WORLD-WIDE NAVIGATIONAL WARNING SERVICE SUB-COMMITTEE 9th Meeting (WWNWS 9)
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Cape Town, South Africa

IMSO Liaison Report

Moin Ahmed
Director General
International Mobile Satellite Organization

About IMSO

- ### 103 Member States
  - *HONDURAS is the latest addition to Organization*

- ### Assembly of Parties
  - *Meets once in every two years*

- ### Advisory Committee
  - Meets twice in a year

- ### Headquarters
  - *99 City Road, London (UK)*

IMSO – Main responsibilities

- **Article 3 of the IMSO Convention**

  Ensuring the provision, by each Provider (so far Inmarsat), of maritime mobile satellite communications services for the GMDSS according to the legal framework set up by IMO

  (IMO Res.A.1001(25))

- **Article 4 of the IMSO Convention**

  Performing the functions and/or duties of LRIT Coordinator as per Resolution MSC.275(85)

- Participating in the work of IMO and other international bodies/fora on all GMDSS and LRIT-related matters

IMSO relationships with other organizations

- ## United Nations and Specialized Agencies
  - *IMO, WMO, ITU, ICAO and UNOOSA*

- ## Intergovernmental Organizations
  - *IHO, COSPAS SARSAT, Intersputnik, ITSO, EC and EUTELSAT IGO*

- ## Non-Governmental Organizations
  - *ISO, CTO, CIRM, ICS and IALA*

- ## MoUs signed with:
  - *IALA, ICS, CIRM, ISO, WMO and Intersputnik*

GMDSS

Mobile satellite communication systems

- So far, Inmarsat is the only recognized mobile satellite communication service provider in the GMDSS

- Ships equipped with Inmarsat terminals rely on Inmarsat to send/receive safety communications

- Inmarsat is a provider of public safety services - therefore oversight is inevitable

GMDSS oversight - legal instruments

- IMSO Convention

- IMO Assembly Resolution 1001(25)
  Criteria for the provision of mobile satellite communication systems in the global maritime distress and safety system (GMDSS)

- Public Services Agreement
  Between IMSO and GMDSS service provider

Requirements for a GMDSS provider

- Support distress and general communications in the ship-to-shore and shore-to-ship direction

- Support broadcast of MSI

- Coverage

- Continuous availability – 99.9%

- Spare satellite capacity

- Capability to restore services within 60 min

GMDSS oversight activities

- Public Services Committee meetings

- Satellite contingency exercises

- Regular biweekly meetings

- Request regular reports on availability statistics

- Request report on any satellite outage

- Establish a link between States and Inmarsat

- Report to IMO on an annual basis

- Issues International SafetyNET certificates

Updates on existing services:

- Closure of Inmarsat B service
    - decommissioned on 11th of January 2017.
- Notification for closure of Fleet-77 service
    - December 2020
- SafetyNet II
    - has been continuously tested by a number of MSIPs
    - feedbacks received and are currently being reflected to the next release which is expected to be in production later this year.

