

Live Online Monitoring of GEOMAR Wave Glider Missions



The Wave Glider missions run by the GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany, can be followed live on the internet. The [GEOMAR Navigator](#) internet portal has been set up to provide details of the Wave Gliders' courses and velocities plus the latest ocean data they have collected. The portal

was developed as part of a scientific cooperation with Oman. A first test mission is currently taking place in the subtropical region of the North-east Atlantic.

[Wave Gliders](#) by Liquid Robotics are measurement platforms that are propelled by wave power. They are suitable for surveying the surface of the oceans for several weeks or even months. The GEOMAR Helmholtz Centre for Ocean Research Kiel now operates three Wave Gliders.

Remotely Check Mission Parameters

The website provides courses, velocities and past tracks, as well as weather data, additional data collected by the sensors of the Wave Gliders and background information on the respective research project. The platform was primarily developed to enable those who are in charge of a wave glider mission to check mission parameters from their office, from their sofa at home or from a hotel room. However, anyone who is interested in the missions of our instruments can use the portal. The two wave gliders that are currently active are part of cruise MSM61 of the German research vessel *Maria S. Merian*. A whole set of different instruments is being used to enhance the understanding of the ecosystem around Senghor Seamount, a seamount north of the Cape Verde Island Sal.

One of the two Wave Gliders used for the test mission belongs to GEOMAR and has already been used as a marine measurement platform in the vicinity of the Cape Verde Ocean Observatory (CVOO) on several occasions. The second one has been contributed by the Bremen Center for Marine Environmental Sciences (MARUM).

Groundwater Discharge Survey

The impulse for developing this portal and the funds for doing so were provided as part of a cooperation between GEOMAR and the state of Oman. In Oman, the newest GEOMAR wave glider will soon be used to survey for near-shore submarine groundwater discharge. It is the aim of the project to better understand freshwater systems in the subsurface of coastal regions. Freshwater is a very scarce resource there, and a key factor for livelihood. Mistakes in freshwater management might pose a threat to this resource.

Yet, the online portal developed within the Oman project will be open to all groups which operate Wave Gliders at GEOMAR.