

DRYAD MARITIME

I n t e l l i g e n c e S e r v i c e

PIRACY SEMINAR

VOLVO OCEAN RACE

WHO AM I?

- SHIP DRIVER
- CLEARANCE DIVER /
BOMB DISPOSAL OFFICER
- IRAQ
- PRINCIPAL WARFARE OFFICER
(ABOVE WATER)
- DRYAD'S MD



Structure

Timing	Subject	Including
0900 – 0945	Understanding Piracy	What is piracy and where does it happen? What happens in a pirate attack?
0945 – 1030	What Can You do About it?	Preparation before entering the area? What to do whilst in the area? What happens during an attack? What if pirates get onboard?
1000-1030	Coffee break	
1030-1200	Intelligence Briefing	Leg 2 Leg 3 Leg 4
On Completion	Workshop for Skippers and Watch Captains	Food, water and fuel endurance Defects Diversion ports

Session 1

UNDERSTANDING PIRACY

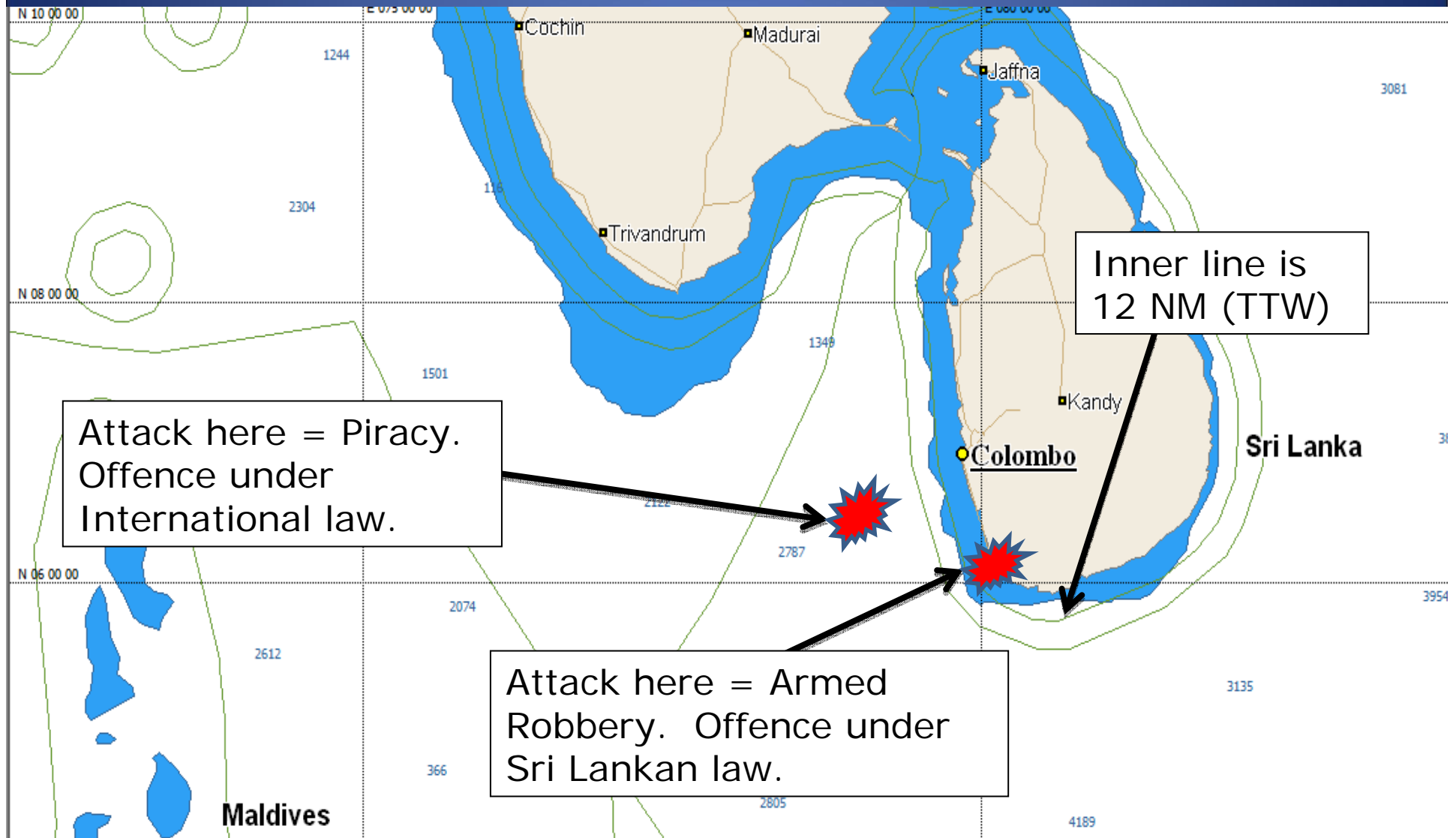
What is Piracy?



WHAT IS PIRACY?

- Piracy
 - Piracy is robbery on the high seas (Outside 12nm from land) committed for private ends.
 - Offence under international law.
- Armed Robbery
 - Armed robbery occurs in Territorial waters (Inside 12nm from land).
 - Offence under domestic law of the state whose Territorial Waters you are in.

ILLUSTRATION



PIRACY MYTH AND TRUTH

- Crime of opportunity
- Motivation is monetary gain either by hijack and Ransom or hit and run
- Not superman / tactical geniuses who use satellites surveillance
- They are not terrorists

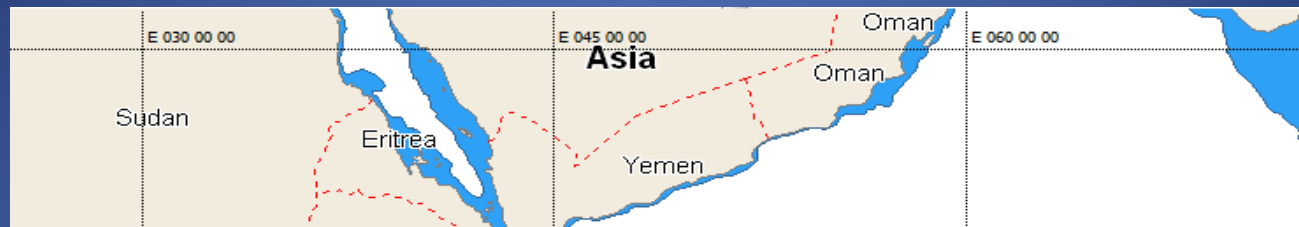
WHAT HAPPENS IN AN ATTACK?



