



AVA MARINE

SURVEYORS & CONSULTANTS

Anarchy on the High Seas - Is Arming Merchant Vessels the Way Forward?



By **Kaivan H Chinoy**, MSc (UK), HND (Naut Sc)

151-10090 152nd Street, Suite 667, Surrey, BC, Canada, V3R 8X8
T: +1.604.283.2273 | C: +1.604.356.3405 | F: +1.604.608.9874 | E: k.chinoy@ava-marine.com

www.ava-marine.com

© Copyright 2012 AVA Marine Group Inc | Registered Company No. BC0943478

PREFACE

A lot has changed since I first wrote this article in 2010 on tackling the Somali Piracy issue.

Many Flag States / government bodies are now allowing the use of armed security guards on vessels plying these pirate infested waters of the Indian Ocean. For example Britain had previously strongly discouraged the use of private armed security guards but soon acknowledged that ships with armed guards don't get hijacked, don't get taken for hostage or for ransom and this was further confirmed by the British Prime Minister David Cameron in an interview last year where he rightly said that "the hijack and ransom by Somali pirates on ships round the Horn of Africa is a complete stain on our world".

In recent months many countries have followed suit and reversed longstanding legal bans on the direct arming of merchant vessels. However, not all government organizations are of the same opinion. There is still a lot of controversy on the carriage of weapons on board in coastal states territorial waters - problems arise from laws of coastal states and ports forbidding or severely restricting firearms within their territorial waters. For example, Egypt does not permit arms on ships transiting the Suez Canal (although they can be off-loaded at Canal's entry and delivered back on board at the exit).

Of course hiring a team of security guards could run in ten of thousands of dollars but then this cost is offset by the cut down in hefty insurance premiums.

There is also a lot of pressure from the human-rights that the pirates have been killed so far as a direct result of encounter with the naval forces and in a recent incident where the Italian security armed guards mistakenly killed two Indian fisherman in the Indian coastal waters and thereafter the Italian oil tanker was escorted in the harbour by the Indian Navy for questioning. Such incidents are sad and evoke bad memories - no one wants to repeat another "blackwater" scandal!

Nevertheless, the cost on the world's seafarers is huge, with hundreds held hostage on their hijacked ships for months on end, hungry and dispirited, and moreover physically and mentally tortured by their captors. This has been discussed in detail in my article.

Earlier I had received mix views on writing this article by LinkedIn members (this article was made available to a large group of marine professionals through LinkedIn) with the majority agreeing on having armed guards on board and I'm still of the same opinion that arming merchant vessels to fend off any potential pirate attacks is the only way forward and this article describes why.

CONTENTS:

In this article:

- **ABOUT THE AUTHOR**
- **BACKGROUND INFORMATION**
- **INNOVATIVE SECURITY MEASURES**
- **PROTECTING OUR SEAFARERS**
- **ERADICATING PIRACY**
- **CONCLUSION**

ABOUT THE AUTHOR

This article has been written by Kaivan H Chinoy, principal surveyor and founder of [AVA Marine Group Inc.](#)

Mini Biography:



Kaivan H. Chinoy

AVA Marine Group is led by the Principal Marine Surveyor - **Mr. Kaivan H. Chinoy** - a qualified Mercantile Marine Officer (Chief Officer, United Kingdom) and a graduate of joint Universities of Glasgow and Strathclyde (Faculty of Naval Architecture and Marine Engineering) with an MSc Degree in 'Technical Management of Ship Operations'.

Kaivan has the combined practical experience of over 15 years in sea/shore positions and before founding AVA Marine, he was involved in extensive marine operations (vessel navigation, cargo handling (bulk, break-bulk, crude oil), accident investigations, project cargo risk management and marine cargo surveying including losses exceeding USD \$500,000.

The views and opinions given are those of the author from his own experience and expertise in the subject matter. The author where appropriate has referred to various internet sources including websites like www.eunavfor.eu; www.mschoa.org; www.economist.com; www.clarksons.net; gcaptain.com to establish facts.

The purpose of this report is not to criticize but to focus on the existing issues and investing in new innovate ideas to fight piracy and most importantly to do something about it **now** - there are of course lot of speculations but the author is of the view that working together could eradicate this piracy issue for good.

BACKGROUND INFORMATION

The issues surrounding piracy continue to be of huge concern for all ship owners and operators having to navigate through the Gulf of Aden (GoA) costing the global economy anything between 7-12 billion dollars /year. These figures pertain to the first-order-costs only (like cost of ransoms, security deterrence equipment e.g. private security guards, sonic deterrent equipment – Long Range Acoustic Device (LRAD), night vision equipment; barbed/razor wire, sandbags, electric fences etc); piracy insurance premiums, and the presence of naval forces). The secondary or macroeconomic cost of piracy is of course the effects on regional trade, fishing and oil industries, commodity price inflation and reduced foreign revenue.

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

Source: IMB (2011)

This cost is duplicated by a number of other factors like cost of negotiations, psychological trauma counselling, repairs to ship damage while in pirates custody, physical delivery of the ransom money often by helicopter or a private carrier. The most important of all being the per day charter cost while held captive. VLCCs earnings have drastically dropped from over \$100,000/day in 2010 to less than \$30,000/day today due to tonnage oversupply in the market. The number of vessels that were used as storage tankers in the hope to profit from increasing crude prices has re-joined the already oversupplied VLCC market; thereby pushing the charter rates even further down. However, let's assume a modern day VLCC average earnings to be \$45,000/day for Ras Tanura, (Saudi Arabia) – Rotterdam route - a vessel held for 2 months (that's 60 days x 45,000 = 2.7 million alone as costs to charterers or loss of hire for the owners, depending on the clauses under the charter party.

