

MARITIME INTELLIGENCE GATHERING & INFORMATION SHARING



COMMODORE UDAI RAO(RETD)
FORMER PRINCIPAL DIRECTOR NAVAL INTELLIGENCE
FORMER DIRECTOR CABINET SECRETARIAT

PREVIEW

- INFORMATION& INTELLIGENCE
- NATURE OF INTELLIGENCE
- SCOPE OF INTELLIGENCE
- ATTRIBUTES OF INTELLIGENCE
- INTELLIGENCE CYCLE
- PLATFORMS & SENSORS
- DISCIPLINES OF INTELLIGENCE
- INTELLIGENCE ORGANIZATION
- WHAT CAN INTELLIGENCE DO ?
- MARITIME DOMAIN AWARENESS
- SLOC MONITORING
- INT& INFO SHARING

■ **INFORMATION** IS AN ASSIMILATION OF DATA THAT HAS BEEN GATHERED, BUT NOT FULLY CORRELATED, ANALYZED, OR INTERPRET_{ED}.

■ **INTELLIGENCE** IS THE PRODUCT RESULTING FROM THE COLLECTION, EXPLOITATION, PROCESSING, INTEGRATION, ANALYSIS, EVALUATION, AND INTERPRETATION OF AVAILABLE INFORMATION . INTEGRATION AND ANALYSIS, COMBINED WITH A THOROUGH UNDERSTANDING OF MISSION REQUIREMENTS, CONVERT INFORMATION INTO USABLE INTELLIGENCE. THUS, INTELLIGENCE IS THE PRODUCT WE DERIVE FROM ANALYZING ALL AVAILABLE AND RELEVANT INFORMATION.

NATURE OF INTELLIGENCE

- INTELLIGENCE - WORLD'S SECOND OLDEST PROFESSION
- A NEVER ENDING GAME
- A FLUID COMMODITY
- PERISHABLE
- OFTEN INCOMPLETE, SOMETIMES CONFUSING ,
- AT TIMES CONTRADICTORY
- COMPLICATED BY DIVERSE LEGAL NATURE OF MARITIME ZONES
- REQUIREMENTS OFTEN EXCEED CAPABILITY
- INTELLIGENCE AND OPERATIONS ARE TWO SIDES OF SAME COIN

SCOPE OF INTELLIGENCE

- STRATEGIC INTELLIGENCE – NATIONAL LEVEL,
NUCLEAR , MISSILES, SATELLITE
- OPERATIONAL INTELLIGENCE- NAVY/ TRI SERVICE
/ICG
- TACTICAL INTELLIGENCE - NAVY/ICG/MARINE
POLICE/ CUSTOMS /STATE POLICE

MARITIME INTELLIGENCE

NAVAL INTELLIGENCE

MERCHANT SHIPPING INTELLIGENCE

COASTAL INTELLIGENCE – STATES ,MARINE POLICE ,CUSTOMS

INTELLIGENCE CYCLE

- **PLANNING & DIRECTION**- FORESIGHT , TASKING
- **COLLECTION AND REPORTING**- TASKING
- **PROCESSING & EXPLOITATION**- FOREIGN LANGUAGES, DEVELOP FILMS
- **ANALYSIS & PRODUCTION** —ALL SOURCES , FUSING ,CORROBORATION
- **DISSEMINATION & UTILIZATION**-PUSH MODEL,PULL MODEL
- **EVALUATION & FEEDBACK**

ATTRIBUTES OF INTELLIGENCE

- **TIMELINESS**- TIME SENSITIVE
- **USEABILITY**- TIMELINESS ,RELEVANCE ,PROPER FORMAT
- **AVAILABILTY**- WHERE & WHEN REQUIRED
- **THOROUGHNESS**
- **ACCURACY** – FACTUALY CORREET , CORROBORATED
- **RELEVANCE** – TO THE SITUATION & INTENDED USER

QUESTIONS WHICH AN INTELLIGENCE REPORT MUST SATISFY :

- WHAT
- WHERE
- WHEN
- HOW
- WHY
- WHO

MULTI- DIMENSIONAL SURVEILLANCE

- ON SURFACE OF THE WATER
- AIRSPACE ABOVE WATER
- UNDERWATER
- FROM THE SEA – ASHORE
- AEROSPACE –SATELLITE
- CYBER SPACE



PLATFORMS FOR INTELLIGENCE

- SURFACE SHIPS
- LONG RANGE MARITIME PATROL (LRMP) AIRCRAFT -EYES & EARS OF THE FLEET
- CLOSE IN –SURVEILLANCE A/C -DORNIERS
- HELICOPTERS
- UNMANNED AERIAL VEHICLES (UAV)
- MARITIME SATELLITES
- UNMANNED UNDERWATER VEHICLE (UUV)
- MISSILE AND SATELLITE MONITORING SHIPS
- SUBMARINES
- MERCHANT SHIPS
- FISHERMEN



P8i BOEING







SUBMARINE AT PERISCOPE DEPTH
-OFF HARBOURS
-AT CHOKE POINTS

SENSORS FOR INTELLIGENCE

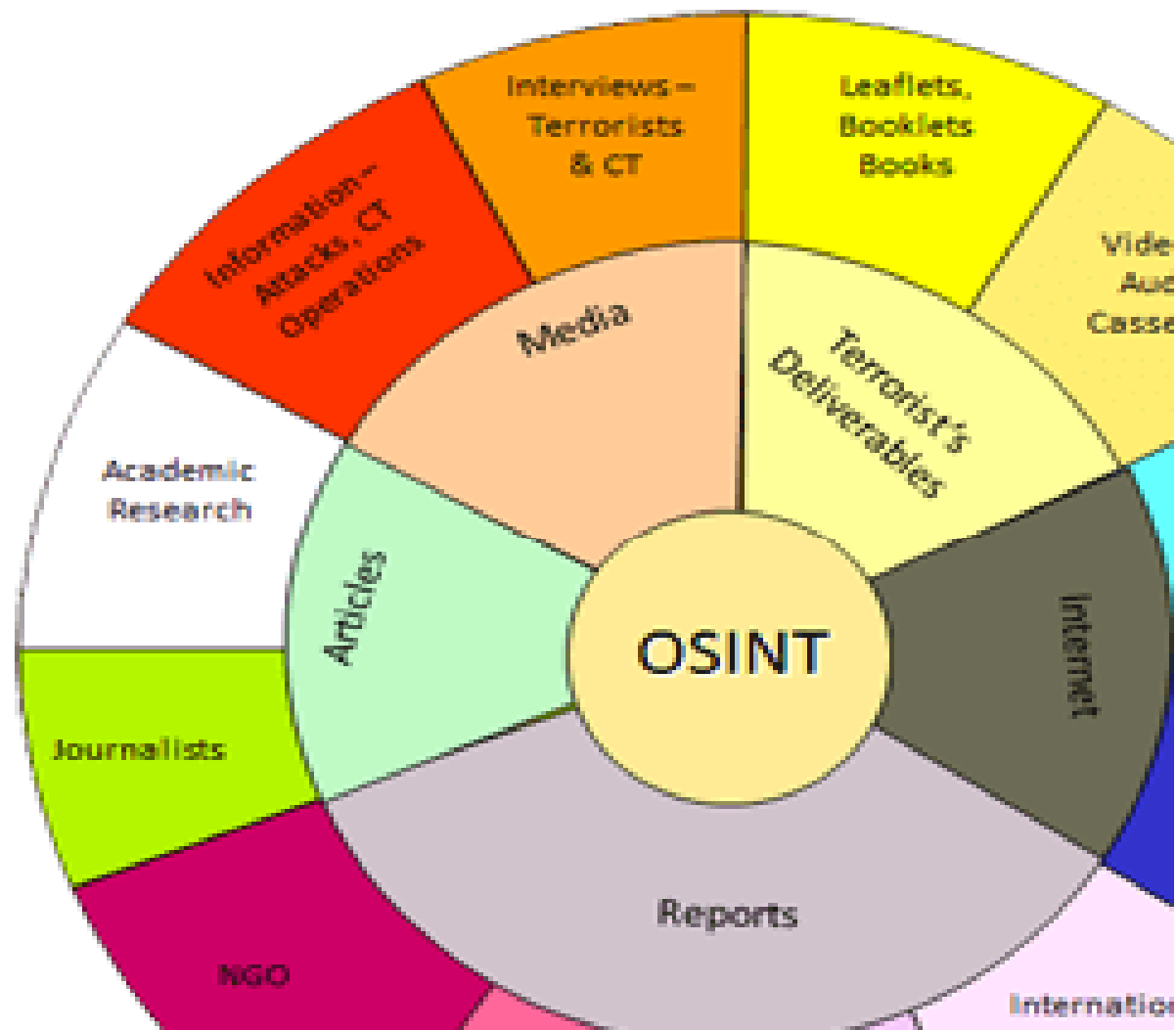
- EYES/ BINOCULARS
- ELECTRO -OPTICAL
- RADAR
- SONAR
- SONOBUOYS
- INFRA- RED
- V/UHF COMMUNICATION
- HF
- SATCOM





INTELLIGENCE DISCIPLINES

- OPEN SOURCES INTELLIGENCE (OSINT)
- HUMAN INTELLIGENCE (HUMINT)
OVERT ,COVERT -
- **TECHNICAL INTELLIGENCE (TECHINT)**
- GEO SPATIAL INTELLIGENCE (GEO INT)
- SIGNAL INTELLIGENCE (SIGINT)
- ❖ COMMUNICATION INTELLIGENCE (COMINT)
- ❖ ELECTRONIC INTELLIGENCE (ELINT)
- CYBER INT
- ACCOUSTIC INTELLIGENCE (ACINT)



HUMINT Collection Modalities



TRADE CRAFT

- COVERT OPERATIONS
- SPOTTING , CULTIVATING ,RAISING OF TARGETS AND SOURCES
- SECURITY PROTOCOLS
- THEORY & PRATICE OF SURVEILLANCE
- THEORY & PRACTICE OF COMMUNICATION
- COVER STORY & ALIBI
- THEORY & PRACTICE OF OBSERVATION & MEMORY
- THEORY & PRACTICE OF INTERROGATION
- REPORT WRITING

