

A satellite is shown in space, with the Earth's blue and white clouds visible in the background. The satellite has several solar panels and a central body. The text is overlaid on this image.

# **PROMULGATION OF MARITIME SAFETY INFORMATION UNDER THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM**

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# MARITIME SAFETY INFORMATION

- **AS DEFINED IN THE SOLAS CONVENTION**

**“NAVIGATIONAL AND METEOROLOGICAL WARNINGS, METEOROLOGICAL FORECASTS AND OTHER URGENT SAFETY RELATED MESSAGES BROADCAST TO SHIPS”**



# MARITIME SAFETY INFORMATION (MSI)

- **SEVEN BASIC CATEGORIES:**
  - **NAVIGATIONAL WARNINGS**
  - **METEOROLOGICAL WARNINGS**
  - **METEOROLOGICAL FORECASTS**
  - **ICE REPORTS**
  - **SEARCH AND RESCUE**
  - **PILOTAGE SERVICES (NOT IN USA)**
  - **ELECTRONIC NAV SYS UPDATES  
(WILL INCLUDE ECDIS IN FUTURE)**

# NAVIGATION AREAS

- **1976 - WORLD WIDE NAVIGATIONAL WARNING SYSTEM (WWNWS) ESTABLISHED BY IMO AND IHO.**
- **WORLD DIVIDED INTO 16 NAVIGATION AREAS (NAVAREAS).**

# METAREAS

- **IN 1989, WMO DESIGNED THEIR PART OF THE GMDSS AND HARMONIZED THE 'NEW METAREAS' WITH THE EXISTING NAVAREAS**
- **ACTION RATIFIED BY WMO AT THE 1989 COMMISSION FROM MARINE METEOROLOGY (CMM)**