Ship owners and charterers face loss of revenue and increased charter costs. Late delivery of cargo may be detrimental to cargo owners who face a decline in the value of their cargo or cancellation of contracts due to the delay. Crude oil is common cargo for ships traveling this highly pirated waterway, and its value can be time-sensitive given the fluctuating prices in the commodities markets.

LNG (Liquefied Natural Gas) vessels are particularly vulnerable to piracy as the liquid cargo has a limited lifespan in its frozen state (-161 C); the owners will meet ransom demands more readily to avoid seeing their LNG cargo degrade. Should the savvy pirate negotiators appreciate the "cargo degradation" in this manner; they will likely to view such vessels as high value target.

"LNG vessels are particularly vulnerable to piracy as the liquid cargo has a limited lifespan in its frozen state"

The dramatic rise of piracy in the Gulf of Aden is changing the insurance landscape. While piracy is not a new insured risk, the increase in pirate attacks along the Gulf has affected premiums and coverage. According to a recent report, insurance premiums for ships traveling through the Gulf have rose from between 0.05% and 0.175% of the value of their cargo, compared to between 0% and 0.05% in May 2008, an increase of 350%. Premiums for kidnap and ransom coverage have reportedly increased by as much as 1,000%.

The ship owner's have been known to discourage Masters from reporting an unsuccessful attack as they don't want bad publicity, increased premiums or ship to be delayed while a formal investigation takes place. Hence piracy is often downplayed by both the governments and industry for both political and commercial reasons.

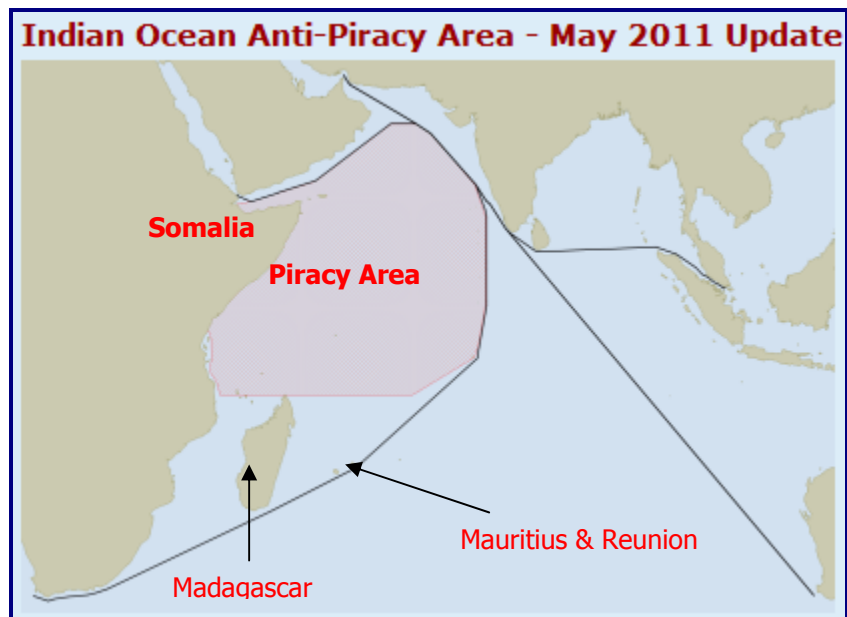
"Because the attacks are very random and the pirates keep changing tactics, the actuaries are facing lot of challenges in pricing marine insurance products. This is exacerbated by the fact that many unsuccessful attacks are not reported or the information is very vague"

In the wave of these piracy attacks vessels many vessels re-route via the Cape of Good Hope and this puts an additional cost in terms of fuel and chartering. Not only that, the vessels have been avoiding the route North of Madagascar completely as such the routes transiting North/South through the Indian Ocean now pass to the South East of Mauritius and Ile de la Reunion. There is an average increase of 10 days to the voyage

when re-routing the vessel from the Arabian Gulf via the Cape of Good Hope to the US Gulf. The increase in distances due to this detour is given in the table below:

From	To	Old Distance	New Distance	Change
Arabian Gulf	Cape of Good Hope	5,753	6,339	+586
Red Sea	Singapore	3,869	4,223	+354
Red Sea	Australasia	5,595	5,808	+213
Red Sea	Cape of Good Hope	5,842	6,808	+966

Source: atobviac.com



Source: atobviac.com

A VLCC's main operating cost is fuel. Bunker prices are sky high at this time. Heavy Fuel Oil cost over \$600/ton while diesel oil is a staggering \$900+/ton. Assuming an average age VLCC consumes around 80 tons /day (this translates to $80 \times 600 \times 10 = \$480,000$ ~ almost 1/2 a million alone in fuel cost per vessel per voyage. Now let's consider this on a global scale. Current VLCC fleet stands at around 500 (+/-). Let's assume out of these only 10% choose to use the longer route (via the Cape of Good Hope) i.e. 50 ships. Also each of the VLCC's would be making at least 4 round trips or 8 voyages per year.

