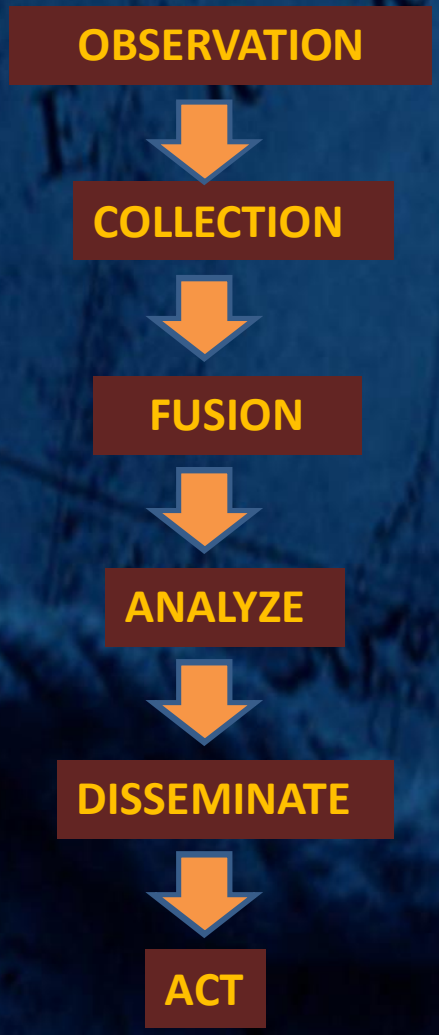
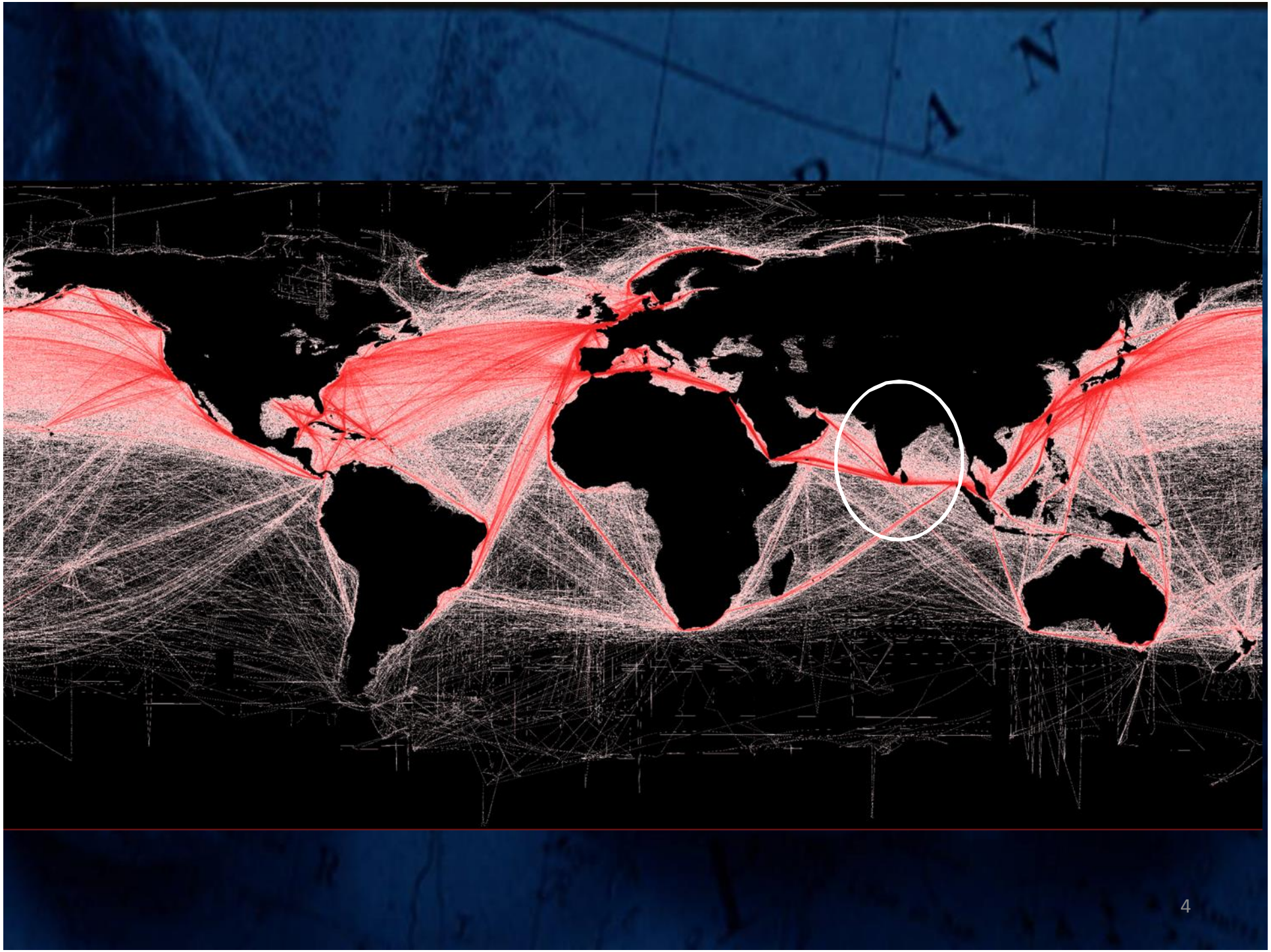
MARITIME CHALLENGES IN INDIAN OCEAN AND MDA CAPABILITIES - SRI LANKA PERSPECTIVE