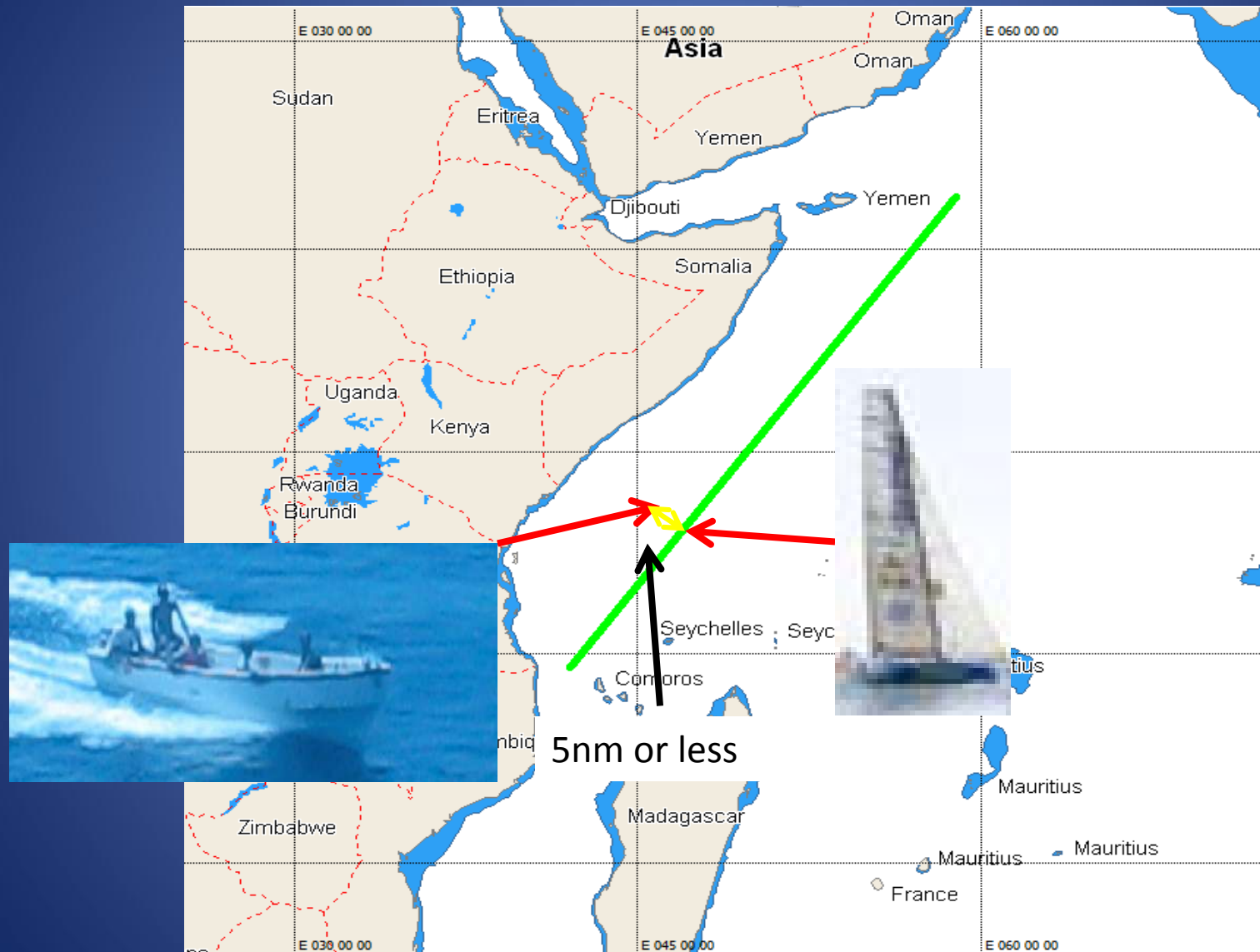
PHASES OF AN ATTACK

- PHASE 1 SURVEILLANCE
- PHASE 2 TARGETING
- PHASE 3 COMMITTING TO AN ATTACK
- PHASE 4 ONCE ONBOARD

PHASE 1 SURVEILLANCE



PHASE 2 TARGETING



PHASE 3 COMMITTING TO AN ATTACK



PHASE 4 PIRATES ONBOARD



Session 2

WHAT CAN YOU DO ABOUT IT?

Counter Measure Phases

Counter Detection:

Try and stop them from seeing you in the first place.

Counter Targeting:

Once they have seen you, making the boat appear as difficult a target as possible to an observer in another vessel.

Evasion:

Stop or delay them from boarding.

Attack Management:

Keep the crew safe and get the pirates to go away quickly.

Passage Planning

1. Plot previous attacks and hatch off and avoid the bad areas
2. 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.

3. Plan your diversion ports.
4. Aim to remain outside of coastal fishing zones and out of sight of land in order to reduce piracy risk.

PASSAGE PLANNING

5. Check ALRS Vol 5 and ensure that the correct NAVTEXT and safety net frequencies are set.
6. 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

7. Weather is all important in racing but it is also the greatest limiting factor in maritime crime. Plot weather areas on your GOP.

COUNTER DETECTION

Try and stop them from seeing you in the first place.

1. Remain out of sight of land and remain out of the inshore fishing zone where possible.
2. At night, COLREGS mandate the display of Navigation lights including those identifying the vessel as being under sail.
3. 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
4. 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.
5. 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.
6. 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.
7. Use Night vision aids and Thermal imagers where possible in order to assist with passive identification and classification of vessels.
8. 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

Once they have seen you, making the boat appear as difficult a target as possible to an observer in another vessel.

1. 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.
2. 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.
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.

3. 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.
4. Give 5 short blasts on the Air horn.
5. Give warnings on VHF (Available from Dryad).
6. Call all crew up on deck to show that you have the numerical advantage

EVASION

Stop or delay them from boarding.

1. In the unlikely event you are not proceeding at the best speed possible (eg running up wind) make the best possible speed.
2. Where manoeuvring will not slow down progress, tack aggressively.
3. Deploy tangle lines aft (Stream lines into the wake that will foul the propellers of outboard engines.)
4. 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

Keep the crew safe and get the pirates to go away quickly.

1. The evasion phase stops once the pirates are close to the crew or vessel.
2. Keep crew away from the deck and the cockpit.
3. Take a bag of valuables from the cockpit and hand it to the pirates stating that is it. Aim to get the pirates to go away without having to board.
4. Have a GPS, Iridium Phone and a satellite phone that if they do board the vessel can be secreted in a secure place so you can navigate and summon assistance.
5. Once the pirates are on board, do not show the pirates, what would you do with the newly embarked crew member. Your aim is to defer in an attempt to get them to go away. You can achieve this – insurance can pay for the material loss and the crew.
6. Once the pirates depart, check for injuries, establish what has been damaged, get the crew back on the race. After the incident, report the incident to the authorities and race of



OTHER TOP TIPS

- RADAR
- AIS
- CLASSIFICATION AIDS
- ISRAELI BANDAGES AND QUICK-CLOT
- GRAB BAGS / CYALUMES...AND A PLAN FOR WHEN YOU GET HASSLED.....

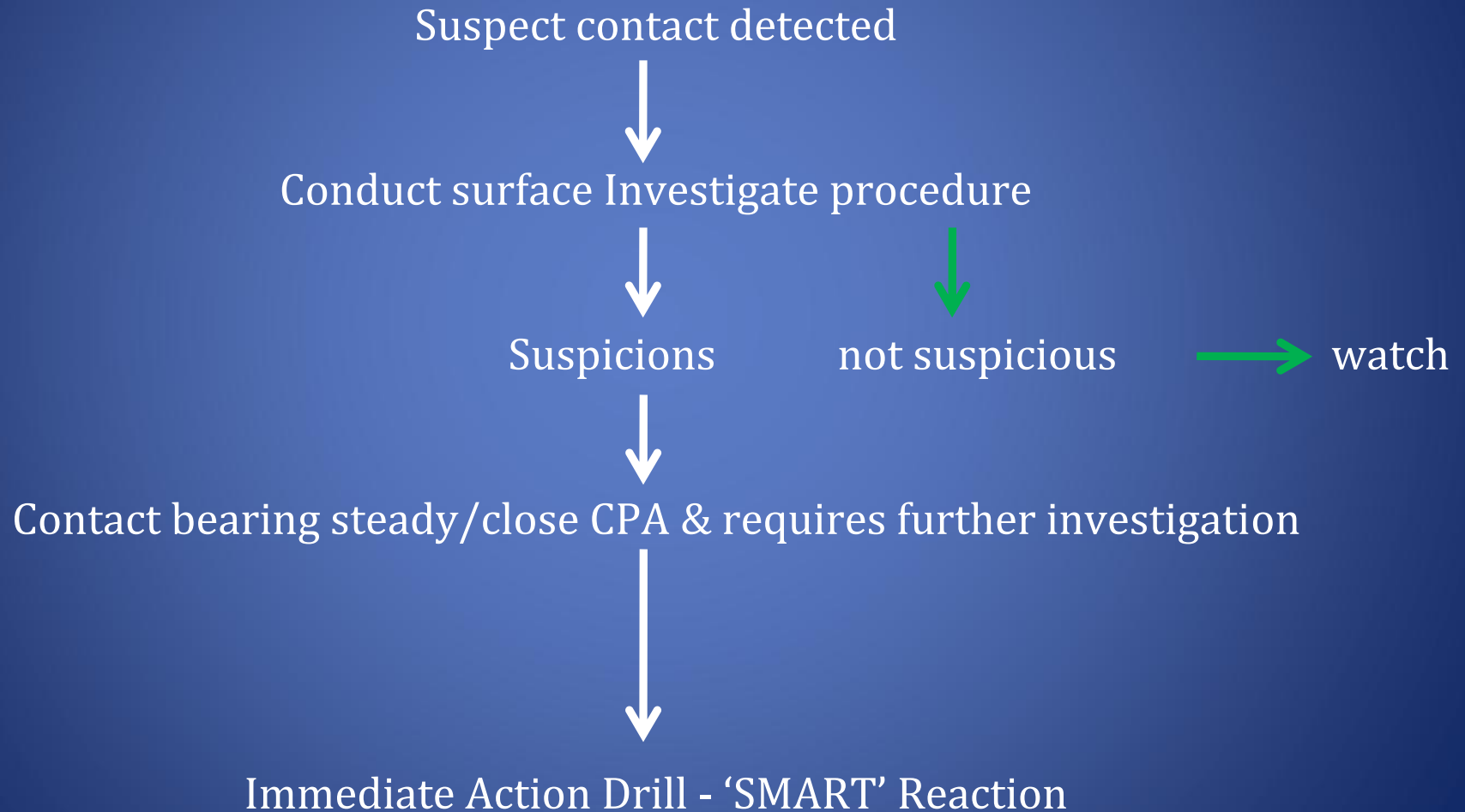
Day 1 minute 1.....