# NAV/METAREA INFORMATION PROVIDERS (NAV/MET)

**I – UNITED KINGDOM**

**II – FRANCE**

**III – SPAIN/GREECE**

**IV – USA**

**V – BRAZIL**

**VI – ARGENTINA**

**VII – SOUTH AFRICA**

**VIII (N of Equator) – INDIA**

**VIII (S of Equator) – INDIA/MAURITIUS/  
LA REUNION (Via France)**

# NAV/METAREA INFORMATION PROVIDERS (NAV/MET)

**IX – PAKISTAN**

**X – AUSTRALIA**

**XI – JAPAN/CHINA (for IOR only)**

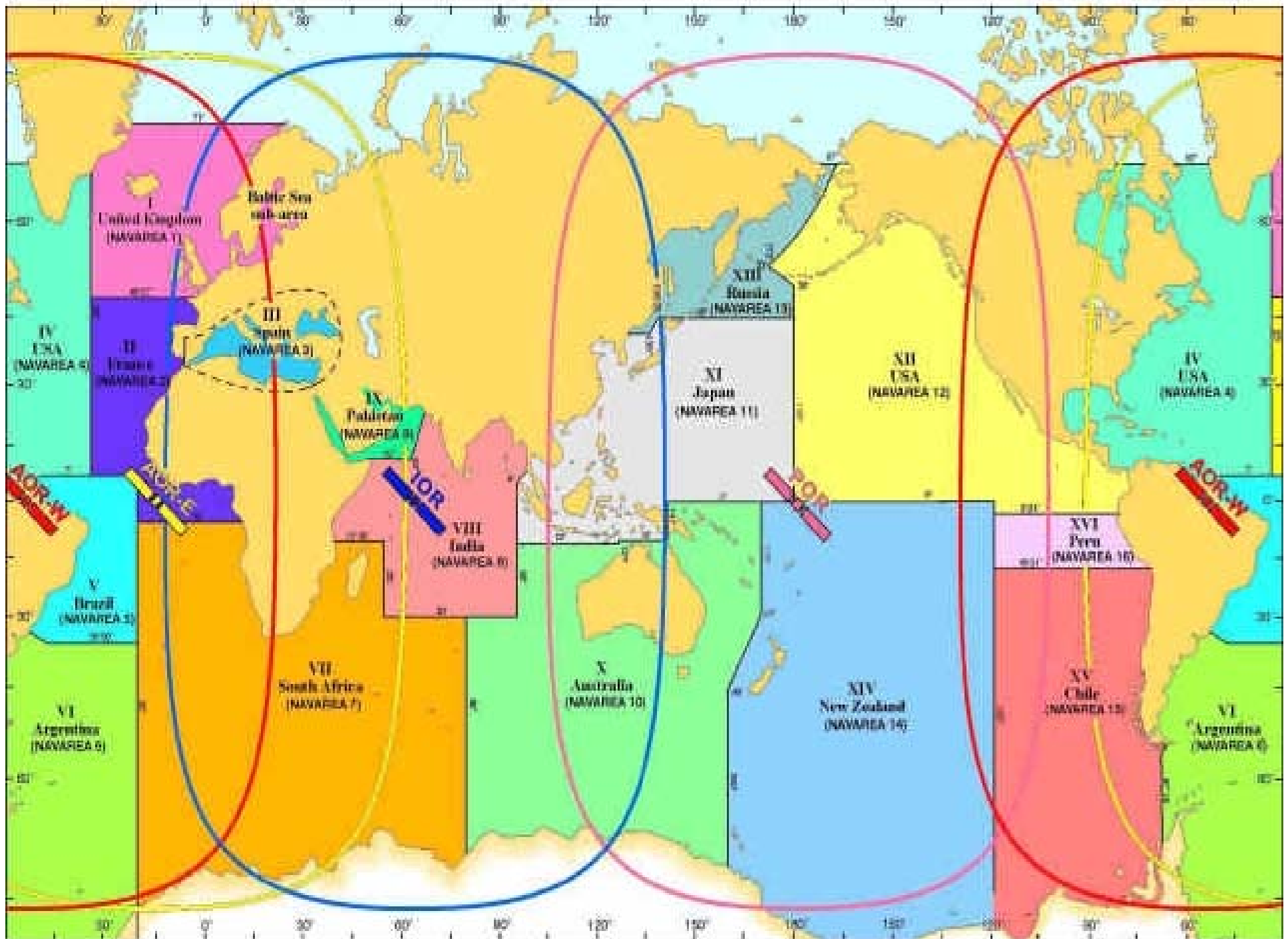
**XII – USA**

**XIII – RUSSIAN FEDERATION/JAPAN  
(South of 60°N)**

**XIV – NEW ZEALAND**

**XV – CHILE**

**XVI - USA**





# RESPONSIBILITY/MONITORING

- **NAVAREAS – International Hydrographic Office (IHO) via the World-Wide Navigational Warning Service (WWNWS)**
- **METAREAS – WMO thru the Ad Hoc Group on the GMDSS under the CMM Working Group on Marine Meteorological Services**