MDA

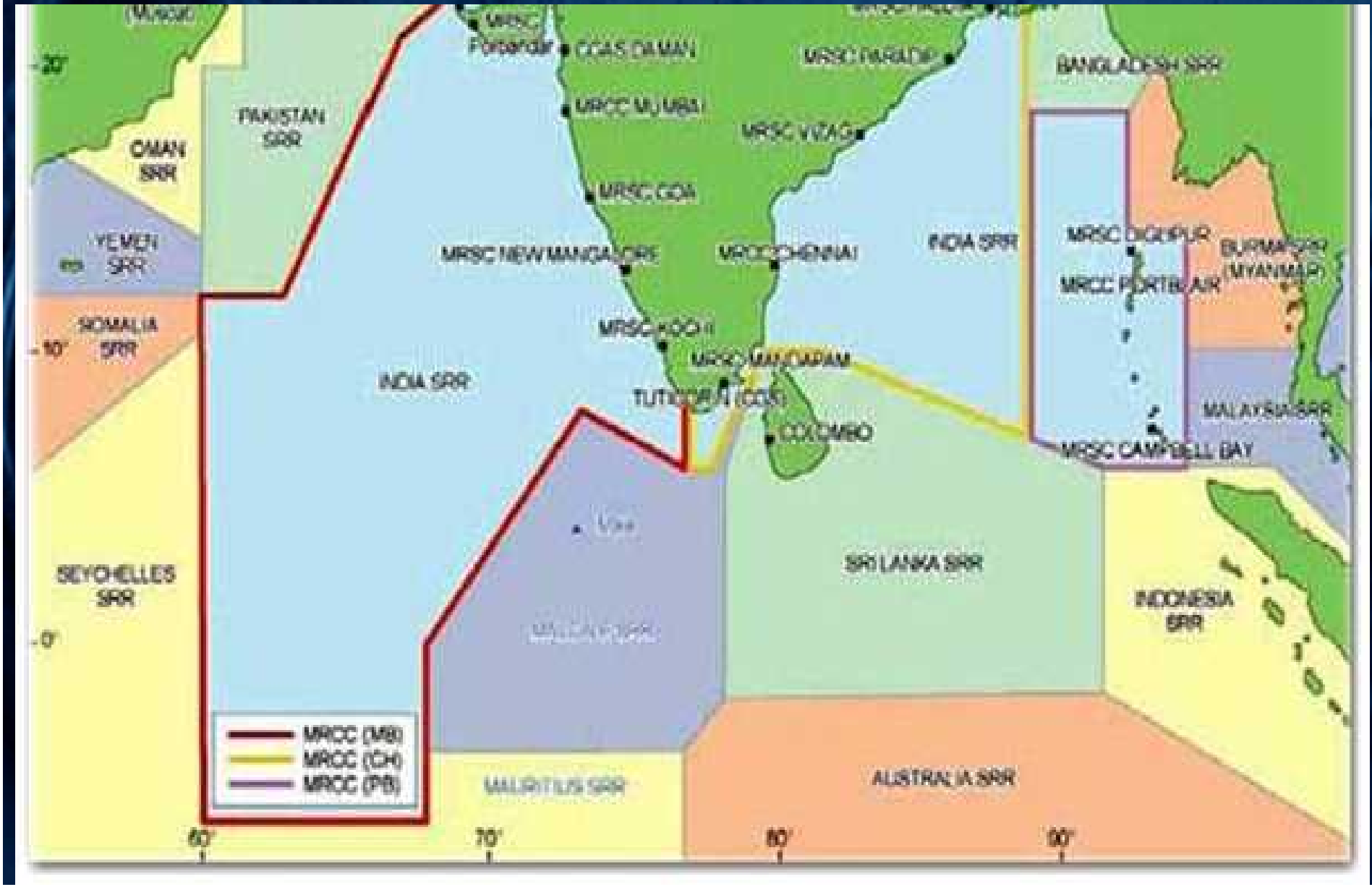
INTELLIGENCE + SITUATIONAL AWARENESS

MDA

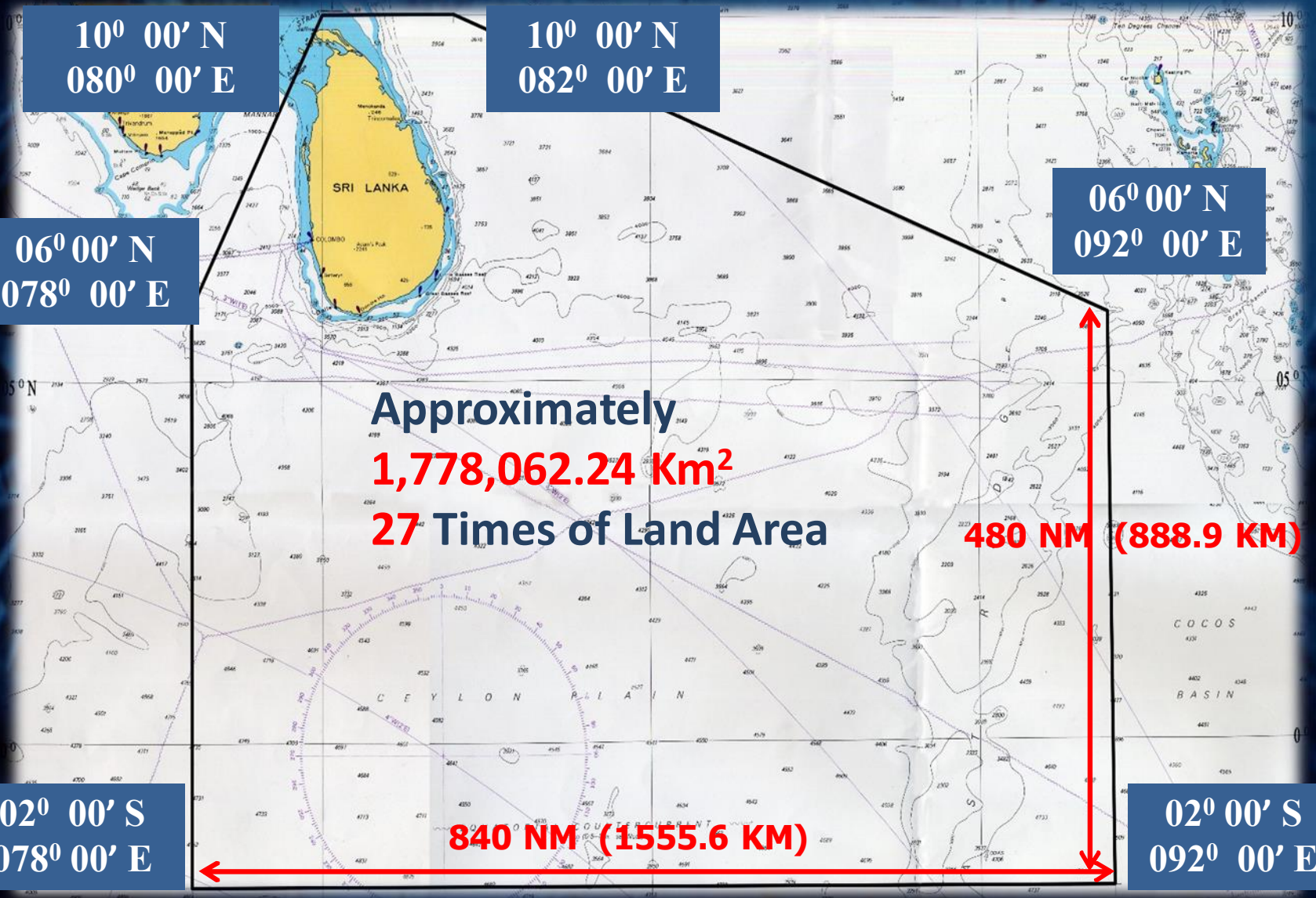




INTERNATIONAL OBLIGATION-SRR



AREA OF RESPONSIBILITY



MRCC - COLOMBO

MRCC - COLOMBO

- Sri Lanka Navy is responsible for conducting SAR Operations.
- MRCC Colombo is located in Naval Headquarters Colombo and being manned 24 X 7 by an Officer and trained crew.
- MRCC Colombo is equipped with IDD telephone facility, shore based surveillance radars and AIS equipment installed around Island also linked to MRCC Colombo for SAR purposes.