HOW DO YOU TELL THE DIFFERENCE BETWEEN A FISHERMAN AND A PIRATE?



Incident flow diagram



CONTACT INVESTIGATE PROCEDURE

ITEM	REMARKS
CHECK BEARING	STEADY BEARING?
CHECK RADAR (IF PAINTING/ TRACKING)	CPA INSIDE 200YDS? COURSE? SPEED? CPA? TIME TO GO?
VISUAL IDENTITY	SUSPICIOUS? MILITARY APPEARANCE? OVER 4 PEOPLE ONBOARD? SPEED TIES IN WITH RADAR?
COMMS	ANYTHING HEARD ON VHF?
CHECK CHART	ARE THEY HEADING TOWARD A PORT?
LOOKOUTS	CAN THEY ADD TO WHAT YOU KNOW?
INTELLIGENCE	IN THREAT AREA?

IMMEDIATE ACTION DRILL- (SMART)

SPEED

- Increase speed to max.

MANOEUVRE

- Conduct a '**Step aside**' manoeuvre to establish intent

ASSESSMENT

- Are you happy to allow the vessel to continue to close you? If not then the contact is now classified as suspect and requires you to take action.

SOUND THE GENERAL ALARM AND ACTIVATE SASS

RESTRICTIONS

- Check restrictions: Navigable water / Proximity to other vessels- look for space.

TAPE

- Start tape recorder and any other recording of the incident.

WARN

- Commence warnings

VHF WARNINGS

WARNING 1: (On detection/classified suspect)

UNKNOWN VESSEL, THIS IS [NAME] [LOCATION] GOOD MORNING. YOU ARE CLOSING ME FROM MY IDENTIFY YOURSELF AND STATE YOUR INTENTIONS.

WARNING 2: (5 cables to 3 cables)

UNKNOWN VESSEL, THIS IS [NAME] YOU ARE THREATENING ME. YOUR INTENTIONS ARE UNCLEAR. I REQUEST YOU TURN AWAY IMMEDIATELY.

WARNING 3: (3 cables to CPA)

UNKNOWN VESSEL, THIS IS [NAME] I REQUEST YOU TURN AWAY IMMEDIATELY. I HAVE ALERTED NAVAL FORCES WHO ARE CURRENTLY CLOSING MY POSITION.

WARNING 4: (If being fired upon – CONSIDER PAN/MAYDAY CALL ON ALL AVAILABLE MEANS)

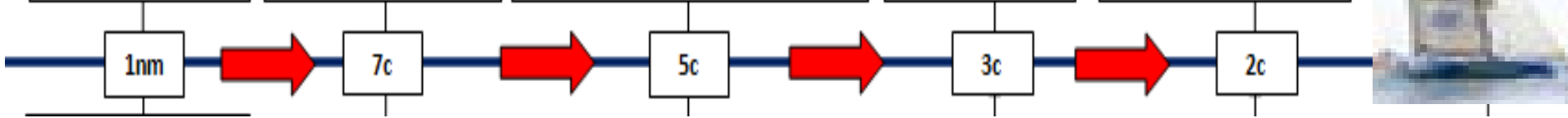
UNKNOWN VESSEL, THIS IS [NAME] I HAVE REPORTED YOUR ATTACK TO NAVAL FORCES (FURTHER ATTACKS WILL BE MET WITH EQUAL FORCE). TURN AWAY IMMEDIATELY.

DETER	DELAY	DEFER
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ATTACK SUSPECTED	ATTACK STRONGLY SUSPECTED	CONCLUSIVE EVIDENCE OF ATTACK IN PROGRESS			
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<p style="text-align: center;">SMART: <u>S</u>PEED – <u>M</u>ANOEUVRE <u>T</u>HEN <u>A</u>SS- <u>R</u>ESTRICTIONS <u>T</u>APE</p> <ul style="list-style-type: none"> • CALL MASTER TO BRIDGE • VHF WARNING 1 CONTACT NEAREST RCC /NAVAL CRAFT (SEE WAP) & DPA/CA • SECURITE REPORT ON VHF 70 • CONSIDER SWITCH ON DECK AND STERN LIGHTS • POST ADDITIONAL UPPERDECK PATROL 	<ul style="list-style-type: none"> • WARNING 1 • POINT SIGNAL LAMP AT VESSELS BRIDGE • 5 SHORT BLASTS • PHOTOGRAPHER MUSTER ON BRIDGE FOR EVIDENCE COLLECTION • INCREASE WATERTIGHT INTEGRITY/START FIRE/BILGE PUMPS 	<ul style="list-style-type: none"> • WARNING 2 • 5 SHORT BLASTS • START NARROW WEAWE • UPPER DECK OUT OF BOUNDS • ACTIVATE SASS • ALL STNS PAN CALL ON VHF 16 / 2182KHZ CHARGE FIRE HOSES MUSTER CREW ON DISENGAGED SIDE BELOW WATERLINE OR SAFE ROOM DESIGNATED IN ISPS VESSELS. PLACE DOOR SENTRIES, 1ST MATE PERFORM RESTRICTED AREA ROUNDS. CHECK SECURITY DOOR LOCKING PANEL • MEDICAL TEAM MUSTER WITH TRAUMA PACKS 	<ul style="list-style-type: none"> • WARNING 3 • 5 SHORT BLASTS • RECALL UPPER DECK SENTRIES • CONSIDER SPOOF VHF CALL • FIRE PARA FLARE (NIGHT) • FIRE VERY PISTOL FLARE 	<ul style="list-style-type: none"> • WARNING 3 • SWITCH OFF UPPERDECK LIGHTS • USE LRAD/MAD/HAND HELD MEGAPHONE/ UPPERDECK BROADCAST FOR WARNINGS • CONSIDER USING FIRE HOSES TO REPELL BOARDERS 	<p style="text-align: center;"><u>BOARDING</u></p> <p>IF GRAVE AND IMMINENT DANGER – MAYDAY CALL VHF/MF/HF/ SATCOM/DSC (PART OF RADIO SYSTEM)/SSAS</p> <p>Check navigational safety – turn the ship into open water at slow speed and set the autopilot</p>
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MAX EFFECTIVE RANGE FOR AK47 / RPG FIRED BY ATTACKER



Coffee break



SEATED BY 1030 PLEASE!

Session 3

INTELLIGENCE BRIEFS

Format

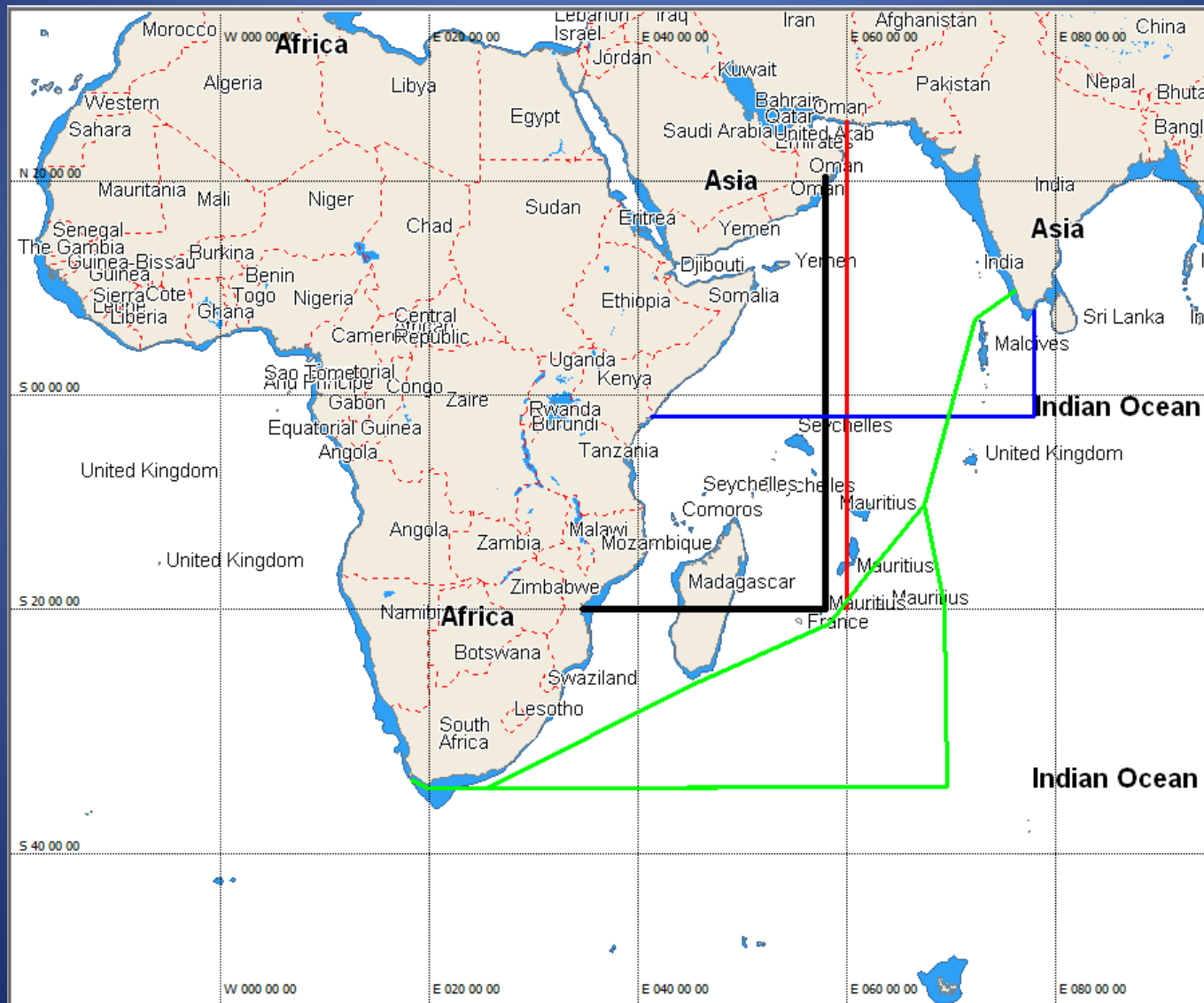
- Headlines
- Local pattern of life- what is normal
- Environmental factors
- Latest Hostile activity
- Latest Friendly Activity

