerous part of the world?

2. Background and Statistics

2.1 Background

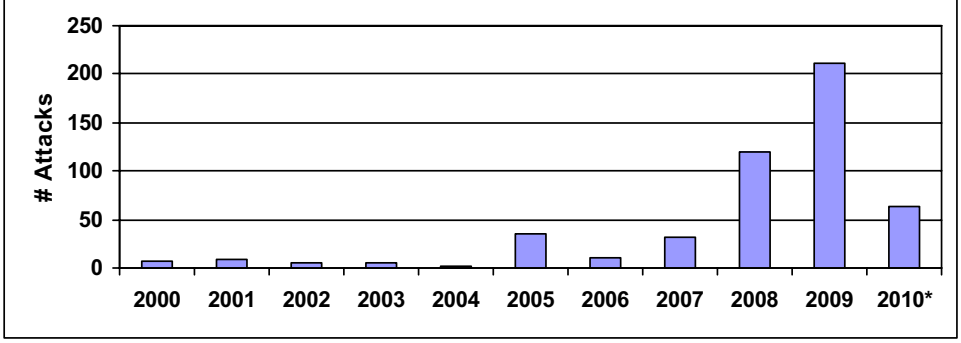
While the first pirate attacks in Somalia were only recorded in any significant numbers in 2000, the roots of the current crisis date back to 1991 when Mohammed Siad Barre was overthrown, leaving the country without an effective central government and locked in civil conflict. Since then, *de facto* authority has largely resided in the hands of the governments for the unrecognized entities of Somaliland and Puntland, and the UN-recognized interim Transitional Federal Government (TFG).

In May 2006, a group of Islamic Sharia Courts seized control of Mogadishu and formed a rival administration to the Transitional Federal Government. Known as the Islamic Courts Union (ICU), they were briefly able to exert control over most of southern Somalia; only Somaliland and Puntland remained outside their control. With the assistance of a US-backed Ethiopian military intervention, the ICU was ousted in late 2006 and gave up control of Mogadishu in January 2007. Kenyan and US forces enforced a border patrol and naval blockade, followed by US airstrikes against suspected Al Qaeda members embedded within the ICU militias. Fighting within the country continues to this day.

Taking advantage of decades-long civil conflict, rival warlords carved out influence over regional territories – first on land, and then increasingly at sea. Fishermen, dismayed at the inability of the central government to protect their country's exclusive economic zone, and at the number of foreign fishing vessels illegally exploiting their traditional fisheries, took matters into their own hands. Initially arming themselves to chase off the foreign invaders, they quickly realized that robbing the vessels was a lucrative way to make up for lost income. Seeing their success, land-based warlords co-opted some of the new pirates, organizing them into increasingly sophisticated gangs. By 2008, four separate, highly-organized and well-armed pirate "gangs" were operating in the country [2].

As can be seen in Figure 1, pirate attacks increased dramatically from seven in 2000 to over 200 in 2009, with the International Maritime Organization reporting 64 from January through April 2010.

Figure 1
Pirate Attacks off the Coast of Somalia
2000-2010



** January-April*

Sources: *Reports on piracy and armed robbery*; *Piracy and armed robbery against ships*

Despite a 2005 IMO resolution encouraging UN member states with naval vessels in the region to be "vigilant" for piracy incidents, prior to 2006, the international community took little interest in addressing the piracy problems in the region. Vessels supporting the US-led coalition in the global

war on terror patrolled the area in support of anti-terrorist operations (for example, firing missiles at suspected Al Qaeda terrorists) but were often visibly reluctant to become involved in anti-piracy operations.

Three events occurred which began to change international attitudes towards maritime piracy in the region: 1) The rise to power of the Islamic Courts Union (ICU) and suggested links between piracy and terrorism; 2) increasing attacks on UN relief vessels responding to the humanitarian crisis in the country, and 3) the general increase in the violence and incidence of attacks after the collapse of the ICU.