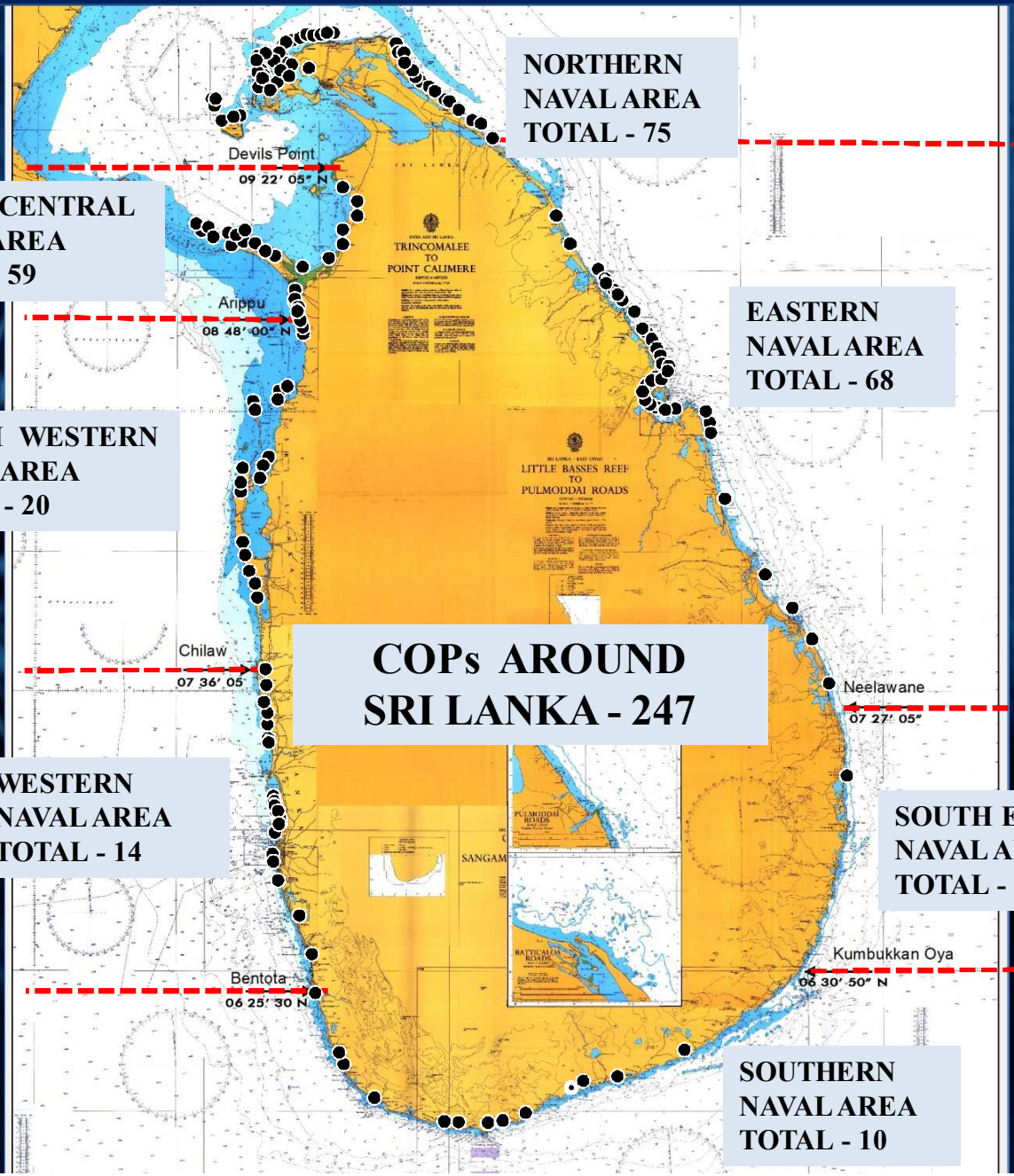
Cont . . .

SYSTEMS AVAILABLE AT MRCC COLOMBO

- Automatic Vessel Locating System (AVLS)
- Intergraded Maritime Surveillance System (IMSS)
- E-Broadcast system
- Drift Modeling System
- Merchant Ship Information System (MSIS)
- Vessel Monitoring System (VMS)

Cont . . .

COASTAL OBSERVATION POINTS (COPs)