LEG 2

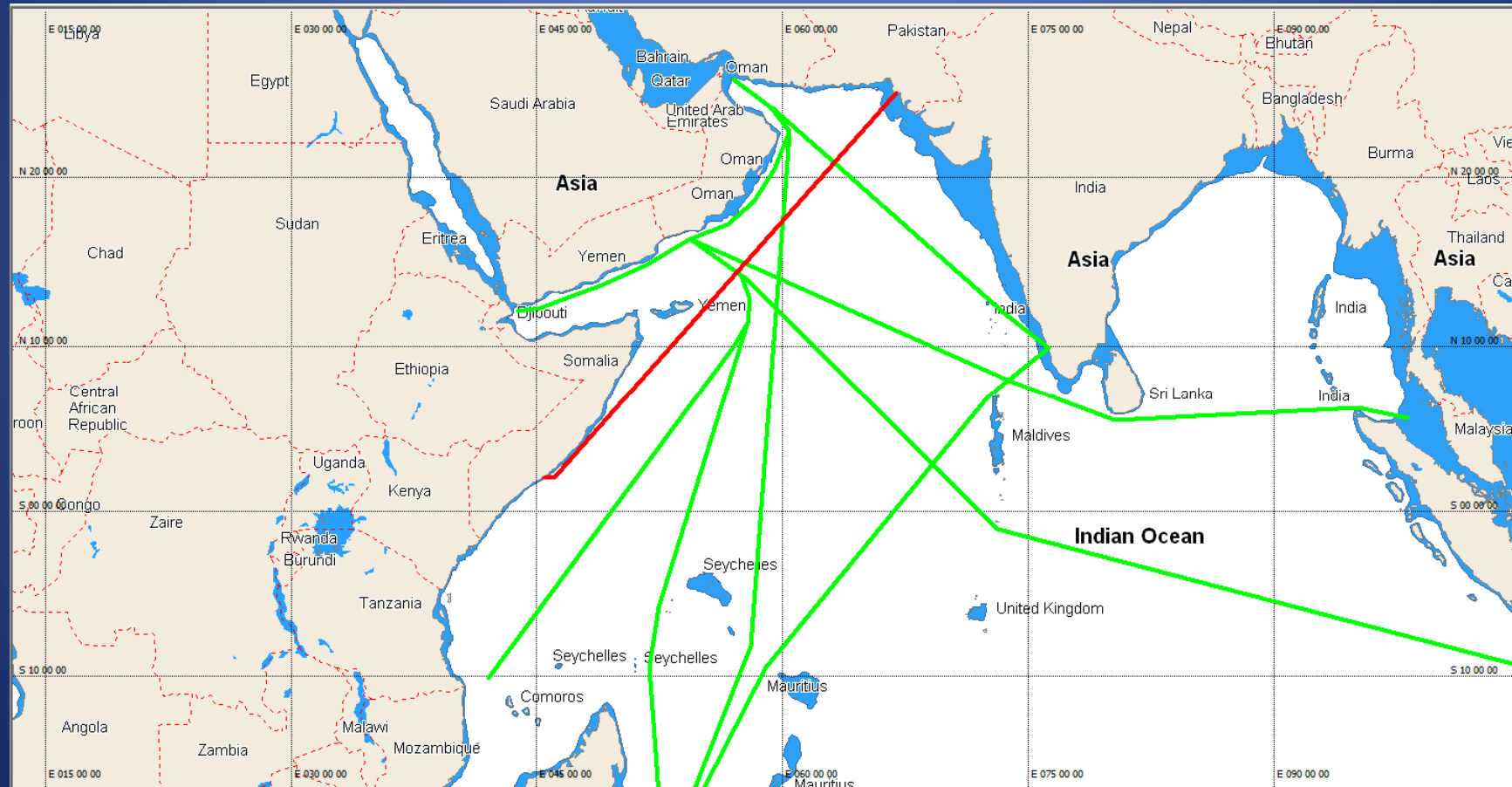
CAPE TOWN TO COCHIN

15 NOV – 3 DEC

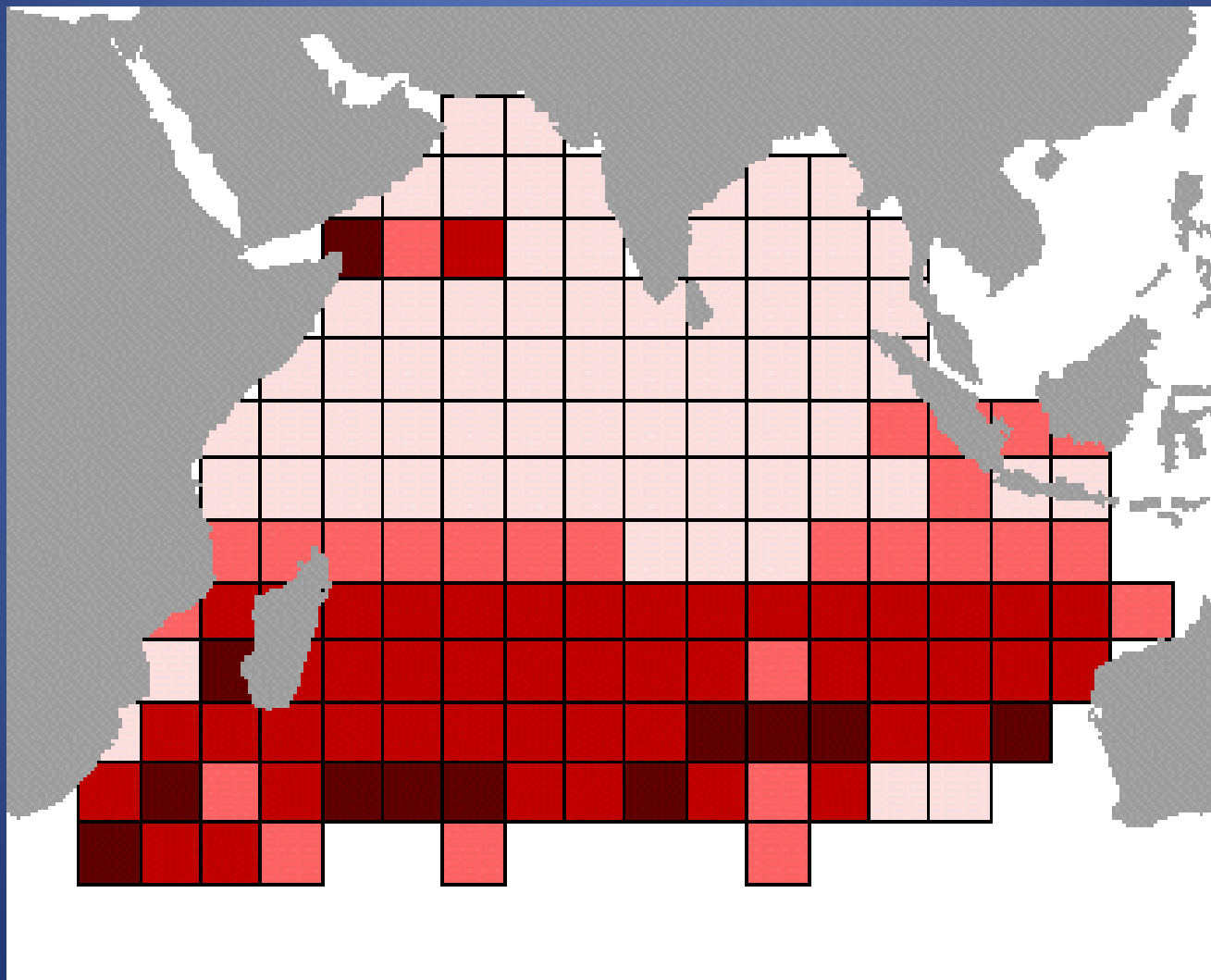
HEADLINES



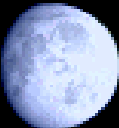






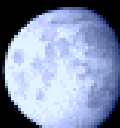









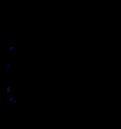
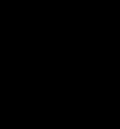
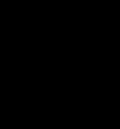
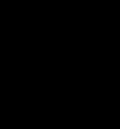
PATTERN OF LIFE-COMMERCIAL VESSELS