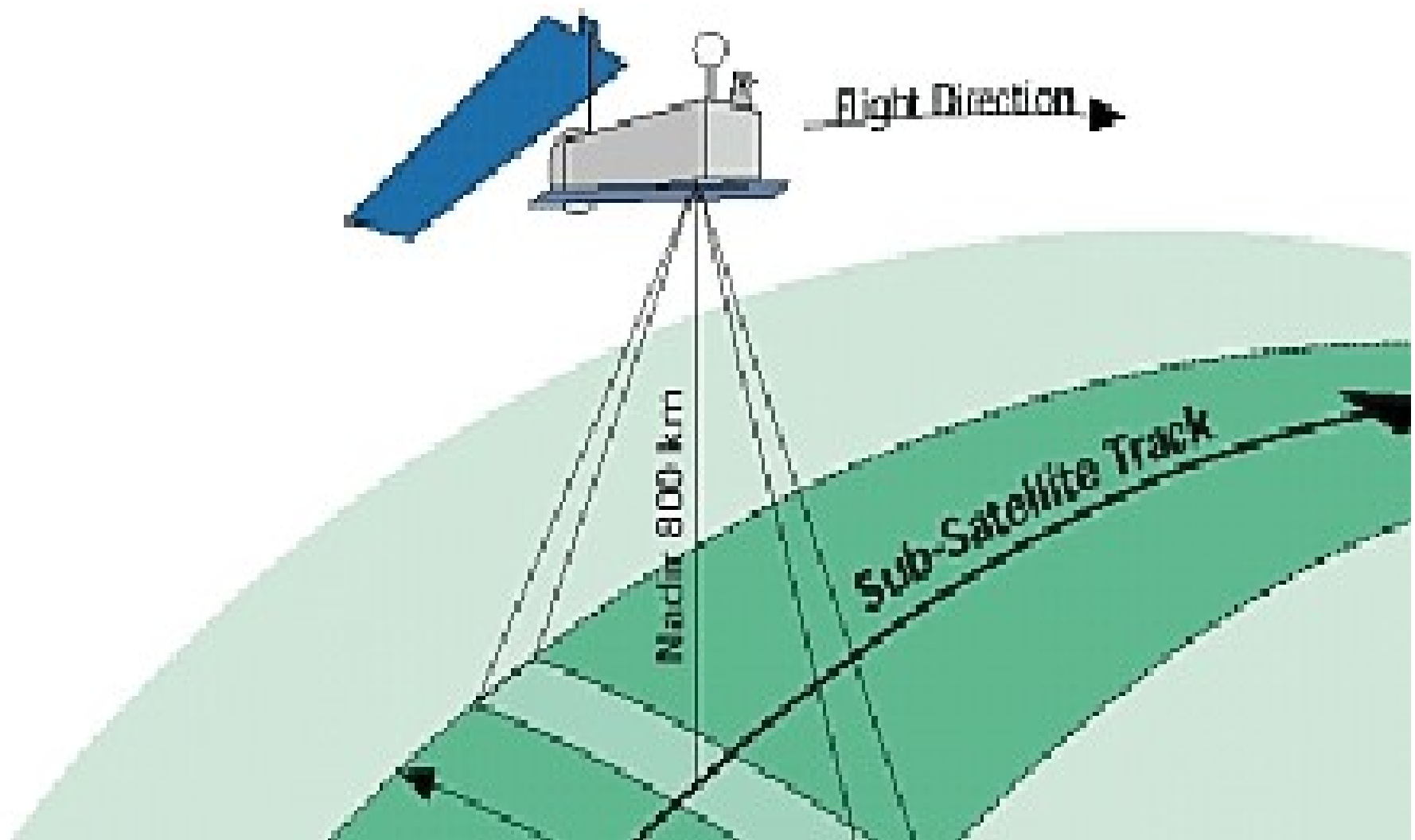


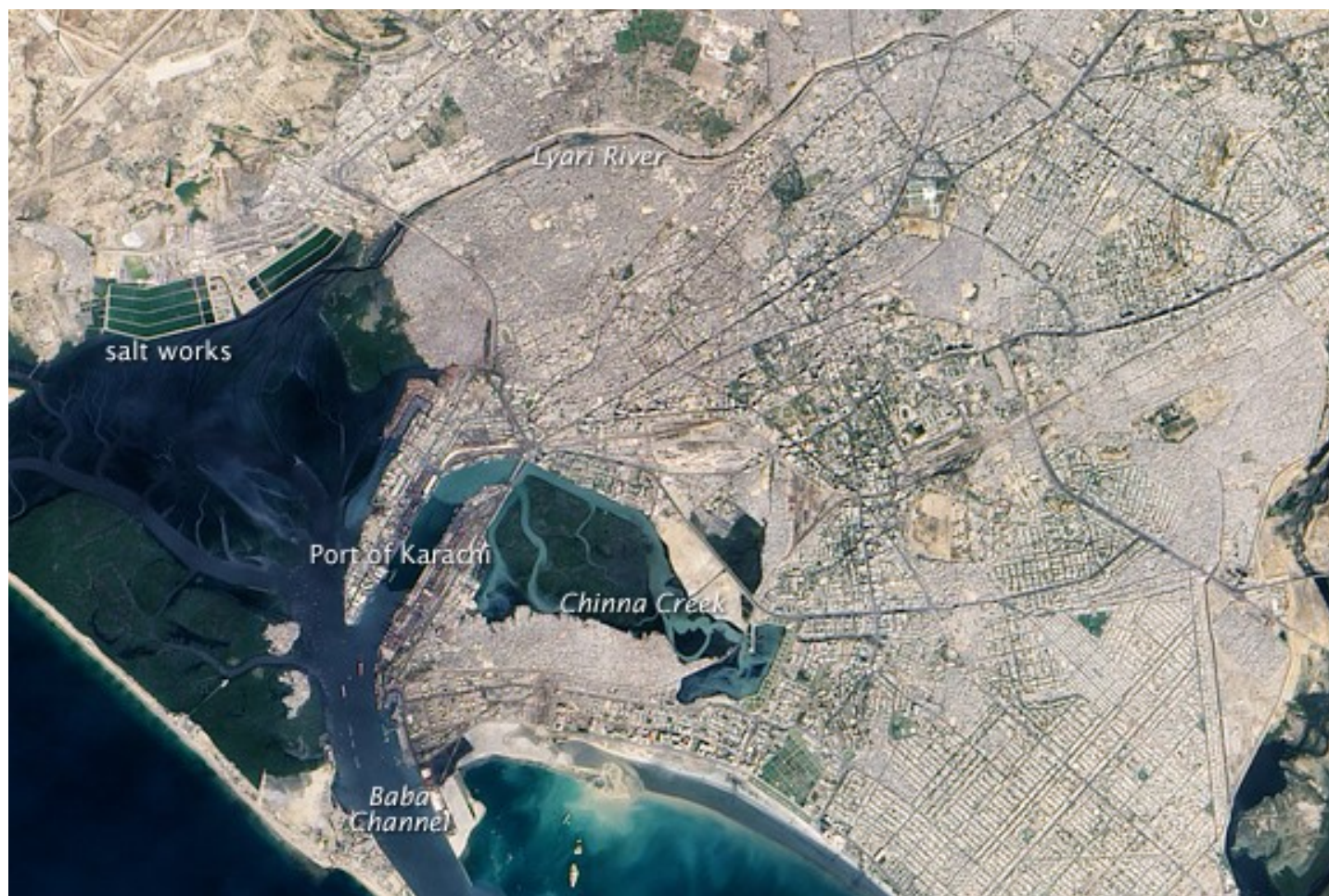
GEOSPATIAL INTELLIGENCE



CAPABILITIES AND LIMITATIONS OF MARITIME GEOINT

- ELECTRO-OPTICAL SATELLITES -AFFECTED BY WEATHER /CLOUDS
- SYNTHETIC APERTURE RADAR (SAR) CAN OVERCOME WEATHER
- ORBITAL GEOMETRY
- SWATH
- REVIST RATE
- RESOLUTION
- EXPENSIVE
- FEW NOS
- MARITIME AREA TOO LARGE TO BE COVERED BY SATELLITES
- CAN CUE OTHER ASSETS SUCH AS LRMP A/C
- USEFUL IN PORTS AND CHOKE POINTS









SIGINT

❖ COMINT

❖ ELINT

Signals intelligence (SIGINT) is [intelligence-gathering](#) by interception of signals, whether [communications](#) between people (**communications intelligence**—abbreviated to **COMINT**) or from electronic signals not directly used in communication (**electronic intelligence**—abbreviated to **ELINT**). Signals intelligence is a [subset](#) of [intelligence collection management](#). As [sensitive information](#) is often [encrypted](#), signals intelligence in turn involves the use of [cryptanalysis](#) to decipher the messages.

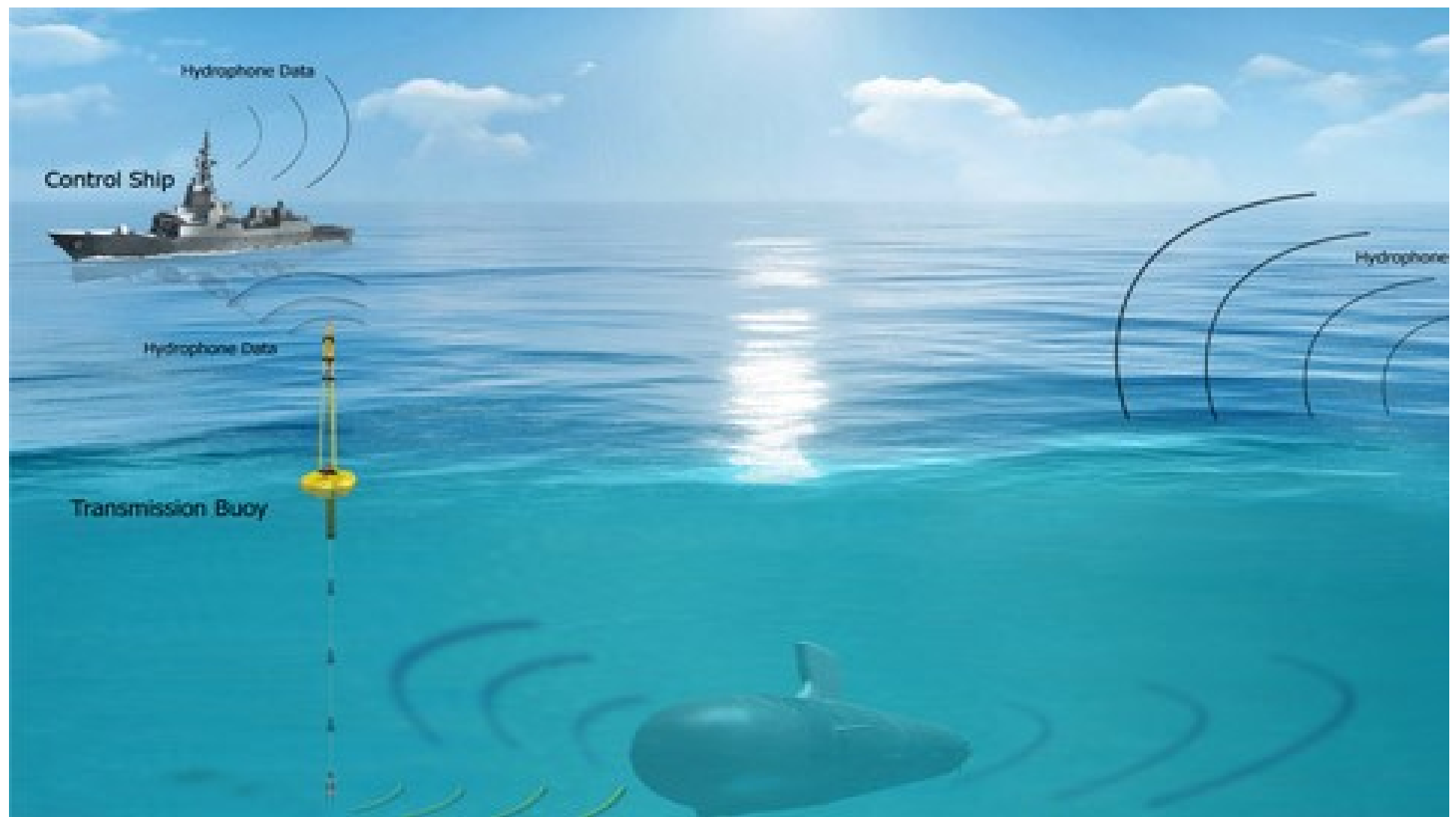


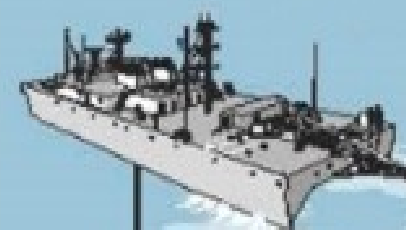
- FLY ALONG BORDER/ COAST
- FORCE ENEMY TO TRANSMIT ON RADARS
/COMMUNICATION

- MONITOR PARAMETER
- FREQUENCY
- PRF/PRR
- AERIAL ROTATION RATE
- POWER OUT PUT
- ASSESS TYPE OF EMITTER
- FINGER PRINTING FOR DATA LIBRARY

