ICG/NEAMTWS

Plan of Actions of Tsunami Watch Operations

Meeting of the Inter-ICG Task Team on Tsunami Watch Operations
27-28 February 2023

PLAN OF ACTIONS (1)

1) Evaluate the recommendations made by inter-ICG/TOWS working group on Tsunami Watch Operation for possible implementation by ICG/NEAMTWS; specifically continue the assessment of the Global Service Definition Document (GSDD) and investigate its adaptability by the NEAMTWS.

2) Conduct a TT meeting in the 1st quarter of 2023 in coordination with the meetings of Steering Committee and other Task Teams.

3) Coordinate with TSP's the development of sea-level reading procedures for NEAMTWS purposes and the formalization of which and how non-instrumental information/observations can be included in the ONGOING messages.

PLAN OF ACTIONS (2)

4) Coordinate with TSP's the definition of a common TSU-CAP template to issue tsunami messages that may serve both NEAMTWS and national needs at the same time.

5) Advice on the modalities of operation, interoperability, methods and standards for the development and issuance of warnings, such as methods and reporting of magnitudes, and requirements in terms of coordination and operation of NEAMTWS.

6) Foster the development of the Tsunami Service Provider Inter-Operability Tool (TSP-IOT). The main goal of this tool is to facilitate the provision of the TSP's services relying on a common database and facilitate the exchange of messages, data and information among TSPs.

PLAN OF ACTIONS (3)

7) Continue to improve the Performance Monitoring Framework for NEAMTWS upstream components, based on the functions-requirements defined in the approved accreditation procedure and performance indicators developed for Communication Test Exercise.

8) Start discussing the integration of the NEAMTWS with other TWS specifically conceived for tsunami generated by non seismic sources.

Click ***here*** for topical slide

9) Start discussion with Working Group 1 in order to improve the Decision Matrix for the NE Atlantic

PLAN OF ACTIONS (4)

10) Support the Task Team on Documentation by reviewing the Interim Operational User's Guide (drafted in 2011) to identify sections that require corrections, modifications and/or updates according to the progress made in NEAMTWS. First draft at ICG in 2023.

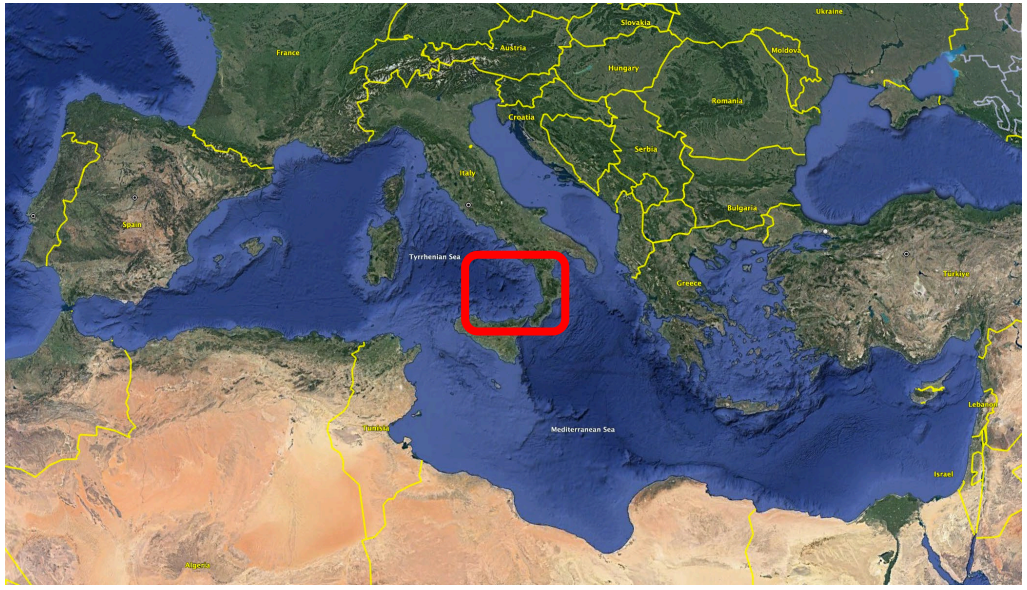
Click ***here*** for topical slides

11) Support Task Team on Tsunami Exercises in the preparation of the NEAMWave23 Exercise.