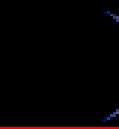


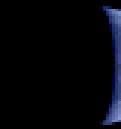
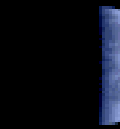
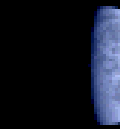
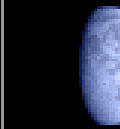


PATTERN OF LIFE- INDUSTRIAL FISHING

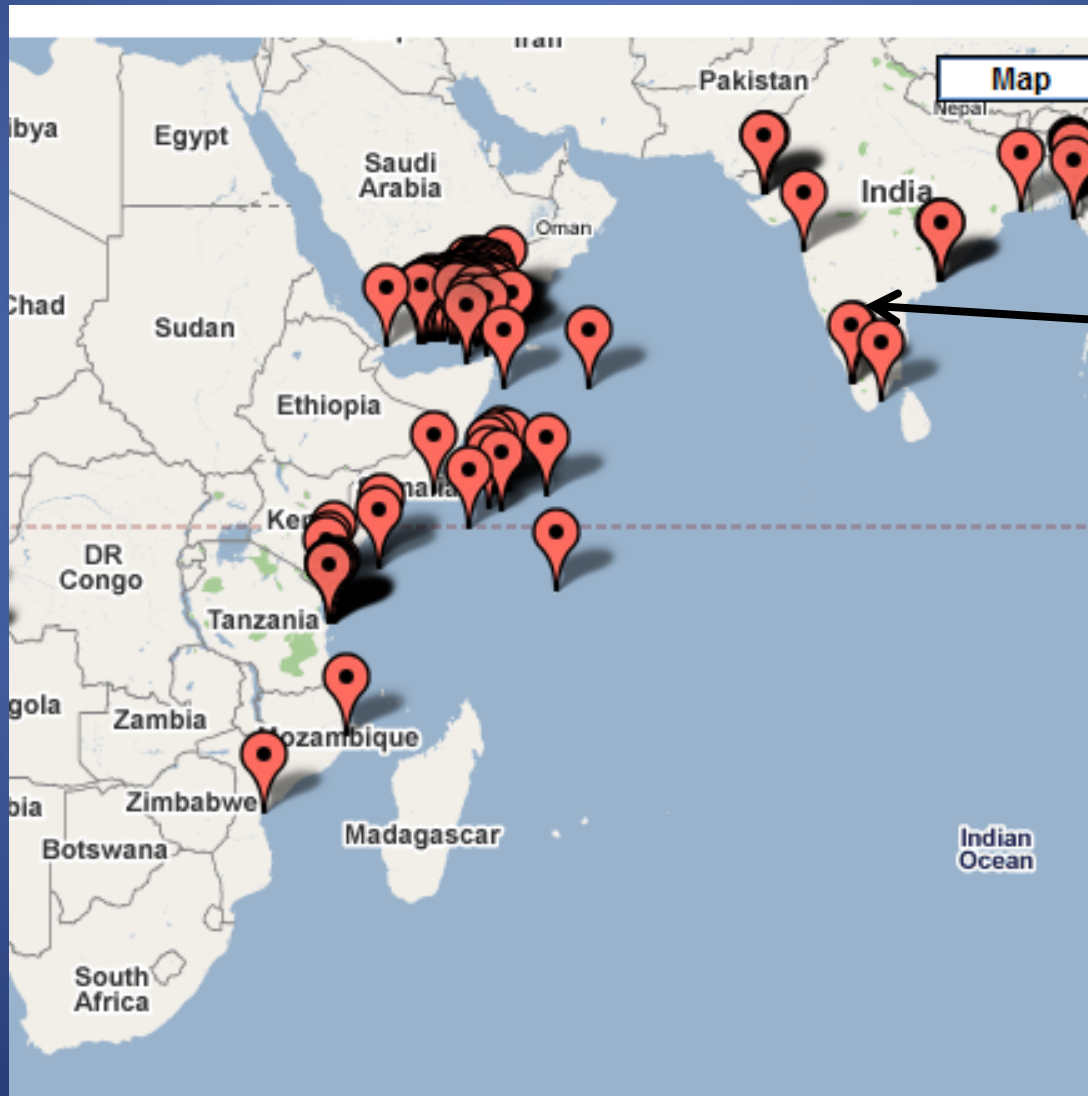


Environmental

Moon Phases: November 2008						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
10 	11 	12 	13 Full 	14 	15 	16 
17 	18 	19 	20 	21 	22 	23 
24 	25 	26 	27 New 	28 	29 	30 

Moon Phases: December 2008						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1 	2 	3 	4 	5 	6 	7 

Hostile



20 AUG 08
ROBBERY IN COCHIN
ANCHORAGE

Hostile

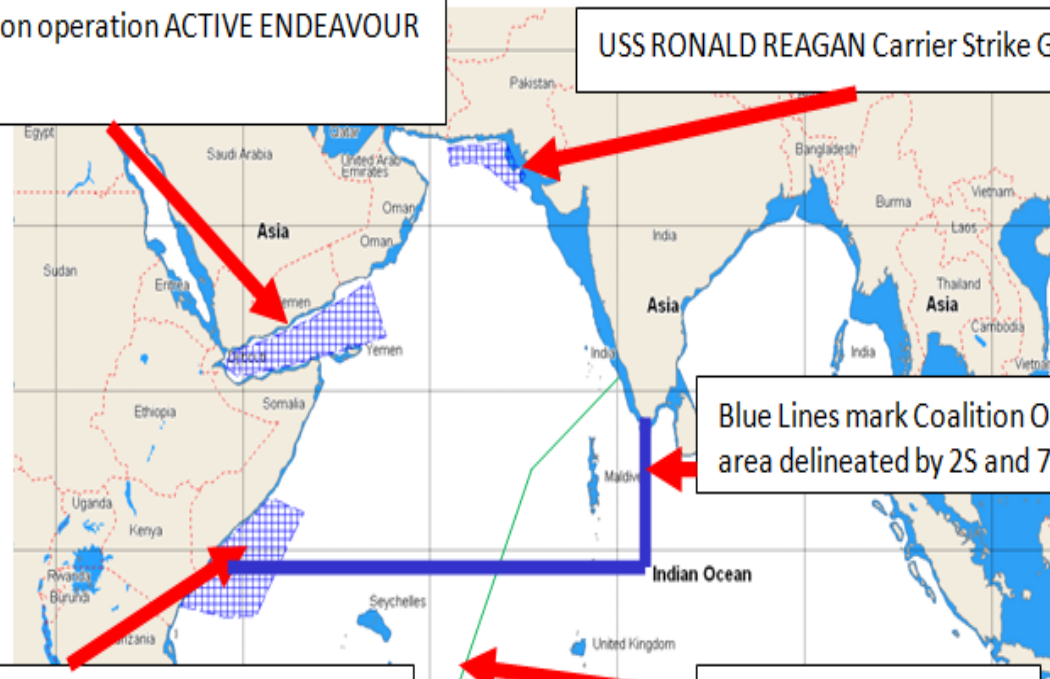
Modus Operandi



FRIENDLY NAVAL ACTIVITY

8 Coalition ships on operation ACTIVE ENDEAVOUR
(Anti Terrorism)

USS RONALD REAGAN Carrier Strike Group)



Blue Lines mark Coalition Operating area delineated by 2S and 78E

3 NATO ships on Operation ALLIED PROVIDER

- ITS Durand de la Penne (flagship, Italy)
- HS Themistokles (Greece)
- HMS Cumberland (United Kingdom)