ACCOUSTIC INTELLIGENCE (ACINT)

- ACTIVE
- PASSIVE



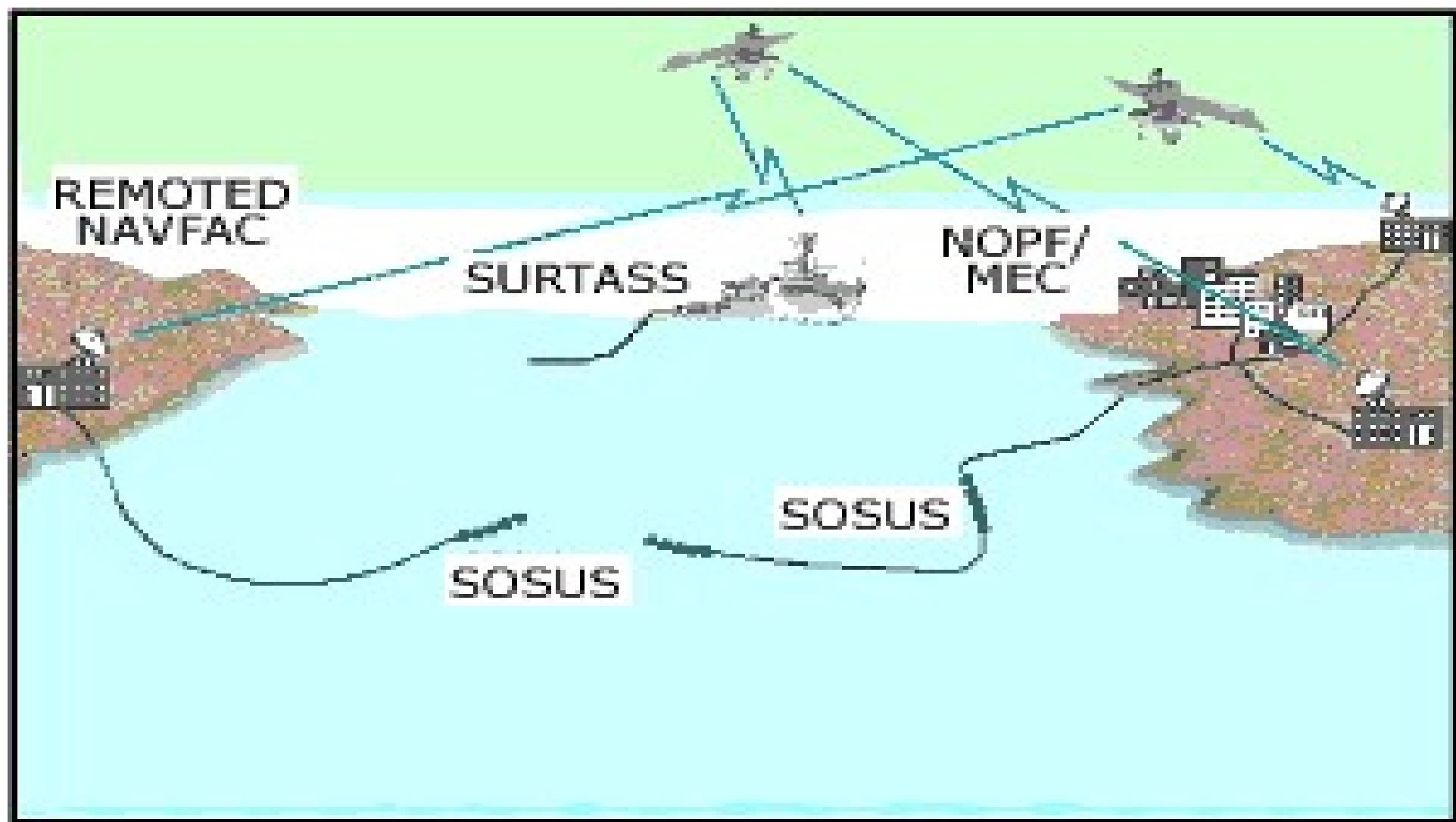


LFA Source Array

SURTASS Receive
Array



Target



INTELLIGENCE ORGANIZATION

- NATIONAL SECURITY ADVISER (NSA)
- NATIONAL SECURITY COUNCIL SECRETARIAT (NSCS)
- DY NSA
- MILITARY ADVISER
- RESEARCH & ANALYSIS WING – R& AW
- AVIATION RESEARCH CENTRE -ARC
- INTELLIGENCE BUREAU –IB
- NATIONAL TECHNICAL RESEARCH ORGANIZATION (NTRO)

INTELLIGENCE ORGANIZATION

- DGDIA –DIRECTOR GENERAL DEFENCE INTELLIGENCE AGENCY
- DGMI- DIRECTOR GENERAL MILITARY INTELLIGENCE
- ACNS (FCI)- ASSISTANT CHIEF OF NAVAL STAFF (FOREIGN COOPERATION & INTELLIGENCE)
- ACAS (INT)- ASSISTANT CHIEF OF AIR STAFF –INTELLIGENCE
- ICG –COAST GUARD INTELLIGENCE -LEAD INTELLIGENCE AGENCY AT SEA
- DRI –DIRECTORATE OF REVENUE INTELLIGENCE
- STATE INTELLIGENCE

WHAT INTELLIGENCE CAN DO

- WARNING OF POTENTIAL THREATS.
- DECISION ADVANTAGE, BY IMPROVING THE DECISION MAKING OF CONSUMERS AND PARTNERS WHILE HINDERING THAT OF ENEMIES.
- INSIGHT INTO KEY CURRENT EVENTS.
- DESCRIPTIONS OF ADVERSARY MODUS OPERANDI, INCLUDING TACTICS, TECHNIQUES, AND PROCEDURES LIKELY TO BE USED IN THE FUTURE.
- FOREIGN NAVIES –PLATFORMS , WEAPONS , SENSORS
- SITUATIONAL AWARENESS.

WHAT INTELLIGENCE CAN DO

- LOCATION ,DISPLACEMENT ,CAPABILITIES AND INTENTIONS OF ADVERSARY
- POSSIBLE ADVERSARY COURSE OF ACTION
- CUEING FOR SURVEILLANCE –FRIENDLY , NEUTRAL , HOSTILE
- IDENTIFY CENTRE OF GRAVITY AND CRITICAL VULNERABILITIES OF ADVERSARY
- FORCE PROTECTION
- TARGETTING INFO – BRAHMOS MISSILE
- BATTLE DAMAGE ASSESSMENT
- INFORMATION WARFARE , PSY –OPS / DECEPTION
- **INTELLIGENCE CAN NOT PREDICT FUTURE**

MARITIME INTELLIGENCE

Signs of Suspicious Activities:

- a) Photography of naval bases, bridges, maritime infrastructure, ports and harbours, off shore infrastructure etc.
- b) Unusual activity, particularly late at night or early in the morning in above areas.
- c) Insertion of strange objects into areas at sub para (a) above, at unusual times or without normal support.
- d) Boats moving at night with no navigation lights and /or at high speed
- e) Boats displaying poor boat handling capability.
- f) Vessels entering designated maritime restricted areas like nuclear plants, offshore areas, seaward approaches to coastal airports, etc. posing as fishermen.
- g) Suspicious characters or rentals. Someone asking to alter the usual route or trip, a boat charter takes.
- h) Inappropriate large cash payments, daily extension of berth or port mooring.
- i) Efforts to gain employment at sensitive sites or with outside agencies that have access to potential targets.
- j) Suspicious craft in close proximity to vessels underway and at the docking facility.
- k) Tests of security - Attempts to test security and response times when entering restricted areas.

- l) Surveillance - individuals taking pictures and making notes; prolonged activity in one area.
- m) Individuals buying unusual equipment, chemicals, uniforms, badges, fast boats etc
- n) Suspicious people buying land in coastal areas, unusual stocking of explosives, unusual stocking of diesel and petrol, unusually large cash receipts in coastal bank accounts, etc.
- o) Suspicious characters - people who are clearly not local and whose actions do not fit into the daily routine of the area. Crew of above average size or inadequate dress for the location.

Maritime Intelligence - What to Look for?

- a) Suspicious boats trying to land terrorists/ militants and arms / ammunition.
- b) Dhows returning to India especially from piracy or terrorism prone areas.
- c) Attempts by suspicious crafts to survey security of offshore assets.
- d) Attempts to ship contraband in containers.
- e) Human trafficking
- f) Illegal migration
- g) Drug trafficking from Golden Triangle (Thailand, Laos and Cambodia) and Golden Crescent (Afghanistan and Pakistan) countries along our coastal route.
- h) Surveillance / vigilance for nefarious activities.
- i) Use of ships or containers to smuggle explosives to attack major ports.

- j) Use of small crafts to land terrorists with explosives to carry out attacks on valuable coastal assets.
- k) Use of small high speed boats laden with explosives to target oil tankers or offshore energy platforms.
- l) Use of small craft to fire rocket propelled grenades and shoulder fired Surface to Air Missiles (SAMs) of the Stinger variety in harbour and off coastal airports.
- m) Hijacking of a ship and using it as a floating bomb or as a launch platform for terrorist strikes on vital port infrastructure.
- n) Sinking a ship in the mouth of narrow harbour like Mangalore, to block harbour operations.
- o) Attempts to target cruise liners and tourists therein in harbour or when entering or leaving harbour.

Where to Raise Maritime Intelligence Sources

- a) Container stuffing / de-stuffing centres.
- b) Offices of Port officers / Harbour Masters.
- c) Among traditional boat builders
- . d) Merchant naval officers club.
- e) Fishermen's association.
- f) Dhow operators association.
- g) Trawler operators association
- h) Shipping companies.
- i) Port signal station.

