The Snapshots aim to bring the work of the IOC UNESCO REGIONAL Tsunami Early Warning System (TEWS) to a wider audience. This project of the IOC UNESCO Tsunami Section takes place within the framework of the United Nations Decade of Ocean Science for Sustainable Development and its goal of a Safe Ocean. It complements the more specialized fact sheets by regularly highlighting actions, communities, officers, events, Tsunami service providers and tsunami information centres.

The need to develop the Tsunami Early Warning and Mitigation System in the North-Eastern Atlantic, the Mediterranean and Connected Seas (NEAMTWS) was recognized early in the European Council Conclusions of December 2007 on the development and establishment of Early Warning Systems in the EU, on the establishment of an Early Warning System for tsunamis in the North-East Atlantic and the Mediterranean region, and in the Council Conclusions on Reinforcing the Union's Disaster Response Capacity of June 2008 – towards an integrated approach to managing disasters.
Tourist arrivals in 2018:
286.2 Million for South Europe
23.9 Million for North Africa
63.6 Million for the Middle East

3 videos have been published in collaboration with UNDRR for World Tsunami Awareness Day 2020 (WTAD2020)

NEAMTWS contributes to the Global target G (increasing the access to multi-hazard early warning systems, disaster risk information and assessments to the people by 2030) of the Sendai Framework for Disaster Risk Reduction
Artistic impression of the earthquake and tsunami in 1755

1 of the Outcomes of the Ocean Decade is a Safe Ocean

The 2020 WTAD was organized as a 30-day campaign
With an effective Tsunami Warning and Mitigation System based on the participation of Member States, coastal communities in the NEAM region become more resilient to tsunami and other sea level related hazards.
CHAIR AND VICE-CHAIRPERSON

Professor Maria Ana Baptista from Portugal was elected in May 2020 as the new Chairperson for the Intergovernmental Coordination Group for North-Eastern Atlantic, the Mediterranean and Connected Seas Tsunami Warning and Mitigation System (ICG/NEAMTWS). She is a Professor at the Instituto Superior de Engenharia de Lisboa and a researcher at Instituto Dom Luiz, University of Lisbon. She holds a habilitation title in Geophysics and Geo-information Sciences, PhD in Physics – Geophysics University of Lisbon.

Professor Costas Synolakis became the new ICG/NEAMTWS vice-chairperson. He is also the Secretary of the Division of Natural Sciences, Academy of Athens, Greece and the Chair of Earth Sciences in the 39-person Academy of Athens, which is the only Greek National Academy.

DENIS CHANG SENG: SECRETARIAT

Denis Chang Seng is an IOC/UNESCO Programme Specialist working jointly in the Tsunami Unit and the Ocean Observation and Services Section. He supports the coordination of the Global Ocean Observing System (GOOS). In particular he coordinates the COOS Regional Alliances (CRAs) and the Expert Team on Operational Ocean Forecasting System (ETOOFs). In the Tsunami Unit, he is the technical Secretary for the IOCs ICG/NEAMTWS. He is IOC’s focal point for the International Network for Multi-Hazard Early Warning System. Earlier, Dr. Chang Seng was also UNESCO’s Natural Science Programme Specialist for the Pacific Island States. Previously, he worked at the United Nations University-Institute for Environment and Human Security (UNU-EHS) in Bonn, Germany.
Tsunami Service Providers and Tsunami Information Centres