2.2 The Islamic Courts Union

During their brief tenure in power, the Islamic Courts Union took a firm stand against maritime piracy. They were also able to extend their military control over the known "pirate bases" of Harardheere and Hobyo. The capture of Harardheere was particularly significant: The Somali Marines pirate group operating there had the most sophisticated capabilities of any of the four separate pirate groups operating in the country (The "National Volunteer Coast Guard" near Kismaayo, the "Marka group" (using fishing boats); the "Somali Marines," and 4) fishermen operating near Hobyo [3]. With the ability to operate the furthest offshore, they were responsible for most of the attacks on larger vessels, including hijackings for ransom [3]. As the ICU exerted its control, they declared piracy a crime and imposed strict penalties (including cutting off both hands); as a result, piracy dropped to only ten attacks in 2006.

2.3 Links between Piracy and Terrorism

After the ICU was ousted and the TFG returned to nominal power, Somalia soon became one of the world's major piracy "hot spots," and came to be considered a safe haven for Al Qaeda [4]. Calls for the United States to take a larger role in combating maritime piracy were made in the context of fighting terrorism, or preventing terrorists from gaining a stronghold in the deteriorating region [5]. At the same time, some analysts began to suggest that Islamic terrorist groups operating in Indonesia and throughout Asia (e.g., Jemaah Islamiyah, Abu Sayyaf, Gama'a el Islamiyah, and Al Qaeda), would begin cooperating with pirates [6]. Of increasing concern is the recent rise of the Al Qaeda-linked group known as Al Shabaab, which has a stated goal of undertaking maritime terrorist activity in the region.

While not all analysts agree on the pirate-terrorist link [7], others began to argue that piracy should be seen as a form of terrorism [8]. As Al Qaeda operatives are widely believed to have remained in Somalia in support of the ICU and its continued efforts against the UN- and Ethiopian-backed Transitional Federal Government, many in the international community began to take a more active role in the region, paying closer attention to maritime piracy.

2.4 Attacks on Humanitarian Relief Vessels

At the height of its relief efforts, the World Food Programme (WFP) of the United Nations carried 32,000 tons of food each month into Somalia where civil war, combined with a series of devastating droughts, had created a humanitarian crisis worse, by some estimates, than that occurring in Darfur. Two WFP-chartered vessels were hijacked in 2005, forcing the UN agency to suspend all deliveries of WFP food assistance by sea to Somalia for weeks. Two more vessels were hijacked in the first half of 2007: The *M/V Rozen* in February, and the *M/V Victoria* in May.

The *Rozen* and her twelve-member crew were hijacked by armed pirates while underway off the Somali coast. The Somali authorities were notified and intercepted the ship, but despite a heavy

exchange of gunfire, the authorities were not able to board the vessel and the pirates escaped. After intervention by tribal elders in Puntland and subsequent mediation efforts, the *Rozen* was subsequently released in early April, with her crew unharmed. The *Victoria* was attacked 60nm from Merka. It issued a distress call, resulting in two boats dispatched by the ship contractor. While these boats were able to intercept the pirates before they could board the *Victoria*, one guard was wounded in a gunfire exchange, and later died. According to the WFP, "Close to 80 per cent of WFP's assistance to Somalia is shipped by sea but, because of piracy, we have seen the availability of ships willing to carry food to the country cut by half" [9].

2.5 Increase in Scope and Violence of the Attacks

After the ouster of the ICU and the restoration to power of the TFG, there was a sharp increase in the number and violence of the pirate attacks in the region. Attacks resumed up to and beyond the 200nm warning given by the IMO, leading many to conclude the Somali Marines were back in action. Supported by a suspected "mother ship," they began attacking up to three or four vessels underway in a 48-hour period, simply turning to the next ship passing by if the first proved too difficult to attack.[1] More and more mariners began to heed the UN warning to stay beyond 200 nautical miles from the Somali coast when transiting. Soon, however, Somali pirates began to operate well beyond the 200nm warning zone. Ransoms demands began to increase from $500,000 per vessel, to tens of millions (with an average payout of $2-3 million per ship).

As a result of these and other factors, the international community began to step up its surveillance, and demonstrated an increased willingness to intervene on behalf of the victims of piracy.

