Parent

OMEX-I Roll of Honour

Home

Introduction

This document represents our best efforts to individually acknowledge those workers whose significant efforts have provided the data presented on this CD-ROM. At BODC, we know many of the workers in the community personally and have other sources of information such as cruise reports and OMEX project reports. From this, it should be possible to create a fairly complete inventory of those who have contributed. However, there are two caveats. First, we cannot hope to know precisely every individual contribution in such a large international community as OMEX. Secondly, we are only human and can make mistakes as easily as anyone else. So, if you find your name is missing from where it deserves to be, please do not take offence and accept our sincere apologies.

The acknowledgements are presented using the same logical structure as the data on the CD-ROM with the following data categories:

Images

Hydrographic Atlas

NIOO Databases

Biogeochemical Models

Underway Data Set

Air-Sea Flux Data Set

Moored Instrument Data Set

The OMEX I Database

Under the terms of the MAST data policy, all data on this CD-ROM will have entered the public domain by the time this CD-ROM is published. However, it is still necessary to acknowledge the source of any data used in subsequent publications just as if the CD-ROM were a journal.

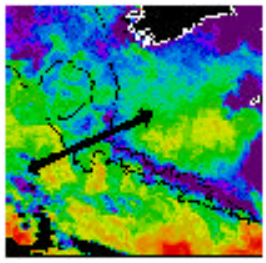
Sufficient information has been provided in this document, in the data documentation and as originator codes tagged to the data for the originators to be identified. It is suggested that data be acknowledged by reference to the originator (e.g. Chou, 1997) with the CD-ROM cited as 'OMEX I Data Set, CD-ROM electronic publication, British Oceanographic Data Centre, Birkenhead, 1997.'

Images

Satellite Images

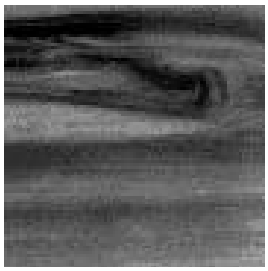
The satellite images were provided by the Remote Sensing Data Analysis Service (RSDAS) at the Plymouth Marine Laboratory, UK.

The OMEX I work was undertaken by **Peter Miller, Steve Groom, Alex McManus**, and **Jay Selley**.



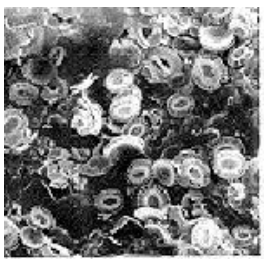
Kasten Core X-rays

The Kasten core X-ray photographs were provided by **Nick McCave** and **Ian Hall** from the Department of Earth Sciences, Cambridge University, UK.



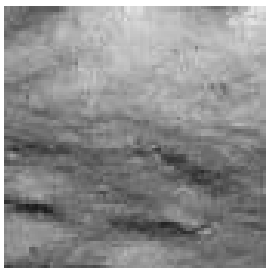
Scanning Electron Micrographs of SPM

The photographs were provided by **Nick McCave** and **Ian Hall** from the Department of Earth Sciences, Cambridge University, UK. Some of the samples were collected by **Giancarlo Bianchi**.

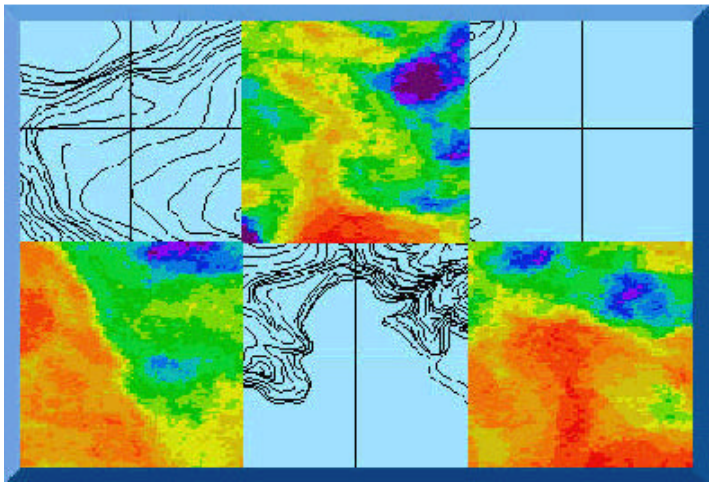


Sea Floor Photographs

The bed-hop photographs were provided by **Paul Chatwin** who was working at Plymouth University. The camera and technical assistance were provided by **John Humphery** of the Proudman Oceanographic Laboratory.