Route of the VOR Boats

UKMTO

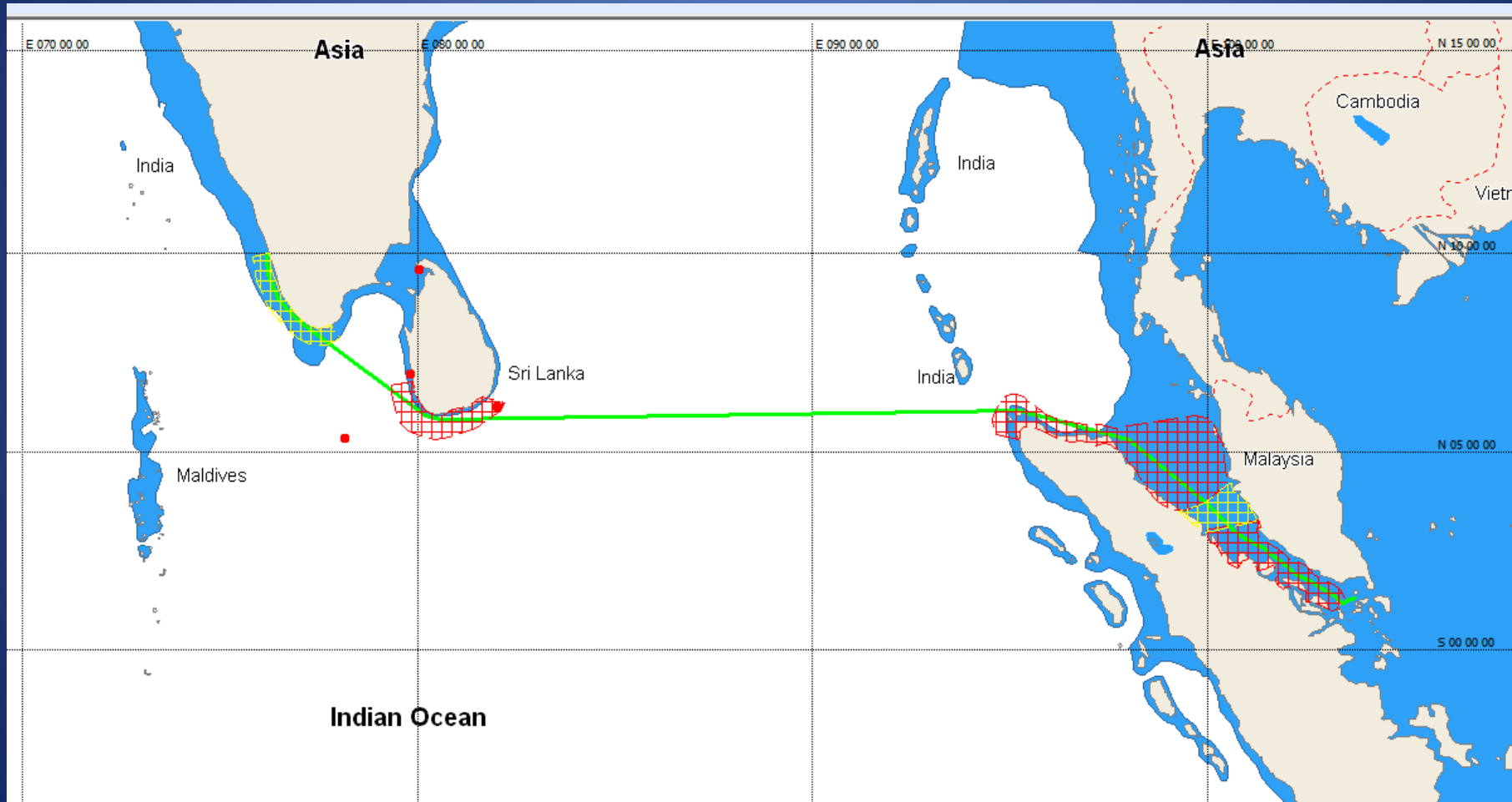
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LEG 3

COCHIN TO SINGAPORE

13 DEC – 23 DEC

HEADLINES



PATTERN OF LIFE-COMMERCIAL VESSELS

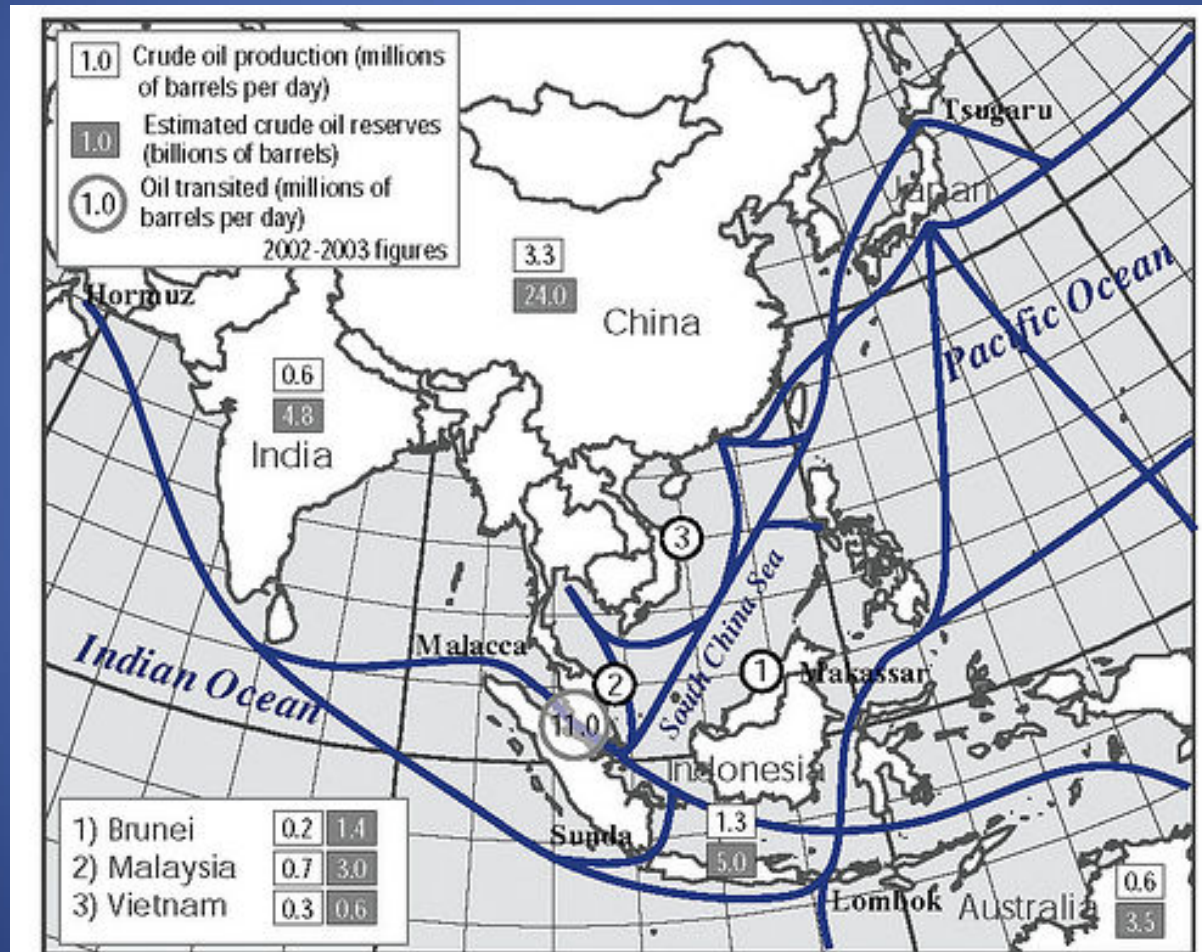






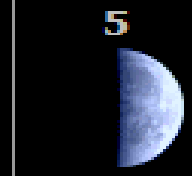
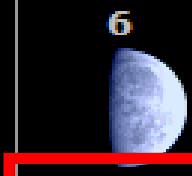
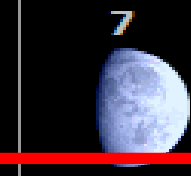





