

# DRYAD MARITIME

Intelligence Service

## INTELLIGENCE REPORT

### COVERING

## VOLVO OCEAN RACE

Legs 2 - 4



**COMMERCIAL IN CONFIDENCE**

**VOLVO OCEAN RACE: Legs 2 – Leg 4**

**Foreword**

This report covers the intelligence background and threat issues associated with the ocean passages from Cape Town to Cochin, Cochin to Singapore and Singapore to Qingdao.

The main body of the report covers routing information associated with each of the passages. Annexes A and B cover the principles of: Self protective measures and Tactical considerations & Environmental impact.



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Andrew left the Royal Navy in 2007 after an exciting career on operations and in intelligence analysis. Early service at sea included the British mission to protect oil tankers transiting the Gulf, which at that time were under threat of attack by Iranian forces. This was followed by an extended operational deployment to Northern Ireland and then three years international experience working for NATO intelligence focusing on the Balkans, Mediterranean and Middle East areas of interest.

On return to the UK he served alongside the British Army and later deployed to theatre to lead an international intelligence team supporting operations in Bosnia, Croatia and Serbia. This was followed by work in Whitehall as part of the central defence intelligence staff concentrating on the Middle East, Latin America and latterly Sub Sahara Africa. Shortly before leaving the service Andrew deployed again to the Middle East to lead the naval intelligence team supporting Coalition operations in the Indian Ocean, Red Sea, Horn of Africa and Southern Gulf.

**Edited by**

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VOLVO OCEAN RACE: Legs 2 – Leg 4

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**CONTENTS**

	Page
<b>Foreword</b>	<b>2</b>
<b>Compilation</b>	<b>3</b>
<b>Contents</b>	<b>4</b>
<b>Executive summary</b>	<b>6</b>
The Passage	
Piracy	
Human traffic	
Maritime terrorism	
Naval forces	
<b>LEG 2 - CAPE TOWN TO COCHIN</b>	<b>7</b>
<b>Intelligence overview of the passage</b>	<b>7</b>
<b>Normal Activity</b>	<b>7</b>
Routing	8
Local traffic	8
Regional Fisheries	9
<b>Hostile Activity</b>	<b>10</b>
Overview	10
Piracy	10
Human traffic	12
Maritime terrorism	12
<b>Friendly Activity</b>	<b>12-13</b>
<b>LEG 3 – COCHIN TO SINGAPORE</b>	<b>14</b>
<b>Intelligence overview of the passage</b>	<b>14</b>
<b>Normal Activity</b>	<b>14</b>
Routing	14
Local traffic	15
Regional Fisheries	15
Neutral Shipping	16

**COMMERCIAL IN CONFIDENCE**

<b>Hostile Activity</b>	<b>17</b>
Piracy	17-20
Human traffic	20
Maritime terrorism	20
<b>Friendly Activity</b>	<b>21</b>
<b>LEG 4 – SINGAPORE TO QINGDAO</b>	<b>22</b>
<b>Intelligence overview of the passage</b>	<b>22</b>
<b>Normal Activity</b>	<b>22</b>
Routing	23
Local traffic	
<b>Hostile Activity</b>	<b>24</b>
Piracy	24
Human traffic	24
Maritime terrorism	24
<b>Friendly Activity</b>	<b>25</b>
<b>Annex A</b> Self Protection Measures	<b>26</b>
<b>Annex B</b> Tactical Considerations and Environmental Impact	<b>30</b>

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## EXECUTIVE SUMMARY

### The Passage

The passage routes covered by Legs 2, 3 and 4 pass through three separate geographical areas with different risk profiles. The area of most heightened potential risk from violent criminal activity is within the Strait of Malacca and South China Sea.

**Piracy.** The threat from piracy and armed robbery at sea remains low while using the main sea line of communication within the Indian Ocean. This risk increases as vessels proceed east to the Malacca Strait. An uneasy security relationship between Malaysia and Indonesia has hampered concerted activity against maritime-based crime. Deep Sea Piracy is on the rise in the Indian Ocean West of 60E but is in decline in the Malacca Strait. The motivation of Somali Pirates is Hijack for ransom whilst in the Malacca Strait, simple armed theft and occasionally kidnap for ransom are the most common crimes. Intelligence concerning location of attacks on leg 4 is difficult to obtain but indications suggest that piracy is coastal in nature and is often accompanied with un-necessary violence. The probability of falling victim to pirates remains less than 1% but the consequences necessitate that it is considered.

**Human Traffic.** Human trafficking activity poses a business continuity threat to third party vessels throughout the north Indian Ocean, Strait of Malacca and South China Sea. It is possible to become unwittingly embroiled in a situation with human traffickers when going to the assistance of small boats that appear overloaded and in difficulty. This is especially so in marginal weather conditions when the duty of assisting in the preservation of life at sea can create a set of binding circumstances. The interruption resulting from taking onboard refugees and then attempting to land them at a third party port is considerable.

**Maritime Terrorism.** There is a general threat from terrorism throughout the region, however, incidents on the open ocean are rare. It is assessed that terrorists would prefer to mount operations against targets in harbour or in the confined navigational approaches to ports. The risk exists specifically on leg 3 within 200nm of Sri Lanka and despite reports to the contrary, to a lesser extent within the Malacca Strait itself.

Suicide attacks are differentiated from a pirate action by the following factors:

- Direct approach with no attempt to get astern of the ship,
- 1 or 2 people in the boat.
- Fast but heavily laden
- Generally new boat with large engine
- Figures typically dressed in white

**Naval Forces.** Coalition and NATO forces operate extensively within the Indian Ocean. The remainder of the sea areas covered by Legs 3 and 4, particularly the main sea lines of communication are effectively patrolled by regional navies.

**Self protection and countering the threat.** Guidance is detailed at Annex A and B

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## LEG 2: CAPE TOWN TO COCHIN



### INTELLIGENCE OVERVIEW OF THE PASSAGE

The maritime security environment within the region covered by this report has been largely shaped by the political instabilities of the Horn of Africa over the last thirty years. The main threat within the Indian Ocean area lies within the Gulf of Aden (GOA) and is therefore of marginal concern to race participants. Although there is some historical precedence for Somali based Pirates operating in the central Indian Ocean during the NE Monsoon (Sep-April), their focus of operations is currently within the GOA and East of Mogadishu. Consequently, the open ocean outside 300nm from Somalia and the island groups of the Seychelles, Maldives and British Indian Ocean Territory are assessed as a low risk environment for shipping.

The Pakistan coast and North India are a likely point of departure for drugs originating in Afghanistan destined for East Africa, and an area for the importation of illegal arms. The chances of encountering ships engaged in this illegal traffic are marginal.

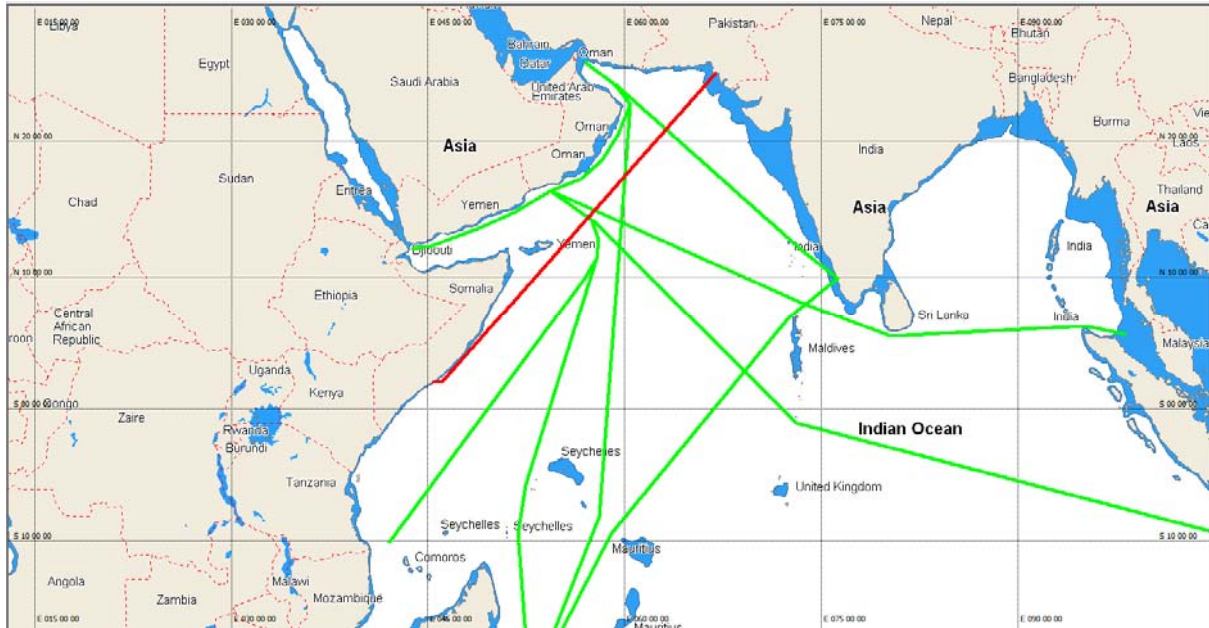
### NORMAL ACTIVITY

This section outlines the pattern and tempo of normal maritime activity likely to be encountered on the passage. This is important as it forms the backdrop against which maritime crime is carried out. A thorough understanding of what is normal will allow masters and crew to be alert to activity that is out of the ordinary – a potential indicator of trouble.