Hydrographic Atlas

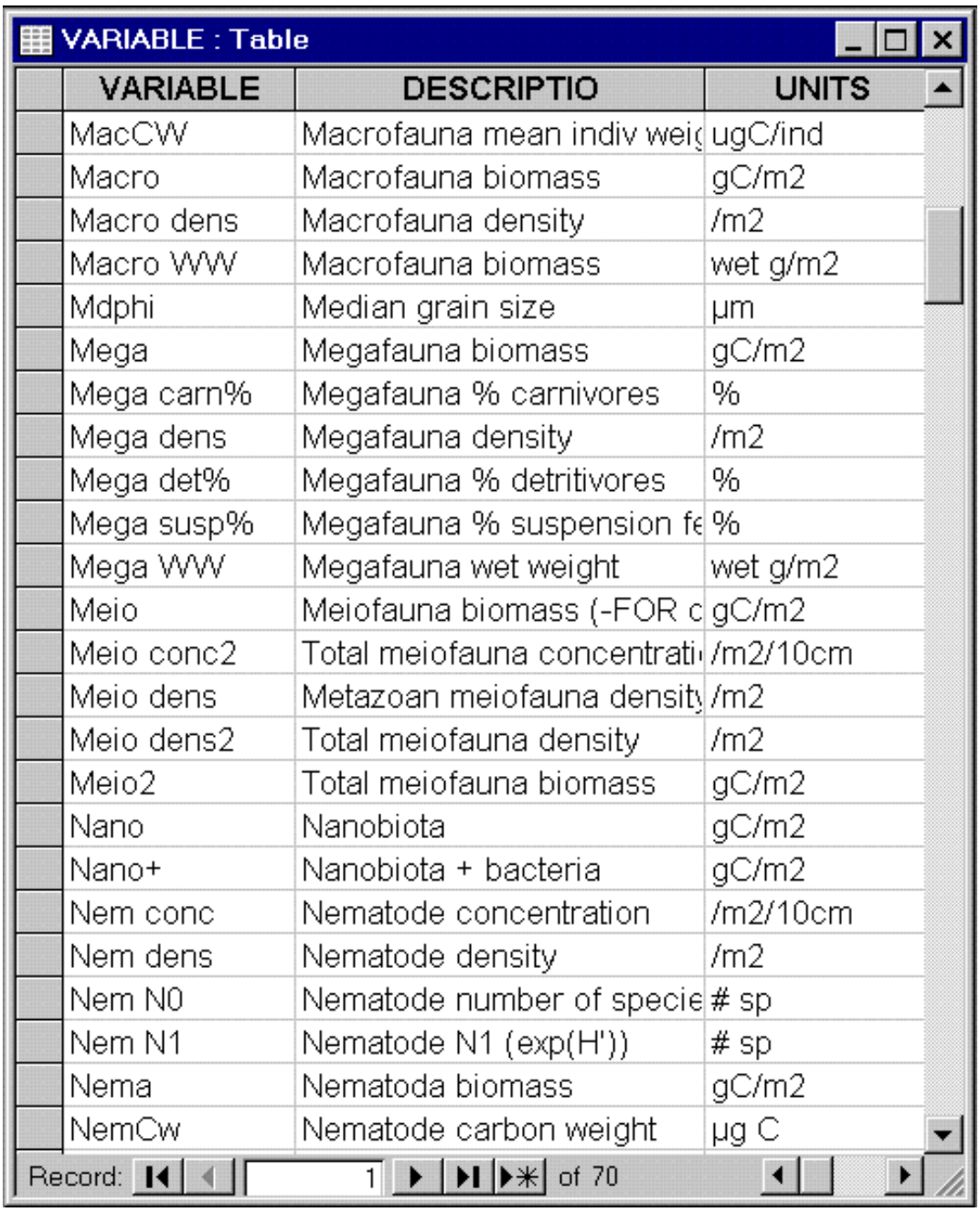


The OMEX Hydrographic Atlas was produced jointly between Southampton Oceanography Centre (SOC) and Plymouth Marine Laboratory (PML) in the UK. Scientific direction for the project was provided by **David Hydes** and **Anne LeGall** from SOC. Data were extracted from the BODC database, plots generated and the Web site built by **Liz Osborne**, **Mike Hughes** and **Martin Callow** at the RSDAS unit in PML.

The Atlas was generated using the data of many scientists working in OMEX I. These are individually acknowledged in the OMEX Database section of this document.

NIOO Databases

The two databases of benthic biological and biogeochemical parameters presented on the CD-ROM were compiled by **Karline Soetaert**, **Peter Herman**, **Jack Middelburg** and **Carlo Heip** from the Centre for Estuary and Marine Research at the Netherlands Instutute of Ecology (NIOO-CEMO).

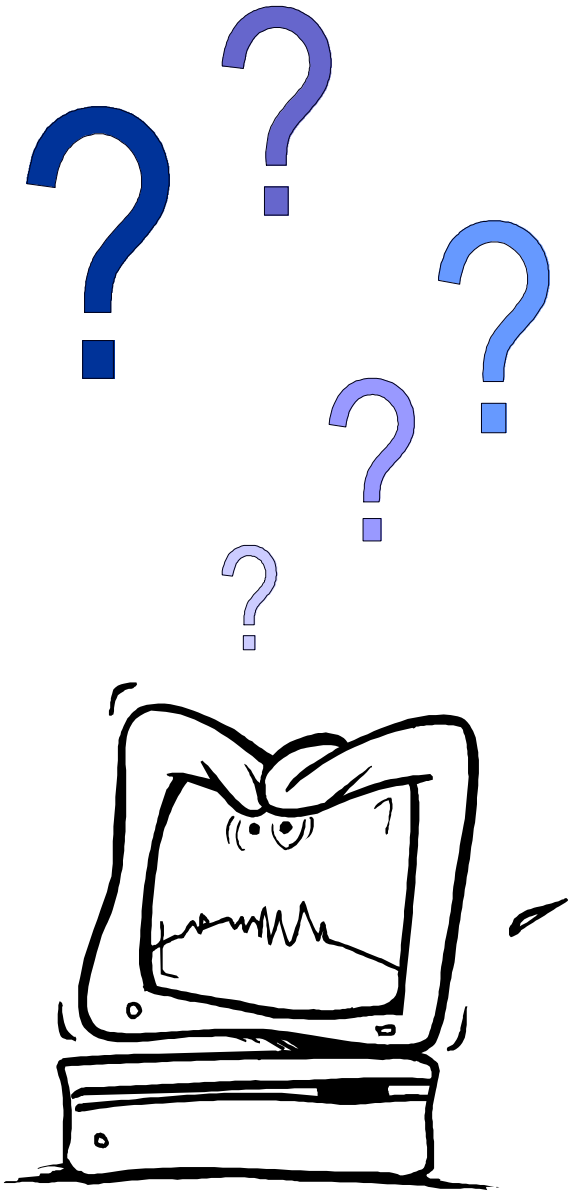


VARIABLE : Table

VARIABLE	DESCRIPTIO	UNITS
MacCW	Macrofauna mean indiv weig	ugC/ind
Macro	Macrofauna biomass	gC/m2
Macro dens	Macrofauna density	/m2
Macro WW	Macrofauna biomass	wet g/m2
Mdphi	Median grain size	µm
Mega	Megafauna biomass	gC/m2
Mega carn%	Megafauna % carnivores	%
Mega dens	Megafauna density	/m2
Mega det%	Megafauna % detritivores	%
Mega susp%	Megafauna % suspension fe	%
Mega WW	Megafauna wet weight	wet g/m2
Meio	Meiofauna biomass (-FOR c	gC/m2
Meio conc2	Total meiofauna concentrati	/m2/10cm
Meio dens	Metazoan meiofauna density	/m2
Meio dens2	Total meiofauna density	/m2
Meio2	Total meiofauna biomass	gC/m2
Nano	Nanobiota	gC/m2
Nano+	Nanobiota + bacteria	gC/m2
Nem conc	Nematode concentration	/m2/10cm
Nem dens	Nematode density	/m2
Nem N0	Nematode number of specie	# sp
Nem N1	Nematode N1 (exp(H'))	# sp
Nema	Nematoda biomass	gC/m2
NemCw	Nematode carbon weight	µg C

Record: 1 of 70

Biogeochemical Models



The biogeochemical models supplied on the OMEX I CD-ROM were supplied by two groups.

The two benthic models (Mixing and OMEXDIA) were developed at the Centre for Estuary and Marine Research at the Netherlands Instutute of Ecology (NIOO-CEMO) by **Karline Soetaert**, **Peter Herman**, **Jack Middelburg** and **Carlo Heip**.

The SEDBIOL model was developed at the School of Ocean Sciences, University of Wales, UK. The model was primarily developed by **Claire Smith**, supervised by **Paul Tett**. It incorporated a physical model code by **Jonathan Sharples** and a resuspension sub-model developed by **Sarah Jones.**

Underway Data Set

RRS Charles Darwin and RRS Discovery Cruises

Discovery cruise DI216 and Charles Darwin cruises CD84 and CD94

The underway systems operation and initial data processing were undertaken by Research Vessel Services personnel on board ship. The technical personnel were **Bill Miller**, **Bernie Woodley**, **John Wynar** and **Simon Watts**. The computer operators were **Howie Anderson** and **Rob Lloyd**. The remaining data processing and calibrations were done by BODC.