NORTHERN NAVAL AREA TOTAL - 75

NORTH CENTRAL NAVAL AREA TOTAL - 59

EASTERN NAVAL AREA TOTAL - 68

NORTH WESTERN NAVAL AREA TOTAL - 20

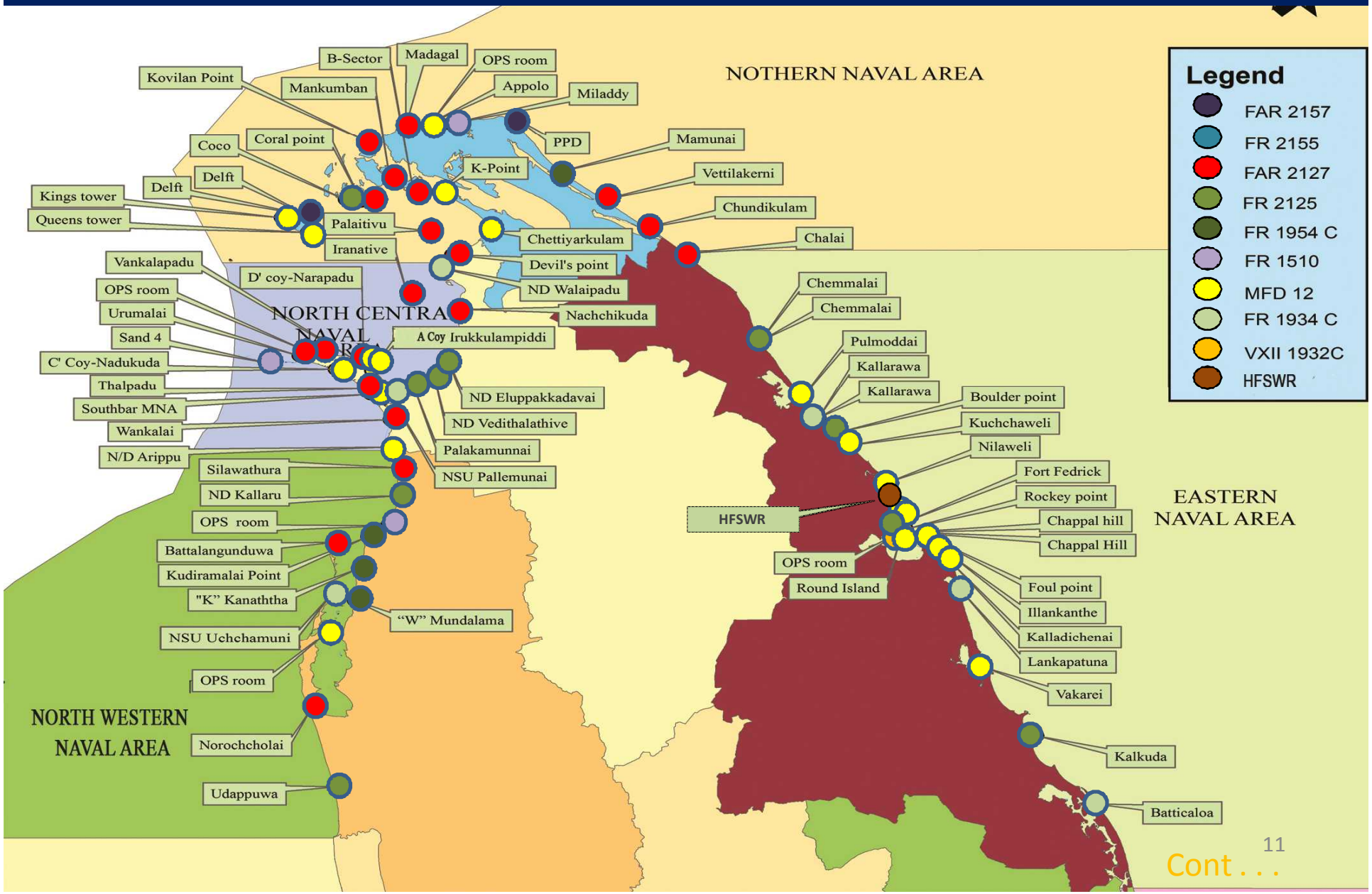
COPs AROUND SRI LANKA - 247

WESTERN NAVAL AREA TOTAL - 14

SOUTH EASTERN NAVAL AREA TOTAL - 1

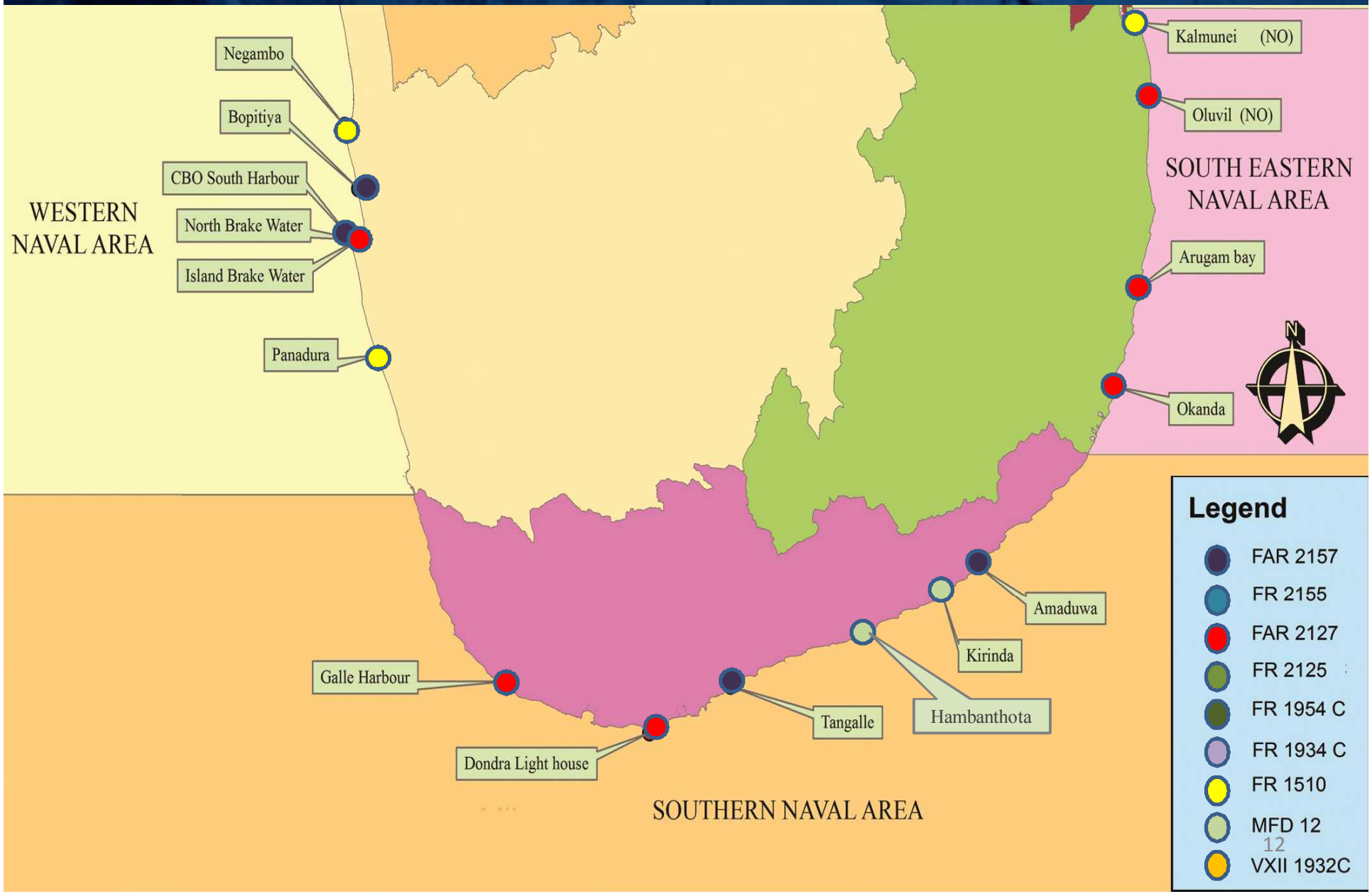
SOUTHERN NAVAL AREA TOTAL - 10

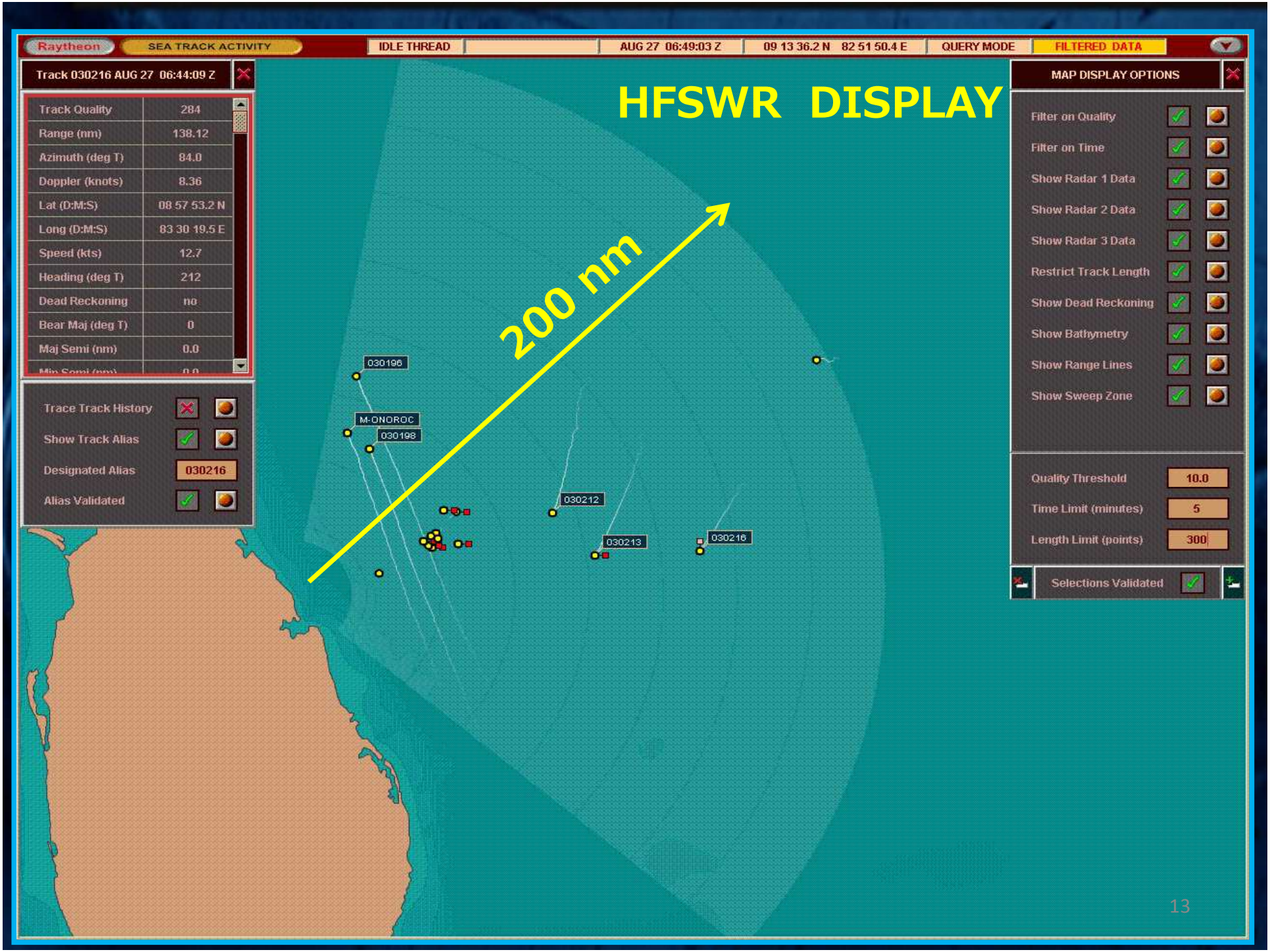
COASTAL RADAR STATIONS IN SL NAVY



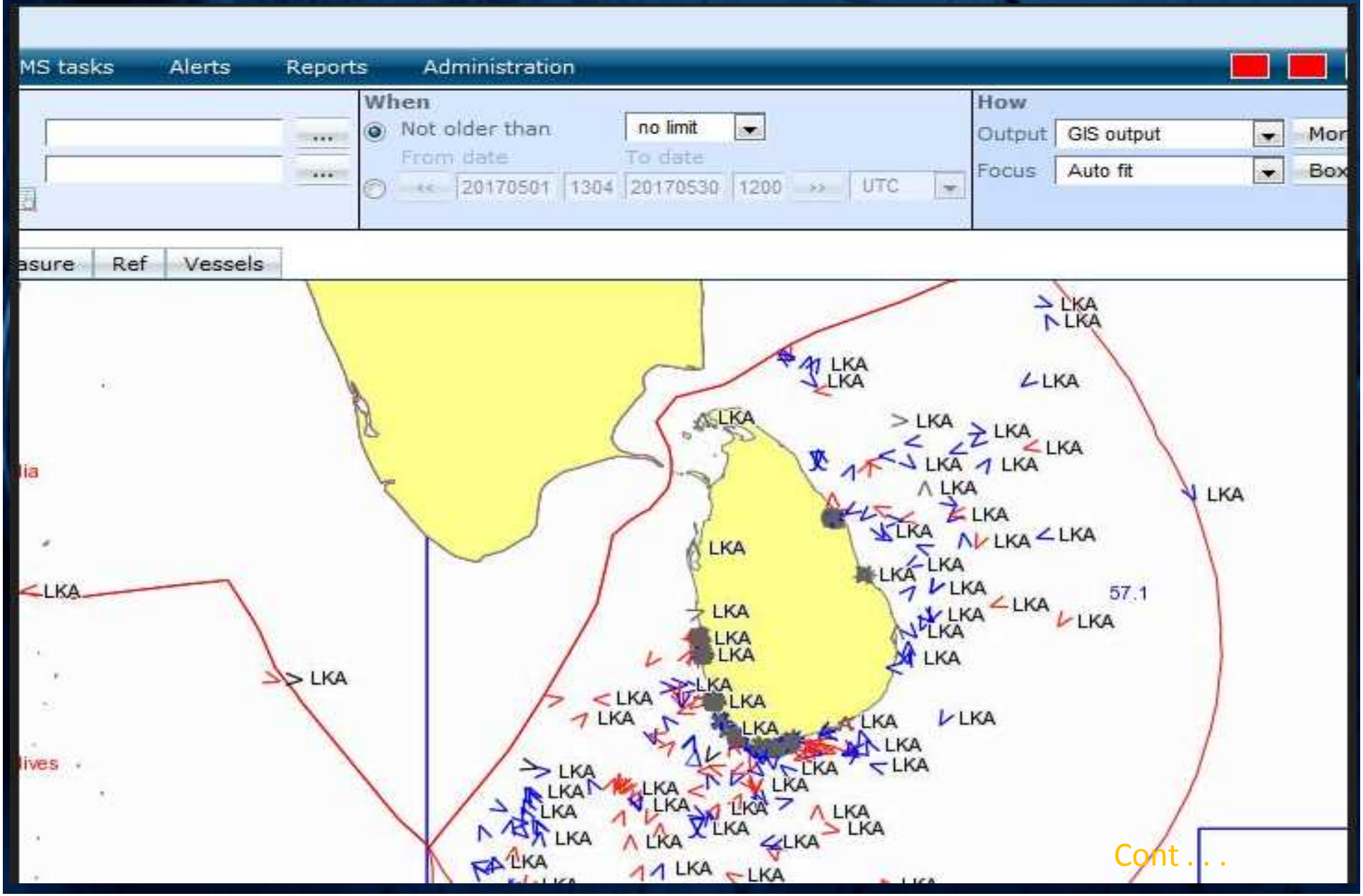
Cont . . .

COASTAL RADAR STATIONS IN SL NAVY




Raytheon
SEA TRACK ACTIVITY
IDLE THREAD
AUG 27 06:49:03 Z
09 13 36.2 N 82 51 50.4 E
QUERY MODE
FILTERED DATA
HFSWR DISPLAY
Track 030216 AUG 27 06:44:09 Z
Track Quality 284
Range (nm) 138.12
Azimuth (deg T) 84.0
Doppler (knots) 8.36
Lat (D:M:S) 08 57 53.2 N
Long (D:M:S) 83 30 19.5 E
Speed (kts) 12.7
Heading (deg T) 212
Dead Reckoning no
Bear Maj (deg T) 0
Maj Semi (nm) 0.0
Trace Track History
Show Track Alias
Designated Alias 030216
Alias Validated
200 nm
030196
M-ONOROC
030198
030212
030213
030216
MAP DISPLAY OPTIONS
Filter on Quality
Filter on Time
Show Radar 1 Data
Show Radar 2 Data
Show Radar 3 Data
Restrict Track Length
Show Dead Reckoning
Show Bathymetry
Show Range Lines
Show Sweep Zone
Quality Threshold 10.0
Time Limit (minutes) 5
Length Limit (points) 300
Selections Validated

