

Update on work plans and activities of the Task Team on Documentation

TT co-chairs: Stefano Lorito (INGV), Nikos Kalligeris (NOA)

Introduction

TT-Doc actions summary from last ICG

- A new OUG structure (table of contents) was drafted between the co-chairs.
- The TT-Doc co-chairs arranged a meeting with the past TT-Doc and present TT-OP co-chairs to discuss the proposed restructuring of the IOUG and received their feedback.
- An inter-TSP meeting held in Paris on September 27th, 2022, hosted by CENALT and jointly organized with the TT-OP, in which a long list of open issues identified by the TT-OP were discussed and resolved.
- Two online inter-TSP meetings were co-organized with TT-OP to discuss SOPs for issuing END and CANCELLATION messages; feedback was collected and recommendations were made.
- The TT-Doc presented in the NEAMTWS Experts Meeting in Napoli in November 2022 the results of the discussion on several specific points made jointly with the TT-OP in the above meetings.
- Two more joint TT-OP and TT-Doc meeting were arranged in January and February 2024 to discuss key joint topics of the two TTs.

Proposed structure of updated OUG

TITLE PAGE

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EXECUTIVE SUMMARY

LIST OF FIGURES AND TABLES

INTRODUCTION

- Purpose of the IOUG
- Organization of the IOUG
- 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

Interoperability among TSPs/NTWCs

Daily Procedures

Routine Tests

Contingency Planning

Proposed Annexes of updated OUG

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 III LEGAL FRAMEWORK

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

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, the 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 IV ADMINISTRATIVE PROCEDURES

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

Proposed contributions for drafting the updated OUG

Editors TT-DOC/OP/Secretariat/Chair - Alessio, Denis, Fernando, Maria Ana, Nikos, Stefano

Contributors for main document:

- Introduction: **Nikos**, Maria Ana, Stefano
- Seismic + Sea level sections: WG 2-3 – **Fernando**, **Anna**, Didem, Marinos
- Forecasting: WG 1 – **Stefano**, **Audrey**, Nikos, **Mauricio**
- Messages: TT-OP - **Alessio**, Fernando

Possible contributors for annexes:

- Technical Procedures (I): **Helen**, **Marinos**, Alessandro, Didem, Fernando (or Rachid?)
- Structure and Governance (II): **Denis**, **Elena**, **Ignacio**, Maria Ana
- Legal framework (III): **Cecilia**, Denis
- Administrative procedures (IV): **Denis**, Marinos, Nikos, Stefano

+ Any other volunteers?

Discussion on open issues identified by TT-OP

List of open issues discussed during inter-TSP meeting held in Paris in September 2022

- Sea level readings: reporting arrival time, wave amplitudes and period in TG observations
- Sea level readings - minimum amplitude for issuing ONGOING messages
- Sea level readings - instrumental observations that exceed DM-based alert level of INITIAL message
- Reporting of non-instrumental observations
- Forecast points vs Coastal segments
- Countries not providing list of FPs
- Threat levels (adopting or not) and more in general Interoperability with other ICG TSPs
- Local vs. Distant event (diff. Procedures?)
- Bulletins: Public vs. Authority-oriented
- Non-seismic tsunami monitoring
- Magnitudes: standardize and/or specify (M_w , M_{wp} , M_{wpd} , M_{ww} ?)
- Format, content and structure of NEAMTWS messages (possibly picked from a common DB)
- Supplemental Initial Message (e.g. magnitude update)
- Reporting TSP out of service status and errors
- Enhanced products (maps, etc.)
- Definition of a common CAP-TSU format to issue tsunami messages
- NEAMWAVE23 exercise

TSP SOPs for END and CANCELLATION messages

CANCELLATION

SOP commonalities

- Minimum recording time in nearest TG(s). At least 1 hr at nearest TG
- No prior communication with national CPA

SOP differences

- Minimum time from origin time
- Number of TGs considered - either only the nearest, or up to the three nearest
- Fixed minimum recording time at nearest TG(s), or variable depending on EQ magnitude
- If no other TSP has detected and reported anomalous sea level variations
- Expert evaluation

END

SOP commonalities

- Using all available TG recordings and using the station background level as criterion to issue END message.

SOP differences

- Waiting for TG recordings to “tend to go back” or “go to” normal level.
- Communicating or not with national CPA of the country in which each TSP is operating

TT-Doc progress summary and next steps

- In the last SC, TT-Doc provided a first roadmap towards drafting the new OUG:
 - Prioritize the critical issues to be still addressed towards the inclusion either as a prescription or as a recommendation/good practice in the new OUG;
 - Identify leading authors for each chapter;
 - Present the outcomes in an (online) meeting with:
 - the TSPs and NTWCs (and to the TNCs where TSP/NTWC doesn't exist)
 - TT-Doc/OP and leading OUG authors
 - Start drafting and present the status to the next ICG.
- Confirmation from selected OUG authors proposed has been received.
- The hybrid meeting with TSPs, NTWCs, TNCs and TT-Doc/OP and leading authors must be organized in 2024 to discuss and close certain subjects to be reflected in the OUG.
- Drafting of OUG is a high NEAMTWS priority – “Lets focus on this work and deliver this year”.
- Agree on the roadmap for drafting the OUG (before the next ICG) during the TT sessional meeting on Wednesday.