Prices		ICE LIVE				
Port	IFO 380	IFO 180	MDO	MGO	Date	
Singapore	635.00 ↓-5.00	644.00 ↓-6.00	---	900.00 ↑+3.00	2011-09-23	
Rotterdam	613.00 ↓-9.50	638.00 ↓-8.00	---	903.00 ↓-7.00	2011-09-23	
Fujairah	645.50 ↓-3.50	669.00 ↓-1.00	---	1052.00 ▶0.00	2011-09-23	
Busan	655.00 ▶0.00	665.00 ▶0.00	940.00 ↓-30.00	950.00 ↓-30.00	2011-09-23	

Regional Bunker Prices: Africa | Asia | L. America | M. East | N. America | N. Europe | S. Europe |

Fuel Prices - Source: Bunker Index

Passage via the Cape of Good Hope (10% OF VLCC'S = 50 SHIPS)

Bunker Cost:

80t/d x \$600/t x 10 days extra x 8 voyages = 3,840,000 /year

or **192,000,000/year for 50 ships**

Taking diesel and lubricant oils into consideration the figure will be substantially higher.

Charter Cost:

\$45,000/d x 10 days extra x 8 voyages = 3,600,000/year

or **180,000,000 /year for 50 ships**

In other words the cost for re-routing only 50 VLCC's via the Cape of Good Hope is a staggering **400 million dollars a year**. These figures are based on speculation and could be much higher or lower depending on the actual charter rates and bunker pricing but - gives a general idea!

Cost alone is not the only factor to consider. One has to take into account additional hazards like adverse weather / heavy swells / rogue waves encountered when taking this southerly route. Large tankers and bulkers are particularly susceptible to cyclic loading due to heavy swells/seas causing serious structural damage to the vessels.

INNOVATIVE SECURITY MEASURES

The Concept of 'Citadel' -'Citadel' is a secure hiding place for the crew. The idea is that citadels will give naval forces enough time to arrive and to protect the crew if fighting breaks out. In the past few months several attacks have been foiled this way. However, as the pirates are constantly changing their tactics, it won't be long before their ability and methodology in attempting to defeat a citadel will also change (like using plastic explosives) and therefore more robust protection will be required.

The whole concept of the Citadel approach is lost if any crew member is left outside before it is secured. The ability to communicate is very important as the crew needs to be able to confirm that they are all in a secured space and that anyone a potential boarding party encounters can safely be assumed to be hostile. The entire stronghold needs to be amidst a circle of defences that extend up to 1500 metres from the vessel.

Further the concept of citadel only works if warships are nearby and engage the pirates quickly. As in the case of M/V Beluga Nomination, a German cargo vessel which was hijacked by pirates in Jan'2011. The pirates managed to cut open the deck from above with a blowtorch and were thus successful in penetrating the safe room. The crew was defenceless and the pirates succeeded in taking control of the ship.

"Citadel is only a short term measure against piracy"

Naval forces are often reluctant to intervene once pirates have boarded a ship out of concern for harming crew members in any action to retake the vessel. This has been a problem because it was almost impossible for naval forces to respond in time given that it only takes a couple of minutes for pirates to board vessels. However, when the pirates fail to capture crew members, they are left exposed to attack by the naval force. And in the case of a German cargo vessel M/V Beluga Fortune (Oct'2010) which was captured some 1000 nm off Kenyan coast; all it took was the appearance of a naval vessel (a British Frigate) and the inability to navigate the vessel, to convince the pirates to abandon their catch.

There are lot of piracy deterrent equipment on the market but to use them in an event of an attack would not only need courage but more importantly proper training to use effectively under pressure. In my opinion security equipment manufactures should focus on simple but yet effective solutions. I have been brainstorming ideas and have come up with the following:

(1) Rocket Propelled Capsule (Pepper Spray like powder deterrent) - Firing a rocket propelled capsules close to the Pirate Action Group (PAG) which then explodes at a pre determined range discharging high volumes of pepper spray. The same method of delivering high volumes of such a deterrent could be done by modifying existing buoyant smoke floats on the ships which are used for search and rescue purposes. The purpose should be to stop the pirates dead in their tracks while trying to board.

(2) Rocket Propelled Nets - A similar idea would be to disable the skiffs propellers by the use of Rocket Propelled Buoyant Nets – the nets should have a large coverage area to be effective.

(3) RPG Nets- Shipping companies should invest in lightweight RPG (rocket-propelled grenade). The RPG nets are designed to absorb the impact and shock from incoming rounds, and help minimize personnel injuries and equipment damage. Though used to protect armoured vehicles by the military, these could be easily modified to be used on merchant vessels.

Areas which are particular vulnerable to RPG attack is the Bridge. These nets could be used to protect the wheel house to some extent. It would be prudent to have the bridge navigating personnel and those operating the above equipment to use a bullet proof vest, ballistic helmets and visors to protect them from stray bullets.

PROTECTING OUR SEAFARERS

Seafarers often suffer from the mental and physical torture, degrading treatment, food deprivation and dehydration while in captivity and fear of being killed. I personally know someone whose vessel had been hijacked and was subjected to vicious brutality at the hands of the pirates – even after 3 months the owners were not able to come up with the ransom. The crew were taken ashore and kept there as hostages. The crew managed to escape with some inside help and made it across the border to Kenya. It's very distressing to know that this could happen to almost anyone!

Having sailed these high risk waters of the Indian Ocean numerous times during my seafaring days; I know what it is like to be in the area. The fear of being captured or killed and not being able to talk to the outside world for months on till the negotiations take place and the fear of whether we would ever be able to see our families again is very real! I have known seafarers who would pay huge sums to corrupt shipping agents just to be on board so that they could support their families. They certainly deserve better.

