

# THE NETHERLANDS MARINE RESEARCH FACILITIES (MRF)

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MRF advises the division Earth and Life Sciences (ALW) of the Netherlands Organisation for Scientific Research (NWO) on the technical, logistic and financial aspects of the National Programme for sea research. When sea-going research projects have been approved and granted by ALW, MRF assists the chief scientists in their planning, preparation and execution of the cruises. MRF advises ALW also on long-term investments, in consultation with the financial department and marine technology department of NIOZ and the advisory committees on CTD systems, auto-analyser systems, moored instrumentation systems, bottom sampling and seismic systems and biological sampling systems. Scientists and technicians from all Dutch groups involved in sea-going research participate in these advisory committees for pooled-equipment.

The Long Term Planning on MRF investments was updated for the years 2005 – 2009 and submitted to NWO/ALW. This update takes place every year.

## In 2005 the National Programme consisted of the following cruises:

- 1 KEOPS (KErguelen: compared study of Ocean and Plateau in Surface water. Netherlands contribution chief scientist Dr. K.R. Timmermans, NIOZ). The KEOPS project aims to study the effect on algae growth of iron and silicate that originates from the Kerguelen islands. A large international group of scientists joined the KEOPS 42 day research cruise on board the RV Marion Dufresne of the French Polar Institute Paul Emile Victor (IPEV) in January/February 2005.
- 2 CO<sub>2</sub> UPTAKE (WECCON/ANTDEEP III. Netherlands contribution chief scientist Dr. H. Thomas, NIOZ). To measure carbon dioxide uptake in the southern Ocean, Dutch scientists joined the research cruise Weddell Sea Convection Control WECCON/ ANTDEEP III, on board

the RV Polarstern of the German Alfred Wegener Institute for Polar and Marine Research (AWI) in January – April 2005.

- 3 BIOSYS (BIOdiversity and EcoSYStem Functioning of Deep Water Coral Reefs in the Mediterranean and N.E. Atlantic; chief scientist Dr. F. van Duyl, NIOZ). A 21 day cruise was performed in the Rockall Trough mar-

gin in the North Atlantic Ocean West of Ireland on board RV Pelagia. Aspects of the ecology and biology of deep water coral reefs were studied.

- 4 ACHIMEDES (Activity, Rates, Carbon use and High-pressure Microbial Ecology of the DEep Sea; project manager Prof.dr. G. Herndl, NIOZ). A 28 day cruise was per-



formed in the Atlantic Ocean in the Canary Basin on board RV Pelagia

- 5 PASS-2 2005, Palaeoceanographic, Palaeoclimatic, Palaeo-environmental and diagenetic Aspects of Sapropel formation in the Eastern Mediterranean (PASS-2). Project manager and cruise leader Dr. G.J. de Lange, Institute of Earth Sciences, Utrecht University. The project is the sea-going contribution to the EU-programme Sapropels and Paleoceanography (SAP). The overall aim is a better understanding of the (paleo)functioning of the Eastern Mediterranean and to determine the role in the global environment by studying the characteristic biogeochemical processes. The Project is a cooperation with Italian research groups. A 12 day cruise was performed on board the Italian RV *Universitatis*.

For the investment subsidy NWO large for the LOCO project (Long-Term Ocean Climate Observations) two cruises were performed.

- 6 LOCO/North Atlantic project manager Dr. H. van Aken, NIOZ): A 24 day cruise was performed in combination with the NIOZ CLIVAR cruise CAMP and the turn-around of the German CIS moorings on RV Pelagia, in the Irminger Sea for the recovery and redeployment of the 4 LOCO moorings.
- 7 LOCO/Mozambique project manager Dr. Ir. H. Ridderinkhof, NIOZ). A 20 day cruise on board the UK research vessel RRS Discovery

was performed in March 2005 in the Mozambique Strait.

**The MRF advice to NWO/ALW for the National Programme of 2006:**

For the new project HERMES-CANYONS (Hotspot Ecosystem Research on the Margins of European Seas – Canyons off Portugal); project manager Prof.dr. T.C.E. van Weering, chief scientist Dr. H. de Stigter, NIOZ, a 21 day cruise was advised in the Atlantic off Portugal on board RV Pelagia

BIOSYS (BIODiversity and EcoSYStem Functioning of Deep Water Coral Reefs in the Mediterranean and N.E.Atlantic); chief scientist Dr. C. Maier, NIOZ, a 14 day cruise was advised in the North Atlantic Ocean West of the Hebrides and Mingulay area on board RV Pelagia.

For the ongoing project ARCHIMEDES (Activity, Rates, Carbon use and High-pressure Microbial Ecology of the DEep Sea; project manager Prof.dr. G. Herndl, NIOZ) a 28 day cruise was



advised in the Equatorial North Atlantic on board RV Pelagia.

For the investment subsidy NWO large for the LOCO project (Long-Term Ocean Climate Observations) three ongoing cruises were advised. One cruise for LOCO/Mozambique (project manager Dr. Ir. H. Ridderinkhof, NIOZ) for another 20 day cruise on board the UK RRS Discovery in the Mozambique Strait, one cruise for LOCO/IW (Internal Waves), project manager Dr.ir. H. van Haren, for a 24 day cruise in the Canary Basin, and for LOCO/North Atlantic (project manager Dr. H. van Aken, NIOZ) for a 6 day barter on board the UK RRS Discovery in the Irminger Sea in the North Atlantic.

### **Ocean Facilities Exchange Group (OFEG)**

The OFEG was established to use research vessels from different institutes more efficiently by exchanging shiptime. Participants in OFEG are: NERC and NOCS (UK), IFREMER (Fr), BMBF (De)

and NIOZ (NL). In 2005 a number of cruises were performed in this framework. A 24 day cruise for the RANAMOX project of the Queen Mary University of London (Chief Scientist Dr. M. Trimmer/Dr. J. Nicholls) on board RV Pelagia in the Celtic Seas; A 20 day cruise for the NIOZ LOCO/Mozambique cruise on the UK RRS Discovery in the Indian Ocean.

During the CAMP/LOCO cruise on RV Pelagia recovery and redeployment took place of the huge German CIS mooring.

In September RV Pelagia intervened for the recovery of 2 UK moorings North of Scotland, that could not be recovered by the German RV Poseidon due to bad weather.

In the framework of the Tripartite Agreement, the Ocean Facilities Exchange Group (OFEG) met two times in 2005, in April in St. Nazaire (France), and in September in Warnemünde (Germany). UTM-CMIMA of the Spanish research council CSIC

attended the meetings as an observer.

M.J. Rietveld chaired the 19th meeting of the International research Ship Operators Meeting (ISOM), hosted by the National Institute of Ocean Technology (NIOT) in Chennai, India, in October 2005. M.J. Rietveld also took part in the Ocean Fleets Working Group (OFWG) of the ESF Marine Board. In 2005 the OFWG met three times, in Amsterdam, Barcelona and Brest to prepare its report on the European Research Fleets. For the Marine Infrastructure Forum (MIF) of the EU/ESF MarinERA programme M.J. Rietveld participated in the meetings in Brest and Athens. As a member of the Partnership for Observation of the Global Oceans (POGO) workshop on research cruise data bases, she also took part in the meeting organised by the POGO directorate in Washington DC.

The European Research Vessel Operators convened in April in Lisbon.