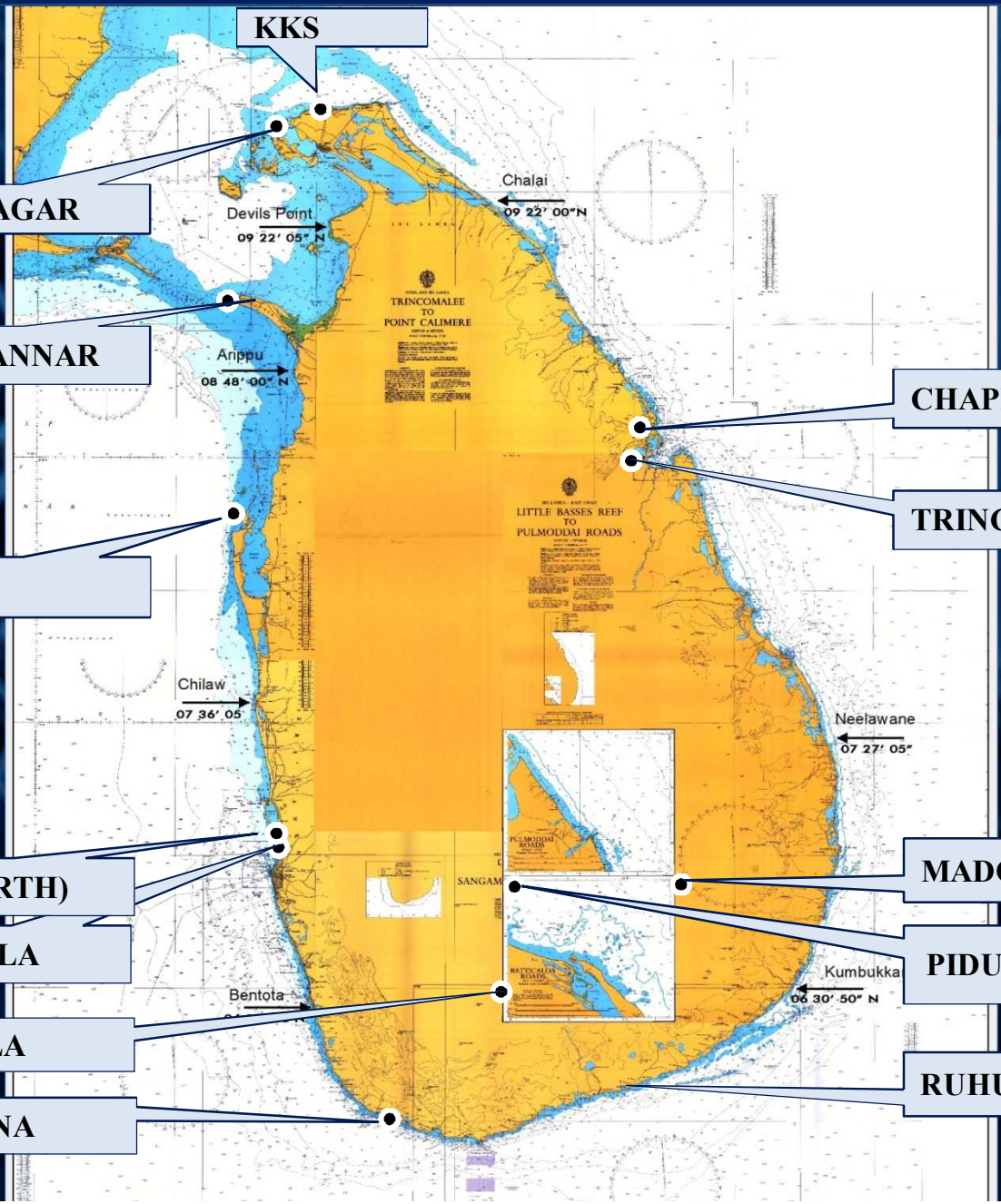
VESSEL MONITORING SYSTEM (VMS)



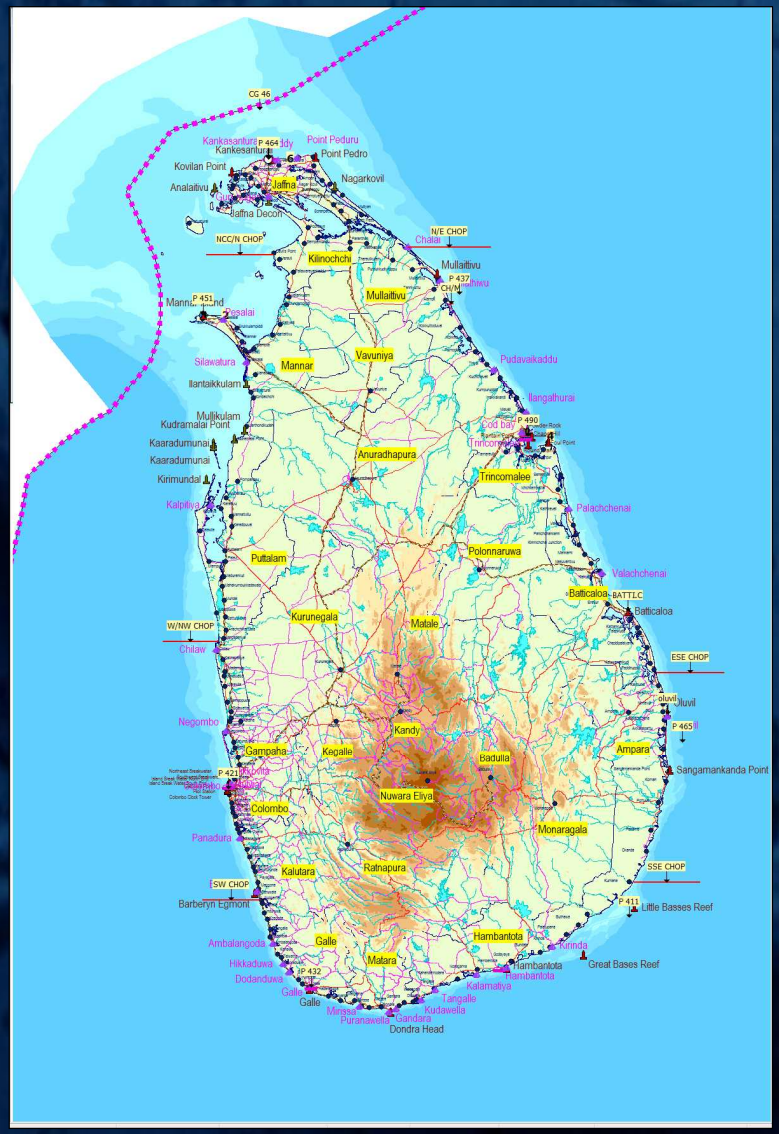
VESSEL MONITORING SYSTEM (VMS)

- System delivered by DFAR with a MoU to monitor the movements of Sri Lankan fishing vessels.
- Monitored continuously to detect and report the border crossing of FVs
- At present 1560 crafts can be monitored which are fitted with transponders.

AUTOMATIC IDENTIFICATION SYSTEM (AIS)



AUTOMATIC VESSEL LOCATING SYSTEM (AVLS)