3. UN Security Council Resolution 1816

3.1 UN Security Council Resolution 1816

The direct foreign military response to the deteriorating piracy situation came in two stages. First, foreign military vessels began to escort World Food Program relief vessels in 2007. Naval vessels from France, Denmark and the Netherlands provided direct escort from late 2007 through June 2008; Canada took over in August 2008. During this period, and despite an upsurge of piracy in the region, no WFP vessels were attacked.

Second, on June 2, 2008 the United Nations Security Council unanimously adopted Resolution 1816 authorizing foreign military vessels to enter Somalia's territorial waters, with the consent of the Somali government, to use "all necessary means" to combat maritime piracy "in a manner consistent with international law." In response to requests from UN Secretary General Ban Ki-moon and Somalia's Transitional Federal Government, and strongly supported by France and the United States, the resolution passed only after assurances that the authorization would apply strictly to Somali territorial waters only. Somali opposition leaders have condemned the resolution, stating the UN intended to "usurp" the Somali coast and "loot maritime resources" [10].

While the international community responded to the piracy problem in Somalia with naval forces from many countries, it has been argued that the intervention has had only limited effectiveness, particularly in responding to pirate attacks which are actually imminent or underway.

[1] This happened in the case of the November 2005 attack on the cruise ship *Seaborn Spirit* some 200 nm off the Somali coast. Having failed to board the vessel successfully, the pirates subsequently attacked the *Great Morning* on the same day, and the *Selin* and the *Laemthong Glory* on the next day. While the attacks on the *Great Morning* and *Selin* were unsuccessful, the pirates hijacked and held for ransom the crew of the *Laemthong Glory*; they were released unharmed once the ransom was paid.

4. Methodology

The dramatic increase in the number and violence of pirate attacks in the Gulf of Aden region, coupled with the marginal effectiveness[2] of the international forces operating there, has raised the question of where this leaves the mariner in this particularly dangerous region of the world. There are generally considered to be three options:

1. Hope that foreign military surveillance and intervention will become more successful in deterring attacks while they are actually in progress;

2. Hire armed guards and security personnel to protect ships transiting the Gulf of Aden and surrounding areas;

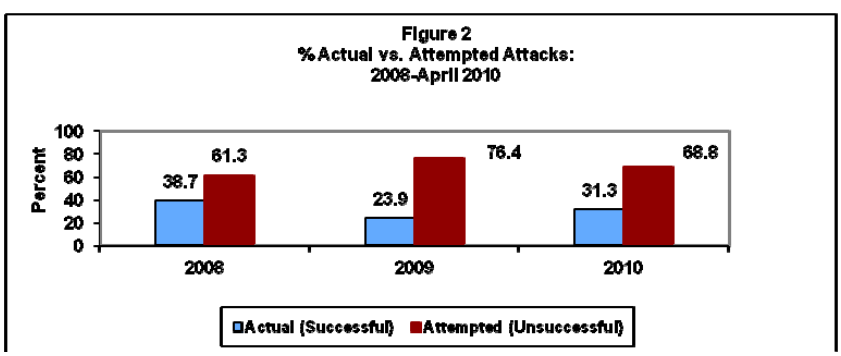
3. Follow "best practices" as recommended by various international organizations.

While many of these recommendations make sense, there is little beyond anecdotal evidence of their effectiveness. Using the maritime piracy data provided by the International Maritime Organization from 2008 to the present, we can present empirical evidence of the effectiveness of the tactics and techniques used by vessels off the coast of Somalia in their attempts to counter pirate attacks. By looking closely at those techniques ships have actually and successfully used against pirate attacks; and documenting the common actions (or inaction) of vessels that were actually captured by pirates, we will have a considerably clearer picture of the ***true effectiveness*** of the recommended best practices.

4.1 Use of the IMO Database

In its monthly reports, "Reports on Piracy and Armed Robbery Against Ships," the International Maritime Organization distinguishes between actual pirate attacks, and attempted pirate attacks. They also give a brief description of the actions the ships took in attempting to fend off the attacks. An analysis of the actions taken by ships successfully fending off attacks, and those ships that were not successful, should give us a better sense of what actions work best against maritime pirates.

