

<b>POS515</b> <b>CALVADOS</b> CALabrianarc mud VolcAnoes: Deep Origin and internal Structure June 18 – July 13, 2017 Dubrovnik - Catania	
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#### Weekly Report 4 July 10 – July 13, 2017

With the overall end of the cruise in view, we successfully finished data acquisition on Tuesday (July 11) of the ‘Sartori’ 3D P-cable cube. The last few profiles were acquired to fill smaller holes in the 3D coverage. Tuesday afternoon at ~16:00 we ended the survey, recovered the P-Cable and GI gun. However, with one more target in view, we quickly switched four streamer sections to form a short, 50 m long, 2D streamer. We wanted to investigate one additional mud volcano, which is situated strategically on the way to Catania. After a short transit of ~3 hours, we deployed the GI gun and Streamer starting data collecting around 20:30 in the evening.

Over the course of the night, we accomplished acquiring ten additional profiles ending our survey at 6:00 am on Wednesday morning (July 12). We did acquire quite some spectacular data and the ‘Cetus’ mud volcano looks in no way similar to all the previously imaged targets. The seafloor morphology and subsurface structures are quite unique and we look forward to exciting days of data processing and interpretation once back at home at GEOMAR.

The final piece of our expedition is the acoustic data recovery of five geodetic stations deployed at the underwater flanks of the Etna volcano. Here, scientists of GEOMAR conduct a long-term study of seafloor deformation linked to volcano activity and fault movements. With the help of a transducer (Figure 1), we did recover over ~3 hours all seafloor geodetic data from those five stations recorded since 21.08.2016.

Today, on Thursday, July 13, we are in Catania. Packing, unloading and preparing the trucks for transport of our gear back to Kiel.

This is the official end of the expedition of project CALVADOS. All crew and scientists can look back with pride to the accomplished tasks and this very successful cruise. We are now looking forward to a day in Catania and a safe trip home.

At this point, I am left with saying Thanks to all that contributed to this expedition, especially Captain Matthias Günther and his never-tiring excellent crew onboard the FS POSEIDON. Of course, my thanks also go to all scientists onboard, who enthusiastically endured many days of routine 3D data acquisition and long hours of shift work in the laboratories. And finally, I would like to thank the entire GEOMAR team back home in Kiel for all financial and logistical support, and our collaborating scientists from the University in Bremen and OGS Trieste.

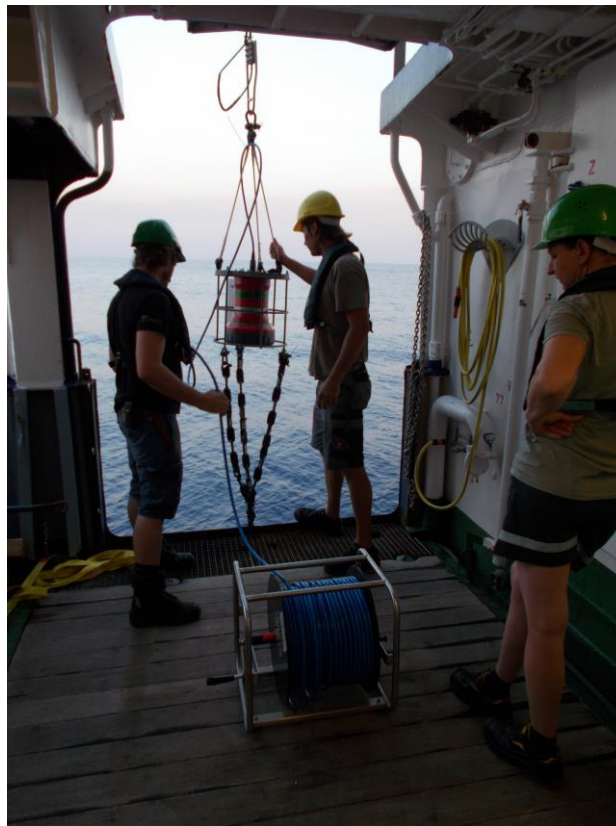


Figure 1. Preparing for data acquisition at the Mnt. Etna marine geodetic stations (from left to right: Nikolas-Ulrich Stange, Magnus Keller, Anne Krabbenhöft).

Michael Riedel, July 13, 2017

and the CALVADOS team