"The economic cost of piracy may be over 10 billion a year but price in human suffering is unquantifiable"

The piracy attacks have become so intense that yacht owners - for some of them it's a life-long quest to circumnavigate the globe – are transporting their yachts across the Indian Ocean by cargo ships. Once safely on the other side of the Red Sea; they would fly over to reclaim their yachts. The freight for transporting could run in thousands of dollars. A recent incident where the crew of the yacht "Quest" (Feb'2011) were killed by the pirates off the coast of Oman reminds us of how dangerous these waters are.

The question is what could be done about it? For the ship owners/charterers it would be more convenient and economical to pay substantially higher premiums and risk being hijacked by pirates than to incur the extra cost of re-routing their vessels around the Cape of Good Hope. The onus is upon the ship owners not only to protect the ship and its cargo simply by taking out additional coverage under the war risk binder but protecting it's crew and the welfare of their families should be their top priority.

"The onus is upon the ship owners to protect its crew and the welfare of their families"

While retreating to a citadel is so far an effective method to evade capture as this not only prevents the pirates from taking any hostages but exposes them to attacks from naval ships. The pirates have often known to have surrendered if caught in this situation as unable to steer the vessel (due to loss of power / fuel cut-off by the crew). However, a

recent incident involving a cargo vessel, M/V Pacific Express (Sept'2011) off the coast of Mombasa, Kenya, where in a similar situation the crew were successful in locking themselves in a citadel; the frustrated pirates however, in their failed hijacking attempt and being unable to take control of the ship set the vessel on fire in order to force the crew out of the citadel. Fortunately all 26 crew were rescued in time by the Italian Navy who had responded to their call. It is said that the pirates had fled the vessel. This clearly shows the determination of the pirates who will resort to any means to capture the crew.

"The pirates are determined and will resort to any means to capture the crew"

The use of piracy deterrent equipment like LRAD, barbed wires, latest innovations in powerful water canons, electric fence are all useful in the short term because once the pirates start firing RPG's it's highly unlikely a merchant vessel will be able to do anything to stop the pirates from boarding. If the pirates have enough time on their side they might even be successful in locating the citadel (information on how to construct and possible locations of the citadels are available on the internet for anyone to read) and forcing the crew out by using explosives or other means. Because at the end of the day we must remember that the pirates do not care about the ship or the lives on board. All they need is a single hostage which would prevent the navy from intervening and taking appropriate action.

Currently the merchant vessels transiting the Gulf of Aden (GoA) use a corridor system called the "Internationally Recommended Transit Corridor" (IRTC). Vessels using the IRTC are offered the greatest protection via sea and air. One way would be to extend the IRTC to cover a larger area. But the piracy area being so large; probably the size of Western Europe, this will prove uneconomical and practically impossible for the naval vessels to best position assets in the area to deter and offer safe passage to merchant vessels against hijacking.

The pirates have changed their tactics in recent years. They are using mother vessels to launch high speed skiffs. This way they carry out attacks much further out at sea - attacks have known to take place over 1000 nm miles from the Somalian coast. One of the reasons for this could be that by the concentrating their forces to GoA region; the naval forces itself may have created a balloon effect forcing the pirates to explore new areas and targeting merchant ships quite far out in the Indian Ocean.



Most Somali pirates at one time were just poor fishermen but with the prospects of easy money have lured them into piracy. Ideally, the way forward would be to offer the Somali pirates a better way of life. This is however easier said than done. There is a little prospect of a functioning Somali State anytime in the near future. The region is chaotic with lawlessness prevailing in this region for over 20 years!

"Most Somali pirates are just fishermen trying to make a living - ideally the way forward would be to offer Somali pirates a better way of life"

Though the naval presence has its advantages but bringing pirates to justice is frustrated by cost, restrictive rules of engagement and politics. Hence the captured pirates are often released quickly minus their AK47's and RGPs - and before you know it they would be back in the skiffs hunting down merchant vessels. Also the effectiveness of the presence of naval forces is declining as the pirates move ever farther offshore.

Gone are the days when the pirates used to be armed with machetes whereby the ship's crew could easily swamp their boats and deter the boarding just by pressurized fire hoses. The pirates now armed with AK47's, the ship crew would not be able to stand out on the deck let alone aiming a hose at the pirate. Yes there have been advances in technology where you could install a so-called "anti-pirate water canons" which could be

operated remotely but how many of these would be required for large tanker like a VLCC which is by the way 330 meters in length and 60 meters in breadth. In other words one would need to cover about 720 linear meters of the vessel or cover an area of about 20,000 m² How do you do that? And most importantly how do you maintain a pressure of 10 bars (which is by the way sufficient to swamp a skiff or knock out some one) in more than 4 or more water canons at a time? These canons or fire hoses are only as effective as the pressure at the point of discharge! Having said that this certainly could be an effective deterrent in case of smaller vessels!

SCENARIO: Consider this scenario for a moment - A vessel transiting the high risk piracy area is under attack by the PAG. The pirates are still at bay – more than 1500 m but closing in fast. The vessel is taking evasive manoeuvres but a large tanker or a bulker would be unable to out run them. Pressurized water from the fire hoses or barbed wires prevents them from boarding and out of frustration the pirates recklessly fire RGPs aimed at the bridge. The bridge suffers not only extensive damage but a crew member of the bridge team is severely wounded or what if the PAG fire couple of RPG rounds on a deck of crude tanker or an LNG? What do you think the Master would do in order to save the lives of his crew and save the vessel from further destruction or a total loss?