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**Routing**

**Indian Ocean Routes.** Navigators of commercial vessels will usually use a large scale routing chart or navigation planning software to find a routes 12-20nm from the nearest danger and in a direct line between waypoints en route. Once the route has been selected, then for long ocean passages, then a great circle route is usually super imposed. The result is a flow of Shipping follows the indicative routes below. Commercial traffic on these routes is usually travelling between 12-16 Kts although a proportion will be above and below these speeds.



**Local traffic**

Local traffic will have a distinctive appearance depending on where it originated. Below are some examples of the local traffic you can expect to see. The local traffic may not be following the same sea lanes as the international shipping and you can expect to encounter them heading on routes between smaller ports.

A seasonal route used by small fishing boats and cargo dhows, which is heavily monsoon dependent, is known to operate from the Pakistan coast to Somalia and Kenya. This track is known to be used for the transportation of drugs and small arms and is colloquially known as the ‘Hash Highway’. The Seychelles also sits astride an identified narcotics route from SW Asia to East Africa.

Examples of local Dhow traffic are pictured below:

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Indian Fishing/Cargo Dhow



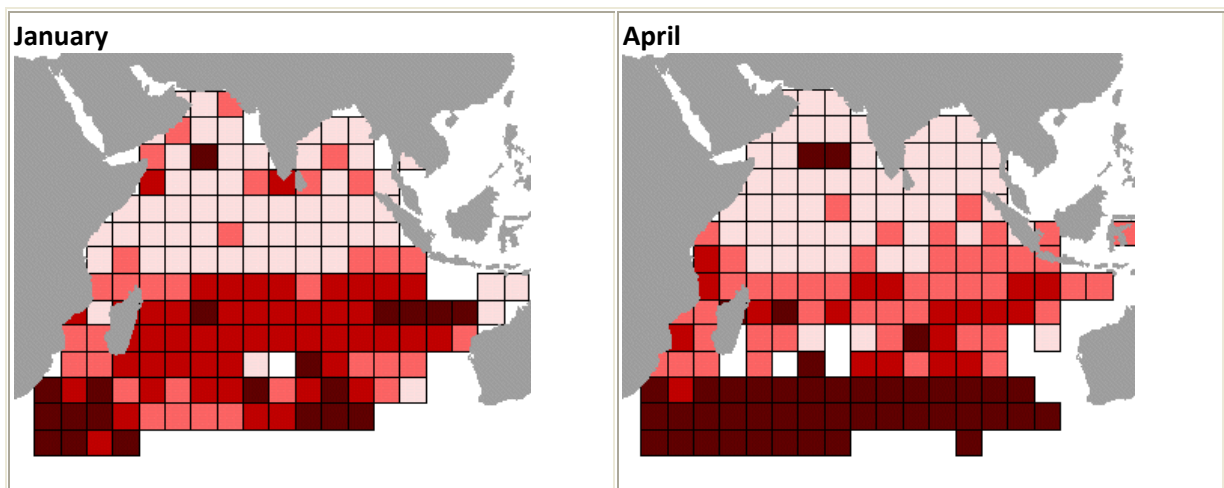
Local (Indian Ocean) deep water fishing vessel

**Regional Fisheries**

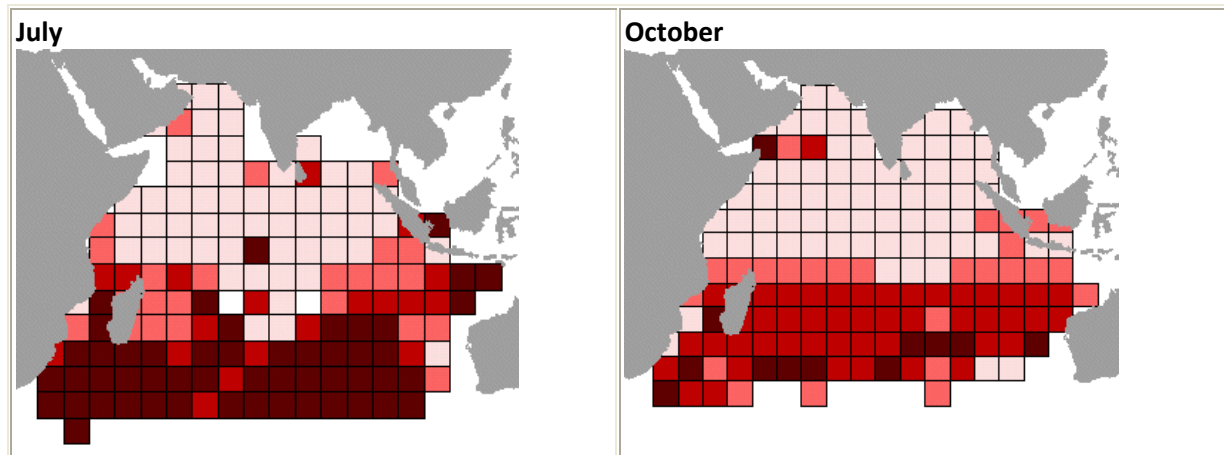
Situational awareness of where fishing vessels are operating is critical for two reasons. Firstly, a concentration of boats affords a potential attacker cover under which to make a close approach to an intended target. Secondly, a possible threat exists from deep sea fishing dhows being used as mother ships from which pirates can operate small boat raids. For these reasons deep water fishing vessels should be avoided by as wide a margin as practicable. When this is not possible or desirable, they should be monitored closely for suspicious activity.

The most common form of fishing in the Indian Ocean is for industrial tuna. During peak season, encounters with a number of large industrial fishing vessels can be expected. Most of these vessels are purse seiners, although long liners are also present in great numbers.

**Distribution of Industrial Tuna Fishing in the Indian Ocean**



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Source: Pei-Fen Lee, I-Chin Chen, and Wan-Nien Tseng, National Taiwan University, Department of Zoology

**HOSTILE ACTIVITY**

**Overview**

Potential maritime threats on this leg fall into three main categories namely piracy, human trafficking and terrorism. The danger from piracy and terrorism is obviously from a direct, targeted attack against your vessel. The threat from human trafficking is subtler and entails a risk of interruption to the race. This could occur as a result of becoming embroiled in a situation in which you are required to land refugees following them having gained access to your vessel. While not a threat to life this can mean delay, expense and damage to property.

The firm message in dealing with all three potential threats is to maintain sufficient situational awareness, backed up with accurate, timely intelligence. This will enable the decisions which will avoid the problem at source. Better this than rely solely on contingency measures designed to extract from the problem once it has begun. That said, such plans are needed to deal with a developing emergency and guidance on their content and scope is given at Annex A.

**Piracy**

As stated above the piracy hot spot within the Indian Ocean is the Gulf of Aden. Until now the established modus operandi had been for pirates to sortie hundreds of miles from Somali waters, seize a vessel and then take it back inside territorial waters, to hold the ship and crew for ransom. This type of attack was common in late 2007 but in 2008 the location of operations shifted to the Gulf of Aden. However, in recent weeks there has been a resurgence in attacks deep offshore on the Eastern Seaboard of the Somali Coast, specifically, East and South East of Mogadishu. This trend is currently being evaluated but it is anticipated that because of pressure on operations in the Gulf of Aden, similar attacks will occur in the central Arabian Sea, North of 10N soon. There are very few instances of Pirates mistreating male or female hostages in captivity. So far only the Puntland (Region of Somalia) authorities and French military have staged military assaults to free hostages because the risk to the hostages in this kind of operation is generally considered to be too high. The hijack situations are generally resolved after a ransom of \$1-2M US Dollars is paid.

