



MoMAR-FR : a coordinated national approach to the international MoMAR (Monitoring the Mid-Atlantic Ridge) project

D. Desbruyères (1), **M. Cannat** (2), R. Bally (3), P. Cochonat (1), C. Deplus (3), Y. Fouquet (1), F. Gaill (4), P.M. Sarradin (1), and P. Tarits (5)

(1) Ifremer (Daniel.Desbruyeres@ifremer.fr), (2) Institut de Physique du Globe de Paris, CNRS-UMR 7097 (cannat@ipgp.jussieu.fr), (3) CNRS-INSU (christine.deplus@cnrs-dir.fr), (4) Université de Paris VI, CNRS (francoise.gaill@snv.jussieu.fr), (5) Université de Brest (tarits@univ-brest.fr)

MoMAR is an international project of setting up a multidisciplinary (geophysical, geological, chemical, and biological) sea-floor observatory for monitoring hydrothermal vent environments along the Mid-Atlantic Ridge close to the Azores archipelago. This region includes four known hydrothermal vent sites : Menez Gwen (850 m depth), Lucky Strike (1700 m depth), and Rainbow (2300 m depth) are black smoker vent sites, with high, near boiling point vent fluid temperatures. Saldanha (2200 m depth) is a diffuse venting site, with low temperature fluids. Rainbow and Saldanha are set on ultramafic rocks; Menez Gwen and Lucky Strike are set on volcanic (basaltic) rocks. The MoMAR project was launched in 1998 during an international, InterRidge-sponsored meeting in Lisbon. It has since progressed through implementation meetings, and the submission of cruise, instrumentation and research proposals to national and european institutions. The site characterization phase of the project is well underway at this point, building on the results of 3 successive EC programs (MARFLUX, AMORES and VENTOX). Two important EC grants have recently been obtained : EXOCET-D is a STREP devoted to the development of specific instrumentation to monitor deep sea, extreme environments ecosystems, and MoMARnet is a Marie Curie Research and Training Network offering 15 PhD and Post-doc allowances for research on deep seafloor hydrothermal systems of the MoMAR area. In this presentation, we provide an update on the national coordination of the french contribution to MoMAR, under the auspices of Ifremer and CNRS-INSU. This contribution was elaborated in

the course of two open workshops, held in Roscoff and Paris in 2003 and 2004. It focuses on two priority objectives : setting up an IODP drillhole observatory at the ultramafic-hosted Rainbow hydrothermal site, and setting up a multiscale observatory of hydrothermal processes and related ecosystems in the Lucky Strike ridge segment. In this presentation, we give details on specific actions planned at both sites, and on their integration in the international MoMAR implementation plan, as refined at the recent MoMAR meeting in Lisbon (7-9 april 2005).