

Identifying ways to reduce the loss of life and property, damage to the environment, and disruptions to the economy from extreme maritime weather.

Accuracy and timeliness of weather forecasting over the last decades has improved, however, millions of dollars in goods and thousands of lives are still lost at sea each year due to extreme weather conditions. In the maritime environment, vessels of any size are exposed and vulnerable to the elements. High winds, large waves, fog, thunderstorms, sea ice, freezing spray, and volcanic ash make marine transportation a very high-risk enterprise. Nonetheless, the ocean and seas provide a sustainable transportation route for the global economy – a "blue economy" that is estimated at US\$ 3-6 trillion/year, a massive 70% of world trade, which provides livelihoods for over 6 billion people (IUMI, 2017 and UNCTAD, 2019). Shipping incidents risk lives and goods aboard and may also cause environmental disasters. In addition, ferries transport over a quarter of the worlds' population each year (Interferry, 2019), while cruise ships welcome 26.8 million passengers aboard annually (CLIA, 2017).

Governments and international agencies are calling for action to improve forecasts and warnings for extreme maritime weather.

The value of early warnings of extreme maritime weather events in improving safety at sea and maintaining the blue economy cannot be underestimated. Ships traverse the oceans in hazardous conditions. Industry platforms at sea must withstand the most extreme storms and conditions. By sharing and exchanging meteorological information among themselves and with national hydrometeorological centres and commercial weather providers, mariners and other relevant stakeholders improve their decision-making. That said, even today mariners are still heavily reliant on



decades old technology – radiofax and text broadcasts – for dissemination. Readiness, responsiveness and resilience can be improved at sea by further transitioning science and technology advances into forecast operations, applying research to improve the communication and usefulness of information, and expanding its dissemination.

WMO and IMO are bringing together experts and stakeholders for this first International Symposium to initiate a dialogue on these critical issues.

BACKGROUND

Borne out of the tragedy of the Titanic in 1912, the International Convention for Safety of Life at Sea (SOLAS), ensures safety standards for life and ships at sea. The IMO maintains SOLAS and the WMO ensures that their Members provide up-to-date and relevant met-ocean maritime safety information, daily, for decision-making by seaborne vessels. WMO supports the global network of National Meteorological and Hydrological Services (NMHSs) in their role as the authoritative agency for marine meteorological safety information and services. The NMHSs provide forecasts and hazardous weather warnings in support to the IMO Global Maritime Distress and Safety System (GMDSS) via the WMO/IMO Worldwide Met-Ocean Information and Warning Service (WWMIWS) and codified in amendments to SOLAS. These warning and forecast services are applicable to all mariners, safety/security agencies and economic sectors who make informed decisions with marine meteorological information to support improved public safety and health, environmental security, and socio-economic benefits in the marine and coastal environments.

RGANIZATION

Expected outcomes of the Symposium:

- Discussions on how the met-ocean, shipping and other relevant maritime communities can work together to optimize and improve the value chain ranging from met-ocean observations to forecasts, products and services, to minimize risks of adverse weather to vessels and property at sea.
- Consideration of how these products and services help inform decisions that can be most effectively delivered to end-users such as industry, shipping, freight and passenger companies, trans-oceanic route planning, as well as weather avoidance and environmental emergency response.
- Recommendations for effective and efficient delivery to the end-users.
- Better understanding of the opportunities and challenges between those delivering met-ocean information and those using it.
- First dialogue towards a potential regular (bi-annual) meeting, co-hosted by IMO/ WMO, with all relevant stakeholders involved.
- Assistance to countries around the world to respond to international targets through the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction (2012).
- Contribution to the UN Decade on Ocean Science for Sustainable Development.

Further information: https://public.wmo.int/en/events/meetings/londonsymposium
Contact: WMO Marine Meteorology and Ocean Affairs Division – mmo@wmo.int