CENALT
Centre National d’Alerte aux Tsunamis

There are five accredited Tsunami Service Providers (TSPs) in the NEAM region: The French National Warning Centre (CENALT), the National Institute of Geophysics and Volcanology (INGV) in Italy, the Portuguese Sea and Atmosphere Institute (IPMA), the Kandilli Observatory and Earthquake Research Institute in Turkey (KOERI) and the Institute of Geodynamics, National Observatory of Athens, Greece (NOA). The Snapshots aim at highlighting the NEAM region TSPs. This first snapshot will showcase the CENALT. The CENALT TSP is located in a building that the CEA (The French Alternative Energies and Atomic Energy Commission) built specifically to house the tsunami warning center. An operator continuously analyzes the seismic signals and verifies that the whole Electronic Chart Display and Information System (ECDIS) is operational. When a strong earthquake occurs in the Western Mediterranean or North-Eastern Atlantic region, the system automatically detects the seismic waves in 1 to 3 minutes and calculates the position of the earthquake and its magnitude. The operator is alerted immediately and validates the automatic processing, makes some corrections if necessary, launches the software for calculating the time of arrival of the tsunami and the software for formatting the warning messages. It then validates the messages, provides the warning messages, and sends them to the French civil security authorities and to other countries. If the tsunami is recorded by tide gauges, the operator measures the tsunami’s arrival time as well as its amplitude and sends a new message including these measurements. Moreover, CENALT has participated in four NEAMWave exercises since 2012, with the last one taking place in March 2021.

NEAMTIC
North-Eastern Atlantic, Mediterranean and Connected Seas

The North-Eastern Atlantic, Mediterranean and Connected Seas Tsunami Information Centre (NEAMTIC) was established to provide information on warning systems, risks and good practices in respect of tsunamis and other sea-level related hazards for civil protection agencies, disaster management organizations, decision makers, schools, industries in coastal zones and the general public. As such the NEAMTIC supports the development of the NEAMTWS.

There is a need to ensure that people in endangered coastlines are prepared and know what to do, in the event of a tsunami. There is a priority to better educate vulnerable communities about tsunami threats. As celebration to the UN World Oceans Day, 8 June 2021, the ICC/NEAMTWS Secretariat launched social media sites for NEAMTIC on Facebook, LinkedIn, Instagram and Twitter.
On 19 November 2019, an earthquake and tsunami preparedness exercise was organized in the Island of Kos, Greece as part of the ‘Tsunami Last Mile’ pilot project, funded by the European Commission Directorate General for Humanitarian Aid & Civil Protection. The exercise named KOSWAVE19-LM, was developed by NOA-HLNTWC (the Hellenic National Tsunami Warning Center - National Observatory of Athens) in collaboration with the JRC (Joint Research Centre) and the Municipality of Kos with the objective to test the effectiveness of a new series of technological solutions. It aims to provide tsunami early warnings to the local population, to integrate them into the municipality emergency management plans and procedures and to strengthen its interface with the national tsunami warning system. The exercise sought to provide opportunities for emergency management authorities to define their emergency plans, exercise their operational lines of communications, and promote tsunami preparedness in the community. The exercise scenario is similar to the 20 July 2017 event, when a strong earthquake of magnitude 6.6 struck between Kos Island (Greece) and Bodrum (Turkey), generating a damaging tsunami (1.5m) that hit the Bodrum peninsula and the city of Kos.
On October 30 2020, a significant tsunami triggered by an earthquake of moment magnitude 7.0 (Mw) hit the island of Samos (Greece) and the Aegean coast of the Izmir region (Turkey). The event shed light – once again – on the complexity of warning of locally generated tsunamis with a rapid onset which challenged the ability of local authorities and communities at risk to take early action. According to Turkey’s Disaster and Emergency Management Authority (AFAD), one of the confirmed victims in Turkey drowned because of the tsunami that reached a height of up to 2.3m and a maximum runup of 3.8m. This event is a bitter reminder after the wake-up call on 20 July 2017, following the Bodrum (Turkey)-Kos (Greece) tsunami, to increase tsunami preparedness through enhanced sea-level detection networks, education, as well as international cooperation.

The tsunami generated by the 1755 earthquake affected mainly the coasts of the Iberian Peninsula and Northwest Morocco and was observed all over the North Atlantic Coast. The most destructive waves were observed along the coast of Portugal causing an estimated 60,000 deaths. The downtown of Lisbon was flooded by the rising of the waters of the river Tagus and most historical documents reported waves of 6m height. At Cape S. Vincente (Southwest Portugal) the runup height, evaluated from historical data, was greater than 15m. In the city of Lisbon, the penetration of the water was estimated to be 250m.
The upcoming Snapshot will feature the Italian Tsunami Service Provider (TSP), outcome of the NEAMWave21 exercise and efforts in piloting Tsunami Ready in NEAM region.