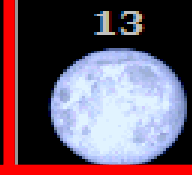




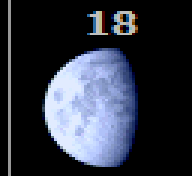

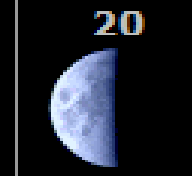




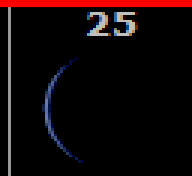


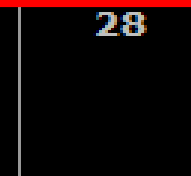



Figure 7 Shipping Lanes and Strategic Passages in Pacific Asia

PATTERN OF LIFE- FISHING

- ARTISANAL / INSHORE



Environmental

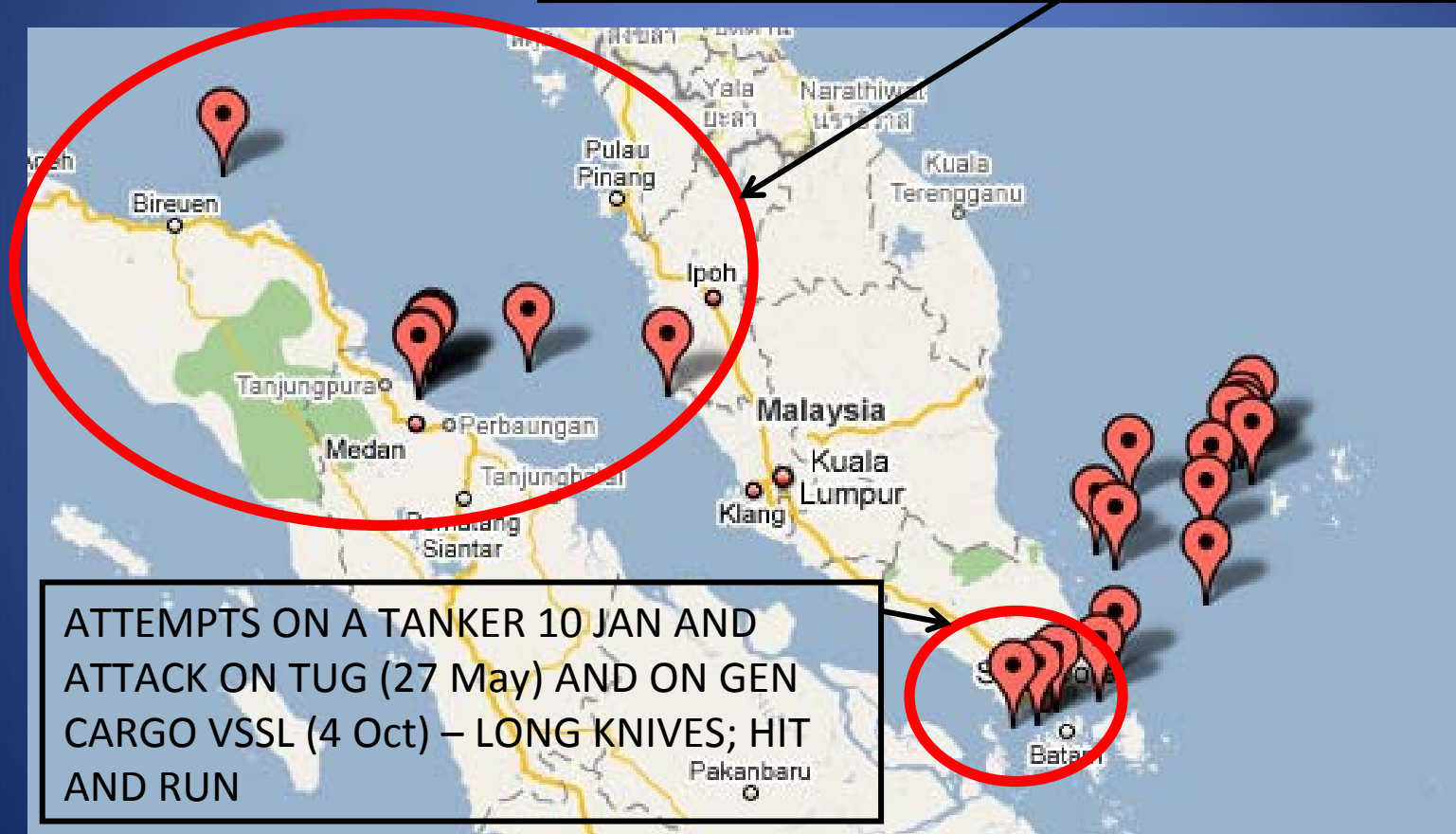
Moon Phases: December 2008						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
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8 	9 	10 	11 	12 Full 	13 	14 
15 	16 	17 	18 	19 	20 	21 
22 	23 	24 	25 	26 	27 New 	28 
29 	30 	31 				

Hostile – Sri Lanka



HOSTILE – MALACCA STRAIT

ATTEMPTS AND ATTACKS ON CHEMICAL TANKERS –
CAUTION 6N TO 3N



Friendly

- INDONESIA, MALAYSIA, THAILAND AND SINGAPORE PATROLS IN THE STRAIT.
- MDA
- 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.

LEG 4

SINGAPORE TO QINGDAO

18 JAN – 30 JAN

HEADLINES



PATTERN OF LIFE-COMMERCIAL VESSELS

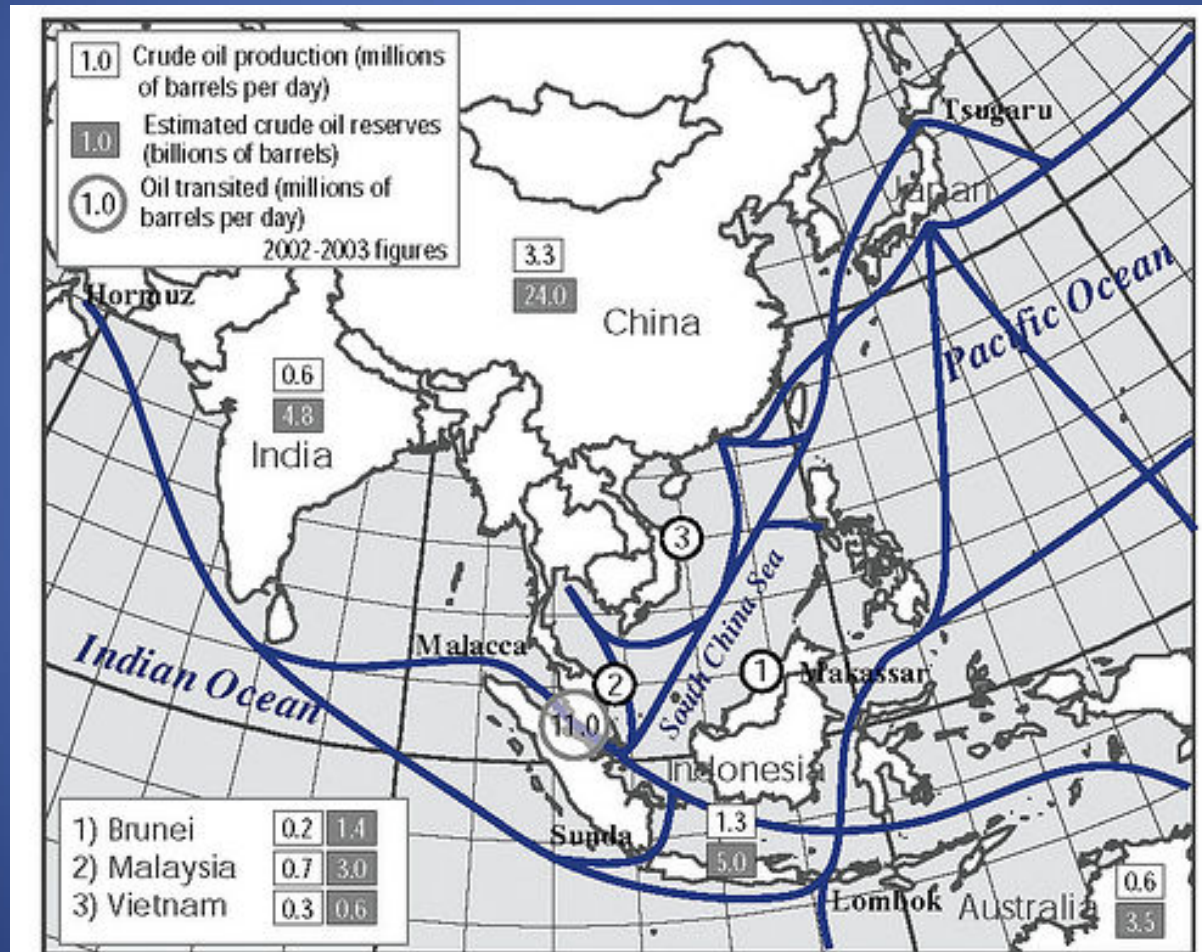




























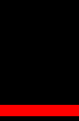
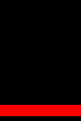
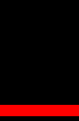
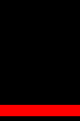
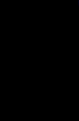
Figure 7 Shipping Lanes and Strategic Passages in Pacific Asia

