

M154-1

3. Weekly report

15.4.-21.4.2019



Mindelo- Pointe a Pitre

The past week was hard work. The inclement weather conditions caused frequent technical problems to the 3D seismic equipment and the system had to be recovered, repaired and redeployed several times. On Monday we continued acquiring 2D seismic data until noon when the weather calmed down. During the afternoon we re-rigged the seismic system to P-Cable mode and started data collection at 20:45 in force 5-6 winds. During Tuesday we continued 3D seismic data acquisition only interrupted in the morning by a 1.5 h airgun service. On Wednesday at 05:30 the system had to be recovered because the data link broke down. The tension release on the data cable had slipped and the resulting movement had loosened a connector in the junction box. After repairs until 09:30 the system was redeployed and we continued data acquisition until 12:00 when the second streamer had problems. We had to replace it which took until 14:30 and continued data acquisition until 16:15 when the system had communication problems again. We reduced the speed to 3 kts through the water to relieve tension on the cross-cable which improved the communication. At 19:00 the portside paravane caught a fishing line. We continued the survey until 23:00 hoping that it would come loose, but it did not and at 23:00 the system broke down and had to be recovered. It took until 03:00 on Thursday morning to get rid of the fishing line and we deployed a 2D system with two streamer sections to be able to repair the P-Cable using the winch. During the day we continued 2D data acquisition and replaced all cross-cable segments. At 18:00 we recovered the 2D system and deployed the P-Cable. This took until 22:00 when we resumed 3D seismic data acquisition. During Friday we continued 3D data acquisition in winds up to force 7. In the evening the strain on the system had increased so much that we had to heave in the paravanes by 15 m and some of the data cable to release tension. Surveying continued until 13:30 on Saturday. Then the data cable to be replaced which took until 17:30. Then surveying continued while the wind abated. On Sunday we

reached the final planned waypoint of the 3D cube in the early morning and began to fill in the gaps in the fold map. It therefore appears that we will be able to finish one 3D seismic cube and collect numerous 2D seismic lines. A preliminary evaluation of the data suggests that we will be able to answer most of the scientific objectives



Figure 1: Caribbean rainbow over the stem of R/V Meteor.
Photograph: Niklas Mönnich.

and provide sufficient information for the MeBo drilling during leg 2. The scientifically most puzzling question is the nature of the boundary between deposits 2a and 2b. This is crucial for the tsunami simulations and this question will be the focus of the data analysis and perhaps one of the sites for MeBo drilling.

Everybody on board is well. On behalf of the cruise participants,

Christian Berndt
(Chief scientist)