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Photographs of two suspected mother ships have been released by Coalition forces and are detailed below. These Russian built stern trawlers are unusual in the area as the typical traffic of this size is the Indian Cargo / fishing dhow pictured for comparison.



Indian Deep Sea Dhow (Usual Traffic for the area)



BURUM OCEAN (SHOT 1)



'ARENA' OR 'ATHENA' (SHOT 1)  
Source: Coalition Forces

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**Human Traffic**

Human trafficking poses a business continuity threat to third party vessels. There is little evidence of human trafficking in the central Indian Ocean although in littoral areas both near Mauritius, Seychelles and Madagascar as well as between Mauritius and India, human traffic may be encountered.

**Maritime Terrorism**

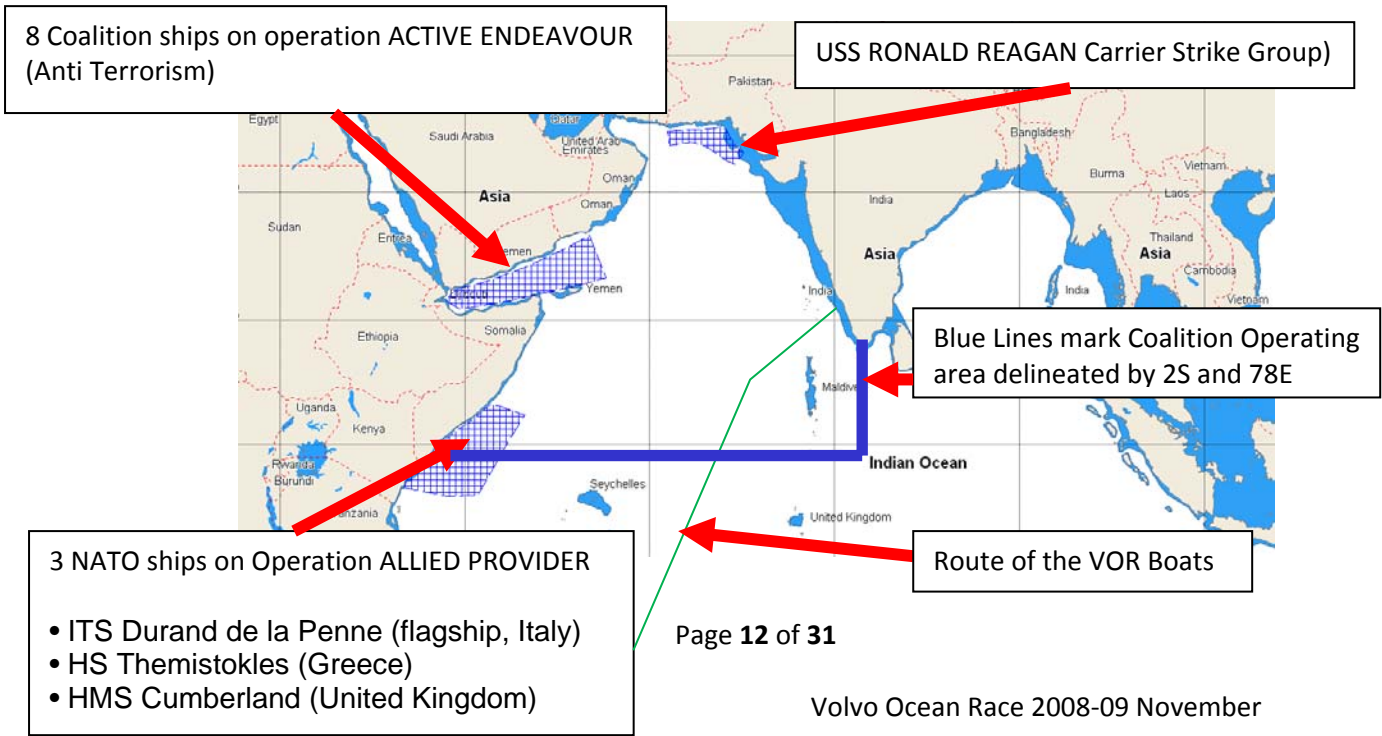
Maritime Terrorism is a manifestation of terrorism ashore when it has a specific purpose. These conditions do not exist in many areas worldwide. In the Indian Ocean, the threat is confined to ineffective Al Qaeda franchised terrorism in Southern Somalia and extremely effective maritime terrorism perpetrated by the Tamil Sea Tigers in Sri Lanka.

**Somalian Maritime Terrorism.** Somalian maritime terrorism is essentially still a theory and whilst many pundits claim a link between Somali Terrorism and Piracy, the link has not yet been proved. Somalian piracy has been observed up to 400nm offshore in the Southern Areas. Al Qaeda terrorism usually centres on suicide bombing but this type of attack has not been witnessed in the area.

**Sri Lankan Maritime Terrorism.** The Tamil Sea Tigers are without parallel, the world's most capable maritime terrorists. Experienced in mounting stand-off (Shooting at another vessel) and suicide attacks, the Tamil Sea Tigers currently have the advantage over the Sri Lankan Navy. Detailed analysis follows. However, whilst the Tamil Sea Tigers are able to operate hundreds of miles offshore, they are unlikely to be found more than 50nm offshore on the Western side of Sri Lanka.

**FRIENDLY ACTIVITY**

There are an unprecedented number of naval vessels in the Indian Ocean as a reaction to the threat of Somalian Piracy as well as on operations supporting the military operations in Afghanistan. There displacement is roughly as follows:



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**COALITION TASK FORCE 150**

Coalition Task Force 150 (TF150) operates in the Indian Ocean and units from it may be encountered on Leg 2. TF 150 Maritime Patrol Aircraft patrol the Northern Indian Ocean and eastern approaches to the GOA, but their detailed flying programme is understandably classified. The Coalition operating area is all waters North of 2S and waters West of 78E.

**USS RONALD REAGAN CARRIER STRIKE GROUP**

You are very unlikely to get any interaction with this group.

**NATO SHIPS ON OPERATION ALLIED PROVIDER**

The mission of these ships is likely to be limited to protection of the food convoys from Mombasa to Mogadishu. It is possible that you will be able to summon assistance from these vessels but they are likely to be operating 20-40nm from the coast and so reaction time will be slow. The remaining 4 ships of the NATO Task force are likely to remain committed to their programme of visits and exercises in the Arabian Gulf and so it is unlikely you will encounter them either.

**REGIONAL NAVIES**

Oman, Indian and Pakistani naval forces patrol the Indian Ocean regularly. There is also a daily patrol by an Iranian Maritime Patrol Aircraft in the Arabian Sea, although this is likely to remain well north of the race route. All of these naval forces, including aircraft can be called on VHF Channel 16 or 121.5MHz and 243MHz.

**CONTACT WITH THE NAVIES**

VORs interface with the Coalition Task force as well as the NATO ships is through interaction between VOR operations room and the UK Maritime Trade Organisation (UKMTO) based in Dubai. The positions of the Boats will be passed to UKMTO 3 hourly. These positions will be fed into a database of positions which is then passed out to warships who will know where all of the VOR boats are. UKMTO has kindly agreed that this service will be provided all the way to Singapore (which is outside of their operating area). In an emergency, where advice or assistance is required directly from the Navy then UKMTO can be contacted on Tel +971 50 552 3215 or +971 50 552 6007 Fax +971 4 306 5710 or Telex on (51) 210473. Their email address is [ukmto@eim.ae](mailto:ukmto@eim.ae). Navy Ships can be contacted on Channel 16 VHF by calling either "warship-warship or coalition warship-coalition warship", their typical receiving range is up to 10-15nm.

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## LEG 3: COCHIN TO SINGAPORE



### INTELLIGENCE OVERVIEW OF THE PASSAGE

The overall threat to maritime traffic from terrorism, piracy, and armed robbery is assessed as Moderate but this increases markedly to the east, and in the northern approaches to the Malacca Strait. In the vicinity of Sri Lanka remain aware that this sea line of communication runs close to a live theatre of maritime counter insurgency operations currently being undertaken by the Sri Lanka Navy against the LTTE. While remaining to the south of Sri Lanka and in the main shipping lane there is a minimal threat.

Recent reporting indicates a decline in piracy incidents within the Malacca Strait; although it is assessed many attacks go un-reported. The general threat from terrorism in Indonesia remains high, and in Malaysia it is present but to a lesser degree. Singapore remains stable with good internal security measures in place.

