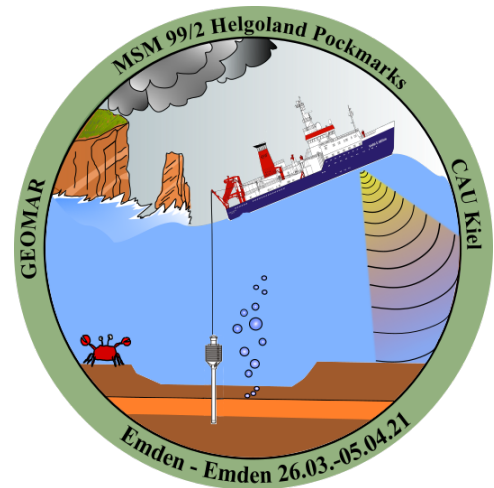


FS MARIA S. MERIAN

MSM 99/2 (GPF21-1_013)

26.03. - 05.04.2021

Emden - Emden



1. Weekly Report, 26. - 28.03.2021

After a 10-day hotel quarantine for all cruise participants, cruise MSM99/2 departed from Emden on Friday 26.03.2021 to its first working area in the German Bight. The goal of the cruise is to investigate the formation of pockmarks north of Helgoland. The assumption so far is that the pockmarks are formed during the occurrence of large winter storms. The background of the mechanism is that pressure changes caused by the wave motion lead to the formation of free gas. By rising to the seafloor, this gas forms the pockmarks. The planned investigations during the 10 days include high resolution mapping and targeted geochemical sampling of the sediments and gases.



Figure 1: Participants practice putting on life jackets during the safety drill

The scientific team consists of 10 participants from GEOMAR Helmholtz Centre for Ocean Research and Christian Albrechts University of Kiel.

After an 8-hour transit from Emden to the first work station, we could already start with the station work on Friday. First, a CTD was used to obtain a sound wave profile. The following night was used for mapping the seafloor. In total about 60 NM of the working area were surveyed with the shallow water echo sounder and the parasound system. Thereby some pockmarks could be mapped.

On Saturday 27.03. the first four core stations were sampled. First sediment and geochemical samples could be collected. The following night was used for further mapping of the seafloor.



Figure 2: Sampling of the surface sediments at a sediment grab

With best regards on behalf of all cruise participants

Christopher Schmidt

(GEOMAR Helmholtz Centre for Ocean Research Kiel)