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MRF advises the Earth and Life Sciences Board (GB-ALW) of NWO on the technical, logistic and financial aspects of the execution of the National Programme for sea research. When sea-going projects have been approved and granted by GB-ALW, MRF helps the chief scientists in the planning, preparation and execution of the cruises. MRF also advises GB-ALW on long-term investments, in consultation with the financial department and technical services of NIOZ and 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 scientific groups involved in sea-going research participate in these advisory committees

The updated Long Term Plan on seagoing Marine Facilities 2003 — 2007 was submitted to the NWO advisory Committee for Marine Facilities (CMF) in August 2003 . Every year the Long Term Plan will be updated.

Cruises for the National Facilities Programme in 2003:

In 2003 the National Programme consisted of:

1. PASS-2/BIODEEP, Palaeoceanographic, Palaeoclimatic, Palaeo-environmental and diagenetic Aspects of Sapropel formation in the Eastern Mediterranean with emphasis on the most recent S1 (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) in combination with the EU-project BIODEEP. 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 in black sediment layers which are extremely rich in organic matter (sapropels). The Project is a co-operation with Italian research groups. This year field work was planned to take place on board the new Italian research vessel UNIVERSITATIS for 12 days, but because of serious technical problems most of the work was taken over by the Italian RV MAREOCEANO. Due to time constraints this cruise was limited to recovery and redeployment of the sediment trap moorings.

Therefore the opportunity offered in the framework of the Tripartite Agreement to do CTD-work and gravity coring on board the RV L'ATALANTE of IFREMER, during transit from Iraklion to Toulon, was gratefully accepted.