### NORMAL ACTIVITY

#### Routing

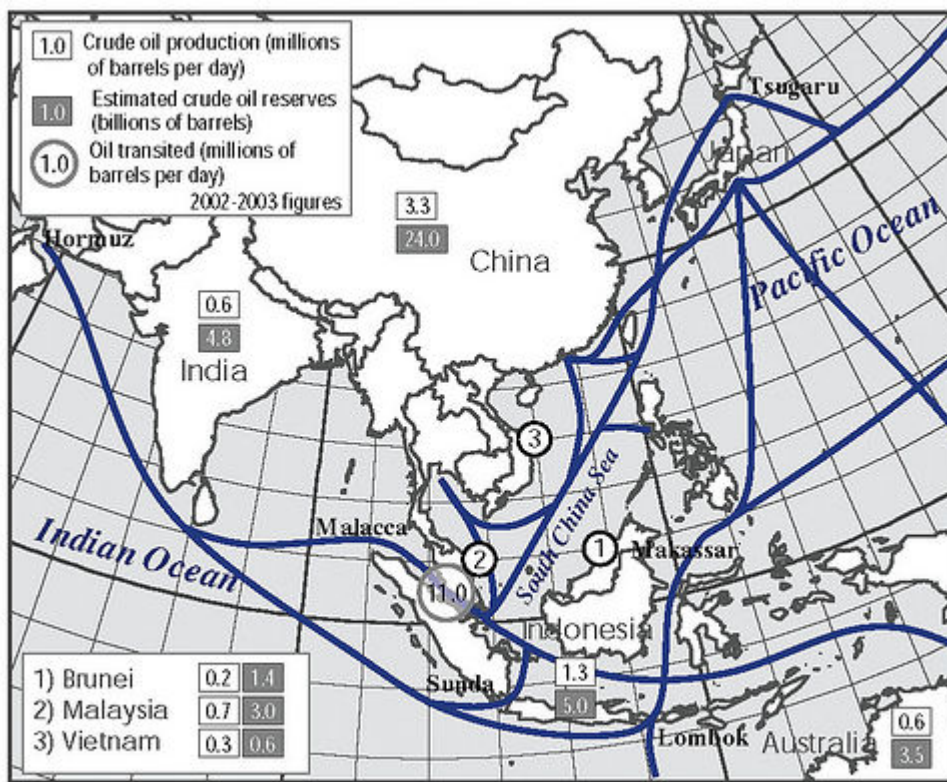
The majority of traffic in this sea area is en route to the Strait of Malacca and thence on through transit to or from the Far East. Within the Strait there is some crossing traffic between Singapore and Batam, and thence from Batam ferries operate to Sumatra (Belawan) and Java (Jakarta).

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**Neutral shipping.**

Neutral shipping on this passage route includes commercial shipping, local fishermen and industrial fisheries. Most of the cargo vessels are through traffic to and from the Far East, but significant concentrations of vessels awaiting bunkers, loading or discharge will be encountered off Singapore

The area of principal complexity is the Malacca Strait. Over 50,000 vessels transit the Strait per year add to this the local traffic and it gives an indication of the high traffic density. At its narrowest point in the Phillips Channel of the Singapore Strait, Malacca is only 1.7 miles wide. Around 15 Oil tankers a day make the 2 day passage up the Strait, who are constrained in their ability to manoeuvre because of the depth and width of navigable water available to them. The routing chart below (from Straits, Passages and Chokepoints: A Maritime Petroleum Distribution by Jean-Paul Rodrigue) gives an indication of the trade traffic flow in the area.



**Figure 7 Shipping Lanes and Strategic Passages in Pacific Asia**

**Local traffic**

**Regional Fisheries**

**Sri Lanka**

The fisheries sector of Sri Lanka consists of three main sub sectors – coastal, offshore and deep sea. The 2004 tsunami destroyed about 75% of the fishing fleet and 10 of the 12 main fishing ports. Recovery of the industry is still underway. Fishing activities take place along the entire coastline and the marine fishing fleet consists mainly of small- to medium-sized craft, owned and operated by private individuals. Traditionally, fishing has been conducted inshore using simple canoes with

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outriggers and despite development efforts spanning over 50 years, this type of boat still makes up nearly half of the fleet. Larger, motorized “day boats” were introduced in the mid-1950s and consist of two types of craft: 18-foot flat-bottomed fibreglass reinforced plastic boats (FRP) with outboard motors, and 3.5 t/28 ft FRP motorised boats. More recently 59 ft motor fitted multi-day boats have been introduced.



Traditional inshore fishing vessel



Vessels more likely to encountered in main shipping lanes

**Strait of Malacca**

Fishing plays an important part in the economy of Malaysia with the majority of the country’s fisheries situated off the west peninsula coast (north Malacca Strait). The industry comprises a



coastal and offshore element with about half the boats being small vessels powered by outboard engines or non-motorised. The remaining vessels have inboard engines and range in size from 10 to 70 GRT, but about 50% of this group is below 10 GRT. Malays make up over half the active fishing population with the next dominant group being Immigrant workers and then Chinese.

About half of all the Malayan fishing boats are licensed to fish with drift / gill nets with the few larger vessels tending to be trawlers or purse seiners. Other minor fishing gears in use include lift nets, stationary traps, potable traps, bag nets, barrier nets, push nets and scoops for shellfish collection. There are also a significant number of small, unlicensed fishing vessels operating in the inshore waters with some of the so-called traditional gears (gears other than trawling or purse seining). A wide variety of fish species are taken including Indian mackerel, the round scad, squid, tuna, shrimp and anchovies.

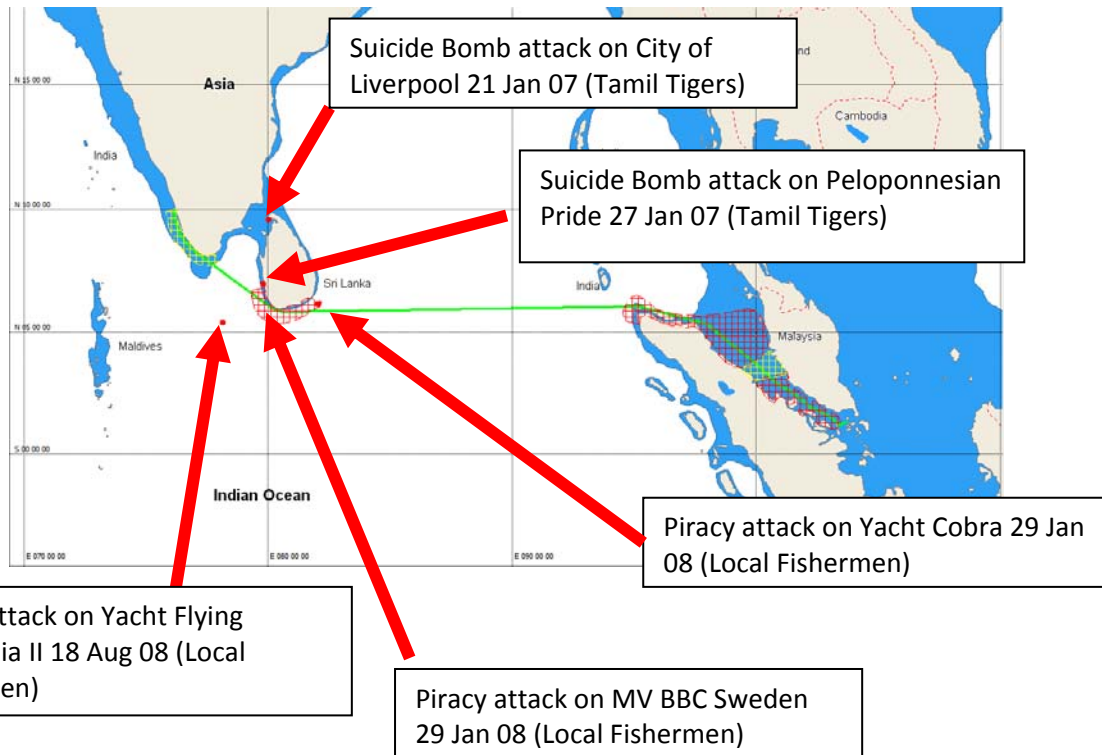
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**HOSTILE ACTIVITY**

**Piracy**

**Cochin to Aceh**

In the portion of the leg, around the Southern part of India and the vicinity of Sri Lanka the piracy threat is largely coastal. Incidents of piracy will be opportunistic in nature and perpetrated by local fishermen. The true incidence of piracy attacks targeting the numerous cruising yachts in the popular port of Galle is likely to be far higher than official reports indicate.