Another point to bear in mind that once a full scale attack is underway with the pirates recklessly firing their weapons it becomes very dangerous to observe the pirates and whether any of them have managed to get onboard; unless the vessel is fitted with CCTVs.

ACTUAL HIJACKING TAKING PLACE (NOVEMBER'2008) - The Danish-owned merchant ship, the M/V CEC Future, had been on high alert since it entered the Gulf of Aden. Fire hoses had been made ready to help repel a possible attack by pirates. The crew were maintaining constant contact with coalition naval forces. Then within minutes the suspicious vessel was visible: a speedboat, crammed with armed men trailing a wake of white foam.

"We knew it was pirates. They were coming towards us at an angle so we accelerated, and changed direction to make it harder for them to catch up," said Capt Nozhkin. But then a rocket-propelled grenade zipped across the CEC Future's bows. Capt Nozhkin looked down and saw the pirates re-loading.

The following is the actual VHF recording between M/V CEC Future and a Coalition aircraft as the vessel was being attacked by pirates off the coast of Somalia back in early November 2008. The attack resulted in the CEC Future being seized and held for over two months before ransom, of an undisclosed amount, was paid to the hijackers.

I have taken the liberty to compile the following written transcript from the audio recording. From what I could tell from the recording, it was less than 8 minutes from the time the CEC Future first radioed for help to the time they reported the hijackers to be on board "with guns".

CEC Future Coalition Aircraft pirate boat approaching from our stern.....around four people in the boat.....not sure...I don't know.....

Coalition Aircraft CEC Future this is the coalition aircraft please repeat they are trying to do what.....

CEC Futurethey are approaching us and trying to board.....

Coalition Aircraft CEC Future this is the coalition aircraft do you see any weapons or other piracy equipments like ladders and hooks visible

CEC Futurenegative negative.....

Coalition Aircraft CEC Future this is coalition aircraft we are relaying your distress call to coalition warships now....

CEC Future Coalition aircraft they are now manoeuvring close to our starboard side... distance about 1 cable (which is 185.2 meters to be exact)

Coalition Aircraft CEC Future this is coalition aircraft copied that....the only thing we would advice you right now is start evasive manoeuvring...

CEC Future Now we can see that they now prepare bazooka....they prepare bazooka.....

Coalition AircraftCEC Future this is coalition aircraft....now you can see weapons?.....start evasive manoeuvring.....

CEC Future Now they slowing down and prepare artillery fire.....

Coalition Aircraft CEC Future this is coalition aircraft please give your position...

CEC Futureright now our position Latitude 12-52 N / 055-52.8E

Coalition Aircraft CEC Future this is coalition aircraft copied your position.....

CEC Future They are reducing speed.....6 pirates onboard....

Coalition Aircraft CEC Future this is coalition aircraft we copy 6 pirates onboard

CEC Future Coalition warship we are under fire now.....

Coalition Aircraft CEC Future this is coalition aircraft, we have your position, the coalition warship is 5 minutes out

CEC Future Noted 5 minutes away....we are now strongly under fire

Coalition Aircraft CEC Future this is coalition aircraft please increase your speed to maximum velocity.....understand that pirates are now on board

CEC Future Yes at least 3 people....2 with Kalashnikovs

Coalition Aircraft CEC Future this is coalition aircraft noted that 3 pirates on board with automatic weapons.....

CEC Futureyes correct, correct.....

Coalition Aircraft CEC Future this is coalition aircraft please state your present situation.....CEC Future please state your present situation

NO RESPONSE FROM CEC FUTURE

By this time it seems the pirates had reached the bridge and taken over.

Original Audio Source: <http://news.bbc.co.uk/2/hi/africa/8080098.stm>

From the above one can clearly understand what's it like to be out there and what it feels like to be traumatized.

ERADICATING PIRACY

"Has someone ever asked the seafarers what they want? After all they are the ones who risk their daily lives plying these dangerous waters - without them the global economy would grind to a halt"

The presence of naval forces is certainly not scaring the pirates off. They are getting bolder and clever by the day. We are not seeing any reduction in piracy attacks except during the SW monsoon season where the attacks are dramatically reduced. What can we do about it? How can we protect our seafarers? How can we make the seas safer again? All these questions need to be answered. So what is the next step?

ACTION PLAN: In my opinion the **only** way forward to eradicating Somali Piracy and protecting merchant shipping plying these dangerous waters is through the presence of UN Military or private security guards, a minimum of 3 per team, armed with high powered long range sniper rifles, RGPs and similar equipment. It would be a good combination if one of the team members was a qualified medic.

I'm not a weapons expert and have absolutely no knowledge whatsoever about what could be a useful weapon to fight off pirates – but I'm sure these ex-military personnel wanting to do some free lance work would have a fairly good idea about this.

"The only way forward to eradicating Somali Piracy and protecting merchant shipping plying these dangerous waters is through the presence of UN Military or private security guards on board vessels"

2011	Incidents	Repelled by Armed Forces	Naval Intervention	Hijacked
Jan	29	5	4	4
Feb	20	0	0	7
Mar	28	10	2	2
Apr	10	5	1	3
May	16	5	0	0
Jun	4	0	0	0
Jul	5	3	0	1
Aug	5	1	0	1
	117	29	7	18

Source: www.eunavfor.eu

The table above shows that between January'2011 to August'2011 there were 117 pirate related incidents; out of which:

- 1- 29 attacks (or 25%) were repelled by the armed forces onboard
- 2- The navy was able to intervene and save only 7 vessels (or 6%)
- 3- 18 vessels (or 15%) were hijacked
- 4- remaining 63 (or 54%) of the vessels were able to fend off attacks because either the skiffs broke down during the chase; due to evasive manoeuvres, or due to crews efforts

From the above it is quite clear that due to the size of the piracy area, the naval forces cannot be everywhere. The fact that out of 117 incidents the navy was able to arrive at the scene only 7 times clearly shows the gravity of the situation and the severe lack of resources to fight piracy. On the other hand deployment of armed forces onboard by ship owners is seen to be an effective deterrent.