Charles Darwin cruise CD86

The underway and logging systems were operated by **Bernie Woodley** and **Rod Pearce** from Research Vessel Services. The data were quality controlled by BODC.

Charles Darwin cruises CD83 and CD97

The underway and logging systems were operated by **Simon Watts**, **Darrell Phillips, Bill Miller**, **Andy Lord** and **Rob Lloyd** from Research Vessel Services. Thermosalinograph and fluorometer calibrations were undertaken by BODC.

Charles Darwin cruise CD85 and Discovery cruise DI217

The logging systems were operated by **Rob Lloyd** and **Rod Pearce**. Instrument calibrations and quality control were undertaken by BODC.

Belgica cruises

The underway systems were operated on board ship by personnel from BMM, Ostend, Belgium, namely **Andre Pollentier**, **Joan Backers, Dirk Deroy** and **Jean-Pierre De Blauwe**. The BMM group also looked after the initial instrument calibration and data processing with additional calibration work by BODC.

FS Meteor Cruises M27_1 and M30_1, and FS Poseidon Cruise PS200_7.

The underway data for these cruises were supplied by **Avan Antia** of Kiel University, Germany, and were collected at sea with the able assistance of the staff and crew of FS Poseidon and FS Meteor.

FS Poseidon Cruise PS211

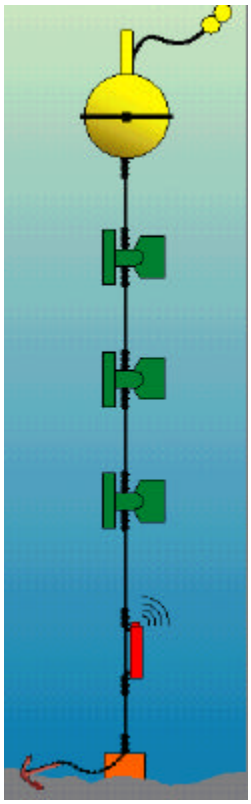
The underway data for these cruises were supplied by **Ludger Mintrop** of Kiel University, Germany, and were collected at sea with the able assistance of the staff and crew of FS Poseidon.

FS Valdivia Cruise VLD137

The underway system was operated by **Nick Bloomer** from Plymouth Marine Laboratory, UK. The data were supplied to BODC by **Thomas Raabe** from Hamburg University, Germany.

Moored Instrument Data Set

The OMEX I moored instrument data may be subdivided in terms of acknowledgement into moored current meters and benthic lander deployments (which in one case incorporated a thermistor chain on the lander mooring). It goes without saying that no mooring deployment or recovery would be possible without the professional skills of the captains and crews of the vessels concerned. These are duly acknowledged.



Moored Current Meters

Three groups provided moored current meter data to the OMEX CD-ROM:

Avan Antia from Kiel University, Germany, assisted by the mooring skills of **Keith Goy** from Southampton Oceanographic Centre, UK, provided current meter data from the OMEX sediment trap moorings.

Robin Pingree's group (**Bablu Sinha, Colin Griffiths** and **Dave Griffiths**) from Plymouth Marine Laboratory provided current meter data from moorings on the Goban Spur and off the Iberian Margin.

Martin White and **Pete Bowyer** provided current meter data from moorings to the west of Ireland.

Lander Deployments

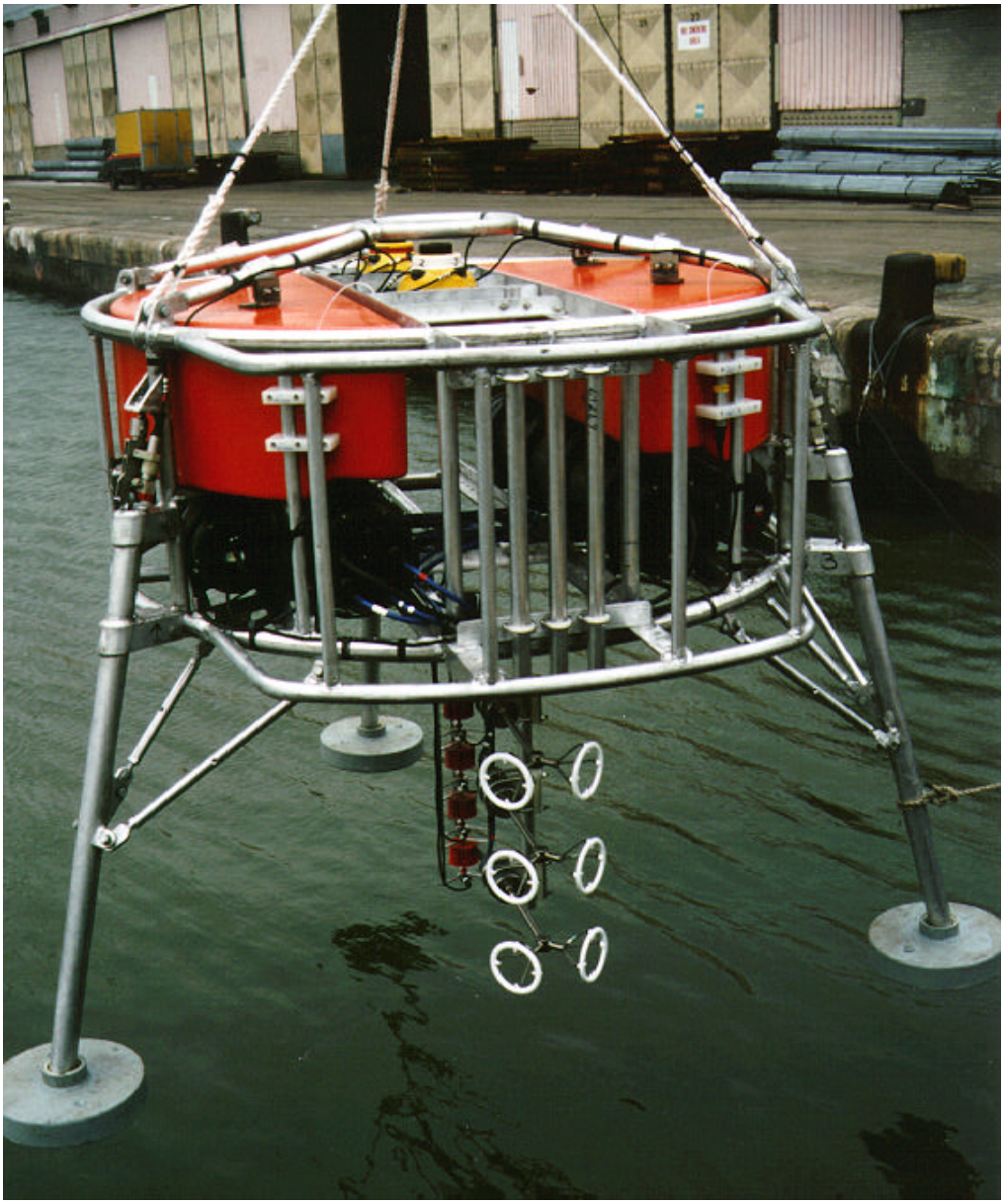
Three groups returned data from benthic landers deployed for periods of a couple of weeks to a year.