- j) Port labour unions.
- k) Ship chandlers/stevedores/marine surveyors/shipping companies.
- l) Marine insurance companies.
- m) Tapping organizations such as Karnataka Niyantrana Dala and Sagar Rakshaka Dala personnel.
- n) Holding regular meetings with the fishing community while encouraging active informants in that community.
- o) Landing point information system needs to be established at all landing points along the coastline.
- p) The state website should contain information on what constitutes 'suspicious activity' and details of a toll free telephone number as also e-mail ID so that people can forward information on suspicious activity.
- q) Encourage people who live and work along the water ways to report suspicious activity.
- r) Encourage members of maritime industry to report suspicious activity. Towards this end posters could be placed in harbours to sensitise people.
- s) Organizations such as LET, Al Qaeda, Jemaiah Islamiah etc are known to have sea faring skills. Any maritime training and activity being undertaken by them needs monitoring and highlighting

MARITIME DOMAIN AWARENESS (MDA)

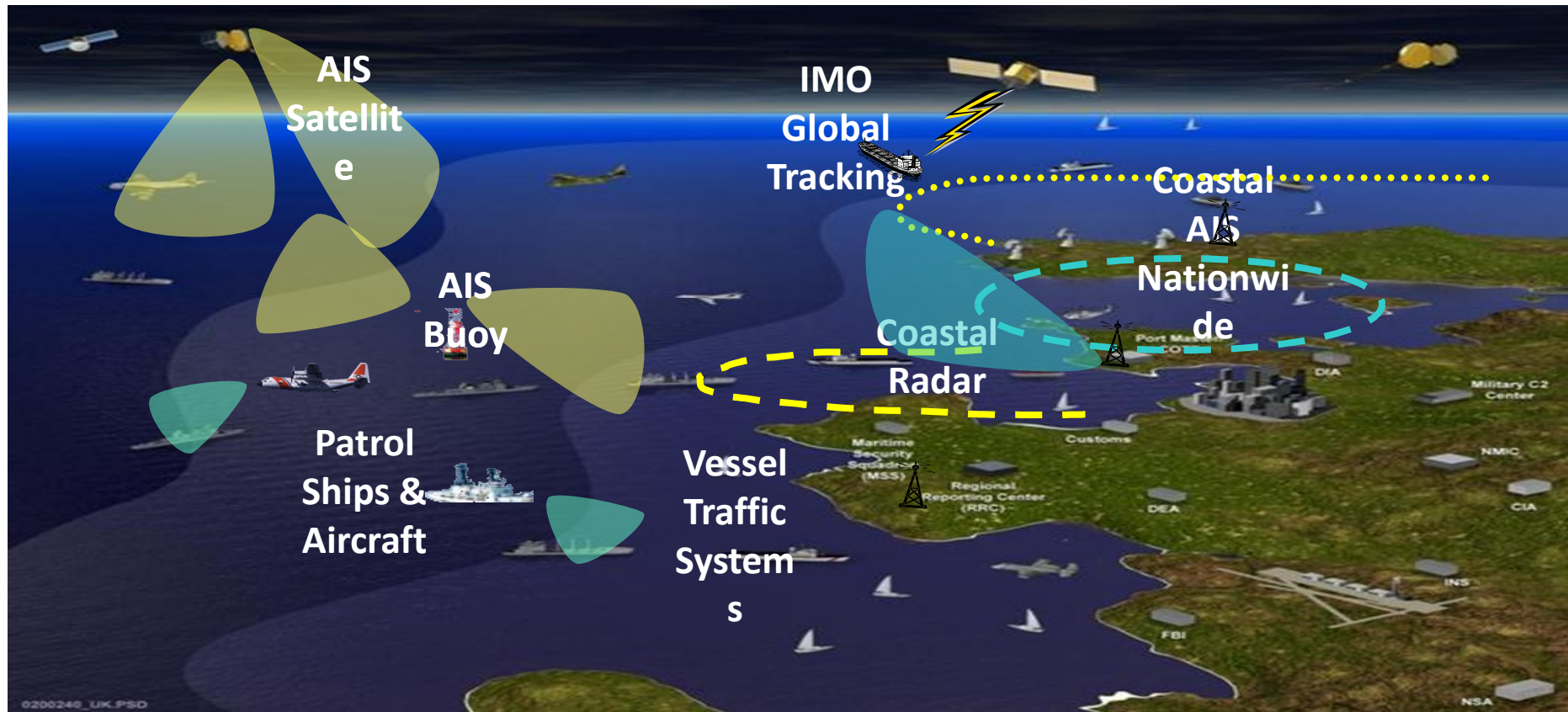
MARITIME DOMAIN AWARENESS

- SEAS HAVE A TRANSNATIONAL NATURE –UNLIKE LAND BORDERS
- NAVAL FORCES ARE ALWAYS FORWARD DEPLOYED – WITHIN RANGE OF FRIENDLY FORCES, NEUTRALS AND ADVERSARIES –REGIME OF THE SEAS
- A VESSEL DOING 20 KTS CAN COVER 480 nm IN 24 h IN ANY DIRECTION OF THE COMPASS
- ELECTRONIC TAGGING –AKIN TO AVIATION WORLD
- **MDA = INTELLIGENCE + SITUATIONAL AWARENESS**





MARITIME DOMAIN AWARENESS



NATIONAL COMMAND CONTROL COMMUNICATION INTELLIGENCE NETWORK

➤ Conceived after 26/11,
network interlinks 29 Navy &
31 Coast Guard stations, joint
op centres & headquarters

Project cost

₹453cr

➤ Analyses data from
radars, space &
terrestrial AIS, VTMS and
world ship registry

➤ Tracks all ships, even
those in South China Sea



OCEAN WATCH

Geosat-7, called
'RUKMINI' helps
Navy monitor
Indian Ocean
Region as it has
a nearly 2,000
nautical mile
'footprint'



Provides real-time inputs to
submarines and maritime
and networking capabilities
naval assets on the high sea

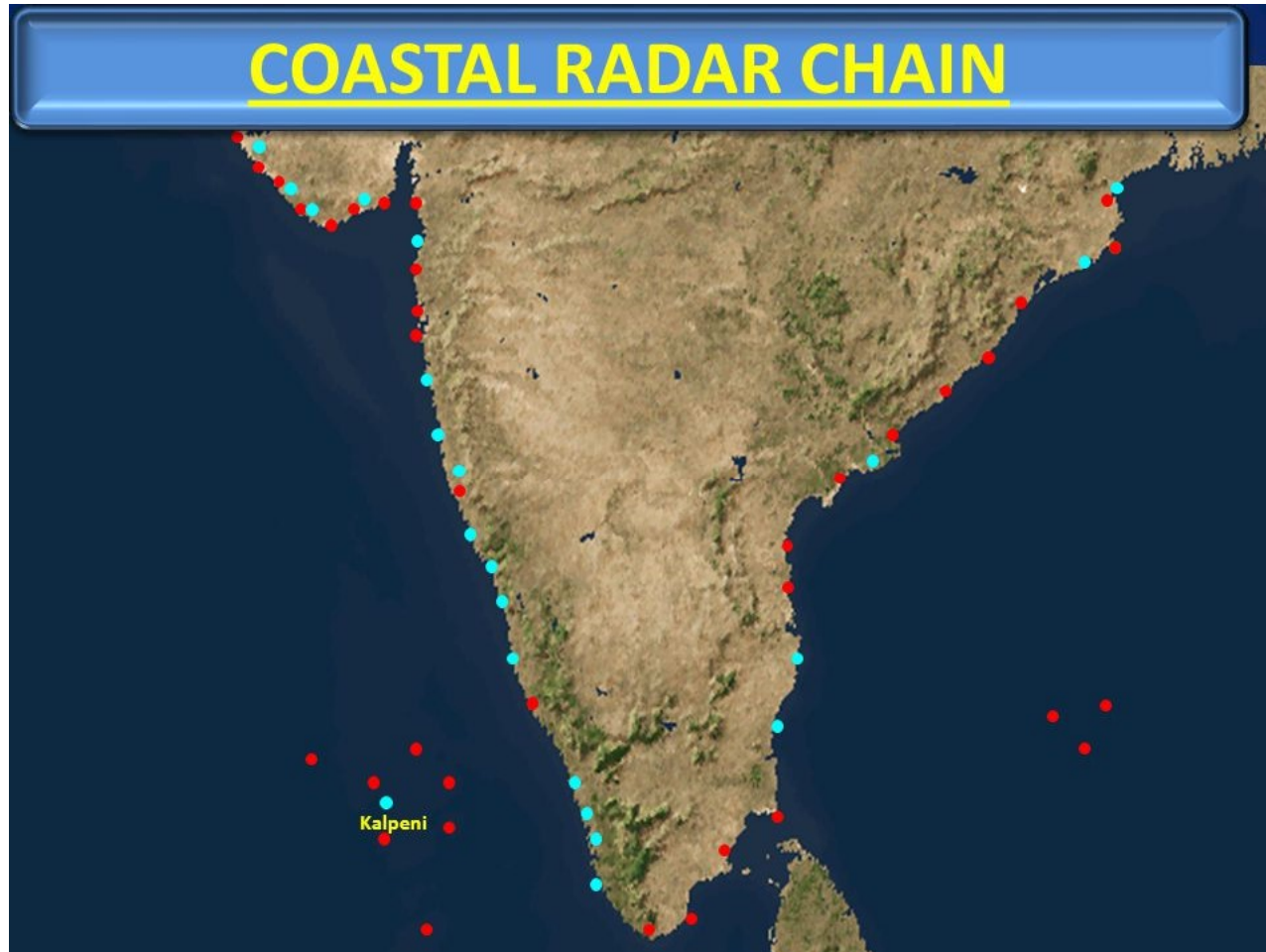
Satellite has given Navy an
platform and helped it over-
come limitation of 'line of sight'
of signal when unobstructed