The purpose of deploying armed personnel is two fold 1) keeping the pirates at bay 2) to be able to defend the vessel against hijacking. Armed with high powered long range rifles could be used at its advantage. As soon as a threat is identified, to engage the pirates by firing warning shots in the water nearby or at the skiffs itself. This will warn the pirates that they have been seen and that it would be in their own best interest not to engage. Even though a three men team may sometimes be not enough but the pirates don't know that. Positioning dummies armed with dummy rifles at strategic positions across the ship will certainly make them think twice. It may seem to them that there is a huge security presence on the vessel and force them to abandon the attack.

Piracy attack patterns show that once they have been seen; let alone being fired upon (warning shots); chances of them trying to attempt a hijack will be very small. However, should the pirates start shooting recklessly back at the ship; long range rifles or RGP's could be used to take out the outboard engines or sinking the skiff itself. The purpose is not 'shoot to kill' but to keep the pirates at bay.

Hiring armed personnel will come at a price – costs which shipping companies are not ready to bear particularly in the current economic crisis where everyone is trying to cut corners. However, there may be ways to circumvent these costs by having a dedicated **"Onshore Anti-Piracy Base"** and another base called **"Offshore Anti-Piracy Base"** on a purpose-built or existing accommodation vessels stationed offshore outside the territorial limits of UAE (near Fujairah) or Oman (near Masqat), Egypt (near Suez) and South Africa (near Durban). A base in Durban is necessary if the vessels are to continue using the existing North/South route to the Persian Gulf or Suez through the Mozambique

Channel and / or a base in Mauritius. Also it is worth considering having a base in Galle (Sri Lanka) for East/West Bound vessels to and from the AG (Arabian Gulf)

KEY BASES:

Coastal State	Onshore	Offshore
1. UAE (Fujairah) or Oman (Masqat)	Onshore Anti-Piracy Base	Offshore Anti-Piracy Base
2. Egypt (Suez)	Onshore Anti-Piracy Base	Offshore Anti-Piracy Base
3. South Africa (Durban), Mauritius or Reunion	Onshore Anti-Piracy Base	Offshore Anti-Piracy Base
4. Galle (Sri Lanka)	Onshore Anti-Piracy Base	Offshore Anti-Piracy Base

The **Onshore Anti-Piracy Base** is where normally the armed security personnel would be based and from here they would be transferred to and from the **Offshore Anti-Piracy Base** as required. The purpose of the offshore base is two fold 1) replenishment of personnel as needed 2) storage of arms / ammunition outside the coastal state territorial waters. This might just solve the problem of laws and legislations concerning armed security guards arriving at a port with weapons onboard!

This of course would require extensive feasibility study as to the claim on territorial waters. Though a coastal nation has control over all the economic resources within its Exclusive Economic Zone (EEZ) extending 200 nm including fishing, oil/gas exploration and any pollution of those resources; it cannot prohibit passage to a vessel within this area. However, a heavily armed vessel in a coastal state's EEZ might be a different matter. Hence it's very important for the governments to set aside their differences and work together to tackle this piracy problem. Another task would be to determine how the vessels will be stationed; depending on the available depth - whether the vessels will be permanently moored by use of anchors or use dynamic positioning for station-keeping - of course latter being an expensive option!

