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IOC Tsunami Early Warning Systems update, including TOWS-WG issues

TOWS-WG

22 – 23 February 2021

IHO, Monaco 30th August – 3rd September 2021

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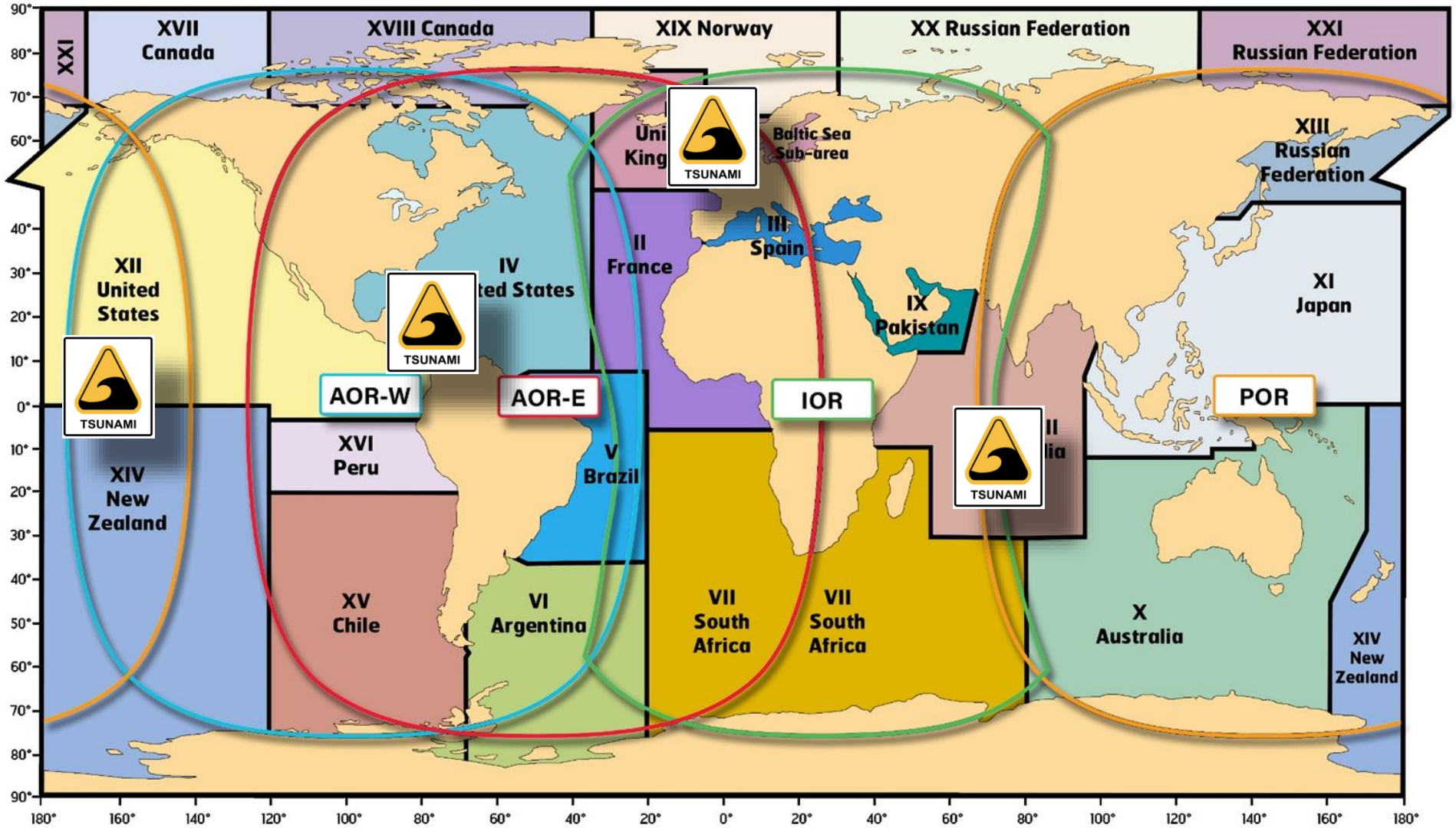
FOUR TSUNAMI WARNING AND MITIGATION SYSTEMS

1. Pacific
2. Indian Ocean
3. Caribbean
4. Northeastern Atlantic and Mediterranean



WWNWS13 30th August – 3rd September 2021

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TSUNAMI SERVICE PROVIDERS (TSP)

- Tsunami System
  - Comprised of Tsunami Service Providers
    - TSPs evaluate the risk of a tsunami
- Pacific (2)
  - Pacific Tsunami Warning Center (PTWC)
  - Northwest Pacific Tsunami Advisory Center/Japan Meteorological Agency (NWPTAC/JMA)
- Indian Ocean (3)
  - Indonesian Regional Tsunami Service Provider (InaRTSP)
  - Indian Tsunami Early Warning Centre (ITEWC)
  - oint Australian Tsunami Warning Centre (JATWC)
- Caribbean (1)
  - Pacific Tsunami Warning Center (PTWC)
- Northeastern Atlantic (4)

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NATIONAL TSUNAMI WARNING CENTRES (NTWC)

At the national level, each Member State is responsible for issuing warnings to its own citizens through their National Tsunami Warning Centres (NTWC)

System → TSP → NTWC → ?

HOW DO TSUNAMI WARNINGS REACH A NAVAREA COORDINATOR

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1. Email and/or EGC

NAVAREA ##/21.