Evaluation of new GMDSS applicant – Iridium application for recognition
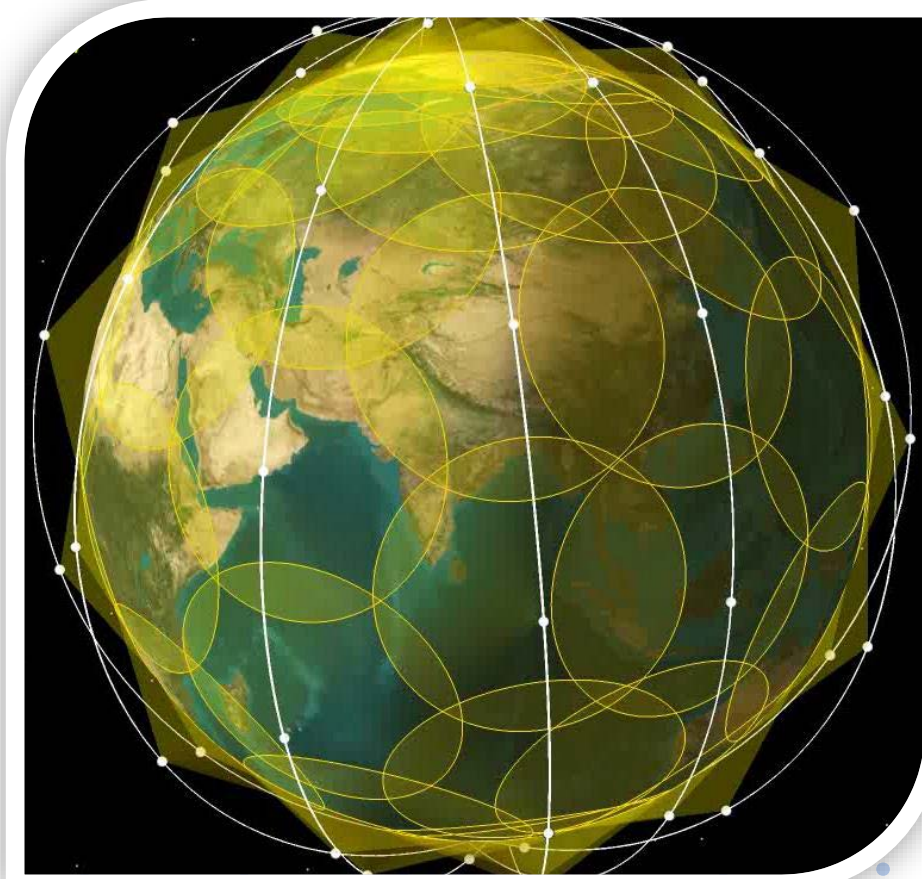
GMDSS – Iridium application process

- June 2013 – US notified MSC 92 of its intention to sponsor Iridium's bid to become the next GMDSS provider

- July 2014 – US submitted Formal application to NCSR 1

- Nov. 2014 – MSC 94 requested IMSO to undertake the technical and operational assessment of Iridium. Scope of the assessment: IMO Resolution A.1001(25) and MSC.1/Circ.1414

GMDSS – Evaluation of Iridium capabilities

- Progress on the assessment of the Iridium application

    – Dec 2014 – IMSO-Iridium Agreement signed

    – Mar 2015 – IMSO Experts started the assessment work

    – Apr 2015 – First visit of experts to Iridium facilities in the US

    – Jun 2015 – IMSO review on first visit and future plan

    – Sep 2015 – Second visit to Iridium facilities in the US

    – Nov 2015 – Finalization/submission of assessment report

    – Mar 2016 – NCSR 3 considered the report & identified outstanding items before Iridium could be recognized

    – Jun 2016 – Consideration of NCSR recommendation by MSC 96

GMDSS – Iridium assessment timelines

- Jun 2017 – MSC 98 approved Performance Standard for SES terminals for Iridium to comply with

- Sept 2017 - The assessment of outstanding items continues

- Oct 2017 -   IMSO completes assessment of Iridium items

- Nov. 2017 – IMSO submits assessment report to NCSR 5.

- Mar 2018 – NCSR 5 considers IMSO assessment report & submits report to MSC 99

- Jun 2018 – MSC 99 considers NCSR 5 report for recognition

GMDSS – multiple providers issues

- With the potential for recognition of Iridium as the new mobile-satellite communication service provider in the GMDSS, questions arise are:

    - how the two systems will operate for shipboard terminals

    - Broadcast of MSI (involves MSI provider)

    - Distress relay (involves SAR people)

    - how will IMSO undertake oversight?