RUKMINI
has also
reduced Navy
dependence on foreign
satellite communication



COASTAL RADAR CHAIN

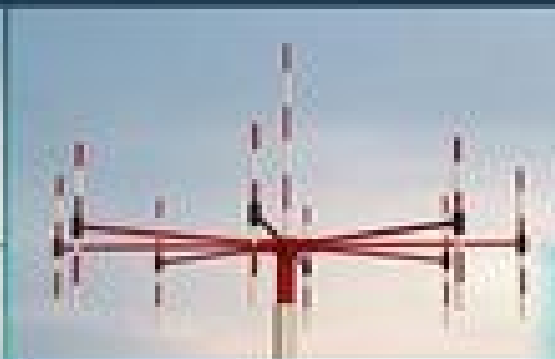




VESSEL TRAFFIC MANAGEMENT



MARINE AIS



DIRECTION FINDER



RADAR

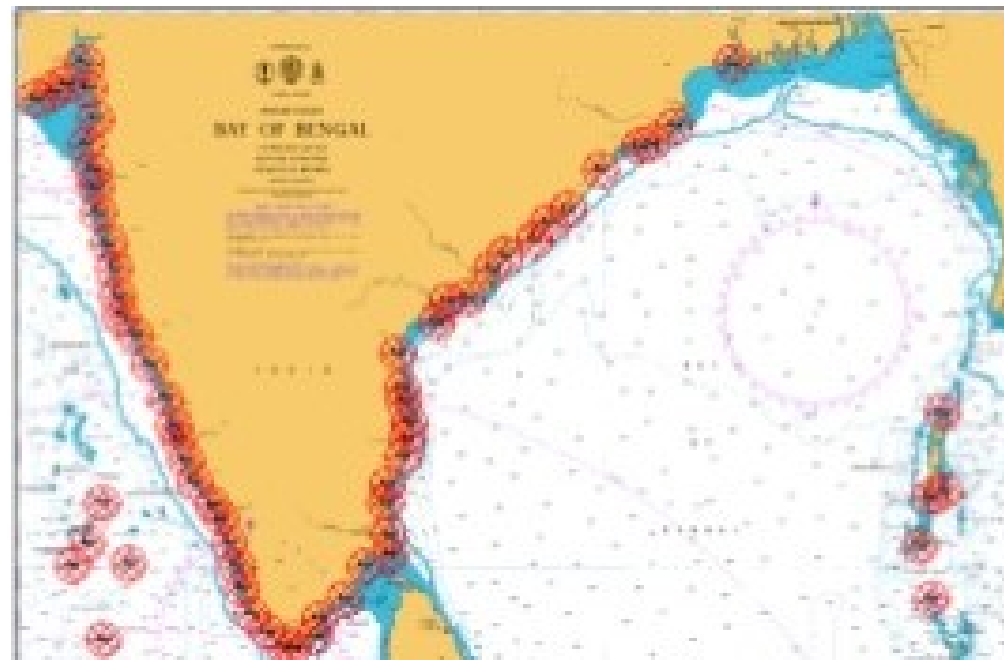


CAMERAS

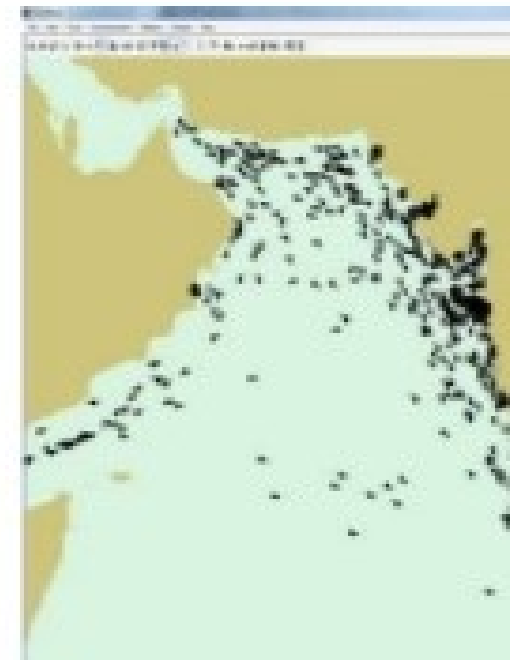


CONTROL CENTRE

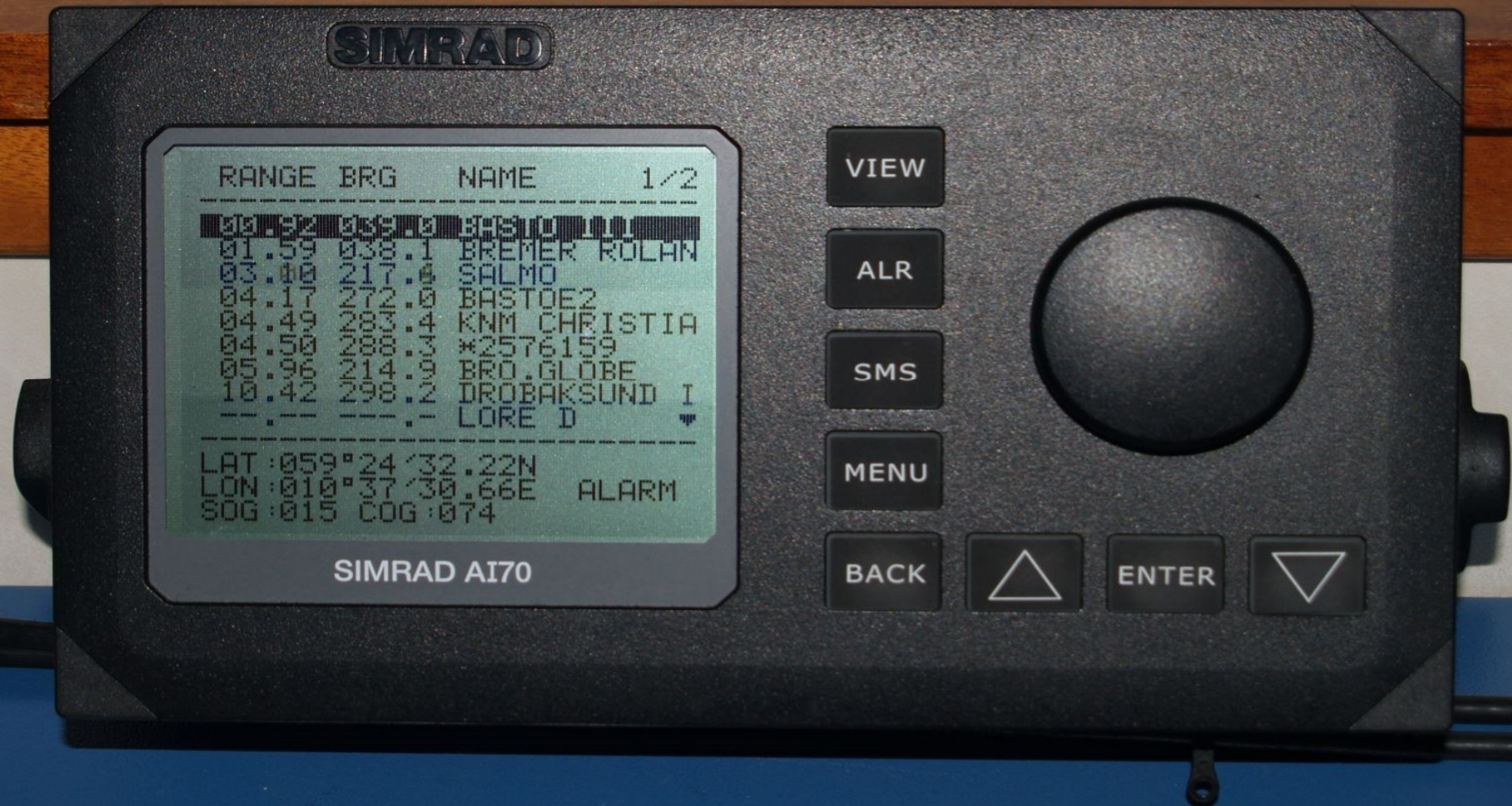
NATIONAL AIS NETWORK COVERAGE



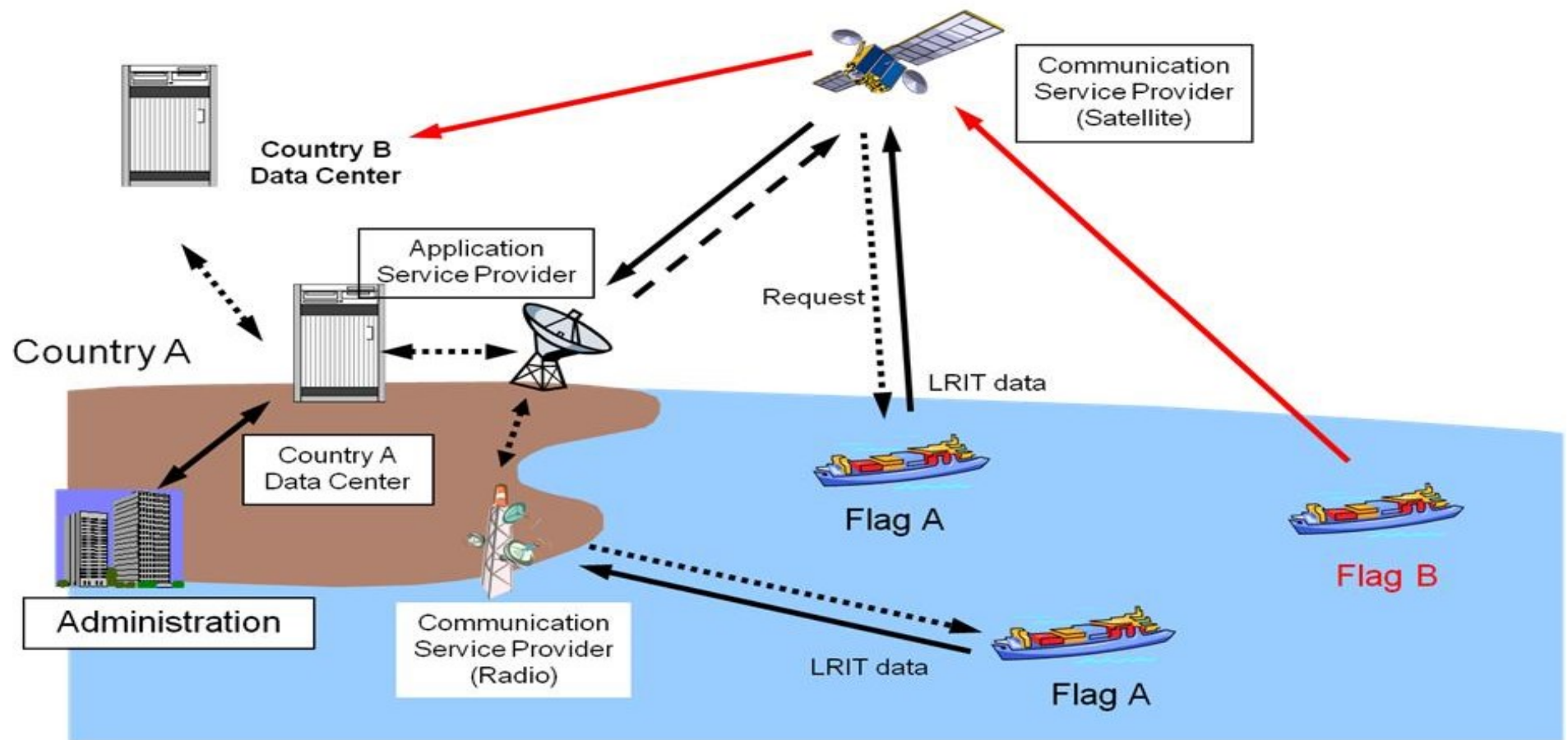
TYPICAL NAIS DISPLAY



AUTOMATIC IDENTIFICATION SYSTEM



LRIT Configuration



INFORMATION SHARING

INFORMATION FUSION CENTRE (IFC) -IOR – GURUGRAM –

INFORMATION FUSION CENTRE SINGAPORE (IFC /SG)