PATTERN OF LIFE- FISHING

- ARTISANAL / INSHORE



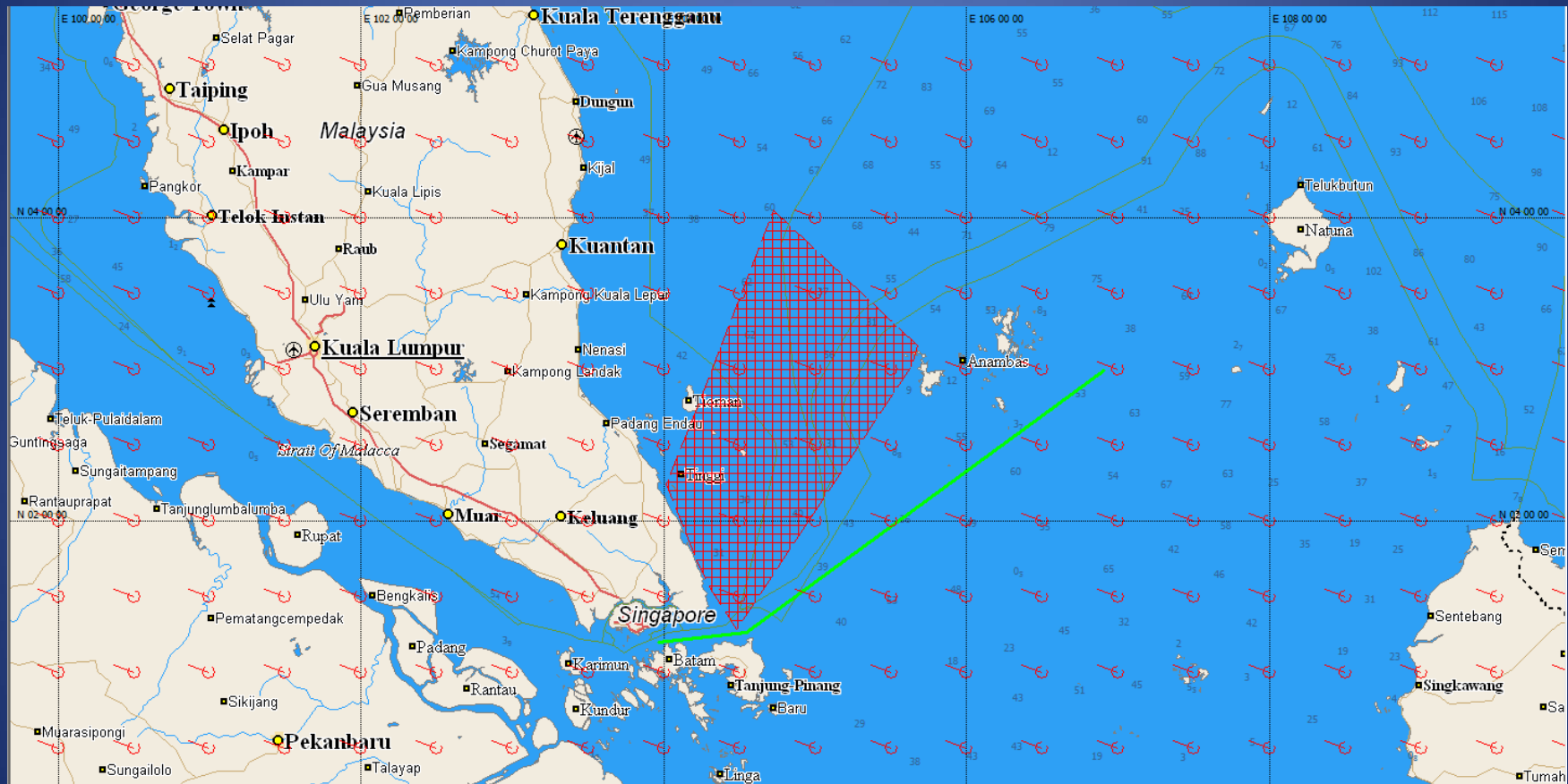
Environmental

Moon Phases: January 2009						
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			1 	2 	3 	4 
5 	6 	7 	8 	9 	10 	11 Full 
12 	13 	14 	15 	16 	17 	18 
19 	20 	21 	22 	23 	24 	25 
26 New 	27 	28 	29 	30 	31 	

HOSTILE – SOUTH CHINA SEA



HOSTILE – SOUTH CHINA SEA

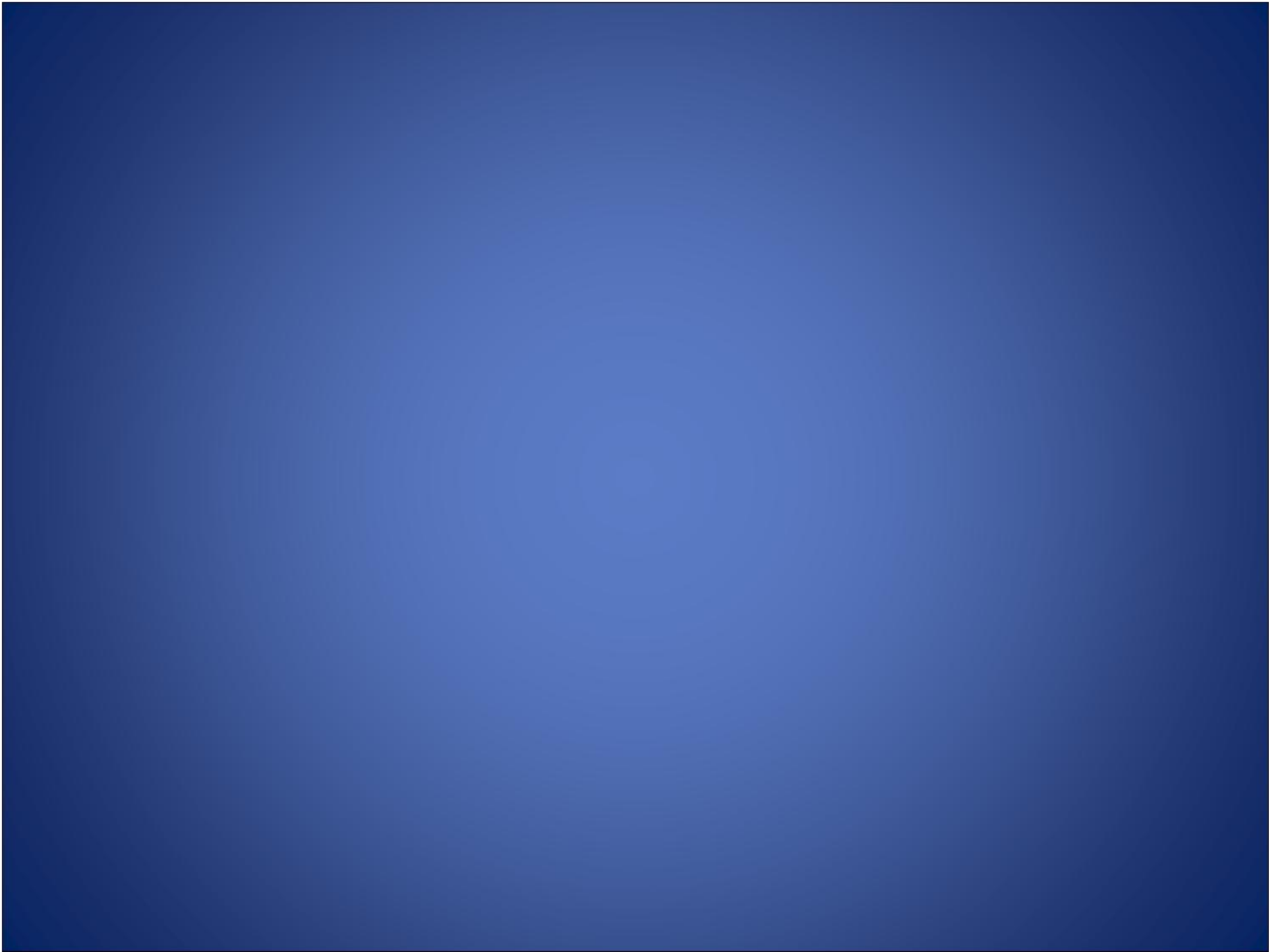


FRIENDLY

- INDONESIA
- CHINA
- TAIWAN
- SUBMARINES

QUESTIONS?





WEATHER AND EM PROPAGATION

Clutter reduces probability of detection visual/radar

Radar propagation worse the more water is in the atmosphere.

So:

In area of high pressure = above average propagation

In warm sector or ahead of warm front = poor propagation

Everywhere else is average

Ducting = area of abnormally high ranges (Super refraction) (Concentrates rays in duct and then creates a shadow zone – as the concentrated rays need to come from somewhere)