- Iridium expressed intention to sign the Public Services Agreement (PSA) with IMSO to enable IMSO overseeing the performance of Iridium as a mobile satellite communication service provider in the GMDSS
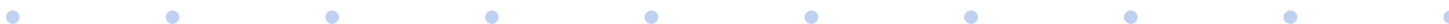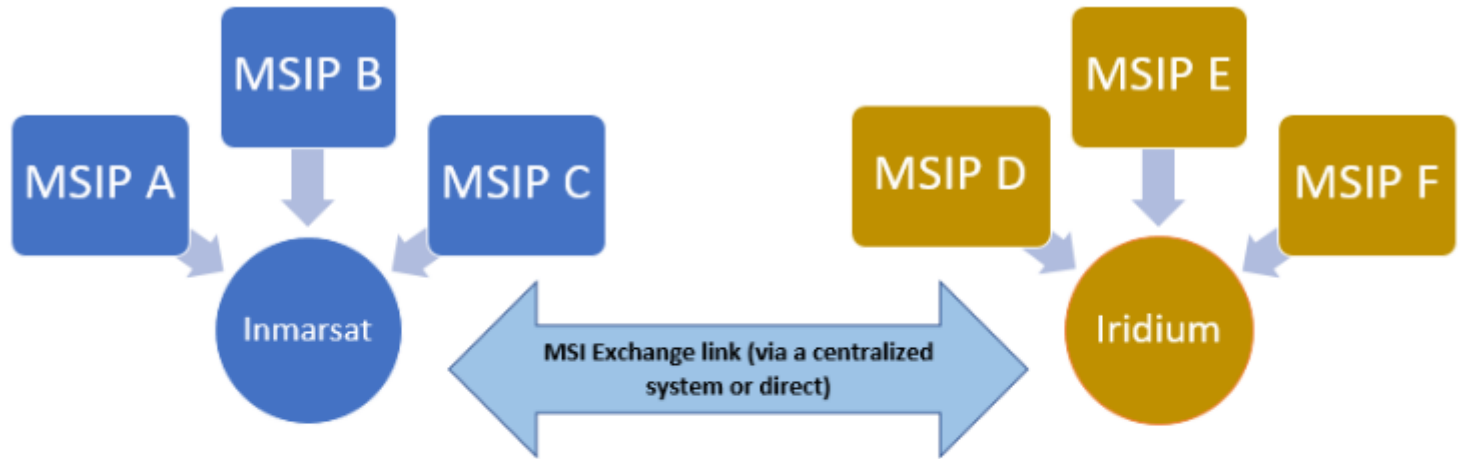
Interoperability

A potential solution that may work well for MSIPs (and RCCs)

Broadcast of MSI

Information Source	Service provider charging for MSI distribution	Service provider NOT charging for MSI distribution
MSIP A	Inmarsat	Iridium
MSIP B	Inmarsat	Iridium
MSIP C	Inmarsat	Iridium
MSIP D	Iridium	Inmarsat
MSIP E	Iridium	Inmarsat
MSIP F	Iridium	Inmarsat

Evaluation of a new GMDSS system
– Inmarsat FleetBroadband MSDS

- Nov 2016 - The United Kingdom applied MSC 97 to seek recognition of the Inmarsat FleetBroadband Maritime Safety Data Service for use in the GMDSS.