REGIONAL MARITIME INFORMATION FUSION CENTRE (RMIFC)- MADAGASCAR

EUROPEAN MARITIME AWARENESS INITIATIVE - STRAITS OF HORMUZ (EMA-SOH) ABU DHABI

INDO-PACOM HAWAII

PIRACY- INFORMATION SHARING

- RECAAP- REGIONAL COOPERATION AGREEMENT ON COMBATING PIRACY AND ARMED ROBBERY AGAINST SHIPS IN ASIA –SINGAPORE
- SHADE- SHARED AWARENESS AND DECONFLICTION – AT BAHRAIN
- CGCPS – CONTACT GROUP ON CONTROLLING PIRACY AT SEA
- UK MTO – UK MARITIME TRADE OFFICE
- MSCHOA- MARITIME SECURITY CENTRE –HORN OF AFRICA –BREST
- INTERNATIONAL MARITIME BUREAU- PIRACY REPORTING CENTRE -KUALA LUMPUR

SEA LINES OF COMMUNICATION (SLOC)- MONITORING

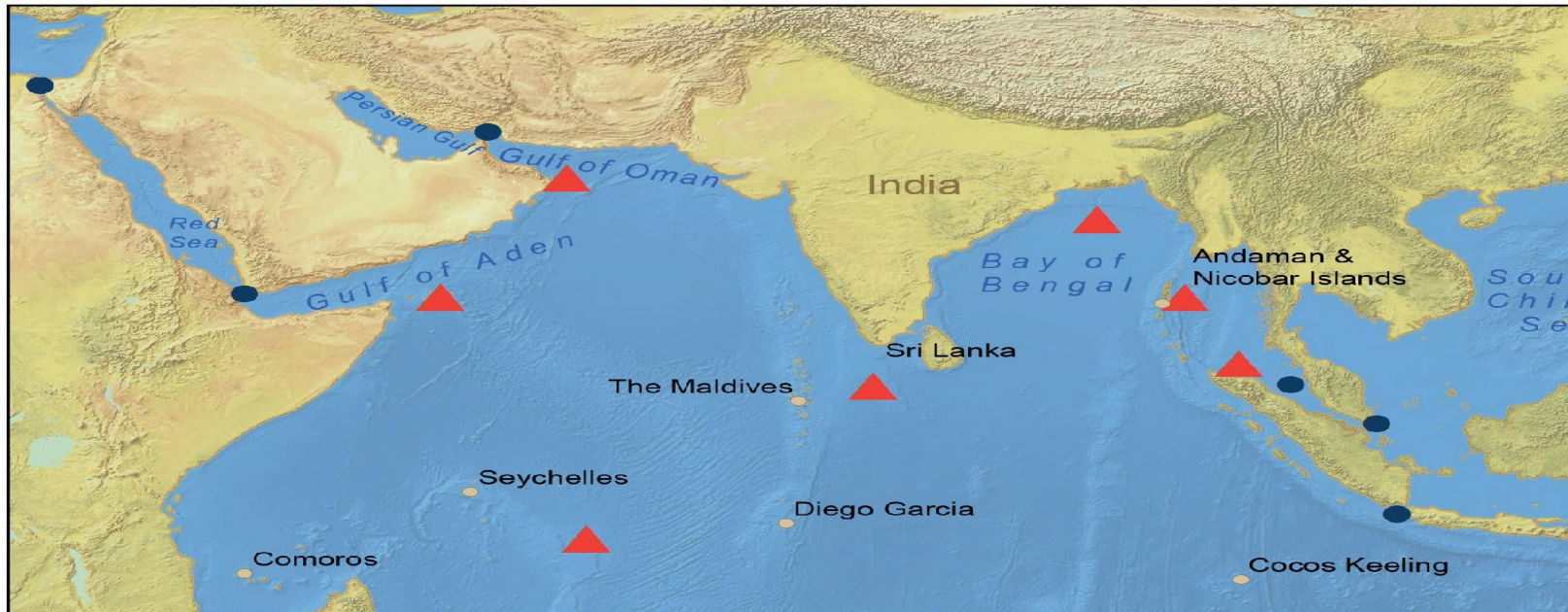
- VESSEL, CARGO & CREW
- NEAR CHOKE POINTS

WHITE SHIPPING INFORMATION

REFERS TO AN EXCHANGE OF RELEVANT ADVANCE **INFORMATION** ON THE IDENTITY AND MOVEMENT OF COMMERCIAL NON-MILITARY MERCHANT VESSELS. SHIPS WOULD BE CLASSIFIED INTO **WHITE** (COMMERCIAL SHIPS), GREY (MILITARY VESSELS), AND BLACK (ILLEGAL VESSELS).

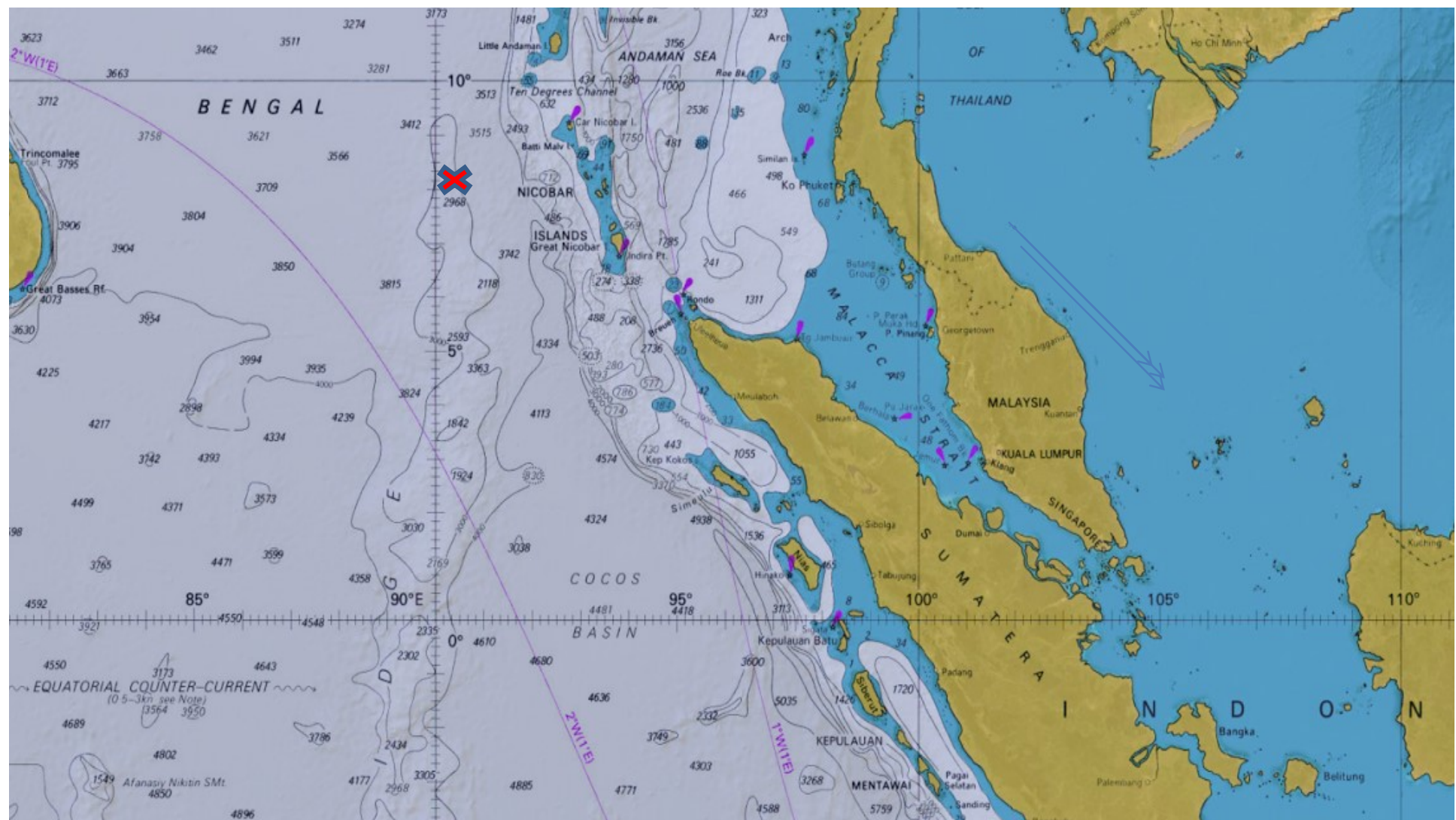
POST GALWAN

Indian Navy's Mission-Based Deployment



INDIAN NAVY'S MISSION BASED DEPLOYMENT



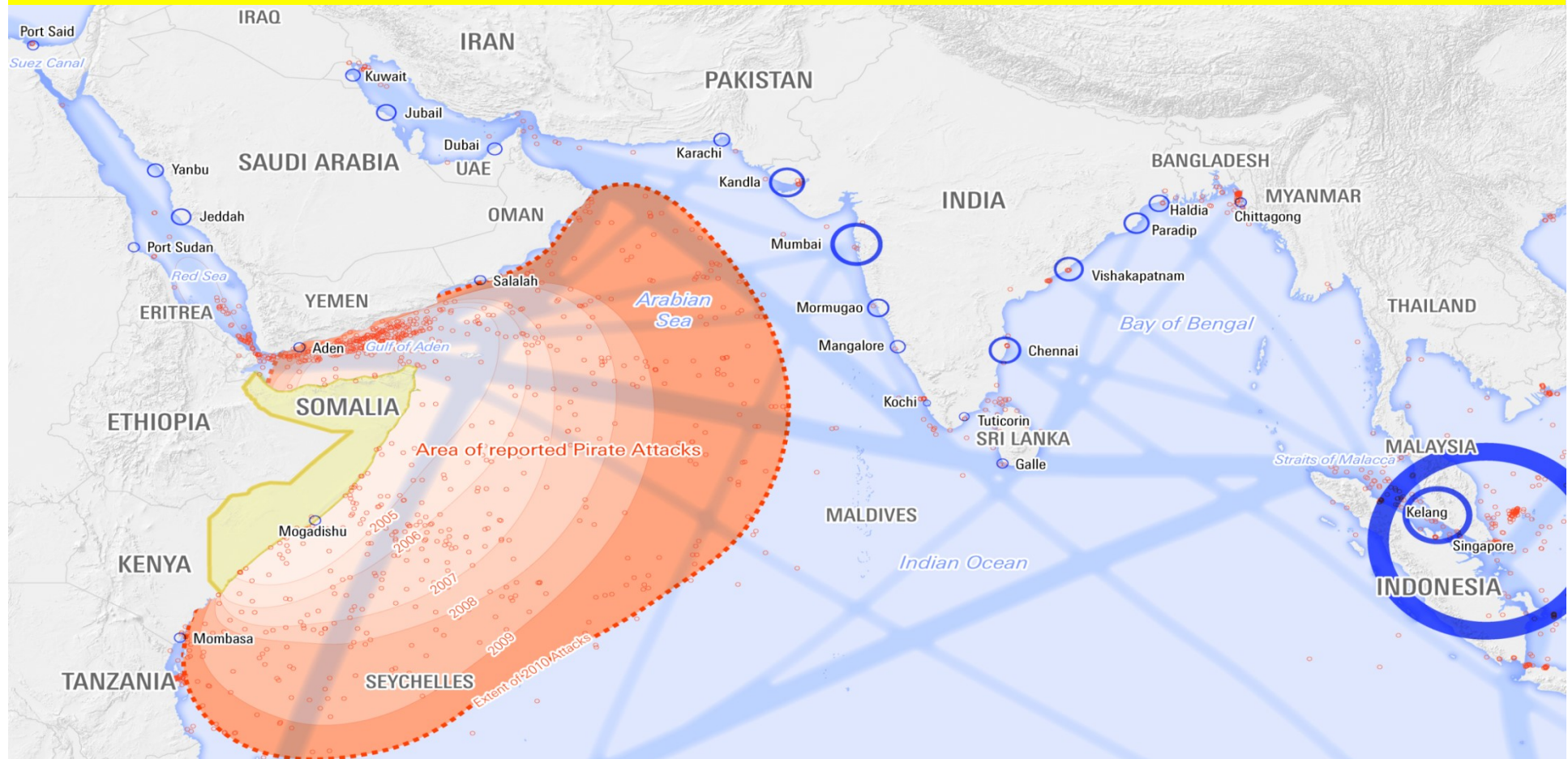






PIRACY

PIRACY OFF SOMALIA





VISIT BOARD SEARCH SEIZURE (VBSS)