Examples of the incidents on the portion of the journey West of Sri Lanka follows; first the International Maritime Bureau figures Jan – Sep 2008 and then the figures for the whole of 2007.

**INDIAN SUB-CONTINENT**

Ref	Date Time Status Type	Name of Ship Type/Flag/Grt/ IMO Number	Position	Narration
1.	29.01.2008 0830 UTC Steaming Attempted	Cobra Yacht Germany - -	06:00.8N – 082:01.9E, Sri Lanka	Pirates approached the yacht underway. Crew fired shots in the air and the pirates aborted the attempt. The pirates attempted to attack the yacht again later that same day at 1100 UTC.

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**INDIAN SUB-CONTINENT**

Ref	Date Time Status Type	Name of Ship Type/Flag/GRI/IMO Number	Position	Narration
1.	21.01.2007 1530 LT Steaming Attempted	<b>City of Liverpool</b> General Cargo Cambodia 1595 6708795	Kanka santhurai Harbour Jaffna Peninsula, Sri Lanka	Pirates in an explosive-laden boat rammed the ship after leaving the harbour. The hull of the ship was damaged and it was towed back to the harbour.
2.	27.01.2007 0530 LT Steaming Attempted	<b>Peloponesian Pride</b> Container Panama 46410 8320896	06:59.9N – 079:44.5E, Colombo Roads, Sri Lanka	A container ship was waiting for pilot. Port control then instructed master to proceed to open sea at full speed. Whilst underway, small boats followed the ship and one of the boats with two persons on board hit ship's hull at STBD quarter and exploded. Another boat continued to chase the ship. Master immediately called port control for assistance. Two Naval boats arrived and finally destroyed the boat. Five doors to accommodation and six empty containers were damaged.
3.	18.07.2007 2100 UTC Anchored Attempted	<b>Excellent Pescadores</b> Bulk Carrier Panama 11228 9260653	Chittagong Anchorage 'B', Bangladesh	Twelve robbers, in two small boats, armed with knives, attempted to board the ship at anchor during lightering operations. D/O raised the alarm and crew mustered. The robbers aborted their boarding attempt.
4.	22.07.2007 0300 UTC Steaming Attempted	<b>BBC Sweden</b> General Cargo Gibraltar 3198 9278600	06:01.4N – 080:00.5E, 12 NM Off SW Sri Lanka	Nine persons in a small boat with white and light-blue hull attempted to board the ship underway. Since ship's speed is 10.8 knots and suspect boat speed was only 7.8 knots. When abeam at 0.1 NM of the ship, the suspect boat reduced speed and aborted the attempt probably due to ship's higher speed.
5.	18.08.2007 0750 LT Steaming Attempted	<b>Flying Germania II</b> Yacht - - -	05:22.58N – 078:09.75E, 78 NM from Coast, Sri Lanka	Several fishing vessels chased and attempted to board the yacht while enroute from Maldives to Malaysia. The yacht managed to evade the attempted attack.

Source: IMB 2008 Piracy Report Jan – Sep 2008.

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Aceh to Singapore

Since 2004 the situation in the Malacca Strait has improved considerably as a result of the joint Indonesian, Malaysian and Singaporean and as of 1 Oct the Thai navy patrols. In Jan – Sep 2008, there have been 2 attempted attacks reported in the Strait; one in the North ( 005 35N 097 05E) and the other in the in the Northern portion ( 004N 099 35E) both over 50nm from the coast. However, again the official figures belie the actual situation as the majority of attempted attacks are likely to go unreported as are attack targeting local fishermen.

According to the IMB, the majority of modern pirates in the Strait of Malacca are of Indonesian origin and their operations typically fall under one of three categories: pirates looking for easy profit; those working with or belonging to organised crime syndicates; or pirates associated with terrorist or secessionist groups with political motivations. This latter group often specialise in kidnap for ransom operations. Although the entire strait has been known for piracy the main the focus of attacks has historically been the island groups in the sea area off Singapore and in the vicinity of Batam. Due to concerted security operations this is being driven further south. The Singaporean Police Coastguard has responsibility for patrolling Singapore’s coastal waters and offshore islands, in which they have virtually eradicated piracy.



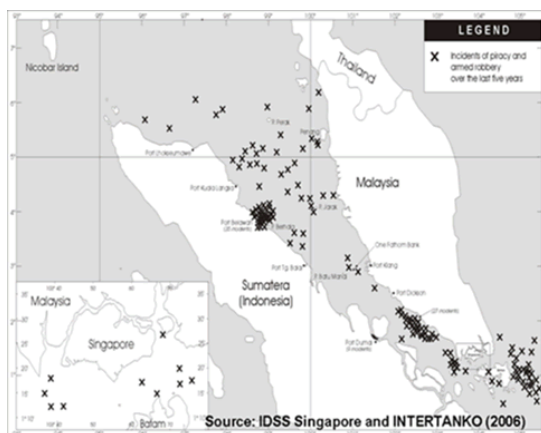
The main targets of pirates are the older slower ships transiting the strait. The favoured method of attack is from wooden boats called *pancungs*, which are fitted with powerful engines. These boats are ideal due to their weight and shape allowing them to cut through a ship’s wake, unlike lighter fibreglass boats that are unstable in rough water. The classic attack is to stalk a target vessel during the day and make an attack under cover of dark. The attackers will choose to board their victim via a suitable blind spot at the stern. Some pirates use rigid bamboo poles to grapple and then board the ship, these are easier to climb than using ropes. The tactic is then to seize the crew offering violence; machetes and knives are favoured weapons.

The distribution of attacks is centred on specific areas as the diagram below illustrates. The probability of attack increases in or near Indonesian Waters. Southbound Traffic Separation Schemes (TSS) in the Straits displaces traffic South West biasing into Indonesian waters. Progress is likely to be slow in the Malacca Strait due to light winds. This will mean remaining in the TSS with the traffic progressing at 10-18kts will mean constantly being overtaken and this will absorb the watch Captain’s attention away from sailing progress as well as from addressing the piracy threat. Thus, remaining in the TSS may not be advisable and under the provision of COLREGS rule 10 para d it may be advisable to use the inshore traffic zone. For ease of reference, an excerpt from rule 10 is below:

*“A vessel shall not use an inshore traffic zone when she can safely use the appropriate traffic lane within the adjacent traffic separation scheme. However, vessels of less than 20 meters in length, **sailing vessels** and vessels engaged in fishing **may use the inshore traffic zone.**”*

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Whilst the choice of which inshore zone is chosen is specifically driven by racing advantage, it should be borne in mind that use of the inshore zone will increase the chance of encounter with inshore fishermen and that the piracy risk is greater on the Indonesian side.



**Human Traffic**

This is a known human trafficking route from SE Asia to Europe. Illegal immigrants will be carried in large merchant ships and therefore unlikely to pose a risk. Human trafficking does take place within the Strait of Malacca but is assessed to pose a very small risk to transiting shipping.

**Maritime Terrorism**

Maritime Terrorism is not developed on this passage route and there is no intelligence to suggest that an increase in this activity is imminent. However, it is worth noting that ashore there is a general threat from terrorism throughout the region. Many of the regional governments have put in place measures to combat terrorism and have arrested a number of terrorist suspects, but there is a continuing risk of further incidents. Given the ever-evolving nature of terrorism there is every chance that some groups may wish to extend their campaign against economic and human targets at sea.



Tamil Sea Tigers in operation

Liberation Tigers of Tamil Eelam (LTTE) forces are not known to interfere with passing merchant and neutral vessels. They operate mostly to the north of Sri Lanka in the Palk Strait and would be rarely encountered in southern waters. A favoured tactic of the LTTE is to use so-called ‘Swarm Tactics’. This is a means by which they conduct a massed small boat attack against a chosen target, seeking to overwhelm the target’s weapon and sensor systems through weight of numbers. This has proved very successful even against the technologically more sophisticated Sri Lanka Navy. However, the boats of the VOR do not pose a valid target to the Tamil Tigers and the risk is accordingly assessed as low.

