IMO/IHO World-wide Navigational Warning Service (WWNWS)

• 1972 – PROPOSAL TO SET UP AN Ad Hoc IHO/IMO COMMITTEE TO DEVELOP AN INTER-NATIONALLY CO-ORDINATED SYSTEM FOR PROMULGATING LONG RANGE NAVIGATIONAL WARNINGS TO VESSELS AT SEA.
• 1973 - FIRST MEETING IN MONACO.
• 1977 - DRAFT PLAN SUBMITTED TO IHO CONFERENCE.
WWNWS

- **1979** – WWNWS ADOPTED BY IMO RESOLUTION
- **1991** – AMENDED ON THE INTRODUCTION OF THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)

WWNWS INCLUDES:

- ORGANISATIONAL STRUCTURE
- BROADCAST SYSTEMS
WWNWS – ORGANISATIONAL STRUCTURE

• INTERNATIONAL CO-ORDINATION
• WARNINGS ISSUED FOR DESIGNATED SEA AREAS
• RESPONSIBILITIES OF ISSUING AUTHORITIES DEFINED
• SUBJECT CRITERIA DEFINED
• 3 LEVELS OF WARNING

WWNWS – WARNING TYPES

• NAVAREA Warnings
  – Issued by a NAVAREA Co-ordinator
  – Information required by ocean-going mariners for safe navigation
  – Principally affecting main shipping routes and offshore areas
**WWNWS – WARNING TYPES**

- **Coastal Warnings**
  - Issued by a National Co-ordinator
  - Information required by all vessels for safe navigation within the given area
  - Area to seaward of the fairway buoy or pilot station out to 250 miles from the coast or the boundary agreed with adjacent National Co-ordinators
WWNWS – WARNING TYPES

• Local Warnings
  – Issued by a local co-ordinator e.g. a port or harbour authority
  – Information required for safe navigation within port or inshore waters that passing ocean-going vessels do not require

WWNWS
BROADCAST SYSTEMS

• NAVTEX - DIRECT PRINTING TELEGRAPHIC SERVICE FOR COASTAL WARNINGS
• ENHANCED GROUP CALL (EGC) SAFETYNET - SATELLITE SYSTEM FOR LONG RANGE WARNINGS OR FOR COASTAL WARNINGS IN AREAS WHERE INTERNATIONAL NAVTEX SERVICE IS NOT PROVIDED
**NAVTEX**

- **PRINCIPALLY FOR COASTAL AREAS WITH A HIGH DENSITY OF SHIPPING**
- **COVERAGE AREA OUT TO AT LEAST 200 MILES FROM THE TRANSMITTER**
- **BROADCAST ON 518 kHz IN ENGLISH**
- **INTERFERENCE AVOIDED BY TIME SHARING AND SEPARATION OF TRANSMITTERS**
Enhanced Group Call
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 (left corner coordinates, latitude and longitude extents)
SafetyNET Priority Codes

- Distress
- Urgency
- Safety
- Routine

SAFETYNET EGC

- INTERNATIONAL SATELLITE BASED SERVICE
- AUTOMATIC, DIRECT PRINTING
- SERVICE WITHIN THE FOOTPRINT OF GEO-SYNCHRONOUS SATELLITES (70 N TO 70 S)
- CALLS MAY BE DIRECTED TO A FIXED GEOGRAPHICAL AREA, E.G. NAVAREA OR TO A UNIQUELY DEFINED REGION
TSUNAMI Warnings

• Possible Permanent Method of Promulgation
  – Tsunami Warnings can be classified as another type of MSI alongside Nav Warnings, Met Information and SAR Information
  – Regional Tsunami Warning Centres become authorised information providers in the International SafetyNET Service
  – Regional Tsunami Warning Centres input warnings directly into SafetyNET (accessed through a specified LES to broadcast through the appropriate satellite)
  – Warnings are given a distress priority (activates audible alarm on the receiver)
  – Warnings are issued to a large specified (circular or rectangular) geographical area i.e. one broadcast reaches all relevant national points of contact

TSUNAMI Warnings

• Possible Permanent Method of Promulgation
  – National Points of Contact activate National Contingency Plans which may include:
    • Re-broadcasting warnings through national radio and television
    • Direct contact with major ports and local authorities to re-broadcast information locally
    • Broadcasting warnings to vessels in coastal areas through NAVTEX
TSUNAMI Warnings

• Possible Permanent Method of Promulgation
  – Vessels at sea receiving the warning through SafetyNET or NAVTEX will consider re-broadcasting the warning on other means e.g. VHF R/T to other vessels and port authorities in their vicinity who may not have SafetyNET or NAVTEX receivers

• Possible Immediate Interim Solution
  – Tsunami Warning Centres pass warnings to relevant NAVAREA Co-ordinators who input warnings directly into SafetyNET for broadcast within their NAVAREAs
  – Thereafter, as for proposed permanent method
• **Requirements in order to Implement the Immediate Interim Solution**
  – Designated Tsunami Warning Centre with reliable communications links to relevant NAVAREA Co-ordinators (e.g. preferably any 2 of the following: telex, e-mail, fax, telephone, radio)
  – National Points of Contact equipped with SafetyNET receivers
  – National Contingency Plans for onward dissemination of warnings and measures to mitigate tsunami effects

• **Requirements for permanent system**
  – Designated Tsunami Warning Centre with satellite EGC equipment and secure communications links to at least 2 satellite LES
  – National Points of Contact equipped with SafetyNET receivers
  – National Contingency Plans for onward dissemination of warnings and measures to mitigate tsunami effects
Measures already taken
IMO and IHO

• IMO COMSAR circular and IHO Circular Letter issued to all members facilitating the use of the WWNWS for issuing Tsunami Warnings

• Chairman of the IMO SafetyNET Co-ordinating Panel is ready to authorise Tsunami Warning Centres as Information Providers in the International SafetyNET Service

Measures already taken
IMO and IHO

• IHO CPRNW is ready to liaise with IOC with respect to the format of Tsunami Warnings and updating the relevant MSI guidance documents

• INMARSAT Ltd (who currently manage the International SafetyNET service) are ready to provide training and advice to Regional Tsunami Warning Centres
Questions?