CHECKING A VESSEL'S PAPERS – CHARTS ,DOCUMENTS , CREWLIST ,BILL OF LADING

RUMMAGING A VESSEL

PLACES WHERE A CONTRABAND COULD BE HIDDEN

EVIDENCES IN A VESSEL –GPS ,THURYA , WEAPONS, LITERATURE









GHOST SHIPS

GHOST SHIPS

LTTE – 11 SHIPS

PIRATED SHIPS

SHIPS BOUND FOR BREAKING UP– REROUTED TO ILLEGAL TRADE

NAMES , IMO No & OTHER DETAILS PAINTED OVER , AIS SWITCHED OFF

PART OF MARITIME CRIME SYNDICATE

FLAGS OF CONVENIENCE (FOC) SHIPS SUSCEPTIBLE

ALANG SHIP BREAKING
YARD





FLAG OF A COUNTRY UNDER WHICH A SHIP IS REGISTERED IN ORDER TO AVOID FINANCIAL CHARGES OR RESTRICTIVE REGULATIONS IN THE OWNER'S COUNTRY.

MARITIME INFORMATION & INTELLIGENCE SHARING –WHY

- 70% OF EARTHS SURFACE COVERED BY WATER**

- SHEER SIZE AND EXPANSE OF THE SEA**

- INADEQUACY OF ASSETS**

- **COST INTENSIVE**

- **TECHNOLOGY INTENSIVE**

- NO NATION OR NAVY CAN GO IT ALONE**

- BILATERAL –MULTI LATERAL APPROACH**

PM MODI'S MARITIME MANTRA

OUT COME DOCUMENTS OF ALMOST ALL OF **PM MODI'S TALKS** WITH FOREIGN LEADERS WHETHER IN INDIA OR ABROAD INVARIABLY HAVE FOLLOWING COMPONENTS :

- MARITIME SECURITY & COOPERATION
- MARITIME INFORMATION AND INTELLIGENCE SHARING
- CYBER SECURITY
- COUNTER -TERRORISM

US

- LOGISTICS EXCHANGE MEMORANDUM OF AGREEMENT (LEMOA)
2016

- COMMUNICATIONS COMPATIBILITY AND SECURITY AGREEMENT
(COMCASA) -2018

- MISTA- MARITIME INFORMATION SHARING TECHNICAL AGREEMENT
- BASIC EXCHANGE AND COOPERATION AGREEMENT (BECA)- FOR
GEOSPATIAL INFO

2+ 2 DIALOGUE

FRANCE

- LOGISTIC SUPPLY AGREEMENT

- JOINT DEVELOPMENT OF MARITIME SATELLITE

SINGAPORE

IFC

JAPAN

LOGISTIC SUPPLY AGREEMENT (LSA)

2+ 2 DIALOGUE

AUSTRALIA

MARITIME LOGISTIC SUPPLY AGREEMENT (MLSA)

PART OF EXERCISE MALABAR

MARITIME COOPERATION

➤ JOINT EXERCISES

➤ PASSAGE EXERCISES (PASSEX)

➤ EXCLUSIVE ECONOMIC ZONE (EEZ) PATROL

-MALDIVES, MAURITIUS , SEYCHELLES

➤ ANTI - PIRACY PATROL

➤ COUNTER TERRORISM EXERCISES /PATROL

➤ SAFETY OF SLOCs EXERCISES

JOINT EXERCISES

- SIMBEX – SINGAPORE
- KONKAN - UK
- INDRA - RUSSIA
- VARUNA - FRANCE
- SLINEX- SRI LANKA
- AUSINDIA – AUSTRALIA
- JIMEX - JAPAN
- NASEEM AL BAHAR – OMAN
- MALABAR - INDIA US JAPAN AUSTRALIA
- SAMUDRA SHAKTI -INDONESIA
- QUAD

COORDINATED PATROL(CORPAT)

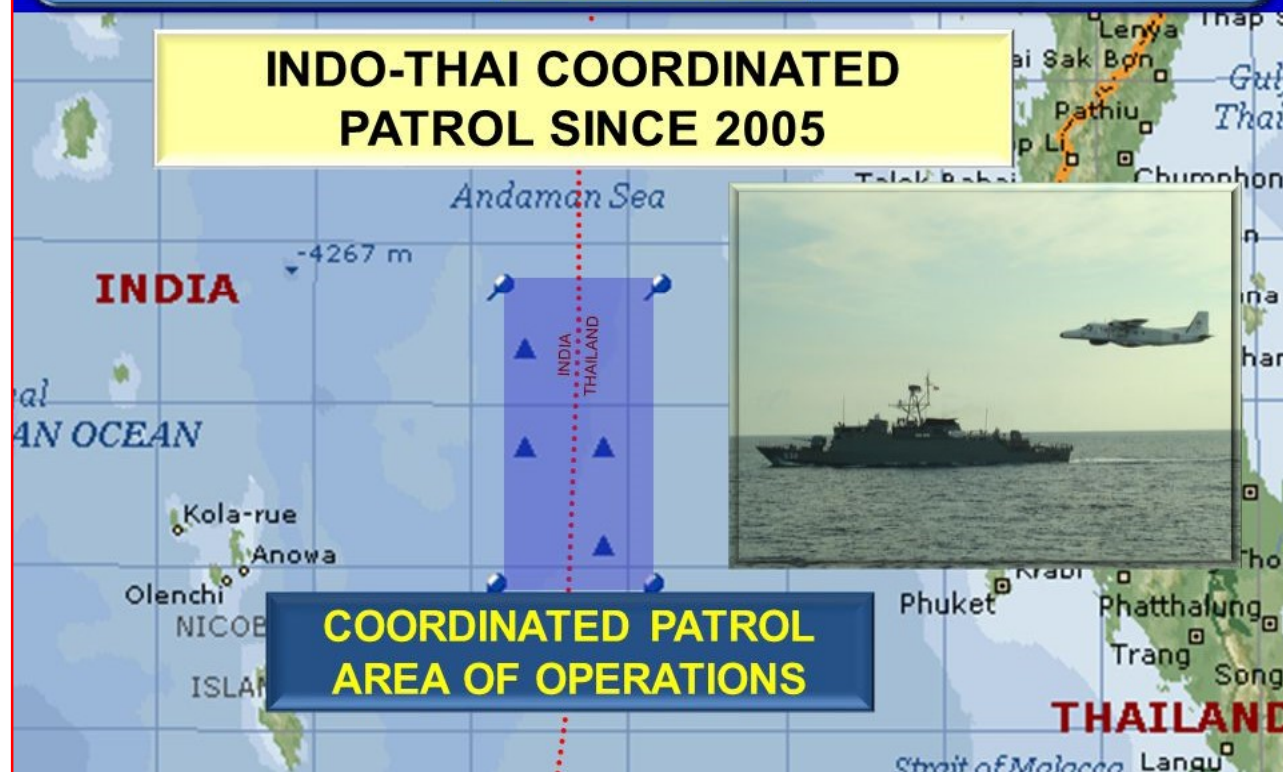
- THAILAND
- MYANMAR
- INDONESIA
- BANGLADESH

COORDINATED PATROLS WITH INDONESIA



COORDINATED PATROLS WITH THAILAND

**INDO-THAI COORDINATED
PATROL SINCE 2005**



PURPOSE OF JOINT EXERCISES

1. INDICATE INTENT AND CAPABILITY TO DETER
2. TO HONE PROFESSIONAL SKILLS
3. IMBIBE BEST PRACTICES
4. ENABLE INTER-OPERABILITY
5. ENHANCE SECURE COMMUNICATION BETWEEN FORCES
6. SHARING OF TECHNOLOGY IS A PRELUDE
7. ENHANCE MARITIME SECURITY
8. CONFIDENCE BUILDING MEASURES
9. SAR , HADR , ANTI PIRACY

OP SAMUDRA SETHU

INS JALSHWA
INS AIRAVAT
INS SHARDUL
INS MAGAR

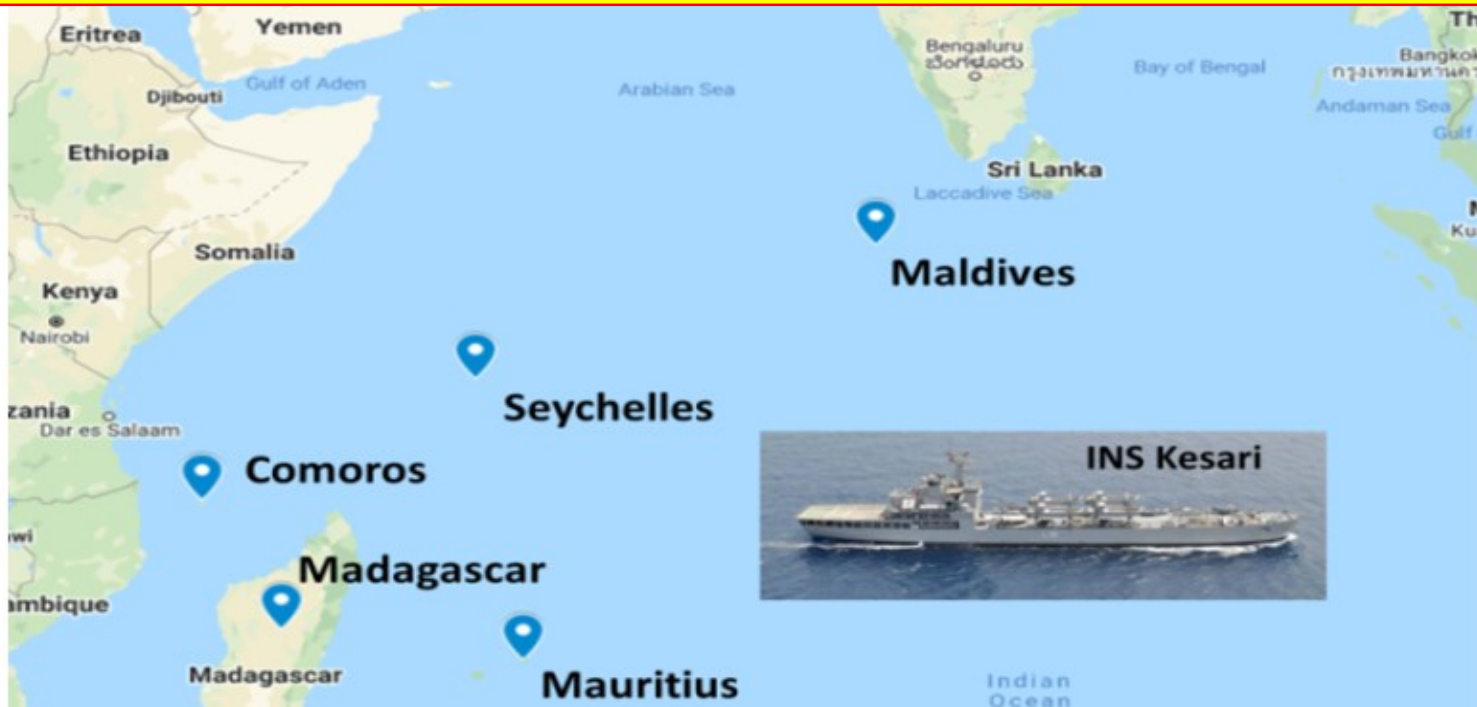
POST COVID 19
REPATRIATION -4000 INDIANS