An important point to consider is that most pirate attacks off the coast of Somalia are not successful; that is, the pirates attempt to board or capture a vessel, but do not succeed in doing so. This could be for two reasons: 1) the pirates simply do not have the skill and ability to capture a vessel successfully; or 2) the ship under attack was able to undertake measures to thwart the attack successfully. Figure 2 shows the ratio of actual (successful) pirate attacks to attempted (unsuccessful) pirate attacks for 2008 through April 2010:



[2] There has been a slight decline in the percentage of successful attacks.

An analysis of the actions taken by individual ships during this time will give us a better understanding of what actions work best to deter successful maritime pirate attacks. The analysis was conducted as follows: Each attempted and actual attack was coded according to whether the ships relied on international forces, used armed guards, or adopted recommended "best practices" (again, the three most common suggestions made for vessels transiting the region). In the case where no action was reported, the event was coded "don't know."[3]

For those ships undertaking recommended best practices, the event was further broken down into the type of best practices adopted (sounding the alarm, increasing speed, etc). Furthermore, "best practices" were broken down even further into "active" and "passive" measures. "Active" measures are those where the ship itself *while under attack* took some direct action to thwart a successful attack. This would include evasive manoeuvres, increasing speed, anti-piracy measure, using fire hoses and flares against the pirates, and the like. Passive measures are considered those taken by a ship under attack that could not in of themselves deter the attack. Passive measures would include sending distress signals, contacting coalition forces, locking doors, activating the Ship Security Alert System (SSAS), etc.

Note: It is important to remember the limitations of the IMO Reports on Piracy and Armed Robbery Against Ships; the data contained in the reports is self-reported by the ships themselves, and is therefore not a complete compendium of all attacks occurring in the region. Additionally, ships reporting to the IMO report various levels of detail regarding the attack; in some cases data is missing, making conclusions drawn from the data qualified conclusions at best. This said, it is generally considered that the IMO data is becoming more reliable and, as the only detailed database of pirate attacks which lists the details of each individual attack, it provides a useful heuristic tool for the analyst.

A complete listing of the actions undertaken by vessels during this time period appears in Appendix 1 (Actual/Successful Attacks) and Appendix 2 (Attempted/Unsuccessful Attacks).

5. Where Does This Leave The Mariner?

As previously mentioned, three options are often mentioned for vessel protection against pirates in the Gulf of Aden: 1) reliance on foreign military surveillance and intervention in the hope it will become more successful in deterring attacks or responding while they are actually in progress; 2) Hire armed guards and security personnel to protect ships; 3) Follow those "best practices" recommended by various international organizations.

5.1 Reliance on International Security Forces

There are many instances of ships notifying international security forces while under attack by pirates, but for the purpose of this study, only those events where international forces actually responded are included in this section. In 2008, many ships that were successfully pirated reported the incident to international forces in the region, but in only one instance did international forces respond to the attack. In 2009, only two cases are reported where coalition forces were able to prevent an attack while it was underway. It is clear the pirates had begun to acquire a very sophisticated ability to avoid and evade the coalition forces operating in the area. While it could be argued that coalition and international forces have a deterrent effect on piracy in the region – perhaps even a significant deterrent effect, this has led many to question the determination and effectiveness of the external military presence in the region in responding to *actual* attacks.

[3] These events were necessarily excluded from the study. It is impossible to know whether this means the ship took no action, or simply did not report the action taken.

5.2 Use of Armed Guards and Security Personnel

While there is anecdotal evidence of the use of armed guards on vessels transiting the Gulf of Aden and adjacent waters, no ships reporting to the IMO mentioned their use during the time frame of this study (See Appendix 1 and Appendix 2). Therefore, it would be premature to gauge their effectiveness. This said, the use of armed guards is currently very limited, due to the cost; it is likely, therefore, that this will not be considered the best deterrent against pirate attacks.

5.3 Adoption of "Best Practices"

The IMO has made a number of recommendations of actions ships can take to protect themselves against pirate attacks [11]. These include (but are not limited to):

- Maintaining vigilance;
- The need for enhanced surveillance, and the use of lighting, surveillance and detection equipment;
- Sounding alarms, alerting other ships and coastal authorities, illuminating the suspect vessel; undertaking evasive manoeuvring, initiating response procedures;
- Increasing speed; use of flares, fire hoses, etc.
- Following radio alarm procedures.