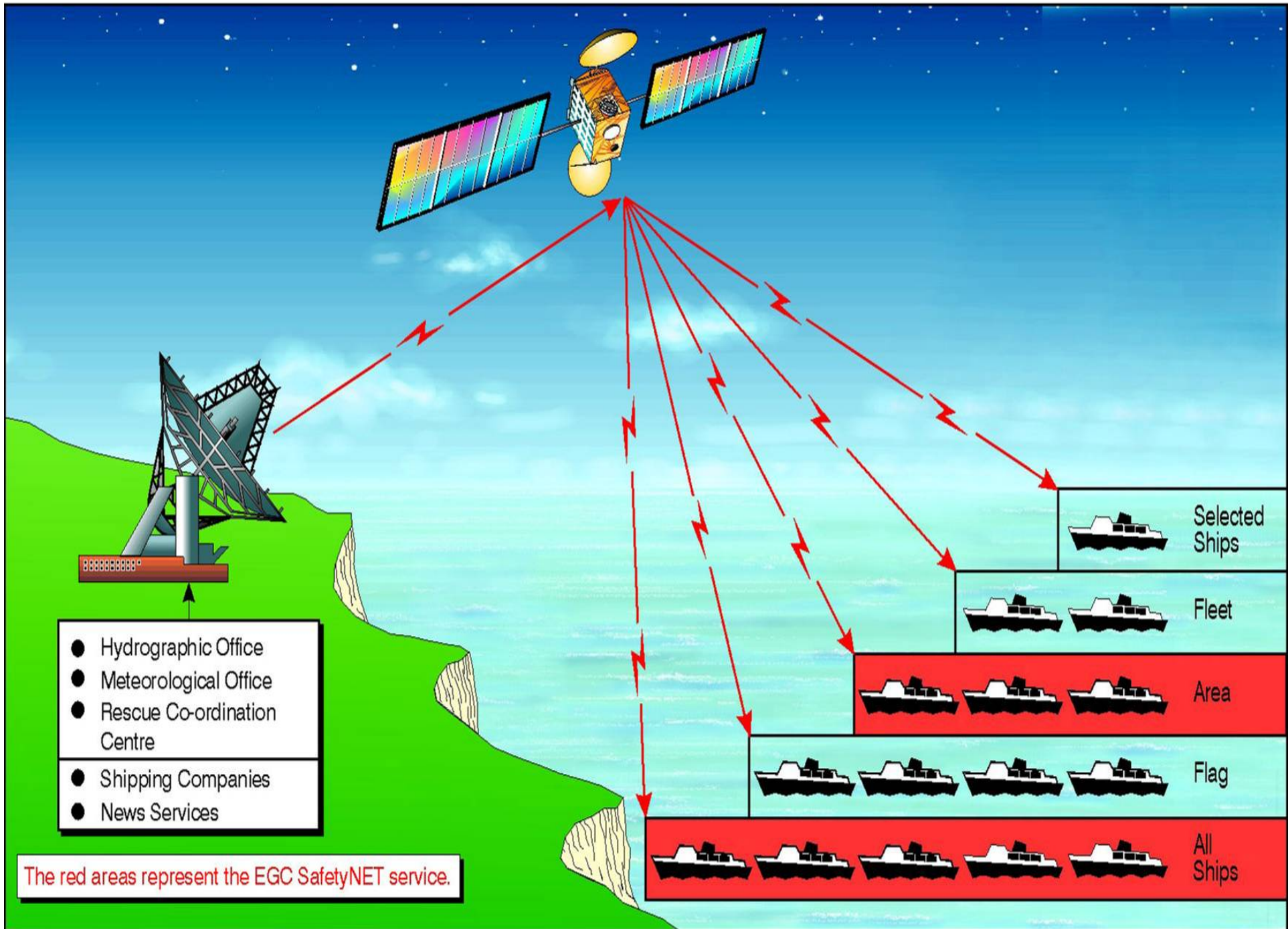
# GMDSS MSI SYSTEMS

- **NAVTEX – AN MF DIRECT PRINTING SERVICE FOR COVERAGE OF HIGH TRAFFIC AND HAZARD DENSITY, E.G. COASTAL AREAS**
- **INTERNATIONAL SAFETYNET – A SATELLITE SYSTEM WHICH WILL COVER ALL NON-POLAR WATERS**  
(It is intended, that these two services be mutually exclusive)

# SAFETYNET EGC

- **SERVICE WITHIN THE FOOTPRINT OF GEOSTATIONARY SATELLITES ( 76 N TO 76 S)**
- **UP-TO-DATE KNOWLEDGE OF SHIPS POSITION, BY AUTOMATIC OR MANUAL INPUT**
- **MESSAGES CAN BE ADDRESSED TO A FIXED OR A DISCRETE GEOGRAPHICAL AREA**