Annick Vangriesheim from IFREMER, France, provided current meter and thermistor chain data from the MAP lander deployments.

Tjeerd van Weering, **Henko de Stigter, Henk de Haas, Wim Boer, Henk Franken** and **Bob Koster** from the Netherlands Institute for Sea Research working in collaboration with **Gerard Klaver** (NITG/TNO)

deployed the BOBO lander twice during OMEX I, returning near-bed current meter and transmissometer data.

John Humphery and **Steve Moores** from the Proudman Oceanographic Laboratory, UK, deployed the STABLE II lander under the direction of **John Huthnance.**



Air-Sea Flux Data Set

The data set collected by RISØ National Laboratory, Denmark, and TNO-FEL, the Netherlands has been managed on the CD-ROM as a separate entity because, unlike the bulk of the OMEX data, it has no spatial context. Other spatially related data of relevance to air-sea flux studies, such as dissolved gases and atmospheric chemistry data have been included in the OMEX I relational database and are accredited there.

Team Members

RISØ:

Finn Aa. Hansen
Søren E. Larsen

TNO-FEL:

Leo H. Cohen
Alexander M.J van Eijk
Gerard J. Kunz
Gerrit de Leeuw
Marcel M. Moerman

RISØ/TNO Instruments fitted to RV Valdivia

The OMEX I Database

The OMEX database contains the results of the work of a vast army of scientists from throughout Europe which is amply demonstrated by what follows.

The acknowledgements have been split into the following groupings:

ADCP and Drifting Buoy Data

CTD, XBT and SeaSoar Data

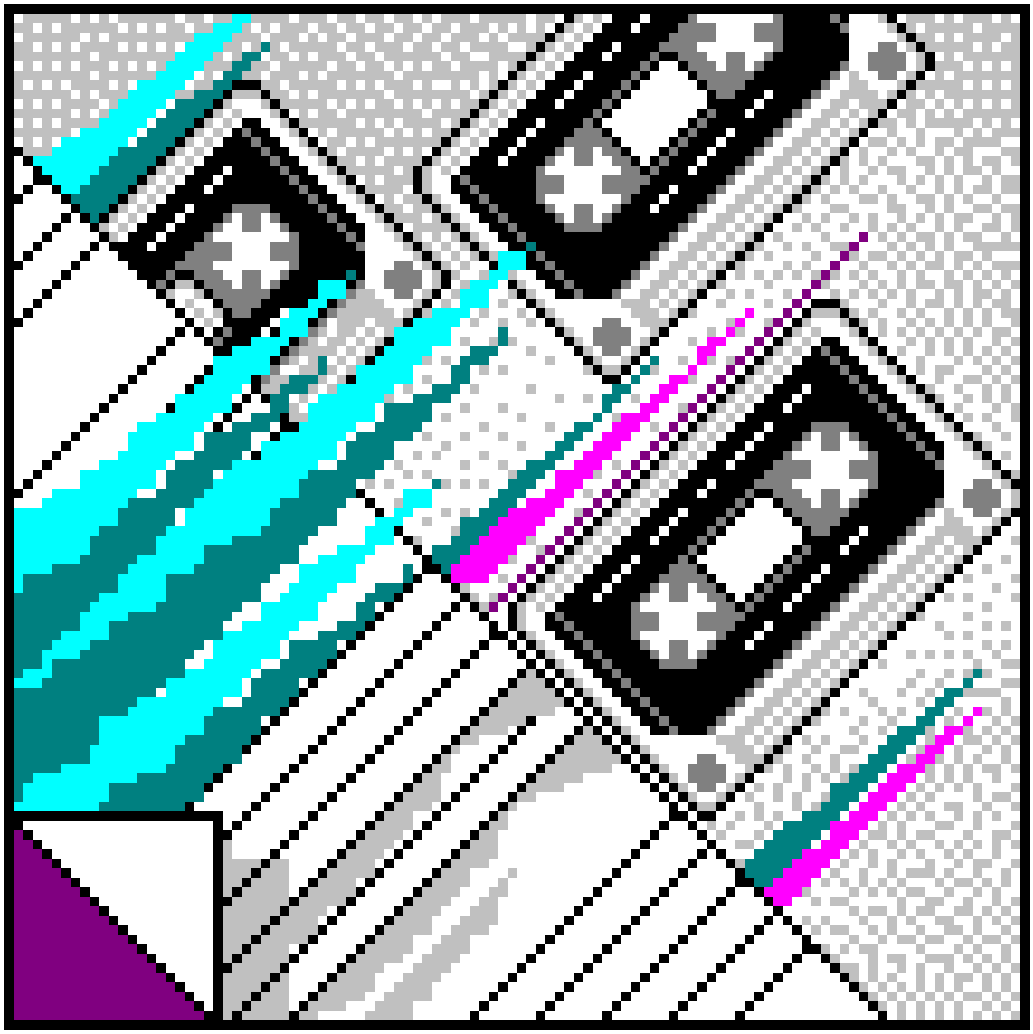
Benthic Data

Air and Water Sample Data

Pelagic Biology Data

Particle Flux Data

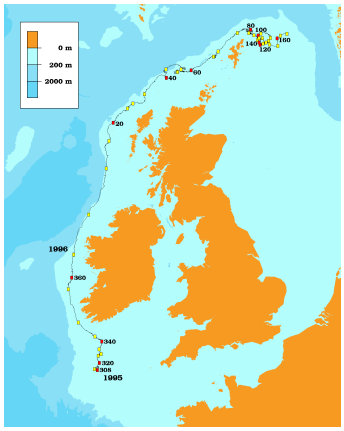
Rate Measurements



ADCP and Drifting Buoy Data

ADCP Data

The ADCP data presented on the CD-ROM are from two cruises, both of which were worked up at the Southampton Oceanography Centre, UK. **Nick Crisp** worked up the data from Charles Darwin CD85 and **Mark Hardman** worked up the data for Discovery DI217.



Drifting Buoy Data

The drifting buoy data were collected by **Robin Pingree**'s group at the Plymouth Marine Laboratory, UK and included contributions from **Bablu Sinha, Colin Griffiths** and **Dave Griffiths.**

Drifting sediment trap tracks were supplied by **Paul Wassmann** of Tromsø University.

CTD, XBT and SeaSoar Profiles

CTD Data and Nephelometer Profiles

The OMEX database contains over 1600 CTD profiles collected during 49 cruise legs. Many people contributed behind the scenes to the collection of these data. Where these are known they are listed, but in some cases all we know is who supplied the data to BODC.

Belgica cruises

The CTD was operated on board ship by personnel from BMM, Ostend, Belgium, namely **Andre Pollentier**, **Joan Backers, Dirk Deroy** and **Jean-Pierre De Blauwe**. The BMM group also looked after instrument calibration and data processing.