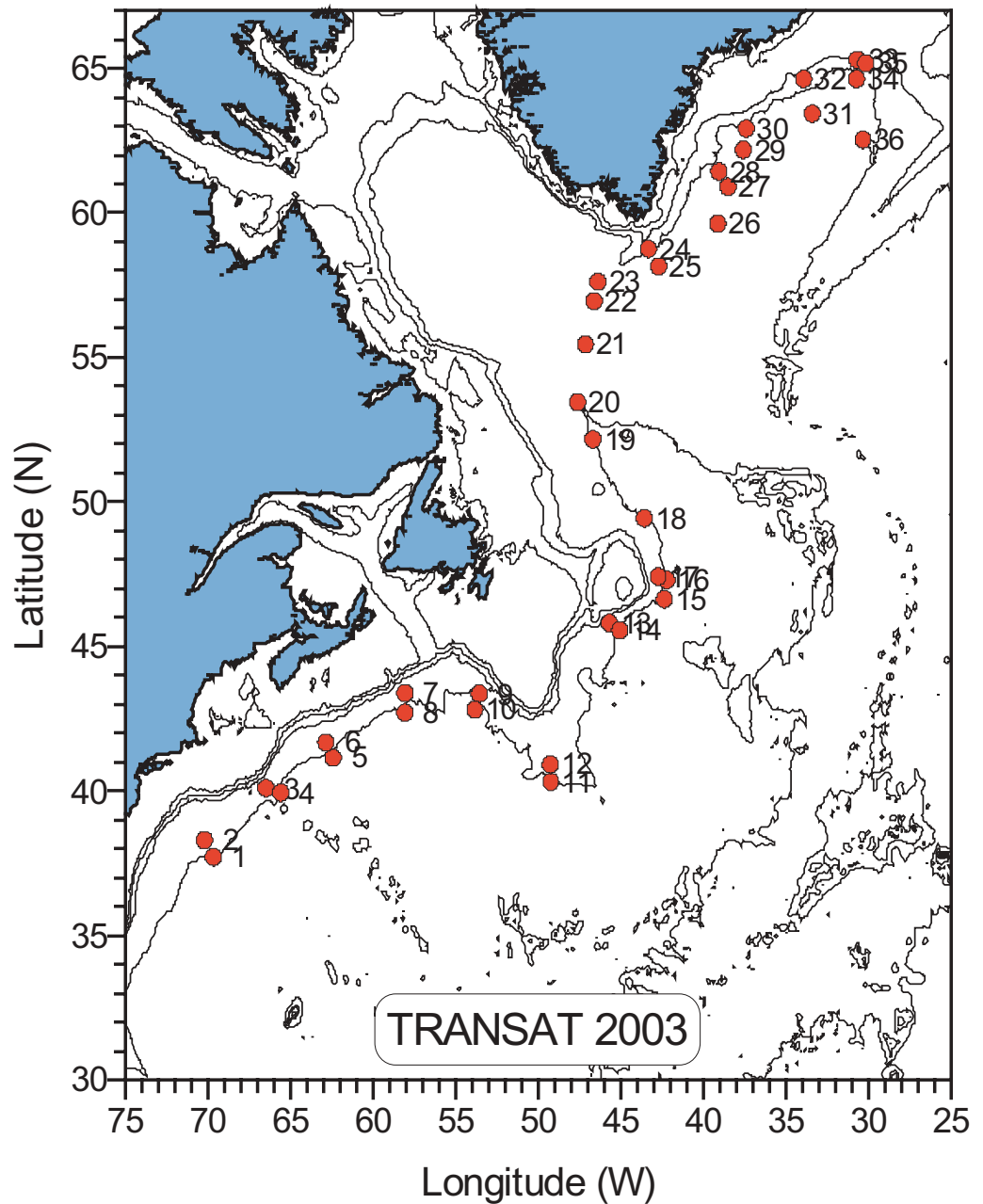


Fig. 1 deployment of sediment trap



Fig. 2 recovery of sediment trap

2. TRANSAT (Transformation of dissolved organic matter (DOM) in the North Atlantic Deep Water and intermediate waters). Project manager Prof. dr. G. Herndl (NIOZ). This project aims to determine the structural changes in the bacterioplankton community and the DOM in the North Atlantic Deep Water over a time span of around 50 years. A cruise was held in the North Atlantic Ocean from Bermuda along the South tip of Greenland towards the Greenland Iceland Norwegian sea during 28 science days on board R/V PELAGIA, covering a distance of approximately 5000 km.
3. MOMAP (Mortality of marine phytoplankton in ecosystems with contrasting trophic status (oligotrophic vs eutrophic)). Project manager Dr. Corina Brussaard (NIOZ). This project has three main goals: first to elucidate the ecological role of phytoplankton cell lysis in systems along a large trophic gradient. Secondly, to identify and understand the mechanisms controlling phytoplankton mortality. Thirdly, to comprehend the effects of environmentally relevant variables on the different algal mortality processes. A 14 day cruise on board RV PELAGIA was done in the Central North Sea in July 2003.



Transect TRANSAT-2
cruise 8 May – 5 June
2003

4. BADE-1 (Bacterioplankton cell death: the diel variations in microbial activity in the surface layers of the Western Mediterranean Sea gyre as influenced by ultraviolet radiation; project manager Prof. Dr. G. Herndl, NIOZ) a cruise of 21 science days was performed in the Western Mediterranean on board RV PELAGIA. All measurements were done following a drifting buoy within the gyre system.
5. For the EUROCORES project MOUNDFORCE 2003 (The distribution, morphology and sedimentology of mud mounds in the Faeroe Shetland Channel and carbonate mounds at the South West Rockall Trough Margin; project leader Prof. Dr. T.C.E. van Weering, NIOZ, chief scientist Dr. H. de Haas, NIOZ) a 27 day cruise was performed on RV PELAGIA in both areas.
6. For the EUROCORES project MEDIFLUX/NAUTINIL 2003 (An integrated study of seepage through the seabed of the Nile deep-sea fan; chief scientist Dr. J.P. Foucher, IFREMER, co-chiefs Dr. J. Woodside, VUA and Dr. G. de Lange, UU), a 30 day cruise was performed on the French RV L'ATALANTE with the submersible NAUTIL of IFREMER in the Eastern Mediterranean and Nile Delta.