- MSC 97 - considered the application and forwarded it to the NCSR Sub-Committee for its consideration.
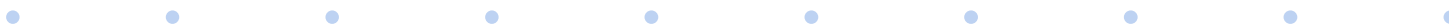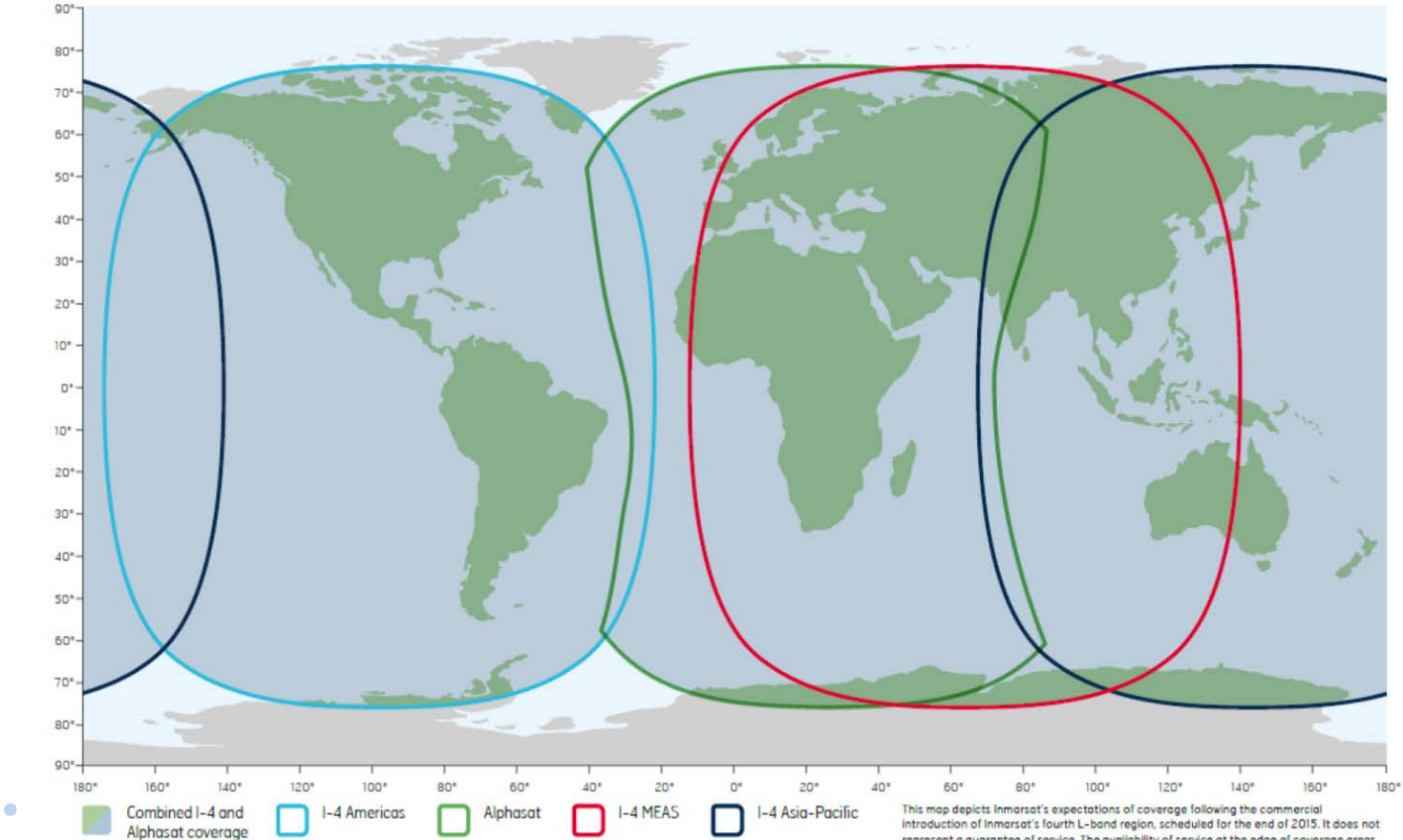
Evaluation of a new GMDSS system – Inmarsat FleetBroadband MSDS

- NCSR 4 considered the application and
  - noted that recognition was sought initially for the coverage area under the **Inmarsat-4 Middle East and Asia (MEAS) region satellite that overlapped with other I-4 constellation satellites** but with the intention that recognition also included, subject to any necessary further assessment, additional coverage areas provided by future satellites.

  - agreed that **IMSO** should undertake the necessary technical and operational assessment and provide a report for consideration by the NCSR Sub-Committee.

GMDSS – Inmarsat FleetBroadband

This map depicts Inmarsat's expectations of coverage following the commercial introduction of Inmarsat's fourth L-band region, scheduled for the end of 2015. It does not represent a guarantee of service. The availability of service at the edge of coverage areas fluctuates depending on various conditions. SwiftBroadband coverage December 2015.

Combined I-4 and Alphasat coverage — I-4 Americas — Alphasat — I-4 MEAS — I-4 Asia-Pacific

GMDSS – Inmarsat FleetBroadband

- March 2017 - IMSO selected experts to conduct the technical and operational assessment of Inmarsat FB.

- Aug 2017 - The assessment starts

- Oct 2017 - IMSO completes assessment of Inmarsat FB MSDS

- Nov. 2017 – IMSO submits assessment report to NCSR 5.