While these and the other more comprehensive recommendations make sense, there has little in the way of beyond anecdotal evidence of their effectiveness. The following study is illuminating.

As can be seen in Appendix 1 and Appendix 2, ships have adopted a wide range of "active" and "passive" security measures when under attack by pirates. A review of the data shows that ships employing active measures are far more likely to be successful in defending themselves against pirate attacks. Ships captured by pirates, or which were otherwise successfully attacked, employed active measures far less frequently.

Figure 3 illustrates the success of active versus passive measures in more detail. Of those ships reporting implementing some form of "best practices" (active and passive) in response to pirate attacks, the following figure shows how many took "active" measures:

	Total Ships Reporting Taking Some Action	**"Active" Measures During Actual (Successful) Attacks**	**"Active" Measures During Attempted (Unsuccessful) Attacks**
2008	(1 Actual, 71 Attempted)	0 (0%)	62 (87.3%)
2009	(9 Actual, 158 Attempted)	2 (22.2%)	154 (97.5%)
2010	(34 Actual, 40 Attempted)	3 (8.8%)	38 (95%)

Fig. 3 Ships Reporting "Active" Anti-Piracy Measures

Of those vessels captured or otherwise successfully attacked by pirates, 22.2% or less reported engaging in active anti-piracy measures, limiting their actions largely to sending distress signals, or notifying other vessels in the area. On the other hand, of those ships successful in defending

themselves against pirate attacks, between 87.3% and 97.5% of them used some form of active measures.

Figure 4 looks only at those ships taking "active" anti-piracy measures.

	Total Ships Reporting Active Anti-Piracy Measures	During Actual (Successful) Attacks	During Attempted (Unsuccessful) Attacks
2008	62	0 (0%)	62 (100%)
2009	156	2 (1.3%)	154 (98.7%)
2010	41	3 (7.3%)	38 (92.7%)

Fig. 4 Utility of "Active" Best Practices

That is, of the 62 ships reporting active anti-piracy measures in 2008, 100% were successful in fending off the pirate attacks. In 2009, 156 ships employed active anti-piracy measures; of these 98.7% were successful in thwarting the attacks. And in 2010, 92.7% of ships taking active measures were able to fend off the attacks successfully. It is important to note that simple, active measures such as increasing speed, taking evasive manoeuvres, activating the fire hoses, etc, have proven to be overwhelmingly successful in fending off pirate attacks during a time when the pirates have become increasingly sophisticated in their tactics, and have adopted increasingly lethal weaponry.

6. Conclusion

Despite active efforts by the international community, and some impressive intervention successes, it is clear that mariners will always be the first (and often only) responders in the event of a maritime pirate attack. Recommendations that ships follow "best practices" have been put forward by the International Maritime Organization, in the New York Declaration, by various international organizations such as the Baltic and International Maritime Council (BIMCO), and by numerous individual shipping companies; without necessarily differentiating between those measures that are most effective, and those that are less so. This preliminary analysis of the IMO reports on pirate attacks shows an overwhelming advantage to those vessels undertaking what can be called "active" measures in their own defence. They are more likely to be successful in thwarting attacks than vessels relying on more passive measures, or on the intervention of regional coalition and international forces. Additionally, the very act of undertaking active measures means that vessel under attack stands a very high chance of successfully avoiding a successful attack.

While it is good news for the mariner that fairly simple measures have had such a great degree of success to date, it should be noted with concern that there have been a few recent attacks in the Gulf of Aden region that are being attributed to terrorist groups. An increase of maritime terrorism in or near the Horn of Africa – coupled with, or independent of, maritime piracy – could significantly and detrimentally affect the safety and security of mariners in this region in the future.

References

[1] International Maritime Organization, "Piracy and armed robbery against ships," (2007-2010), www.imo.org.
[2] UN passes piracy pursuit powers. (2008, June 3). CNN. www.cnn.com.
[3] UKMTO Dubai Briefing: Piracy and Maritime Crime. *UK Maritime Trade Operations Dubai.* (2006, 21 September). www.rncom.mod.uk.