# EGC

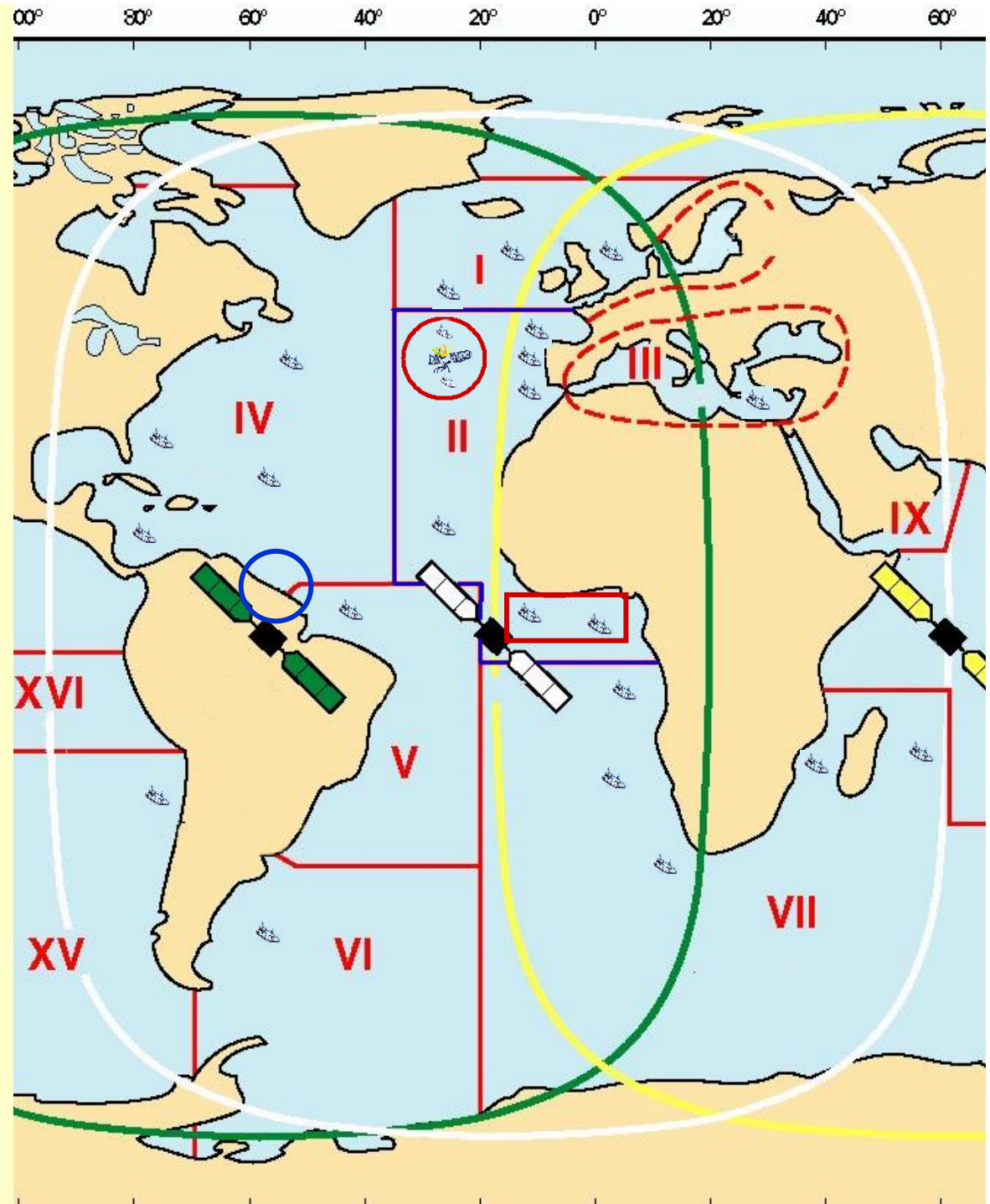
To dispatch messages to ship within:

