

Genoa, 21 June 2020 – World Hydrography Day

As every year, the International Hydrographic Organization (IHO) dedicates World Hydrography Day to a topic of global relevance linked with everyday life.

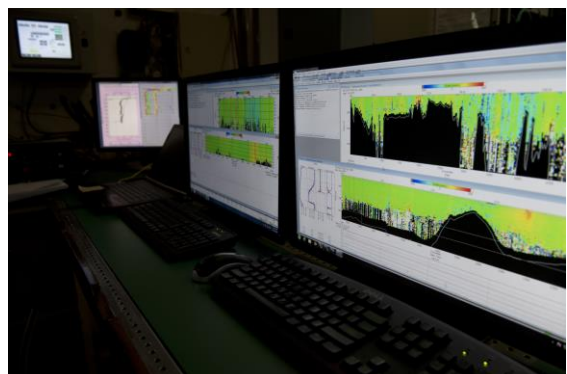
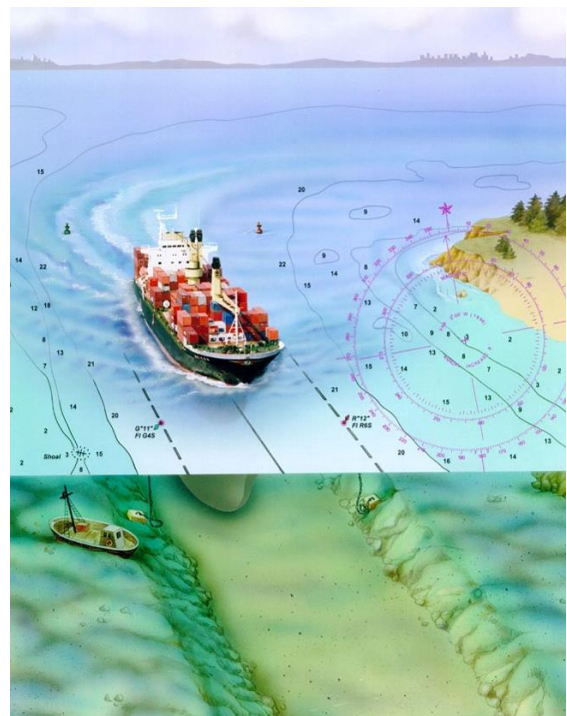


The focus of this year is the key role that hydrography plays in the development of new technologies related to autonomous vehicles in the marine environment.

It is a circular development, where autonomous aerial, surface and underwater vehicles help in the collection of data, often in otherwise inaccessible or dangerous areas and, thanks to these data, Hydrographic Services increase precision and reliability of nautical documentation in favour of all sailors, autonomous vehicles included.

Recently, however, the issue of "unmanned ships" with ever-increasing levels of autonomy is posing new challenges related to the safety of surface maritime operations, in a futuristic scenario where autonomous ships will have to move in complete safety, guaranteeing in turn the safety of passengers and goods transported. This will therefore require the development of increasingly accurate technologies and standards, the collection of precise hydro-oceanographic information and the production of detailed, updated and certified nautical documentation.

This therefore, can be said to be the double link that hydrography has with autonomous vehicles: the latter give the opportunity to collect marine environment and seabed data in otherwise inaccessible areas. On the other hand, the Hydrographic Services, which exploit these data to enrich the nautical documents and the aids for an increasingly safe and precise navigation in favour of all sailors, autonomous vehicles and future unmanned ships included.



This year, due to the pandemic emergency and the impossibility to open its doors to visitors, the Italian Hydrographic Institute (IIM) celebrated the World Hydrography Day” (WHD) by producing a [new video](#) dedicated to the hydrographic activities, included those performed by unmanned vehicles.

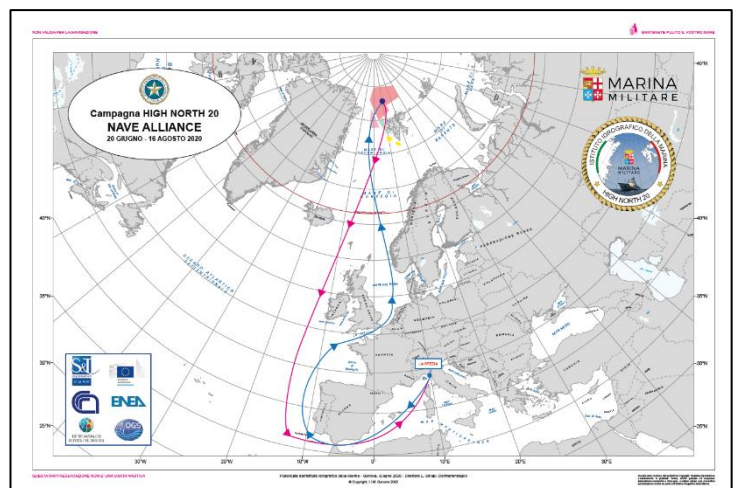


The IIM, like other hydrographic services of the IHO member countries, has been using this type of vehicles for the collection of hydro-oceanographic data for some time.

Just to give an example, during the various campaigns carried out since 2017 under the Arctic research program of the Navy called "HIGH NORTH", IIM has been using autonomous vehicles named “Gliders” to collect data from large marine Arctic areas. This data, together with that collected by surface, underwater and aerial drones, is integrated with satellite data, in order to return a precise representation of the area of interest.



Moreover, this year the WHD has been linked to the departure of Italian Ship (ITS) ALLIANCE, which on 22 June 2020 left the La Spezia harbour to sail toward the Arctic in order to start the 4th Marine Geophysics campaign “High North 20”, as part of a larger research program named “HIGH NORTH”. The program aims at ensuring the continuity of environmental observations useful to the international and national scientific community.



Prestigious international and national research bodies participate at the program, such as NATO STO-CMRE, the JRC - Research Center of the European Union, the National Research Council (CNR), the National Agency for new technologies and energy (ENEA), the National Institute of Geophysics and Volcanology (INGV), the National Institute of Oceanography and Experimental Geophysics (OGS), the European Research Institute (ERI) and some private industries (e-GEOS).



This year, due to the restrictions caused by the COVID-19 pandemic, the team on board ITS ALLIANCE is composed entirely of IIM and Italian Navy staff, as well as the crew of ALLIANCE.

The HIGH NORTH 20 campaign has as its main objective the knowledge of the Ocean, a topic at the attention of the global community for the interest shown by the United Nations, precisely at the opening of the decade dedicated to the oceans (UN Decade of Ocean Science for Environment Sustainability).



A new opportunity for the scientific and hydro-oceanographic community to experiment and make use also of technologies related to autonomous vehicles, collecting new data in remote areas, in support of knowledge of the marine environment, safety of navigation and safeguard of the human life at sea.



Watch the video at the following link:

<https://www.youtube.com/watch?v=A-VhK9eMUPE>