12) Report progress to ICG/NEAMTWS-XX.

Thanks for the attention

Local System at Stromboli Island



Northern flank

Elastic Beacon

- **Stromboli** is a volcanic island belonging to the Aeolian Archipelago.
- The Northern flank is prone to sub-aerial and submarine landslides and to pyroclastic flows
- Recent events triggering tsunamis occurred on 2002 (landslide), 2019, 2022 (pyroclastic flow).
- A local TWS is in place: 2 elastic beacons (equipped with underwater pressure sensors) are monitoring the sea level; an automatic system issues an alert when a threshold is exceeded.
- The integration of this system with National and NEAM Tsunami Warning System is highly desirable.

Go back

Proposed structure of updated IOUG

Straight to the point

Topics which have not been discussed in current manual, with the exception of the earthquake and sea-level parameters determination.

The main part of the manual organized more efficiently, also reflecting new ideas currently discussed.

INTRODUCTION
- Purpose of the Users Guide
- Organization of the Users Guide
- Tsunami Warning System Components and Procedures

Earthquake Observations and Analysis
- Seismic network
- Geodetic network
- Data acquisition
- Data transmission
- Real-time data processing
- Earthquake parameters determination

Sea level Observations and Analysis
- Tide gauge network
- Other types of sensors (cabled, open sea, etc.)
- Data acquisition
- Data transmission
- Real-time data processing
- Sea level parameters determination

Tsunami Forecasting
- Principles of Tsunami Forecasting and Decision Matrix
- Basins, competence zones and Forecast Points
- Roles and responsibilities of TSPs and NTWCs
- ETA forecasting
- Tsunami height forecasting
- Potential for data assimilation
- Alert Levels determination

Tsunami Alert Messages
- Message sequence and message types
- Message formats (plain text, CAP, etc.)
- Message dissemination means and infrastructure

Proposed Annexes of updated IOUG

ANNEX I
TECHNICAL PROCEDURES

- Sample Alert Messages
- Communication Tests and Exercises
- Checklists (Daily and Periodic)
- Failures and exceptions (communication to subscribers)
- KPIs monitoring
    - Acquisition
    - Connectivity
    - Communication
    - Performance
    - Robustness and redundancy
- Recommendations for Documentation of Procedures - Internal SOPs
- Transmission of Forecast Points
- Transmission of Sensor Lists (Seismic, GNSS, Sea Level)
- Transmission of Bathymetry data

ANNEX II
ICG/NEAMTWS ORGANIZATIONAL STRUCTURE AND GOVERNANCE

- COORDINATION, FACILITATION AND CAPACITY STRENGTHENING ENTITIES OF THE NEAMTWS
    - Intergovernmental Oceanographic Commission of UNESCO (IOC) 5
    - IOC Tsunami Co-ordination Unit (TSU)
    - Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-eastern Atlantic, he Mediterranean and Connected Seas (ICG/NEAMTWS)
    - NEAMTIC

STRUCTURAL ELEMENTS OF THE NEAMTWS (Functions and Responsibilities)

- Tsunami National Contact (TNC)
- Tsunami Warning Focal Point (TWFP)
- Tsunami Service Providers (TSPs)
- National Tsunami Warning Centres (NTWCs)

ANNEX III
LEGAL FRAMEWORK

- International agreements and mandate
- Responsibility, Accountability and Liability
- Limitations and disclaimers
- Non-seismic sources

ANNEX IV
ADMINISTRATIVE PROCEDURES

- TSP Accreditation (with updates)
- TWFP AND TNC FORMS
- Subscription to TSP Services

Go back