

FS MARIA S. MERIAN, Fahrt MSM04/1  
03.12. – 21.12.2006  
Fort de France – Fort de France



### Third Weekly Report, period 15.12.-21.12.2006


This is the final weekly report for cruise MSM04/1: We have completed yesterday evening station work off Guadeloupe with picking up PIES 123 and a final CTD station on the continental slope. Since then, MERIAN has been on transit and, while writing this report, the ship already has arrived on the roads of Fort de France where we will pack our containers and clear up for disembarking tomorrow morning, 21<sup>st</sup> December.

The major goals of this cruise were achieved: (i) all three full depth IFM-GEOMAR moorings recovered and (ii) with reduced equipment as SIO moorings relaunched; (iii) four of six transponders to acoustically monitor mooring motion of tomographic equipment recovered; (iv) all seven PIES located, two of them recovered as scheduled, and five recovered before schedule after identifying technical problems within the power circuit of the measuring mode (v) hydrographic high resolution (< 30 nm) CTD/IADCP section accomplished along 16° N.

First inspection of the data shows: (i) high quality data from the geostrophic (MicroCats, MTDs) and direct current measuring (RCM8/9) components with a single bad record only, and one MicroCat flooded; (ii) tomographic data transmitted and received for 19 months, however with a low signal to noise ratio, probably due to the large distance; (iii) PIES data overall have not the high quality as expected, and five of the new instruments failed recording after a couple of months due the now known failure in the power pack circuit; (iv) high CTD data quality, meeting WOCE standards as expected.

The highlight certainly was the 19 months continuously telemetered subset of deep sea data from mooring M1 on the western flank of the Mid Atlantic Ridge.

Thank's go to the scientists, technicians and students who as cruise participants and ashore with all their experience and enthusiasm for new technologies significantly contributed to the scientific success of all six MOVE cruises since 2000, and in particular to this final one under IFM-GEOMAR flag.

Scientists on Maria S. Merian cruise 4/1, 03 Dec. - 21 Dec. 2006					<b>The scientific crew during MSM04/1</b>
					<i>1<sup>st</sup> row:</i> Uta Neumann, Christian Begler, Tomas J. Müller, Johannes Karstensen, Andreas Pinck
					<i>2<sup>nd</sup> row:</i> Martina Nielsen, Fritz Karbe, Rudolf Link, Pericles Neves-Silva, Claudia Denker
					<i>3<sup>rd</sup> row:</i> Gabriela Chavez, Gerd Niehus, Wolfgang Böke, Taylor Semingson, Gerd Krahmman

The new ship conceptionally is an excellent platform. The large deck space and a huge variety of special winches and cranes provide modern technical facilities for all fields of academic research. For certain components, however improvements are necessary and possible, and they need to be performed, in particular with respect to reliability of their function.

As always with new highly specialized research vessels, the crew and the inspection ashore has to struggle with initial problems, in particular technical ones. Despite all these, the master and the crew always have been in a good and friendly mood, always supporting our work. Special thanks for this!

Mit den besten Wünschen für ein frohes Weihnachtsfest und ein gutes Jahr 2007!

auf Reede, Fort de France, 20-Dec-2006

Thomas J. Müller  
principal scientist, MSM04/1