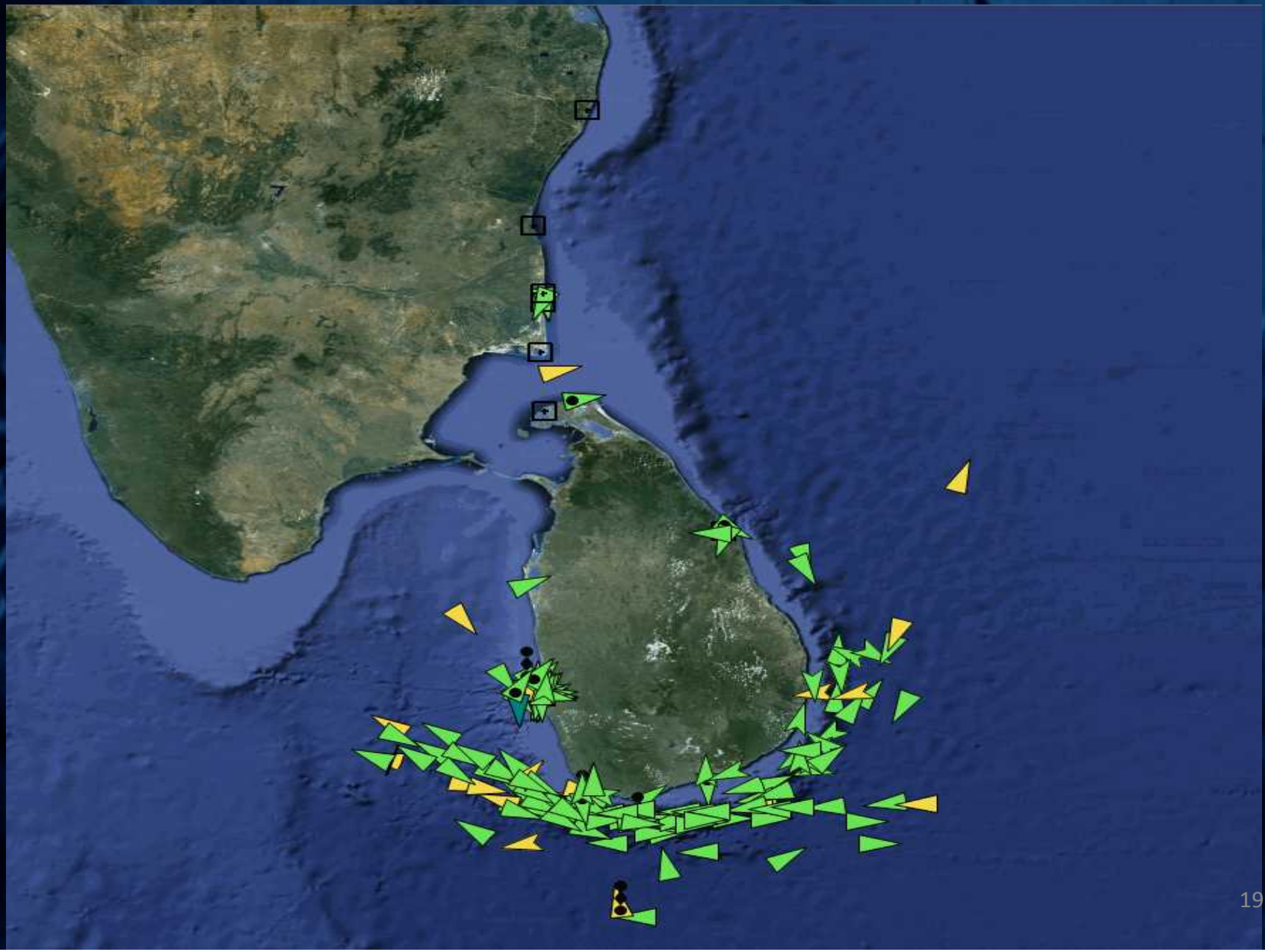


AUTOMATIC VESSEL LOCATING SYSTEM (AVLS)

- System is used to monitor SLN fleet units deployed on maritime surveillance/special task and linked up with by UHF network which supported by 10 repeaters.

  - Colombo(WTC)
  - Kalpitiya
  - TMNR
  - Delft
  - PPD
  - Trincomalee (ChappelHill)
  - Kallarawa
  - Arugambay
  - Tangalle
  - Galle

INTERGRADED MARITIME SURVEILLANCE SYSTEM

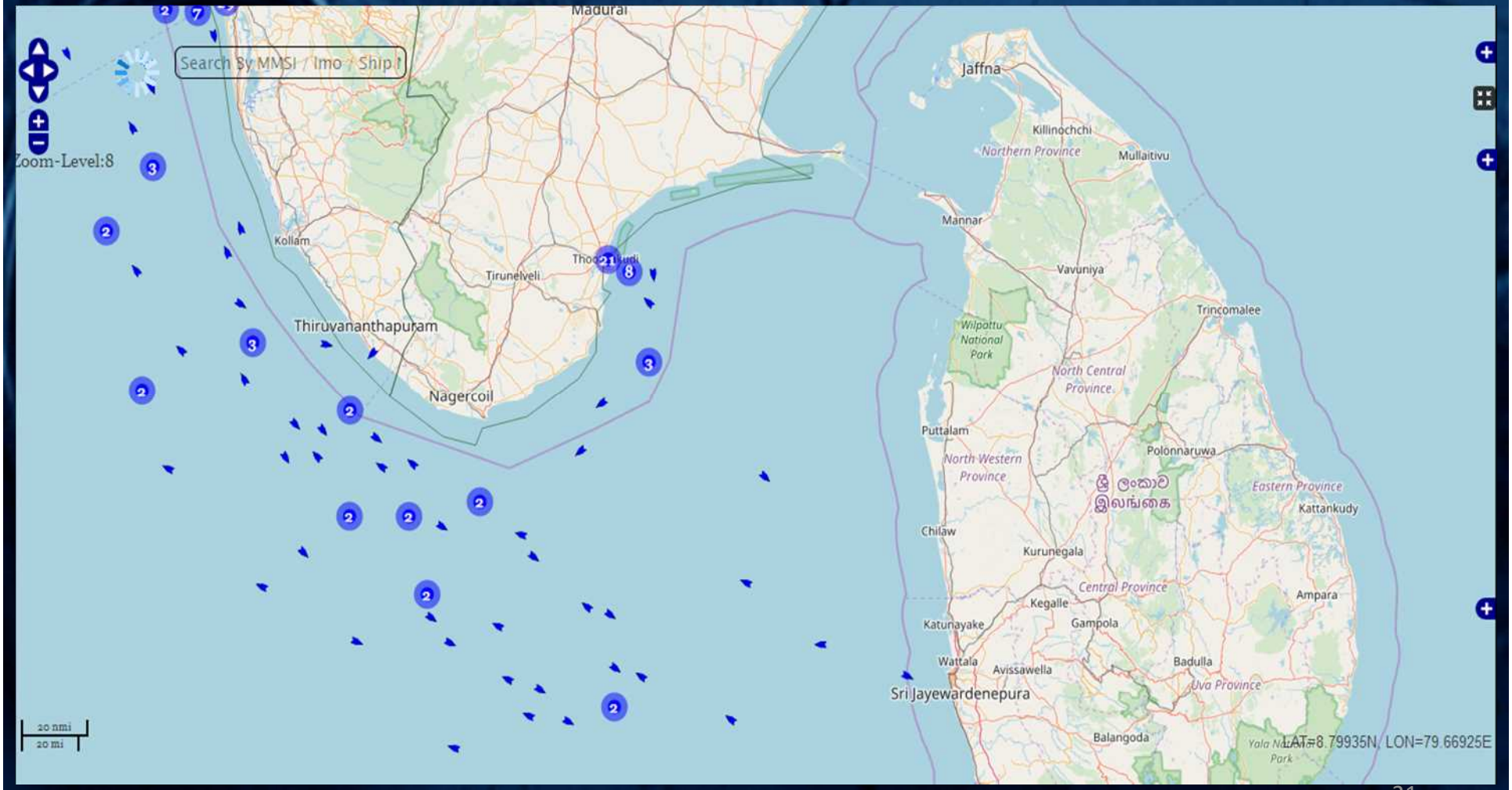


INTERGRADED MARITIME SURVEILLANCE SYSTEM

- System developed by SLN R&D department and University of Kalaniya.

- Intergraded with 6 AIS locations.
  - Uththara
  - Chappel hill
  - Madolsima
  - Gongala
  - Piduruthalagala
  - IBW (N)