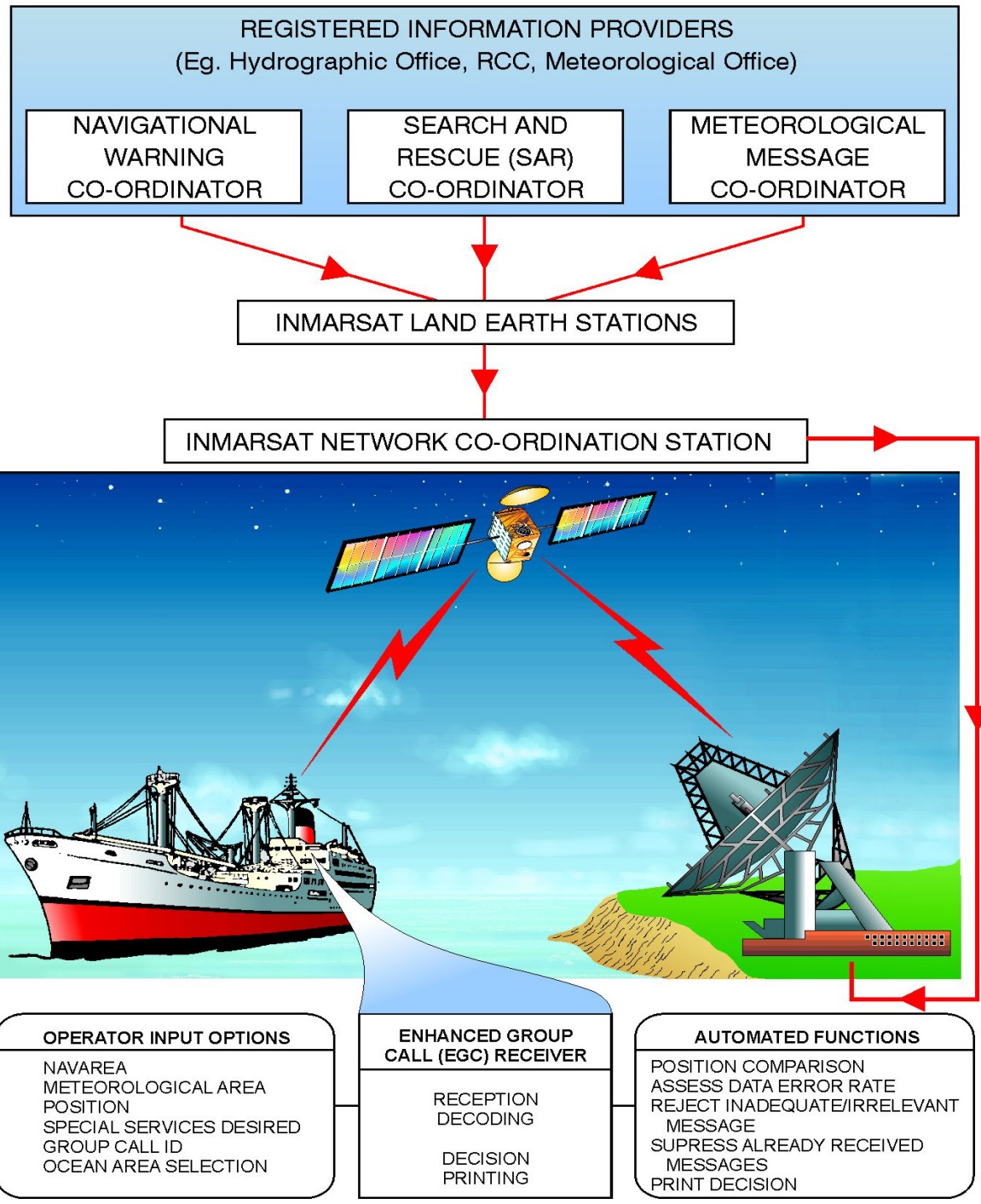
## FIXED AREA

- NAVAREA/METAREA (implemented in the Ship Earth Stations processor)
- Coastal area (defined by a code letter)

## AREA GEOGRAPHICALLY DEFINED BY ITS ORIGIN

- Circular (centre coordinates, radius )
- rectangular (SW corner coordinates, latitude and longitude extents )