**COMMERCIAL IN CONFIDENCE**

**FRIENDLY ACTIVITY**

**Indian Navy**

The Indian Navy's preoccupation has been countering the growth of the Pakistan Navy. The Navy's Southern Command is located at Cochin and patrol bases are maintained at the strategically important islands of Andaman and Nicobar. The Indians have been following a 'Look East' policy and believe that as the strongest navy within the Indian Ocean they have a role to play with the Japanese in protecting sea lanes through the Andaman Sea. Expect to see Indian Naval units deployed as far as the northern entrance to the Strait of Malacca where they are known to conduct combined security operations with the Thai and Indonesian navies.

**Indian Coast Guard**



The Indian Coast Guard operates as an independent force from the Navy. Their ships are distinguishable by being painted white with COASTGUARD in English and/or Hindi on the ship's hull, and a green Coast Guard strip forward on the hull. The Coast Guard's mission is to enforce EEZ laws, search and rescue, safety at sea, anti pollution, anti smuggling and fishery protection.

**Sri Lanka Navy**

The Sri Lankan Navy's prime operational concern is countering the Liberation Tigers of Tamil Eelam (LTTE) more commonly known as The Tamil Tigers. This is a secessionist movement opposed to Colombo's rule over northern Sri Lankan Tamil areas. The LTTE have forced the Sri Lankan Navy to shift emphasis from open water EEZ patrols to fast, patrol operations by shallow draft craft in the many small creeks of northern Sri Lanka and the Palk Strait.

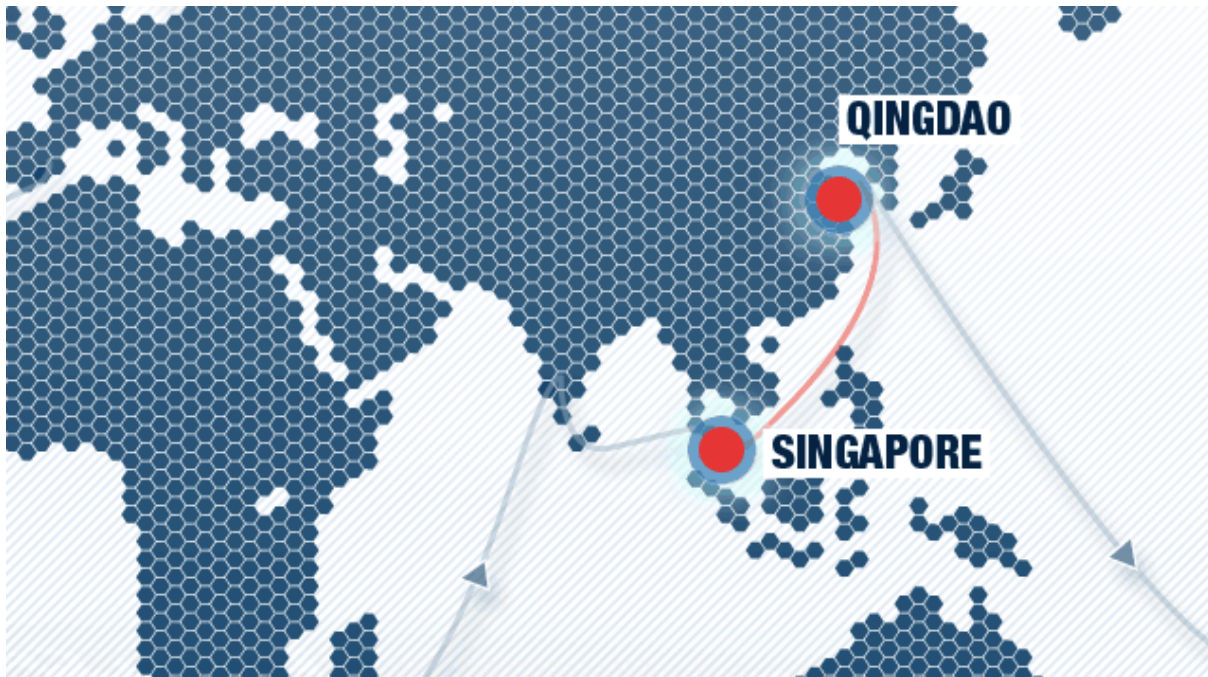
**Straits Navies**

In 2004, Indonesia, Malaysia, and Singapore increased efforts to patrol the strait in an attempt to curb piracy. While Singapore has long wanted international support in this effort, Indonesia and Malaysia were initially reluctant to accept foreign intervention. In 2006 Indonesia made it clear that it was not adequately equipped to patrol the strait. Indonesia's problems with maintaining adequate security arrangements were further highlighted in March this year when the United States Coast Guard determined that ports in Indonesia, with certain exceptions, were assessed not to be maintaining effective anti-terrorism measures.

In the last two years Indian Navy and Indian Coast Guard have agreed to contribute forces to the multi-national piracy patrol in the Strait of Malacca. India is also building a UAV-patrol base in the Andaman and Nicobar Islands to monitor the Andaman Sea which lies adjacent to the Strait of Malacca. *It remains to be seen whether or not these efforts will help reduce piracy. Early indications are that they are having an effect.* All of these naval forces, including aircraft can be called on VHF Channel 16 or 121.5MHz and 243MHz.

COMMERCIAL IN CONFIDENCE

## SINGAPORE TO QINGDAO



### INTELLIGENCE OVERVIEW OF THE PASSAGE

The overall threat to maritime traffic from piracy and armed robbery is assessed as moderate, with the majority of incidents taking place in the South China Sea. Within the region fishing and merchant traffic is heavy with a noticeably high preponderance of liquid bulk carriers in evidence. The regional navies are active throughout the South China Sea and north into the Yellow Sea. A series of geo-political disputes concerning the ownership of several island clusters very much shapes the general security environment and pattern of naval deployments.

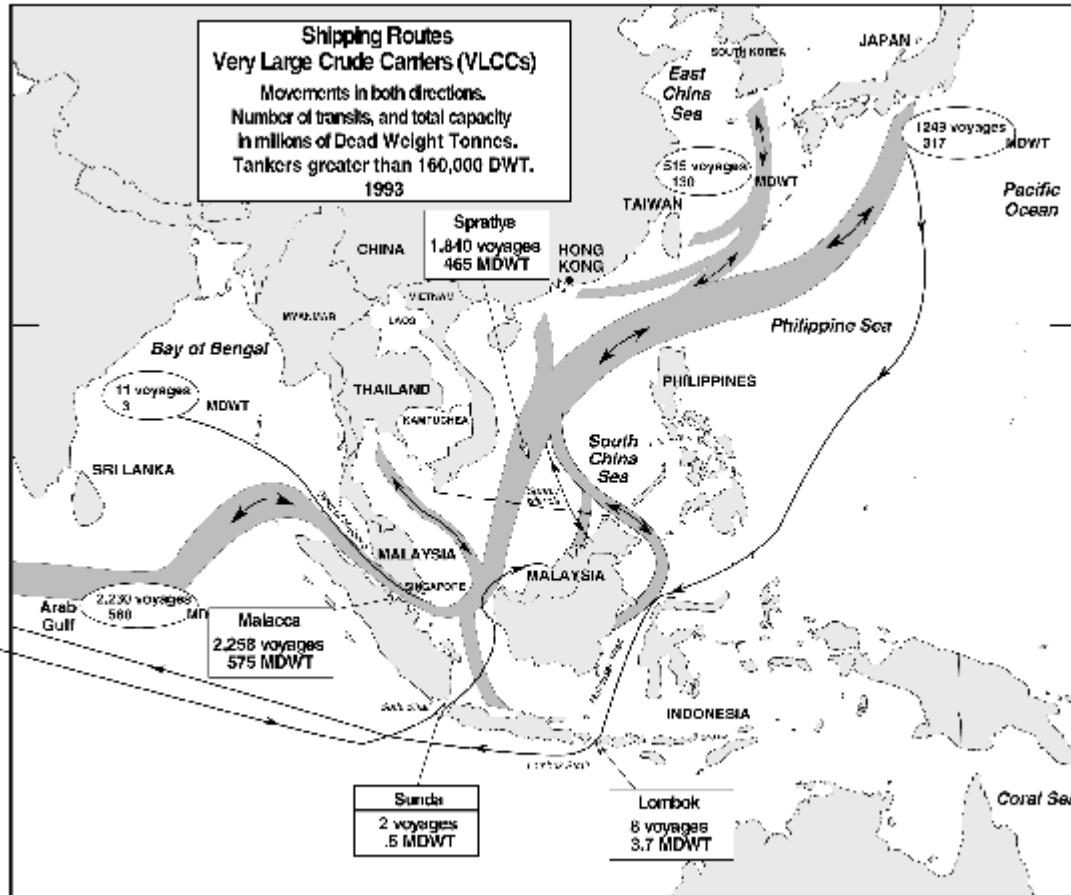
### NORMAL ACTIVITY

This section outlines the pattern and tempo of normal maritime activity likely to be encountered on the passage. This is important as it forms the backdrop against which maritime crime is carried out. A thorough understanding of what is normal will allow masters and crew to be alert to activity that is out of the ordinary – a potential indicator of trouble.