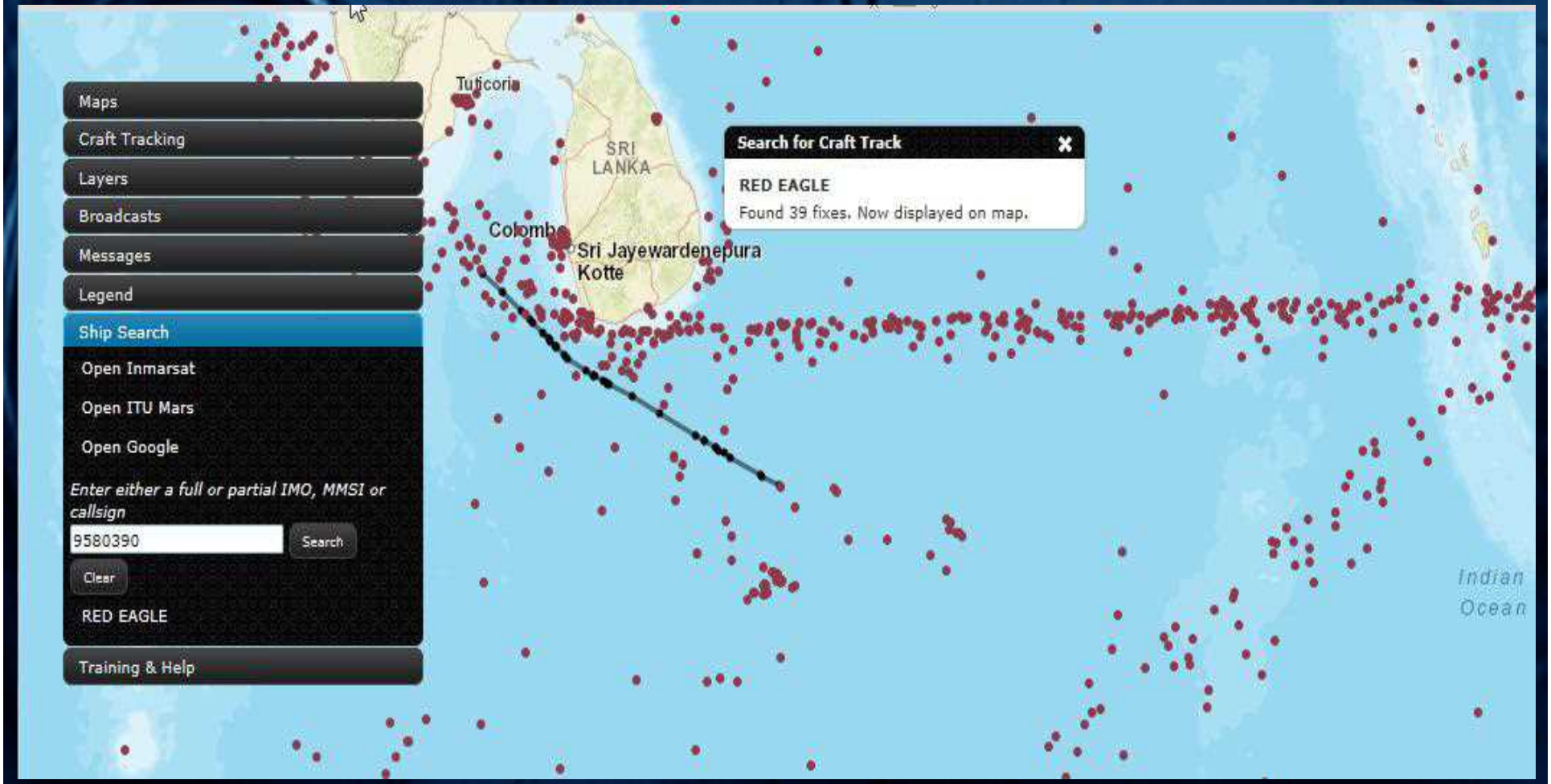
MERCHANT SHIP INFORMATION SYSTEM (MSIS)



MERCHANT SHIP INFORMATION SYSTEM (MSIS)

- MSIS was launched on 21st October 2013 as a joint venture between Sri Lanka and India.
- AIS based system which provides details of merchant ships.
- Share data collected from AIS stations in both countries.

E - BROADCAST



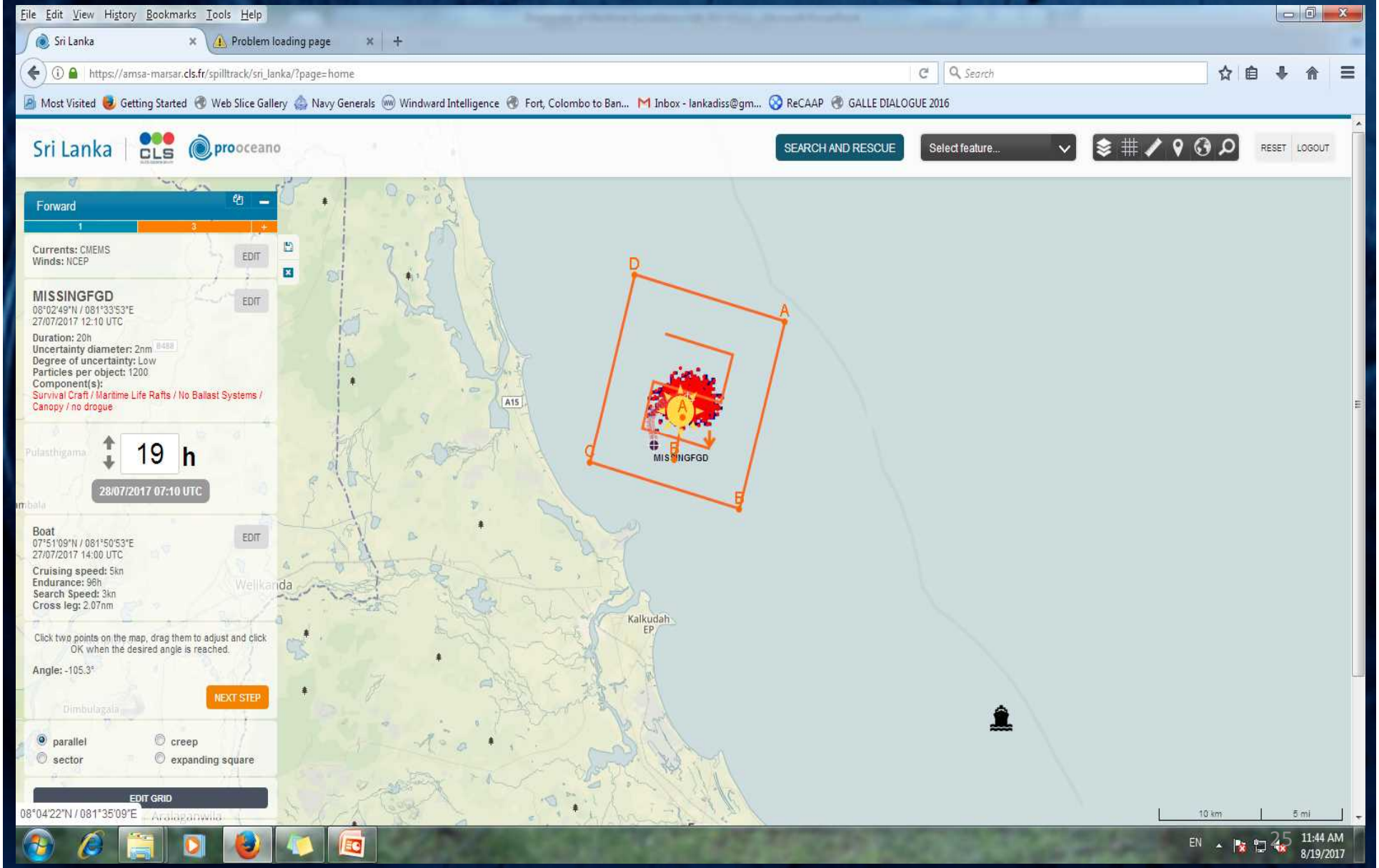
Cont . . .

E - BROADCAST

- System delivered by Australian Maritime Safety Authority (AMSA).

- Designed to assist vessels in distress by broadcasting distress alerts to the ships in area .

DRIFT MODELING SYSTEM



DRIFT MODELING SYSTEM

- System delivered by AMSA under Search &Rescue Capability Partnership Program (SCPP)

- This web based system facilitate to simulate the predicted position of floating objects at sea.

POPOSED SYSTEMS

- Advance AIS system for target detection
- Satellite based system for target classification and identification

TERRAIN