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NEAMWave12: The First Tsunami Exercise in the North-eastern Atlantic, the Mediterranean and Connected Seas

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The first tsunami exercise of the Tsunami Early Warning and Mitigation System in the North-eastern Atlantic, the Mediterranean and connected seas (NEAMTWS) has been conducted on 27-28 November 2012 involving 19 of the 39 member countries of the Intergovernmental Coordination Group (ICG) for NEAMTWS. NEAMWave12 involved the simulation of the assessment of a tsunami, based on an earthquake-driven scenario followed by alert message dissemination by Candidate Tsunami Watch Provider (CTWP) (Phase A) and continued with the simulation of the National Tsunami Warning Center's/Tsunami Warning Focal Point's (NTWC/TWFP) and Civil Protection Authoritie's (CPA) actions (Phase B), as soon as the message produced in Phase A has been received. There were four earthquake triggered tsunami scenarios in NEAMWave12 in different parts of the NEAM Region, where each CTWP (CENALT-France, NOA-Greece, IPMA-Portugal and KOERI-Turkey) was responsible for a single scenario. The CENALT Scenario was based on a plausible worst-case scenario of magnitude 7.5 along the Western Mediterranean Algerian margin at a fault located close to 21-22 August 1856 Jijel earthquakes. The NOA scenario was based on an earthquake similar to the well-known Amorgos earthquake, which was followed by a tsunami that devastated the Aegean Sea on 9 July 1956. The IPMA scenario was based on the 1 November 1755 Lisbon event with the assumption that the event represents the worst-case tsunami scenario impacting the NE Atlantic region. Finally, the KOERI scenario was based on a Mw=8.4 worst-case interpretation of the 8 August 1303 Crete and Dodecanese Islands earthquake resulting in destructive inundation in the Eastern Mediterranean. Initial evaluation of the exercise indicates that all CTWPs successfully participated in the exercise, where existing operational and some future prototype systems were utilized. System end-users (NTWC/TWFP/CPA) benefited from the exercise considerably, demonstrating the first successful test of the NEAMTWS Tsunami Warning Chain.