# SafetyNET MESSAGE PREAMBLE

## SafetyNET HEADER -

C1:C2:C3:C4:C5

### WHERE:

- C1 - MESSAGE PRIORITY (1 digit)
- C2 - SERVICE CODE (type of message)  
(2 digits)
- C3 - ADDRESS CODE (up to 12 digits)
- C4 - REPETITION CODE (2 digits)
- C5 - PRESENTATION CODE

# C- CODES FOR MET SERVICES

- **C1 – MESSAGE PRIORITY**

**ALWAYS:**

**2 (URGENCY) FOR TROPICAL  
CYCLONE WARNINGS**

**1 (SAFETY) FOR ALL OTHER  
WARNINGS AND FORECASTS**

# C- CODES FOR MET SERVICES

- **C2 – SERVICE CODE ( 2 DIGITS)**

**24 – WARNINGS TO A CIRCULAR AREA**

**31 - WARNINGS OR FORECASTS TO  
METAREA**

**13 - WARNINGS OR FORECASTS TO  
COASTAL AREA**



# C- CODES FOR MET SERVICES

## C3 ADDRESS CODE

- **CIRCULAR AREA - 10 CHARACTERS, E.G.  
56N034W010**
- **METAREA - 2 CHARACTERS WITH LEADING ZERO**
- **COASTAL WARNING - 4 CHARACTERS, i.e. X1X2B1B2 WHERE X1X2 IS THE METAREA AND B1 IS THE NAVTEX TRANSMITTER AND B2 IDENTIFIES THE SUBJECT OF THE MESSAGE, EG B2 = B FOR GALE WARNING**

# C- CODES FOR MET SERVICES

- **C4 – REPETITION CODE**
  - **WARNINGS, C4=11 (ON RECEIPT FOLLOWED BY 6 MINUTE REPEAT**
  - **FORECASTS, C4= 01 (TRANSMIT ONCE)**
- **C5 – PRESENTATION Code – ALWAYS ZERO**

# ADDITIONAL OPERATIONAL GUIDANCE

- **MAJORITY OF BROADCASTS VIA  
MADE AT PREDETERMINED  
SCHEDULED TIMES**
- **MSI PROVIDERS MUST MONITOR  
THEIR BROADCASTS**



# ADVANTAGES

- **BEFORE:**
  - **WEATHER, SOLAR INTERFERENCE, DAY/NIGHT EFFECTS**
  - **OPERATOR KNOWLEDGEABLE OF FREQUENCIES AND TRANSMISSION TIMES**
  - **MANUALLY SET EQUIPMENT**
  - **TAKE TIME TO COPY EACH BROADCAST**

# ADVANTAGES

- **NOW:**
  - **RECEIVER AUTOMATICALLY MONITORS PRESET FREQUENCY**
  - **PRINTS OUT IN ENGLISH**
  - **INFORMATION APPROPRIATE TO VESSEL**

# GMDSS GUIDANCE

- **INTERNATIONAL SAFETYNET MANUAL (IMO PUBLICATION 908), as amended. Operational Guidance in Annex 4 (Section b for Met Services)**
- **NAVTEX MANUAL (IMO PUBLICATION 951), as amended**
- **SAFETYNET USERS MANUAL**



# WATCHSTANDER GUIDANCE

- **JOINT IMO/IHO/WMO MANUAL ON MARITIME SAFETY INFORMATION (MSI)**

**will be issued as IMO Publication in November 2003**

# **SAFETYNET USERS MANUAL**

- **ONLY AVAILABLE IN  
SOFTCOPY AT:**

**[WWW.INMARSAT.COM/MARITIMESAFETY/  
SNET.HTM](http://WWW.INMARSAT.COM/MARITIMESAFETY/SNET.HTM)**

# SUMMARY

- **IMPORTANT CHANGE IN MARITIME SAFETY**
- **RAPID**
- **HIGH RELIABILITY, ALL WEATHER**
- **SIMPLE OPERATION**
- **WORLDWIDE ANY TIME OF THE DAY**