WESTERN SOUTH PACIFIC.
SOUTH PACIFIC COASTAL AREAS.
AN EARTHQUAKE OCCURRED AT 101320Z FEB WITH A
PRELIMINARY MAGNITUDE OF 7.7, PRELIMINARY
LOCATION 23-06S 171-30E IN VICINITY OF NEW CALEDONIA.
A TSUNAMI MAY HAVE BEEN GENERATED WHICH COULD CAUSE DAMAGE TO COASTS AND ISLANDS IN THE SOUTHERN PACIFIC AREA. ESTIMATED WAVE ARRIVAL TIMES 1357 UTC TO 1900 UTC.
TSUNAMI WAVE HEIGHTS CANNOT BE PREDICTED AND MAY BE A
SERIES OF WAVES WHICH COULD BE DANGEROUS FOR SEVERAL
HOURS AFTER THE INITIAL WAVE ARRIVAL.

Time warning sent: 101445 UTC
Time MSI received from Pacific Tsunami Warning Center: 101431 UTC

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PART OF A TSUNAMI SOURCE MESSAGE

ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE FOR PLACES WITHIN THREATENED REGIONS ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION	REGION	COORDINATES	ETA(UTC)
GOLFO DE PENAS	CHILE	47.1S 74.9W	0644 03/05
CORRAL	CHILE	39.8S 73.5W	0735 03/05
TALCAHUANO	CHILE	36.7S 73.1W	0746 03/05
VALPARAISO	CHILE	33.0S 71.6W	0803 03/05
LAZARO CARDENAS	MEXICO	17.9N 102.2W	0809 03/05
COQUIMBO	CHILE	29.9S 71.4W	0818 03/05
ACAPULCO	MEXICO	16.9N 99.9W	0825 03/05
CALDERA	CHILE	27.1S 70.8W	0833 03/05

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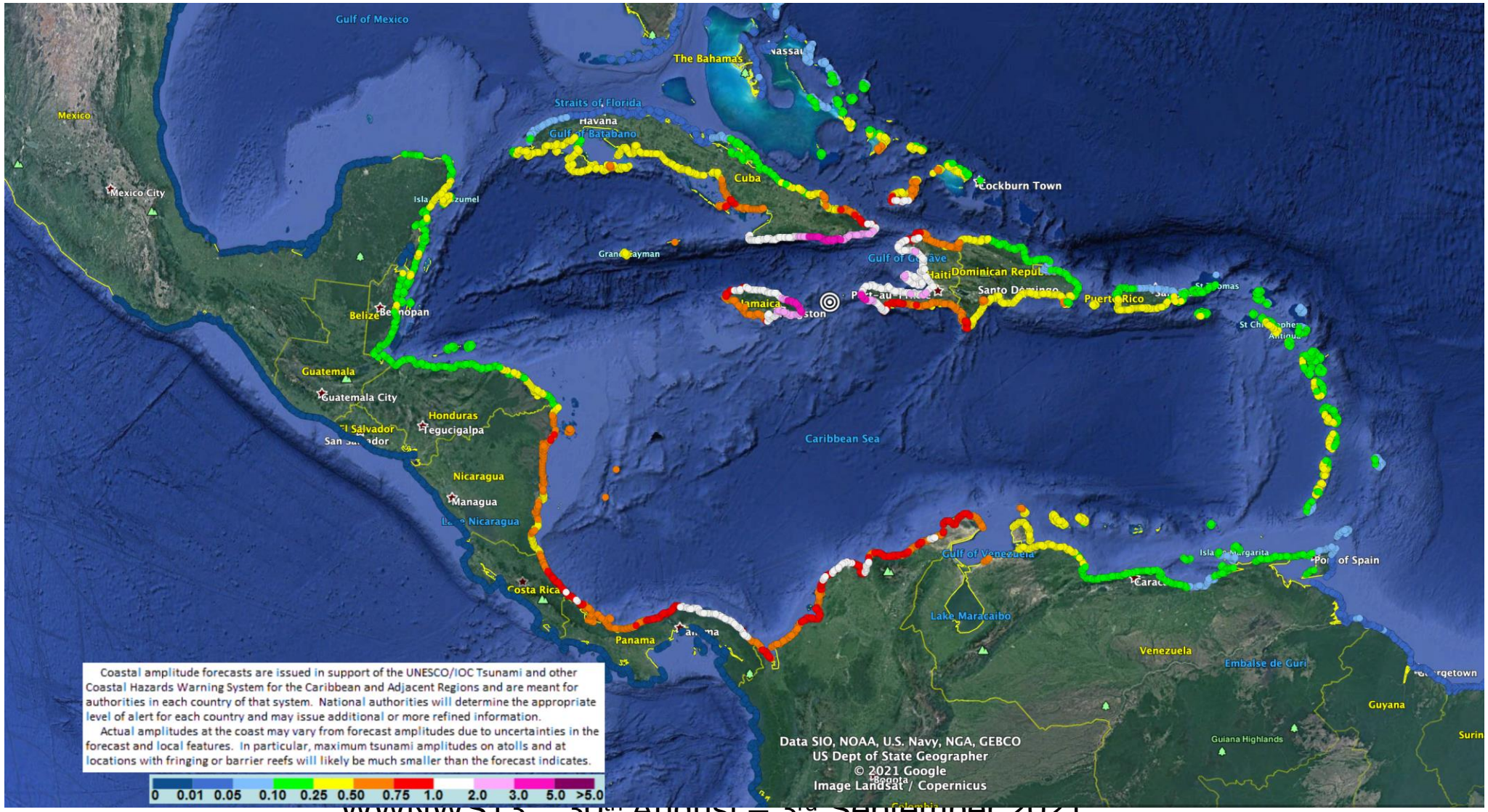
QUESTION – WHAT IS THE BEST WAY FOR THIS INFORMATION TO REACH A SHIP???