**COMMERCIAL IN CONFIDENCE**

**Routing**

More than half of the world's annual merchant fleet tonnage movements pass through the Straits of Malacca with the majority continuing on into the South China Sea. Tanker traffic through the Strait of Malacca leading into the South China Sea is more than three times greater than Suez Canal traffic, and well over five times more than the Panama Canal. Virtually all shipping that passes through the Malacca and Sunda Straits pass close to the Spratly Islands.



Most shipping (by tonnage) in the South China Sea is carrying raw materials. Chief among these are liquid bulk carriers such as crude oil and liquefied natural gas (LNG), with dry bulk (mostly coal and iron ore) in second place. LNG shipments through the South China Sea constitute two-thirds of the world's overall LNG trade and are generally en route to Japan.

**Local traffic**

**Regional Fisheries**

The South China Sea is one of the most productive and intensively fished areas of the world. Artesian fisheries exist along the littoral of all the states as well as a well developed industrial fishery. The main regional fishing nations are China and Japan and the most commonly used method of industrial extraction is by pair trawling, although other methods are present.

**COMMERCIAL IN CONFIDENCE**

Recent high rates of exploitation have led to a series of fishing moratoria over recent years. Despite this stock levels continue to fall and there is a marked pattern of fishing down the species chain in order to make economical catches.

**HOSTILE ACTIVITY**

**Piracy**

While incidents of piracy have been reported from the South China Sea north to the Korean coast the overwhelming number of attacks takes place within the South China Sea north of Tioman. Typically attacks are carried out under the cover of darkness by small groups armed with long knives and pipes. The pirates appear to be targeting larger merchant ships which are underway, and are after money and personal possessions of value. Although violence is used as a means of intimidating officers and crew there does not appear to be any widespread use of firearms. Attacks are straight forward robbery operations and as yet crews, cargo or vessels have not been held for ransom. In recent months ships in anchorages off Vietnam and The Philippines have been boarded and robbed during the night.

**Human Traffic**

Within this region China is a major source of illegal human trafficking. Some estimates put the number of Chinese women and children illegally shipped each year as high as 200 000. These are mainly sent to the USA, Canada and Australia. The Chinese authorities acknowledge this problem and have taken active measures to counter the trade by establishing an anti-trafficking unit within the Ministry of Public Security. The International Labour Organization also sponsors a multimillion dollar anti-trafficking and prevention program in China's Yunan province. The province is part of the Mekong sub region that includes Cambodia, Thailand, and Vietnam — an area with high human trafficking activities.

China is also a destination country for trafficked women from Vietnam. Since China and Vietnam restored diplomatic relations, about 10,400 Vietnamese women have been sold in China for prostitution or as brides for Chinese men.

Most of this traffic will be carried out in large merchant vessels and not via small, overloaded boats on relatively short passages. The theoretical threat posed by the latter group is from Open Landing, a tactic whereby refugees seek rescue by passing traffic and then claim asylum in the flag state of the rescuing ship. There is a low chance of Open Landing tactics being employed in the vicinity of Taiwan but elsewhere this is very unlikely.

**Maritime Terrorism**

The threat from maritime terrorism on the open sea is assessed as negligible.

**FRIENDLY ACTIVITY**

Although the region's navies are active throughout the sea area covered by Leg 4 their operational pattern and tempo is very much shaped by a complex pattern of international territorial disputes. Chief among these is the tension between Taipei and Beijing regarding the status of Taiwan, but also

**COMMERCIAL IN CONFIDENCE**

a series of smaller disputes within the South China Sea triggered by rights of access to potential seabed raw materials have great effect. The main disputes are:

- The Spratly Islands, disputed between the People's Republic of China, the Republic of China, and Vietnam, with Malaysia and the Philippines claiming part of the archipelago<sup>1</sup>
- The Paracel Islands, disputed between the People's Republic of China, the Republic of China, and Vietnam
- The Pratas Islands, disputed between the People's Republic of China and the Republic of China
- The Macclesfield Bank, disputed between the People's Republic of China, the Philippines, and the Republic of China
- The Scarborough Shoal, disputed between the People's Republic of China, the Philippines, and the Republic of China

In recent years much has been done to reduce tensions and several agreements exist between the collective regional organisations (ASEAN) and China calling for dispute resolution. Nevertheless expect to encounter units from the protagonist nations within the vicinity of these territories. They will be conducting a series of security, surveillance and flag showing patrols. These will have little or no consequence for transiting shipping and naval units sighted can, and should be called for advice via conventional means and in the usual manner.

**COMMERCIAL IN CONFIDENCE**

**ANNEX A TO  
VOLVO OCEAN RACE REPORT  
DATED 26 OCTOBER 2008**

**SPECIFIC SELF PROTECTIVE MEASURES**

**Why Bother?!**

It is possible to take the view that being in a yacht that there is little than credibly be done to prevent a pirate attack. However, whilst this is may be true in the final stages of an attack, there is much that can be done to mitigate the chance of attack and even in the closing stages of an attack, It is possible to manage the incident as safely as circumstances allow.

The following describes how to reduce the risk to the crew and vessel

**Anti Piracy Plan**

On sailing, your boat should have a simple anti piracy plan. This should take into account crew numbers, training, ship's layout, and surveillance and detection equipment available. It must address the following issues:

- Use of lighting, surveillance and detection equipment
- Crew responses in the case of detecting an attack
- Crew responses while an attack is underway
- Radio alarm procedure
- Post attack reports – what and to whom

In any case the sections of your anti piracy plan should reflect the following phases:

<b>Counter Detection:</b>	<b>Try and stop them from seeing you in the first place.</b> Applicable at night but measures include radio silence and darkened ship policy within the IMO regulations.
<b>Counter Targeting:</b>	<b>Once they have seen you, making the boat appear as difficult a target as possible to an observer in another vessel.</b> Initial measures like use of para flares, searchlights, bold alterations of course away and use of hand held air horns etc.
<b>Evasion:</b>	<b>Stop or delay them from boarding.</b> Methods include aggressive tacking at maximum speed as well as use of VHF calls for assistance.
<b>Attack Management:</b>	<b>Keep the crew safe and get the pirates to go away quickly.</b>

**COMMERCIAL IN CONFIDENCE**

The following measures may be considered in the passage planning, counter detection, counter targeting, evasion, attack management plan

**PASSAGE PLANNING**

Attention should be paid in the initial passage planning stage to avoid areas prone to piracy / robbery activity. (eg consider travelling on the Malaysian side to the Malacca strait rather than the Indonesian side.)

Plot locations of previous attacks and identify areas where you wish to increase vigilance.

Once areas of risk are identified; establish the ETA and ETD at those points to plan:

Who will be on watch?

Is it day time or night time?

At night, what is the phase of the moon and the likely cloud cover as an indication of ambient light. This helps pirates operate but also allows you to spot them earlier.

Plan your diversion ports. Taking a diversion usually implies urgency but it would be farcical to divert into Somalia for instance. If you have to take a risk, at least understand what the risk is.

Aim to remain outside of coastal fishing zones and out of sight of land in order to reduce piracy risk. Where this is not possible, at least understand the risk and develop an SOP to deal with it. Fending off a persistent fisherman intent on selling you fish may result in a similar delay to a hit and run pirate attack.

Check ALRS Vol 5 and ensure that the correct NAVTEXT and safety net frequencies are set. GMDSS services include piracy information.

Weather is all important in racing but it is also the greatest limiting factor in maritime crime. Plot weather areas on your GOP. Where possible obtain information about weather conditions and traffic ahead of you. This can be gleaned from VHF traffic, HF circuits manned by volunteers to support cruising yachts as well as from cruising yacht BLOGS such as MAIL-A-SAIL.