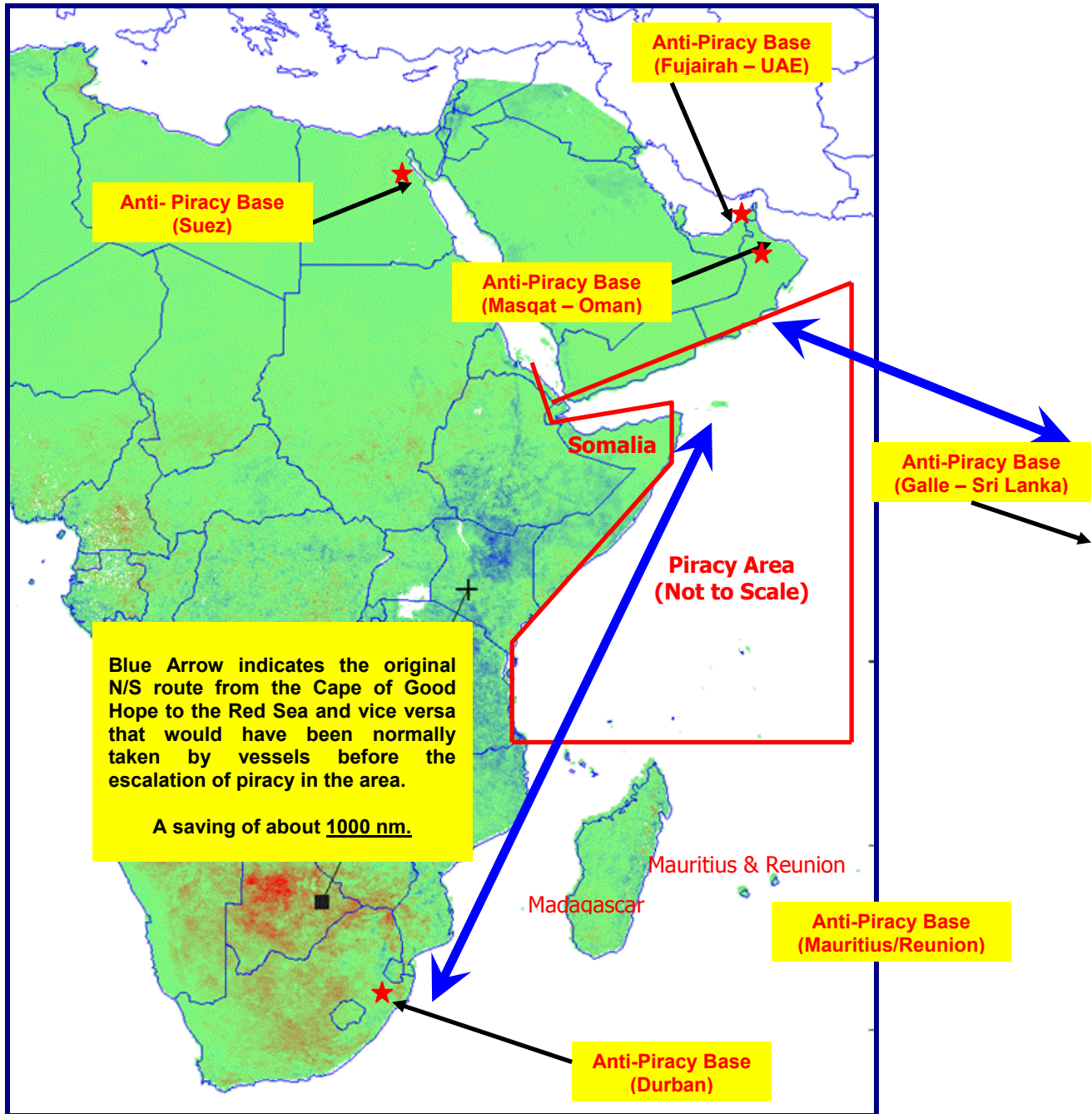
The objective is to deploy every merchant ship with at least 3 armed guards during transit through the high risk piracy area. However, instead of shipping companies having to employ security guards for the whole voyage or year round; the shipping companies can only have the guards from the start point to the end point. This is further explained below.

SCENARIO 1: A typical scenario - A tanker loading from Basra, Iraq bound for the US Gulf via Suez Canal can pick up 3 armed security personnel from UAE or Oman. Most vessels would stop for bunkering and provisions in Fujairah, UAE anyway before the commencement of their long journey. The deployment could be achieved by either a launch (like those used by pilots) or a chartered/owned helicopter outside the territorial waters of UAE. Before reaching Suez the armed personnel can disembark and ride on the next vessel South bound till Fujairah or up to Durban depending on the destination of the vessel or simply return to their offshore base to rest and wait for the next vessel.

This is similar to picking up a North Sea pilot in the English Channel at Brixham, UK or Cherbourg, France and being dropped off at different locations after piloting through the North Sea. The second team of pilots hop on or ride with the out bound vessels back to their base in Brixham and Cherbourg. This concept of hop on and off is being used by the pilots throughout the world where vessels have long river passages like the River Parana, Mississippi River, the Amazon River etc.

SCENARIO 1: Another scenario - A Panamax bulk carrier, after discharging a cargo of Phosphate at Aqaba, Jordan is fixed to load a cargo of coal at Richards Bay (South Africa) for Hamburg. Armed personnel from their nearby base in Suez (offshore) can fly directly to board the bulk carrier in the Red Sea until the completion of the voyage at Richards Bay. The same guards could join a North bound vessel to the AG ports or once again they could rest at their offshore base off Durban waiting for the next vessel.

Ideally, if the coastal states would allow carrying weapons onboard for the sole purpose of fending off a pirate attack, then there would be no need to have a vessel stationed offshore – hence there would be no need for an 'Offshore Anti-Piracy Base'



'Action Plan'

Suez Canal traffic statistics show that the combined monthly volume of N/S and S/N bound traffic is about 1500 (this includes oil tankers, LNGs, container, bulk, Ro-Ro, passenger and cargo vessels). This calls for a lot of armed personnel; but I'm sure there is no shortage of ex-military personnel looking to offer their services. There are existing security agencies in Great Britain, the US and other countries providing armed escorts to civilians in Iraq, Afghanistan and other war-torn regions and a similar concept is being used here.

The cost factor involved should be borne by the governments, vessel owners/charterers & cargo interests – governments because they have the duty to provide safe passage in international waters and ship owners / cargo interests because they are the one's who profit from moving their multi-million dollar assets globally. The business model should be something like the operation of P&I Clubs, whereby the ship owner's, cargo interests and governments contributing to the "pool" every year in order to fund the anti-piracy mission; thus playing a pivotal role in keeping the merchant vessels and it's crew safe. The club could be called "**Anti-Piracy Club**" or something similar to better reflect the nature of the operation.

"Ship owners/charterers, cargo interests and governments should contribute to the "pool" every year in order to fund the anti-piracy mission and keep the merchant vessels safe"

And for the less fortunate, like the ship owners with just one or two vessels and those who are struggling to compete in this highly competitive market, yet uncertain global economy, the club should help with the cost.