Poseidon cruise PS200_7

The CTD data were collected during the cruise by **Avan Antia** (Kiel University, Germany) and **Wolfgang Erasmi** (Institut für Meereskunde, Kiel, Germany). The data were processed and calibrated by **Wolfgang Erasmi**.

Valdivia cruise VLD137

The CTD was operated on board ship by **Nick Bloomer** from the Plymouth Marine Laboratory, UK. All data processing and calibration was undertaken by BODC.

PLUTUR cruises

The CTD data from the PLUTUR cruises were supplied by **Aurora Rodrigues** of the Marinha-Instituto Hidrográfico, Portugal.

NAOMEX cruises

The CTD data from the NAOMEX cruises were collected and processed by **Jean-Marie Jouanneau** and **Jean-Marie Froidefond** from the University of Bordeaux, France.

Pelagia cruises and Charles Darwin cruise CD86

The CTD was operated by NIOZ personnel. The data were calibrated and supplied to BODC by **Dr. Hendrik van Aken** from NIOZ.

Meteor cruises

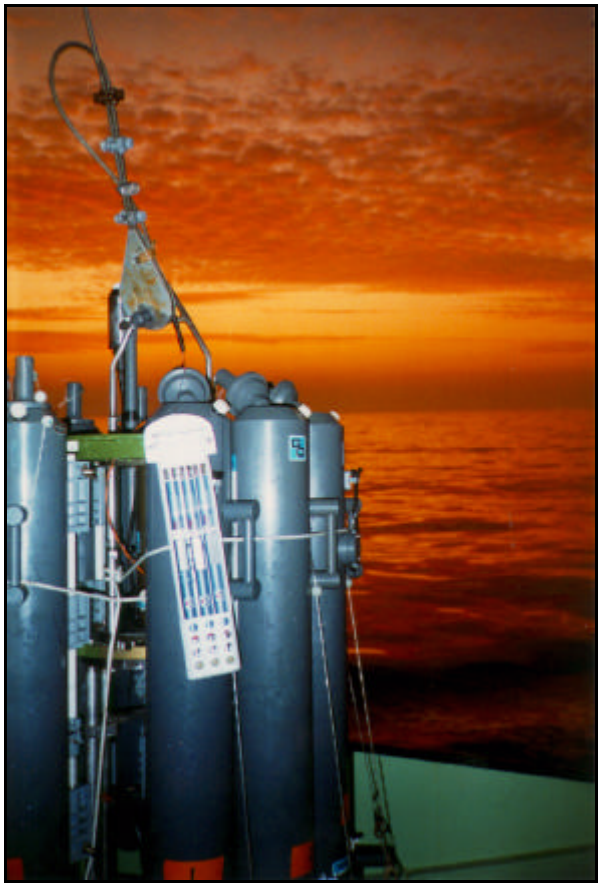
The CTD was operated by FS Meteor personnel and the data were supplied to BODC as logged by **Avan Antia** from Kiel University, Germany. Further processing, calibration and quality control was undertaken at BODC.

Charles Darwin CD83

The CTD and logging system were operated by **Simon Watts**, **Darrell Phillips** and **Rob Lloyd** from Research Vessel Services. CTD calibrations were determined by **Dave Griffiths** of the Plymouth Marine Laboratory working with **Robin Pingree**.

Charles Darwin CD84, CD94 and Discovery cruise DI216

CTD operations and initial data processing were undertaken by Research Vessel Services personnel on board ship. The CTD operators were **Bill Miller**, **Bernie Woodley**, **John Wynar** and **Simon Watts**. The computer operators were **Howie Anderson** and **Rob Lloyd**. The remaining data processing and calibrations were done by BODC.



Charles Darwin cruise CD85

The CTD was operated by **Anne McDowell** and **Rhys Roberts** of the UK Defence Research Agency. Computer logging was operated by **Rod Pearce** of Research Vessel Services. The data were calibrated and quality controlled at BODC.

Jan Mayen cruises

The data were supplied by **Kurt Tande** from the University of Tromsø, Norway, who worked with **Ulf Normann** and **John Terje Eilertsen** to operate the system and process the data.

An Cappall Ban and Heincke

The CTD was operated on the cruises and the data worked up by **Martin White** of University College Galway, Ireland.

Madorniña cruises

The data were supplied to BODC by **Ricardo Prego** from IIM, Vigo, Spain.

Valdivia cruise VLD154

The CTD was operated and calibrations were determined by personnel from IfM Hamburg. The data were obtained for BODC by **Alejandro Spitzy** from Hamburg University, Germany.

Discovery cruise DI217

The CTD was operated by SOC personnel and the logging system was run by **Rob Lloyd** of Research Vessel Services. Data processing and calibration was undertaken by **Mary Bryden** at SOC with additional quality control at BODC.

XBT Data

The XBT data included in the CD-ROM were collected by **Robin Pingree**'s group from the Plymouth Marine Laboratory. XBT processing was undertaken by **Dave Griffiths** from PML (CD83) and **Leonid Nechvolodov** of the State Oceanographic Institute, Moscow, Russia (CD97).

Marine Snow Profiler Data

The Marine Snow Profiler was operated by and the images analysed by **Richard Lampitt** and **Andy Geary** from the Southampton Oceanographic Centre, UK.

SeaSoar Data

The SeaSoar data presented on the CD-ROM are from two cruises, both of which were worked up at the Southampton Oceanography Centre, UK. **Nick Crisp** worked up the data from Charles Darwin CD85 and **Ian Totterdell** worked up the data for Discovery DI217.

Light Profile Data

The light profile data from Belgica were collected by personnel from BMM, Ostend, Belgium, namely **Andre Pollentier**, **Joan Backers, Dirk Deroy** and **Jean-Pierre De Blauwe**. The BMM group also looked after instrument calibration and data processing.

Benthic Data

Core Profile Data

The OMEX I core profile data set is large, complex and the result of the work of many scientists.

Sediment Organic Carbon, Inorganic Carbon and Nitrogen

Carbon and nitrogen were measured in sediments by a number of groups:

Wim Helder, **Lutz Lohse** and **Eric Epping** from the Netherlands Istitute for Sea Research (NIOZ) with technical assistance from **Henk Franken**, **Johan van Heerwarden** and **Maria Belzunce-Segarra**.

Tjeerd van Weering, **Henko de Stigter, Henk de Haas, Wim Boer, Henk Franken** and **Bob Koster** from the Netherlands Institute for Sea Research working in collaboration with **Gerard Klaver** (NITG/TNO).

Nick McCave and **Ian Hall** from Cambridge University, UK with shipboard sample collection assistance from **Giancarlo Bianchi** and **Sarah Brown**.

Jean-Marie Jouanneau and **Max Dignan** from the University of Bordeaux, France.

Els Flach, Carlo Heip and Adri Sandee from the Centre for Estuary and Marine Research at the Netherlands Instutute of Ecology (NIOO-CEMO) with analytical assistance from **Joop Nieuwenhuize**.