Have a spare large scale chart to run as a 'General Operations Plot' or GOP in order to build and maintain your own situational awareness. It is recommended that on this chart the following list of entities is plotted. Where position course and speed is observed DR on from the original position:

- Your route and position course and speed.
- The position course and speed of competitors.
- Positions of previous attacks and risk areas.
- Reports of any activity (piracy/ Rig move/ Securite warnings) etc
- Positions of warships you observe.
- Maritime Rescue Command and Control Centres (ALRS Vol 5)
- Diversion Ports
- Weather features and areas of poor weather.
- The Inshore fishing zone (Around 24nm)
- Area in sight of the coast (around 15nm)
- Indicative shipping routes

**COMMERCIAL IN CONFIDENCE**

**COUNTER DETECTION**

At night, COLREGS mandate the display of Navigation lights including those identifying the vessel as being under sail. However all other lights should be extinguished in order to keep information given away by the vessel to a minimum.

VHF traffic should be kept to a minimum in risk areas and where transmissions are made, consider using a hand held VHF or Static VHF on low power in order to reduce the distance the transmission travels. Be aware of what information is given over VHF and avoid where possible giving such information as might make you a target (E.g. mention of the VOR).

Remain out of sight of land where possible.

A keen watch on the radar, especially where it is mast mounted will give early detection of other vessels. In threat areas, where possible, tack early to keep vessels as far away as is practicable; removing the element of opportunity.

Remain out of the inshore fishing zone where possible.

When travelling in or adjacent to a commercial shipping route in the vicinity of a threat area, aim to remain the opposite side of the shipping route.

Remain out of shipping routes where possible because avoiding dangers of collision (and occasionally grounding) will distract the on watch team from any other activity such as racing and addressing the piracy threat.

Use Night vision aids and Thermal imagers where possible in order to assist with passive identification and classification of vessels.

Use all available crew to lookout as well as briefing them on the threat; weather and ETA at the next danger area. Encourage everyone to contribute to and study the GOP.

**COUNTER TARGETING**

Counter targeting starts as soon as you suspect that a vessel has taken an interest in you. You are aiming to identify their intentions as early as possible and then trying to deter them from choosing you as a target.

Once a vessel is identified, carry out the immediate reaction drill, which is: SMART:

Speed	Increase speed where possible
Manoeuvre	Turn away from the vessel by a substantial amount in order that they too have to alter course substantially to maintain a 0 CPA.
Assessment	Make your assessment – are you happy to allow this vessel to close you? If not tell the crew and authorities ashore that a suspicious approach is underway.

**COMMERCIAL IN CONFIDENCE**

Restrictions	Look round – is there a danger of collision or grounding that must take priority?
Tape	Start recording the incident with a video recorder/ camera that can be easily concealed. This will allow you to gather evidence.

Fire Parachute flares and Green very / pencil flares towards (but not at) the vessel to make it clear that you have seen them and that they are not welcome.

Give 5 short blasts on the Air horn.

Give warnings on VHF (Available from Dryad).

Call all crew up on deck to show that you have the numerical advantage

**EVASION**

In the unlikely event you are not proceeding at the best speed possible (eg running up wind) make the best possible speed.

Where manoeuvring will not slow down progress, tack aggressively.

Deploy tangle lines aft (Stream lines into the wake that will foul the propellers of outboard engines.)

Drop a decoy bag over the aft end that is very well secured but transparent enough to show cheap watches, cash, cigarettes and a cheap camera. At night, ensure that this is marked with a Cyalume light stick.

**ATTACK MANAGEMENT PLAN**

The evasion phase stops the moment that weapons are fired at the crew or vessel.

At this point, where possible, lock the crew away in a safe room, especially any female crew.

Take a bag of valuables, laptops, bottled water and cash to the cockpit and hand it to the pirates stating that is it. Aim to create the feeling in them that they have won the jackpot without having to board.

Have a GPS, Iridium Phone, chart, VHF Radio, flares, food and water secreted in a secure place so that if they do board then you have the ability to communicate, navigate and summon assistance.

Once the pirates are onboard – no heroics. Even if you did overpower the pirates, what would you do with the newly embarked 'crew' who are adding weight and little else. Your aim is to defer in an attempt to get them to go away quickly. You have won if you achieve this – insurance can pay for the material loss and you are not delayed.

Once the pirates depart, the Skipper should get all the crew together and check for injuries, establish what has been lost / damaged, de-brief the crew in what happened and re-focus them back on the race. After this important muster, the Skipper should report the incident to the authorities and race officials.

**COMMERCIAL IN CONFIDENCE**

**ANNEX B TO  
VOLVO OCEAN RACE REPORT  
DATED 26 OCTOBER 2008**

**TACTICAL CONSIDERATIONS AND ENVIRONMENTAL IMPACT**

The prime limiting factor on maritime crime activity is weather. When the sea state is in excess of 2m then maritime crime will usually cease. However, increased sea state will increase sea clutter and reduce the ability of the radar to detect small targets. The phase of the moon and extent of the cloud cover will affect ambient light levels and reduce the effectiveness of binoculars and night sights. The presence of haze will also significantly reduce ambient light and thus visual detection ranges at night. The following may represent a useful ready reckoner for surveillance and classification performance.

**RADAR PERFORMANCE**

<b>POOR PERFORMANCE</b>	HIGH RH (70-100%)	SEA STATE 4 AND ABOVE	HEAVY RAIN
<b>MODERATE PERFORMANCE</b>	MED RH (30-70%)	SEA STATE 2-4	LIGHT RAIN
<b>GOOD PERFORMANCE</b>	LOW RH (20-30%)	SEA STATE LESS THAN 2	NO RAIN

**NIGHT VISION AID PERFORMANCE**

<b>POOR PERFORMANCE</b>	6 to 8/8 CLOUD COVER VISIBILITY 3NM OR LESS	LITTLE VISIBLE MOON (0-25% VIS)
<b>MODERATE PERFORMANCE</b>	3 to 6/8 CLOUD COVER VISIBILITY 3-8NM OR LESS	MOON 25-75% VISIBLE
<b>GOOD PERFORMANCE</b>	0/8 CLOUD COVER VISIBILITY 8NM PLUS	FULL MOON (75-100% VISIBLE)

**THERMAL IMAGER PERFORMANCE**

<b>POOR PERFORMANCE</b>	HIGH RH (70-100%)	AMBIENT TEMP OVER 36 DEGREES C
<b>MODERATE PERFORMANCE</b>	MED RH (30-70%)	AMBIENT TEMP 32- 36 DEGREES C
<b>GOOD PERFORMANCE</b>	LOW RH (20-30%)	AMBIENT TEMP UNDER 32 DEGREES C

**COMMERCIAL IN CONFIDENCE**

**RADAR AND RADIO SILENCE**

Use of all equipment that radiates from the ship should be under the control of the Skipper. The rationale behind radar and radio silence policy can be discussed in person with Dryad but the table below is a guide.

TYPE	BAND	CRUISING	WARNING LEVEL		
			Elevated risk	Very High Risk	Critical risk
S E A R C H	ALL BANDS	✓	✓	✓	✓
	Short range navigation Radar (3cm - X Band)	✓	✓	✓	✓
	Long range search radar (10cm – S Band)	✓	✓	✓	✓
AIS/ NAV- AIDS	ALL BANDS	✓	✓	✓	✓
	ALL NAVAIDS	✓	✓	✓	✓
	RADAR TRANSPONDER	✓	✓	✓	✓
C O M M S	VHF & GMDSS	✓	✓	X	X
	ALL UHF COMMS	✓	✓	✓	✓
	UHF SHIP/SHIP	✓	✓	✓	✓
	UHF SHIP/AIR	✓	✓	✓	✓
	ALL HF/MF COMMS	✓	✓	✓	✓
	HF/MF SHIP/SHIP	✓	✓	✓	✓
	HF/MF SHIP/SHORE	✓	✓	✓	✓
	HF/MF SHIP/AIR	✓	✓	✓	✓
	SHF SATCOM	✓	✓	✓	✓
UHF SATCOM	✓	✓	✓	✓	
O P T I C A L	NAV LIGHTS	✓	✓	✓	✓
	DECK LIGHTS	X	X	X	X
	STERN LIGHTS	✓	✓	✓	✓
	PARA FLARES (WHITE OR GREEN)	X	X	✓	✓
	VERY FLARES (WHITE OR GREEN)	X	X	✓	✓
	SEARCH LIGHTS	X	X	✓	✓
	ILLUMINATION - IR	✓	✓	✓	✓
Radar	ALL DETECTORS	✓	✓	✓	✓
	ECHO ENHANCERS	✓	✓	✓	✓
	RADAR DECOYS	✓	✓	✓	✓