Three cruises for the NWO large-investment grant for the LOCO project (Long-Term Ocean Climate Observations) were performed.

7. LOCO/IW (Long-Term Ocean Climate Observations — Internal Waves; project managers Dr. H. van Haren and Dr. L. Maas, NIOZ) a 29 day cruise comprising 12 science days was performed in February/March in the Canary Basin on board RV PELAGIA.
8. LOCO/North Atlantic (Long-Term Ocean Climate Observations — North Atlantic; project manager Dr. H. van Haren, NIOZ) moorings were deployed during 4 science days in August in the Irminger Sea, in combination with the NIOZ CLIVAR cruise CAMP in the North Atlantic on board RV PELAGIA
9. LOCO/Mozambique (Long-Term Ocean Climate Observations — Mozambique Strait; project manager Dr. Ir. H. Ridderinkhof, NIOZ) a 16 day cruise, comprising 6 station days was performed on board the UK research vessel RRS CHARLES DARWIN in the Mozambique Strait. This cruise was part of the tripartite ship-time exchange agreement.

Proposed cruises for the National Facilitation Programme in 2004:

For next year, NIOZ has proposed the following cruises to GB-ALW of NWO

1. BADE project (Bacterioplankton cell death); project manager Prof. Dr. G. Herndl, NIOZ, a 21 day cruise was advised in the Atlantic Ocean off Mauritania on board RV PELAGIA.
2. As for the ODP proposal 549-Full2 (project manager Dr. J.W. Zachariasse, UU) the preparative cruise on board the UK research vessel RRS CHARLES DARWIN had to be cancelled because of the war situation in Iraq, the cruise had to be postponed till 2004, and is planned to be sailed on the RV MARION DUFRESNE of Institut Polaire Emile Victor (IPEV) France.
3. For ongoing EUROCORES projects MOUNDFORCE and MEDIFLUX cruises were advised on RV PELAGIA for 30 days in the Gulf of Cadiz and in the Rockall/Porcupine area and in the Faeroe Shetland Channel for MOUNDFORCE and 28 days on RV PELAGIA in the Eastern Mediterranean in the Anaximander and Nile Delta areas for MEDIFLUX.
4. For the NWO large-investment grant for the LOCO project (Long-Term Ocean Climate Observations) two ongoing cruises were advised. One cruise for LOCO/North Atlantic (project manager Dr. H. van Aken, NIOZ) for 6 days in the Irminger Sea in the North Atlantic on board RRS CHARLES DARWIN and for LOCO/Mozambique (project manager Dr. Ir. H. Ridderinkhof, NIOZ) in March 2005 for 6 days on board the UK research vessel RRS DISCOVERY in the Mozambique Strait. Both cruises as part of the ship time Tripartite Agreement.



Loading the Towed Ocean Bottom Instrument winch on RV PELAGIA. (photo courtesy SOC)



Deploying TOBI from RV PELAGIA (photo courtesy SOC)

Tripartite Agreement of the Ocean Facilities Exchange Group)

In the framework of the Tripartite Agreement, the Ocean Facilities Exchange Group (OFEG, the former MFTG), met in April at IFREMER in Toulon, and in November at NIOZ.

Participants are: NERC and SOC (UK), IFREMER (Fr), BMBF (De) and NIOZ. UTM-CMIMA (Sp) attended the meetings as an observer.

In this framework three cruises were performed.

1. The above cruise number 9
2. The additional work of cruise number 1.
3. On RV PELAGIA a cruise of 18 science days was performed in November 2003 for the EUROSTRATAFORM project; project manager Dr. P.P.E. Weaver, SOC, chief scientist Dr. D.G. Masson, SOC) for the work with the Towed Ocean Bottom Instrument (TOBI) in the North Atlantic off the Portuguese margin and on the Galicia Bank in the area where the Oil Tanker Prestige sank early 2003.