- March 2018 – NCSR 5 considers IMSO assessment report & submits report to MSC 99

- Jun 2018 – MSC 99 considers NCSR 5 report for recognition

LRIT System
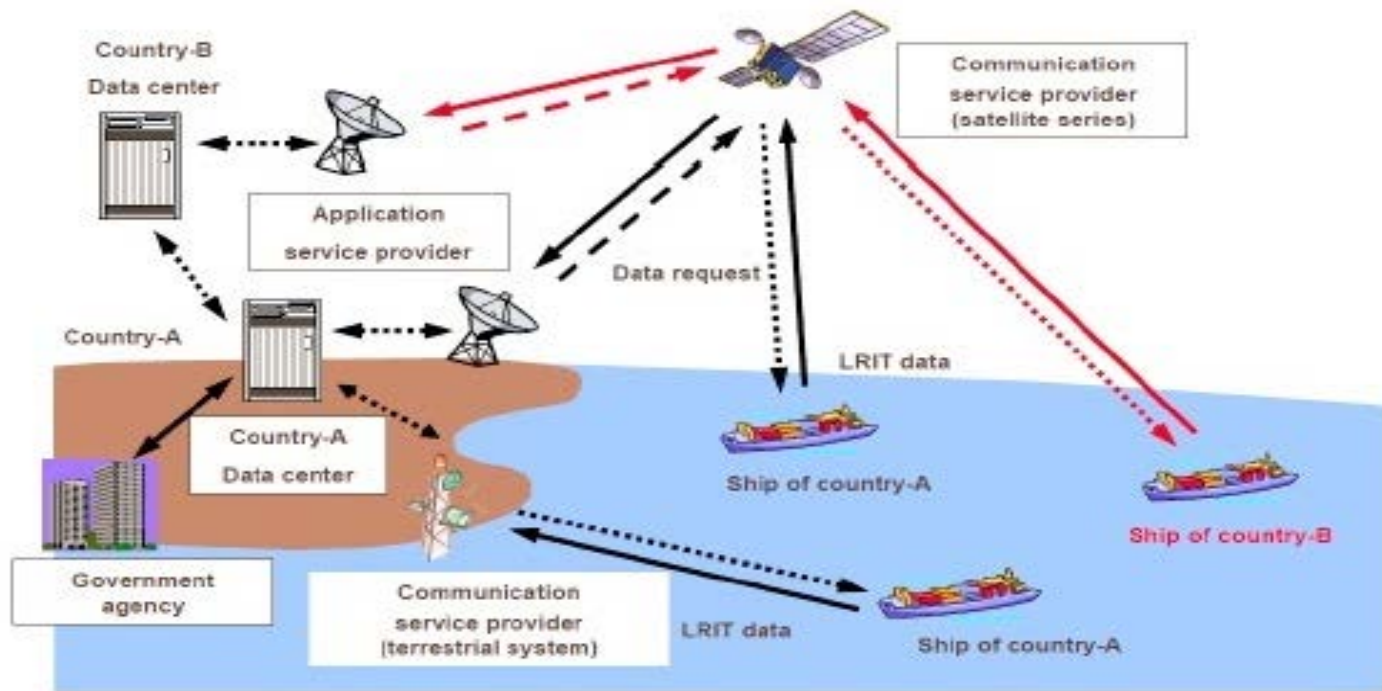
LRIT System
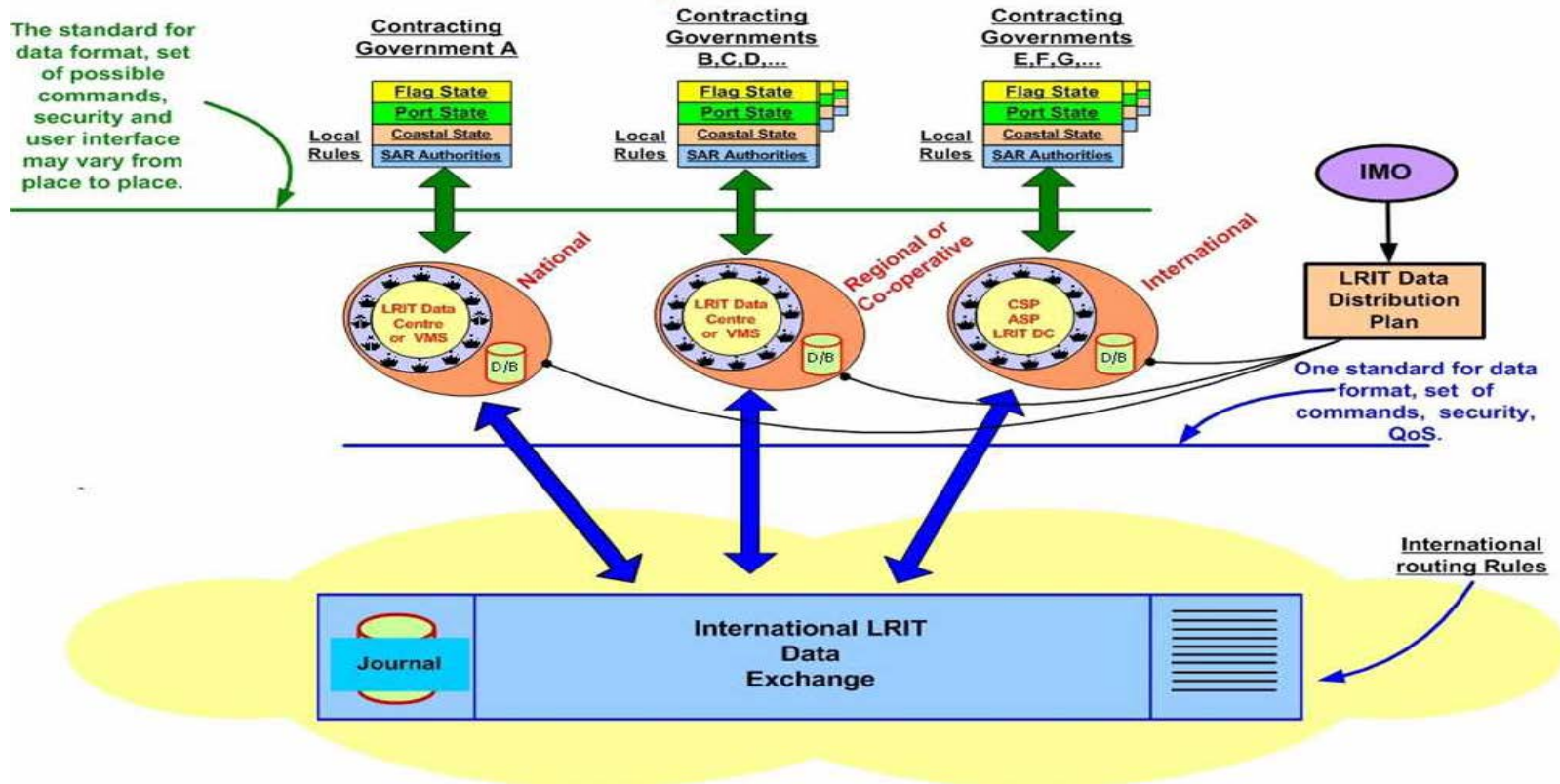
LRIT