Carbon, Nitrogen and Oxygen Isotopes

Carbon and oxygen isotopes were measured by **Nick McCave** and **Ian Hall** from Cambridge University, UK, with analytical assistance from

Mark Chapman and **Mike Hall,** and shipboard sample collection assistance from **Giancarlo Bianchi** and **Sarah Brown**.

Carbon/nitrogen isotopes on sediments were measured by **Wim Helder**, **Lutz Lohse** and **Eric Epping** from the Netherlands Istitute for Sea Research (NIOZ) with technical assistance from **Henk Franken**, **Johan van Heerwarden** and **Maria Belzunce-Segarra**.

Lead and Caesium Isotopes

Lead isotope profiles were measured by three groups, one of which also determined caesium. These were:

> **Nick McCave** and **Ian Hall** from Cambridge University, UK with shipboard sample collection assistance from **Giancarlo Bianchi** and **Sarah Brown**.
>
> **Tjeerd van Weering**, **Henko de Stigter, Henk de Haas, Wim Boer, Henk Franken** and **Bob Koster** from the Netherlands Institute for Sea Research working in collaboration with **Gerard Klaver** (NITG/TNO).
>
> **Jean-Marie Jouanneau** from Bordeaux University, France.

Solid Phase Chemistry

Profiles of sediment chemistry along cores were measured by three groups:

> **Jean-Marie Jouanneau** and **Gilbert Lavaux** from Bordeaux University, France.
>
> **Sharon Nixon** supervised by **Rachel Mills** from the Southampton Oceanography Centre, UK.
>
> **Wolfgang Balzer**, **Aloys Deeken**, **Christian Maess** and **Sabine Otto** from the University of Bremen, Germany.

Magnetic Susceptibility

Nick McCave and **Ian Hall** from Cambridge University, UK, with shipboard sample collection assistance from **Giancarlo Bianchi** and **Sarah Brown**.

Sediment Amino Acid Content and Mineralogy

These data were analysed and supplied by **Tomasz Boski** from the University of the Algarve, Portugal, working in collaboration with **Paulo Miguel Pedro** (University of the Algarve), **João Costa Pessoa** (University of Lisbon) and **Jacques Thorez** (University of Liège, Belgium).

Sediment Grain Size

Sediment grain size parameters were determined by several different groups:

Jean-Marie Jouanneau, Olivier Weber and **Gérard Chabaud** from the University of Bordeaux, France.

Tjeerd van Weering, **Henko de Stigter, Henk de Haas, Wim Boer, Henk Franken** and **Bob Koster** from the Netherlands Institute for Sea Research working in collaboration with **Gerard Klaver** (NITG/TNO).

Tomasz Boski from the University of the Algarve, Portugal, working in collaboration with **Paulo Miguel Pedro** (University of the Algarve), **João Costa Pessoa** (University of Lisbon) and **Jacques Thorez** (University of Liège, Belgium).

Nick McCave and **Ian Hall** from Cambridge University, UK, with shipboard sample collection assistance from **Giancarlo Bianchi** and **Sarah Brown**.

Thomas Soltwedel from Hamburg University, Germany.

Els Flach, Carlo Heip and Adri Sandee from the Centre for Estuary and Marine Research at the Netherlands Instutute of Ecology (NIOO-CEMO) with analytical assistance from **Joop Nieuwenhuize**.

Wolfgang Balzer, **Aloys Deeken**, **Christian Maess** and **Sabine Otto** from the University of Bremen, Germany.

Pore Water Dissolved Oxygen and Resistivity

Pore water oxygen and resistivity profiles were measured both *in-situ* and on deck by **Wim Helder**, **Lutz Lohse** and **Eric Epping** from the Netherlands Istitute for Sea Research (NIOZ) with technical assistance from **Henk Franken**, **Johan van Heerwarden** and **Maria Belzunce-Segarra,** and analytical assistance from **Rikus Kloosterhuis** and **Marlene Dekker**.

Pore Water Nutrients, Dissolved Carbon, Sulphate, Metals and Nitrous Oxide

Pore water nutrients, metals and sulphate were measured by **Wim Helder**, **Lutz Lohse** and **Eric Epping** from the Netherlands Institute for Sea Research (NIOZ) with technical assistance from **Henk Franken**, **Johan van Heerwarden** and **Maria Belzunce-Segarra,** and analytical assistance from **Karel Bakker**, **Jan van Ooijen** and **Anetet van Koutrik** (NIOZ), and **Jan Sinke** (NIOO).

Pore water nutrients, metals and nitrous oxide were measured by **Wolfgang Balzer**, **Aloys Deeken**, **Christian Maess** and **Sabine Otto** from the University of Bremen, Germany.

Foraminiferal Coiling and Benthic Foraminifera Data

Foraminifera were picked, identified and counted by **Henko de Stigter** working with **Tjeerd van Weering**, **Henk de Haas, Wim Boer, Henk Franken** and **Bob Koster** from the Netherlands Institute for Sea Research.

Radiocarbon Dating

Tjeerd van Weering, **Henko de Stigter, Henk de Haas, Wim Boer, Henk Franken** and **Bob Koster** from the Netherlands Institute for Sea Research working in collaboration with **Gerard Klaver** (NITG/TNO).

Pigments and Organic Biomarkers

Pigments and biomarkers were determined by:

Thomas Soltwedel from Hamburg University, Germany.

Gerard Duinveld from the Netherlands Institute for Sea Research.

Whole Core Data

Sediment erosion resistance was determined by **Laurenz Thomsen** from GEOMAR, Kiel, Germany.

Plankton accumulation rates were determined by **Roberto Bao Casal** from the University of La Coruña, Spain, working in collaboration with **Tjeerd van Weering** from the Netherlands Institute of Sea Research.

Sediment oxygen demand, determined using the BOLAS lander, was determined by **Gerard Duinveld** and **Peter de Wilde** from the Netherlands Institute for Sea Research.

Sediment grain size parameters on grab samples were determined by **Paul Chatwin** working at Plymouth University.

Benthic Megafauna Data

The benthic megafauna data on the CD-ROM were supplied by **Marc Lavaleye** from the Netherlands Institute of Sea Research.

Benthic Macrofauna Data

Benthic Macrofauna data were supplied to the OMEX I database by:

Marc Lavaleye from the Netherlands Institute of Sea Research.

Carlo Heip's group from the Centre for Estuary and Marine Research at the Netherlands Institute of Ecology (NIOO-CEMO). **Adri Sandee** collected the samples and **Els Flach** sorted, identified and counted the specimens.

Benthic Meiofauna Data

The benthic meiofauna data on the CD-ROM are the results of the work of **Jan Vanaverbeke** from the University of Ghent and **Karline Soetaert, Adri Sandee** and **Carlo Heip** from the Centre for Estuary and Marine Research at the Netherlands Institute of Ecology (NIOO-CEMO).