MALDIVES
BANDAR ABBAS –IRAN
COLOMBO

23,000KM



MISSION SAGAR



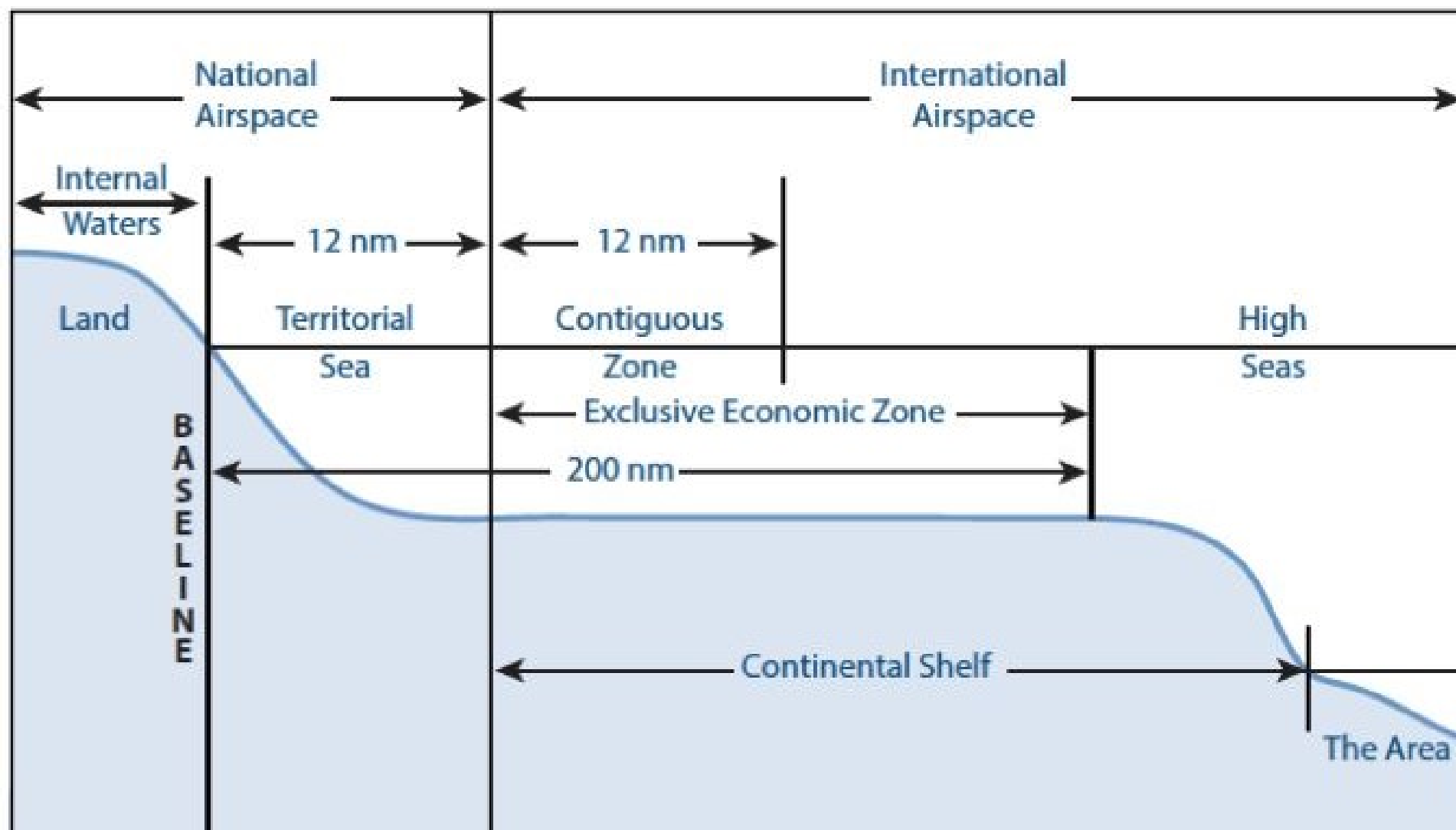
1. ASSISTANCE TO FIGHT COVID -19
2. 540 TONS OF MEDICINES AND FOOD MATERIAL- 5 ISLAND NATIONS
3. MEDICAL TEAMS

MULTI –LATERAL NAVAL FORA

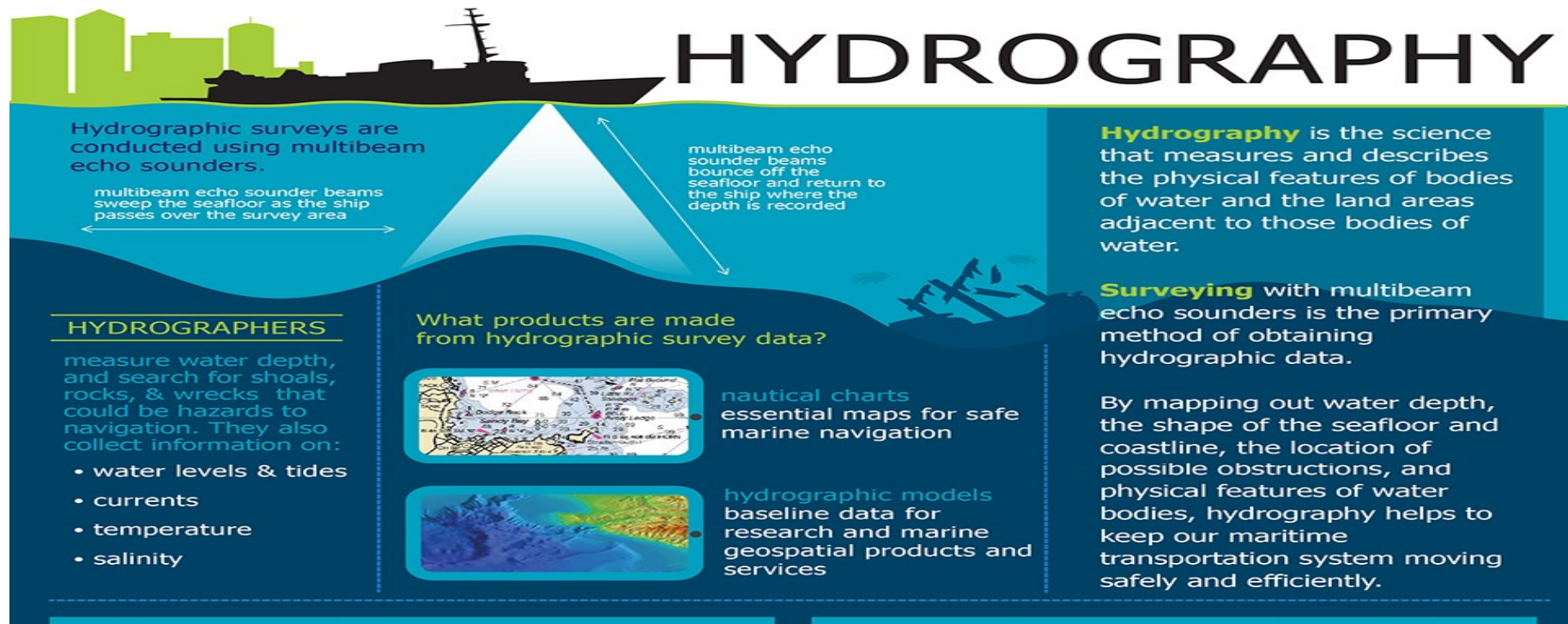
- INDIAN OCEAN NAVAL SYMPOSIUM (IONS)
- MILAN
- INTERNATIONAL FLEET REVIEW (IFR)
- GOA MARITIME DIALOGUES



COMPLEXITIES OF MARITIME LEGAL REGIMES



- PRINCIPLE OF FREEDOM OF THE SEAS
- PRINCIPLE OF SOVEREIGNTY
- INNOCENT PASSAGE
- COMMON HERITAGE OF MANKIND



Hydrographic survey is the science of measurement and description of features which affect maritime navigation, marine construction, dredging, offshore oil exploration/offshore oil drilling and related activities.

- HYDROGRAPHIC SURVEY
- OCEANOGRAPHIC SURVEY
- MARINE SCIENTIFIC SURVEY
- MILITARY SURVEY

SNOOPERS



**USS BOWDITCH - MARINE SCIENTIFIC SURVEY
(MSR)**

CHINESE VESSELS IN IOR

- CHINESE RESEARCH SHIP **SHI YAN 1**- SIGHTED CARRYING OUT HYDROGRAPHIC AND OCEANOGRAPHIC SURVEY OFF A&N IN DEC 2019
- CAN ALSO USE UNMANNED UNDERWATER VEHICLES



YUAN WANG



PROLIFERATION ISSUES



M/V SO SAN INTERCEPTED WITH SCUD MISSILES



COUNTERINTELLIGENCE (CI)

- Refers to efforts taken to protect one's own intelligence operations from penetration and disruption by hostile nations or their intelligence services.
- CI Should pervade all aspects of intelligence, but it is often perceived as a security issue.
- CI does not fit neatly with human intelligence, although CI is, in part, a collection issue. Nor does it fit with Covert action.
- Successful CI can also lead to analytical and operational opportunities.

CONCLUSION

- NEED FOR INTELLIGENCE REFORMS
- NEED FOR A SEPARATE CADRE OF SECURITY PROFESSIONALS IN THE CIVIL SERVICE
- AREA SPECIALIZATION
- LANGUAGE EXPERTISE
- LESSONS FROM KARGIL
- LESSONS OF -26/11
- WITH QUAD + & GROWING ANTI-CHINA GROUPING **SHARING** WILL INCREASE
- SPECIALIZED MARITIME INTELLIGENCE TRAINING CENTRE
- NATIONAL MARITIME AUTHORITY (NMA)

THANK YOU