LRIT

- Long-Range Identification and Tracking of Ships (LRIT) system was established by IMO and SOLAS Regulation V/19-1 entered into force on 1 Jan 2008

- LRIT's main purpose is to improve maritime security, safety and environment protection

- LRIT is based on collection of geographical location and identity information from ships and distribution of that information with entitled LRIT Data Users through a gateway

- IMSO has been appointed as the "LRIT Coordinator" to audit the performance of all components of the system and ensure the uniform implementation of the system worldwide (resolution MSC.275(85))

LRIT

- IMSO has so far conducted more than 415 audits over the period since 2010

- The review and audit involves administrative, technical and operational functions. IMSO has developed a bespoke audit software to review the performance of LRIT components. The software was developed using the in-house resources.

- A total of 121 SOLAS Contracting Governments, Non metropolitan Territories and Special Administrative Regions are participating in the LRIT system through 55 LRIT Data Centres

- LRIT system's ground infrastructure stands out an excellent example of a globally available information exchange system.
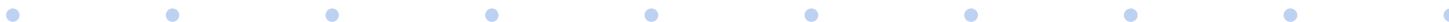
Website for the SafetyNET Panel

Website for the SafetyNET Panel

- Skeleton of the website is ready

- IMSO is working with the chairman of the SafetyNET Coordinating Panel on the content of the website

- The URL for the website is iscp.imso.org

Capacity-Building

Ongoing efforts

- Partnership arrangement

- Collaboration with other Organizations

THANK YOU FOR YOUR ATTENTION

Moin Ahmed
moin.ahmed@imso.org