Air and Water Sample Data

The air and water sample data from OMEX I represents the work of many, many scientists and technical staff. Preparing the acknowledgement list was a truly daunting task and giving an impression of who did what was even more problematical. Our best attempt was to subdivide the data in the same manner as the data documentation which is what follows.

Carbon, Nitrogen and Phosphorus Assimilation

^{14}C uptake rates were measured by **Lei Chou** and **Michèle Loijens** from Brussels Free University (ULB), Belgium.

^{15}N uptake (new and regenerated production) data were provided for the Belgica cruises by **Marc Elskens** from Brussels Free University (VUB), Belgium. Colleagues concerned with the VUB OMEX cruise work were **Jean-Pierre Clément, Frank Dehairs, Leo Goeyens, Sandra Marguillier, Jacques Navez** and **Johan Vervlimmeren.**

Data from a small number of short ^{15}N uptake experiments were provided by **Andy Rees** and **Ian Joint** from the Plymouth Marine Laboratory, UK.

^{32}P uptake rates were measured by **Lei Chou** and **Olivier Hainaut** from Brussels Free University (ULB), Belgium.

Metal Assimilation Rates and Distribution Coefficients

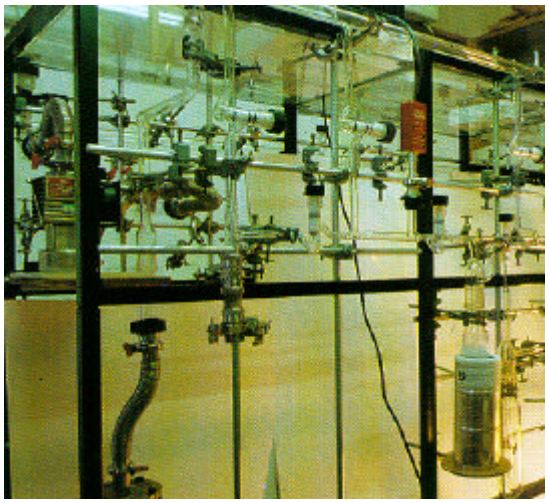
Trace metal uptake rates using gamma emitting isotopes were measured by **Michèle Loijens** and **Veronique Herzl** from Brussels Free University (ULB), Belgium.

Bacterial Production, Abundance and Characteristics

Alan Pomroy and **Ian Joint** from Plymouth Marine Laboratory, UK, determined bacterial abundance and production.

Laurenz Thomsen, supported by **Birgit Franzen** and **Mario Mueller** (particle sizing) and **Thomas Viergutz** (instrument development) from GEOMAR, Kiel, Germany, determined bacterial abundance, biomass and size.

Carbon and Nitrogen Isotopes



$\delta^{15}N$ data on suspended particles were provided by **Marc Elskens** from Brussels Free University (VUB), Belgium. Colleagues concerned with the VUB OMEX cruise work were **Jean-Pierre Clément, Frank Dehairs, Leo Goeyens, Sandra Marguillier, Jacques Navez** and **Johan Vervlimmeren.**

$\delta^{15}N$ data on material collected by centrifugation were supplied by **Patrick Dauby** from the University of Liège, Belgium.

$\delta^{13}C$ on dissolved inorganic carbon were studied by **Gregor Rehder, Erwin Suess** and **Robin Kier** from GEOMAR, Kiel, Germany, in collaboration with **H. Erlenkeuser** and **H. Cordt** from the Radiocarbon Laboratory at Kiel University.

Dissolved Organic Carbon

Dissolved organic carbon was determined by five groups:

Lei Chou and **Olivier Hainaut** from Brussels Free University (ULB), Belgium.

Minhan Dai working with **Jean-Marie Martin** at IBM-ENS, France.

Sabine Otto working with **Wolfgang Balzer** at Bremen University, Germany.

Uwe Brockmann, Thomas Raabe, Monika Schuett and **Ilse Buens** from Hamburg University, Germany.

Axel Miller and **Pepe Alvarez-Salgado** working at the Plymouth Marine Laboratory, UK.

Axel Miller and **Pepe Alvarez-Salgado** working at the Plymouth Marine Laboratory, UK, determined dissolved total nitrogen using HTCO.

Uwe Brockmann, Thomas Raabe, Monika Schuett and **Ilse Buens** from Hamburg University, Germany, determined total dissolved nitrogen and phosphorus by wet chemical methods.

Particulate Organic Carbon, Inorganic Carbon, Nitrogen, Phosphorus and Silica

These parameters were determined by many workers during OMEX I as follows:

Nutrient data were provided for the Belgica cruises by **Marc Elskens** from Brussels Free University (VUB), Belgium. Colleagues concerned with the VUB OMEX cruise work were **Jean-Pierre Clément, Frank Dehairs, Leo Goeyens, Sandra Marguillier, Jacques Navez** and **Johan Vervlimmeren.**

Kinh-Trang Dotansi from Brussels Free University, Belgium.

Patrick Dauby from the University of Liège, Belgium.

Uwe Brockmann, Thomas Raabe, Monika Schuett and **Ilse Buens** from Hamburg University, Germany.

Laurenz Thomsen, supported by **Anja Kaehler** (biogeochemical analyses) and **Thomas Viergutz** (instument development), from GEOMAR, Kiel, Germany.

Avan Antia from Kiel University, Germany.

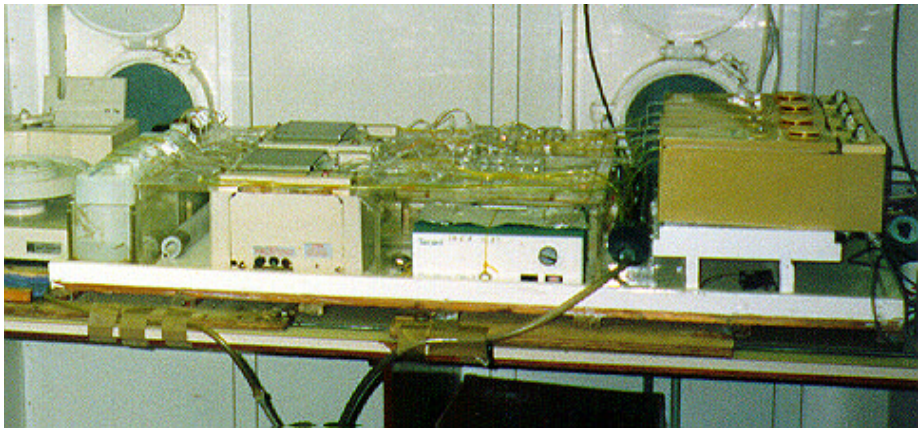
Paul Wassmann, Inger Andreassen and **Sigrid Oygarden** from the University of Tromsø, Norway.

Bob Head from the Plymouth Marine Laboratory, UK.

Aurora Rodrigues of the Marinha-Instituto Hidrográfico, Portugal, working with **Jean-Marie Jouanneau** and **Max Dignan** from the University of Bordeaux, France.

