

First Weekly Report  
M76/3b-Guineco Leg 2

17.07.-20.07.08



The second leg of the expedition GUINECO started 11:00 am on Thursday, 17 July with leaving the port of Walvisbay. We left with excellent weather conditions and all equipment, containers, scientists and their luggage, some of who/which arrived just in time. It was an amazing view, seeing the ocean meet the desert, and the departure scenery was quite spectacular, including many glimpses on the abundant marine life such as giant sea turtles, dolphins, seals and whales – as well as a lot of jellyfish.

From Walvisbay to our main target area, the giant pockmarks and diapirs off Congo, Angola and Gabon, we have to steam 1100 nautical miles, so there is ample time for installing the ROV and numerous scientific instruments, as well as with getting familiar with the ship and the work plan. The remotely operating vehicle QUEST4000 of MARUM is the main working tool of this leg, and our goal is to assess the structure and distribution of deep-water habitats and biological communities associated with gas seepage from the seafloor and gas hydrate accumulations. The previous leg has provided us with bathymetry maps of different target areas as well as the positions for giant gas flares marking the escape of free gas from sites as deep as 3100m. We will explore several of these sites with the ROV QUEST and various geological tools, to learn more about the geological, geochemical and biological consequences of such vigorous gas escape.

Unfortunately, on the second day of our departure, in the early hours of the 18 July, we were informed of a tragic loss in the family of one member of the ship's crew and it was decided immediately to disembark him at the nearest harbor, namely Walvisbay. Events like this one remind us how incredibly demanding the job of a seafarer is –the risk to be far away from home and out of reach when one is needed by family and friends is a major personal challenge.

We left Walvisbay again in the morning of the 19 July and are now back on our northward transect along the West African continental margin. Due to excellent weather conditions, the ship makes good progress while we are recording the seafloor bathymetry on the way to our first target, the Diapir Area off Angola. This zone, characterized by an interesting seafloor morphology and signatures of gas escape, will be reached in the morning of the 23 July. We will start with a first exploratory dive in this area, to obtain seafloor images of the source of the gas escape and the surrounding underwater landscape with the ROV QUEST, before we continue to the REGAB area.

All scientific crew members are well and busy installing their laboratories and learning of each others goals and methods. Further details of our daily work and the scientists on board can be found on the expedition BLOG hosted by [www.planeterde.de](http://www.planeterde.de).

<http://www.planeterde.de/internationales-jahr-des-planeten/meteor-blog-m76-3b/meteor-expedition-m-76-3b>

With regards - Antje Boetius and the Scientific Crew of GUINECO leg 2