[4] Rice, S. E. The new national security strategy: Focus on failed states. *Brookings, Policy Brief #116*. (2003). www.brookings.edu.

[5] Wander, K. *Implications of Maritime Piracy in the Failed State of Somalia*. Newport RI: Naval War College. (2006). http://stinet.dtic.mil.

[6] Ong. G. G., "'Ships Can Be Dangerous Too': Coupling Piracy and Maritime Terrorism in Southeast Asia's Maritime Security Framework," *ISEAS Working Paper*. International Politics & Security Issues Series.1. (2004).

[7] Young, A. J. & Valencia, M. J. Conflation of Piracy and Terrorism in Southeast Asia: Rectitude and Utility, *Contemporary Southeast Asia*, 25(2), 269-283. (2003, August).

[8] Brandon J. Piracy as terrorism. *Journal of Commerce Weekly.* (2002, June 3-9). www.joc.com.

[9] World Food Programme, "Coordinated action urged: piracy threatens UN lifeline to Somalia," (2007). www.wfp.org.

[10] Ayscue, S. Piracy and armed response on ships. *MarineLink.com*. (2008, September 8). www4.marinelink.com

[11] International Maritime Organization, "Guidance to shipowners and ship operators, shipmasters and crews on preventing and suppressing acts of piracy and armed robbery against ships," (2009). www.imo.org.

Appendix 1
Actions Taken By Vessels During Actual (Successful) Pirate Attacks*

	Coalition and International Forces	Armed Guards and Security Forces	Best Practices		Not Reported
			"Active" Measures	"Passive" Measures	
2008	0	0	Increased Speed: 1 Anti Piracy Measures: 4 Used Fire Hoses: 1 Evasive Manoeuvres: 1	Alarm Raised: 22 SSAS Activated: 4 Closed Ship Compartments: 1 Sent Distress Message: 4	13
2009	0	0	Evasive Manoeuvres: 2 Sent Distress Msg: 2	Alarm Raised: 1 SSAS Activated: 6	42
2010	0	0		Crew locked themselves in engine room: 1	19

* Note: Since many vessels undertook more than one action in response to the attack, the totals reported here are greater than the actual number of attacks reported in Figure 1

Appendix 2
Actions Taken By Vessels During Attempted (Unsuccessful) Pirate Attacks*

	Coalition and International Forces	Armed Guards and Security Forces	Best Practices		Not Reported
			"Active" Measures	"Passive" Measures	
2008	1	0	Increased Speed: 26 Altered Course: 3 Evasive Manoeuvres: 51 Anti-Piracy Measures: 9 Activated Fire Hoses: 13 Fired Rocket Flares: 2 Released Foam: 1 LRAD: 1 Detached Ladder: 1	Increased Deck Patrols: 1 Turned on Search Lights: 1 Raised Alarm: 37 SSAS: 6 Crew Mustered: 13 Informed Other Ships: 7 Sent Distress Signal: 3	2
2009	2	0	Evasive Manoeuvres: 140 Released Empty Drums, Bottles, Timber, Etc: 4 Lit bamboo sticks: 1 Increased Speed: 85 Anti-piracy Measures: 22 Activated Fire Hoses: 37 Fired Rocket Flares: 18 Removed Pirate Ladder: 1 Deployed Smoke Screen: 1 Deployed Molotov Cocktails: 1 Moved Towards Coalition Warships: 2	Crew Mustered: 17 Raised Alarm: 63 Contacted Coalition: 15 Sent Distress Signal: 13 Activated SSAS: 11 Turned on Extra Lights: 1 Locked all Access: 2 Contacted IMB	4
2010	0	0	Raised Alarm: 17 Evasive Menoeuvres: 24 Increased Speed: 24 Anti-Piracy Measures: 12 Activated Fire Hoses: 3 Fired Rocked Flares: 1 Shone Lights on Pirate Boats: 1	Crew Mustered: 3 Sent Distress Signal: 3 SSAS: 5 Contacted Coalition: 4 Locked All Doors: 2	4

* Note: Since many vessels undertook more than one action in response to the attack, the totals reported here are greater than the actual number of attacks reported in Figure 1