The deployment of armed security guards or military personnel on merchant vessels comes with its own complexities. Stationing armed guards on vessels or training crews to use firearms would only provoke a more brutal response from the pirates because often the pirates will shoot to scare the crew but if they are fired back upon, things could turn nasty. Also a special secured strong room would need to be considered for the storage of arms and ammunition. But this is the risk we would have to take!

Another issue to consider is that currently a merchant vessel is granted liberty to transit the territorial waters of any State under the concept of "Innocent Passage". Hence employing armed security force onboard questions the very concept of innocent passage and a vessel arriving with weapons onboard in a port of a coastal state would almost certainly invoke concern for the customs, police and other government agencies tasked with the law enforcement and security. However, these issues could be overcome by talks and negotiations at government level.

"Innocent Passage: A term of international law referring to a ship or aircraft's right to enter and pass through another's territory so long as it is not prejudicial to the peace, good order or security of the other state".

This system of arrangement would prove very expensive but could also be a cost effective option considering the owners/charterers would be saving a huge fortune on fuel and chartering costs as described earlier and not to mention considerable savings on exorbitant insurance premiums for additional cargo insurance, hijacking, K & R etc.

I do not have the resources nor the means to determine the actual cost of running an anti-piracy operation as this would involve high level of expertise and factual from major governmental bodies, ship owners, P&I clubs, Flag State and Insurance companies all working together towards a common goal – protecting the shipping and seafarers alike.

My reasoning for armed personnel onboard is based on the following:

a) Peace Talks - As stated earlier in this report that ideally the way forward would be to offer Somali people a better way of life. A peaceful solution would obviate the need to send a UN military force or a surprise coalition amphibious attack on pirate camps - but who do you trust? This nation has been without an effective government for over 20 years and it will probably take years of lengthy negotiations / peace talks to come to an agreement. The nation is corrupt to the core and thus there always be others (rebel forces) who would disrupt the idea of having a new government from forming. This will only fuel the civil war that has been going on since 20 years or so.

b) Coalition Navy Limitations – The fact that there are now pirates who are attacking vessels in the middle of the Indian Ocean and actually closer to the Persian Gulf and closer to the coast of India than the Somali coast, gives an idea of the ability to which they have been able to extend their range. Hence a handful of naval vessels even with the use of aircrafts and helicopters for reconnaissance missions simply cannot cover that kind of an area. Further, existing government legislations are ambiguous about the rules of engagement for the navies that are participating in the anti-piracy mission.

c) Risk of Hijacking - Considering the number of ships that transit these pirate infested waters; there is less than 1% chance of even being approached by pirates; let alone being attacked. Hence many ship owners (particularly the cash-strapped) are willing to gamble up to the point that as long as it does not happen to them; it is fine. For other's taking out additional insurance solves the problem. However, if you consider just 30 ships (or 0.10%) being hijacked a year; that's approximately 600 hostages!

d) Economic Impact – As discussed earlier piracy is costing the global economy between 7-12 billion dollars a year in additional cargo insurance costs, ransom & kidnapping costs, fuel costs, chartering costs, naval presence and reconnaissance missions costing millions of dollars a day.

e) Inadequate Protection - Reports show that even with the presence of coalition navies and anti-piracy measures onboard ships, attacks are happening every day and ships get hijacked.

f) Piracy Trend - The pirates are getting smarter and bolder. With the current trend and the ransom monies the pirates can better upgrade their mother vessels for deep water operations and heavier weapons. The possibility of hijacking a small cargo vessel and using its crew as hostage for carrying out their piracy missions cannot be ruled out.

CONCLUSION:

One thing is for certain - the piracy threat is very real and is here to stay for a long time. Somalia has been without a functioning government for years and as such the country itself is powerless to eradicate piracy on its own. In the midst of all this the merchant vessels are left with no choice but to run the gauntlet time after time plying these dangerous route delivering cargoes and promises to it's customers.

Eliminating piracy is a shared responsibility between the governments and the maritime industry. Hence if the ship owners are prepared to pay for having armed personnel onboard then the governments should work together to cut the red tape and facilitate the carriage of weapons on board merchant vessels for the sole purpose of prevention of hijacking of merchant vessels. Governments are often targeted for not doing enough. I say stop the blame game and let's do something about it. Deployment of security personnel is essential in order to not only protect the asset (the vessel and the cargo) but most importantly the very lives of the seafarers who risk everything to contribute to the global economy through their profession; more than any others!

Major governments around the world are spending billions of dollars a year in fighting terrorism; why can't they help fight piracy in a similar way. By putting our minds and will together, anything is achievable. And the idea of establishing an "Anti-Piracy Club" or similar organisation should be given a serious thought. There are many big names out there specializing in marine reinsurance and captive management solutions, which could help with formulating and executing such a plan. An organisation with its own captive solution could help face these risks on its own terms with substantial cost savings. Of course shipping and insurance companies and various government organisations would have to conduct a thorough feasibility study to determine if this is a viable alternative to other ideas that are out there – but the real question to ask is does cost take precedence over the lives of the seafarers?

The bitter truth is that if piracy is not controlled swiftly and efficiently soon; the possibility of pirates expanding their operations right through the Mozambique Channel and to the South of French Island of Reunion is very real and perhaps even as far Eastwards towards the Maldives!

In the end by deploying armed forces onboard there is always a possibility of escalation of violence at sea and issues of liabilities for injuries / deaths of innocent fishermen and seafarers but this are the risks we would need to accept.
