

RV METEOR - M178 "HazELNUT"

Emden - Las Palmas, 21.11. - 19.12.2021

1st Weekly Report (20.11 - 21.11.2021)



Before the cruise M178 could begin, all 16 scientists (who are fully vaccinated) met on Friday (19.11.) in Kiel for a PCR test. All participants tested negative, and we were thus able to make the final preparations for the expedition. On Saturday morning, 20.11.2021, we arrived at the RV METEOR in Emden. After a warm welcome from Captain Hammacher and his crew, the bosun and his crew assisted us with unpacking our cargo and distributing the scientific equipment to the laboratories. In the afternoon, we were given a safety briefing and an introduction to the ship. We used the remaining time on Saturday to set up the laboratories and secure the equipment for seagoing.

On Sunday (21.11.), it was time to cast off for the voyage M178 HazELNUT, which will take us via the North Sea, the English Channel, the Bay of Biscay and the Strait of Gibraltar to the Mediterranean Sea, and then to our working area offshore Sicily. This journey is expected to take us 9 days. Accompanied by perfect November weather, we left the port of Emden at around 9:00 through the lock into the River Ems. At the time of departure, our onboard DWD weather station meteorologist informed us that we could expect higher waves and somewhat stronger northerly winds from the early afternoon. Despite an increased swell, however, we completed the preparations in the laboratories without any problems.



Figure 1: Leaving the lock in Emden on 21.11.2021 (Image: Florian Petersen)

During expedition M178, we will take a closer look at the continental margin of the ocean-covered foot of Europe's largest active volcano, Etna. Ten years ago, a METEOR expedition led by scientists from Kiel (including members of this science party) went to this same site to investigate the impact of large-scale flank instability on the volcano. The results indicate that this is an extremely dynamic and geologically active area. This flank instability is also associated with the risk of landslides. The main aim of expedition M178 is to assess the risk of these submarine landslides by investigating the changes that have occurred on the continental slope offshore Etna in the last ten years.

We will do this using a combination of multibeam echosounder mapping and geological sampling, as well as performing maintenance to (and collecting the data from) a seafloor geodesy network deployed by GEOMAR Helmholtz Centre for Ocean Research Kiel in 2020.

We also have a social media team onboard, who will provide information about the cruise activities and exciting research questions on the Instagram account of the Center for Ocean and Society (@oceanandsociety).

All cruise participants are well and send greetings home.

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