Nutrients

Nutrients were measured by several groups during OMEX I:



Marc Elskens from Brussels Free University (VUB), Belgium. Colleagues concerned with the VUB OMEX cruise work were **Jean-Pierre Clément, Frank Dehairs, Leo Goeyens, Sandra Marguillier, Jacques Navez** and **Johan Vervlimmeren.**

Lei Chou and **Olivier Hainaut** from Brussels Free University (ULB), Belgium.

Ricardo Prego from IIM, Vigo, Spain.

Wim Helder, **Lutz Lohse** and **Eric Epping** from the Netherlands Institute for Sea Research (NIOZ) with technical assistance from **Henk Franken**, **Johan van Heerwarden** and **Maria Belzunce-Segarra,** and analytical assistance from **Karel Bakker**, **Jan van Ooijen** and **Anetet van Koutrik** (NIOZ), and **Jan Sinke** (NIOO).

Uwe Brockmann, Thomas Raabe, Monika Schuett and **Ilse Buens** from Hamburg University, Germany.

Bob Head from the Plymouth Marine Laboratory, UK.

David Hydes from the Southampton Oceanographic Centre, UK.

Andy Rees from the Plymouth Marine Laboratory, UK.

The Martin Ryan Institute at University College, Galway provided nutrient data from a number of cruises. Samples from Valdivia and Heincke were collected by **Martin White** and analysed by **Owen Doherty** of MRI Central Marine Services

unit. **Mike Orren, Tom Treacy, Miriam Molloney** and **Garvan O'Donnell** collected and analysed samples from CD84, CD94 and DI216.

Paul Wassmann and **Francisco Rey** from the University of Tromsø, Norway.

H. Johannsen from IfM Kiel, Germany.

Dissolved and Particulate Carbohydrates Amino Acids and Fatty Acids

These parameters were determined by **Uwe Brockmann, Thomas Raabe, Monika Schuett** and **Ilse Buens** from Hamburg University, Germany.

Carbonate System Parameters

Carbonate system parameters were determined by the following groups:

Michel Frankignoulle from the University of Liège, Belgium with analytical support from **Isabelle Bourge, Christine Canon, Claire Daemers** and **Alberto Borges.**

Uwe Brockmann, Thomas Raabe, Monika Schuett and **Ilse Buens** from Hamburg University, Germany.

Gregor Rehder, Erwin Suess and **Robin Kier** from GEOMAR, Kiel, Germany.

Dissolved and Colloidal Trace Metals

Dissolved aluminium was determined by **David Hydes** and **Ruth Parker** (supervised by **Peter Statham**) from Southampton Oceanographic Centre, UK, and **Lei Chou** from Brussels Free University (ULB), Belgium.

Other trace metals (Fe, Mn, Zn, Cd, etc.) were determined by three groups:

Nick Morley, Anne-Christine Le Gall and **Peter Statham** from Southampton Oceanographic Centre, UK.

Eric Achterberg from Plymouth University, UK

Marie-Hélène Cotté and **Minhan Dai** supervised by **Jean-Marie Martin** at IBM-ENS, France.

Particulate Trace Metals

Particulate trace metals on pumped and centrifuged samples were determined by **Lei Chou, Olivier Dufour, Hugues Paucot** and **Nathalie Roevros** from Brussels Free University (ULB), Belgium.

Pigments

Pigments were determined by the following workers during OMEX I:

Ray Barlow, Fauzi Mantoura, **Denise Cummings** and **Stuart Gibb** from the Plymouth Marine Laboratory, UK.

Patrick Dauby from the University of Liège, Belgium.

Lei Chou and **Olivier Hainaut** from Brussels Free University (ULB), Belgium.

Laurenz Thomsen, supported by **Anja Kaehler** (biogeochemical analyses) and **Thomas Viergutz** (instrument development), from GEOMAR, Kiel, Germany.

Bob Head from the Plymouth Marine Laboratory.

Alan Pomroy, Andy Rees and **Ian Joint** from the Plymouth Marine Laboratory, UK.

Gerard Duineveld from the Netherlands Institute of Sea Research.

Avan Antia from Kiel University, Hamburg.

Paul Wassmann, Inger Andreassen and **Sigrid Oygarden** from the University of Tromsø, Norway.

Suspended Particulate Material Concentration and Characterisation

Suspended particulate material was quantified and characterised by the following workers:

Patrick Dauby from the University of Liège, Belgium.

Michèle Loijens and **Veronique Herzl** from Brussels Free University (ULB), Belgium.

Tjeerd van Weering, **Henko de Stigter, Henk de Haas, Wim Boer, Henk Franken** and **Bob Koster** from the Netherlands Institute for Sea Research working in collaboration with **Gerard Klaver** (NITG/TNO).

Laurenz Thomsen, supported by **Birgit Franzen** and **Mario Mueller** (particle sizing) and **Thomas Viergutz** (instrument development) from GEOMAR, Kiel, Germany determined bacterial abundance, biomass and size.

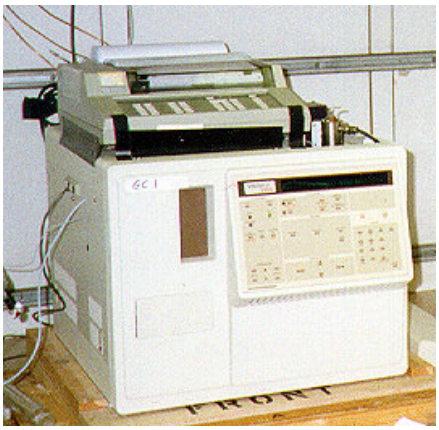
Uwe Brockmann, Thomas Raabe, Monika Schuett and **Ilse Buens** from Hamburg University, Germany.

Nick McCave and **Ian Hall** from Cambridge University, UK, with shipboard sample collection assistance from **Giancarlo Bianchi** and **Sarah Brown**.

Avan Antia from Kiel University, Germany.

Aurora Rodrigues of the Marinha-Instituto Hidrográfico, Portugal.

Dimethylsulphide and its Precursors



Dimethylsulphide and its precursors DMSP and DMSO were determined by the following workers:

Angela Hatton from the University of East Anglia, UK.

Jean-Philippe Putard and **Ba Cuong Nguyen** from the Centre des Faibles Radioactivités, CNRS-CEA, France.

Günther Uher, Günther Schebeske, Spyridon Rapsomanikis, Meinrat Andreae from the Max Planck Institute for Chemistry, Mainz, Germany.

Carbonyl Sulphide and Atmospheric Radon

Atmospheric, seawater and production data were obtained by **Veit Ulshöfer, Otmar Flöck** and **Günther Uher** from the Max Planck Institute for Chemistry, Mainz, Germany.

Methane

Dissolved and atmospheric methane data were collected by **Gregor Rehder, Erwin Suess** and **Robin Kier** from GEOMAR, Kiel, Germany.

Atmospheric Ammonia and Methylamines and Dissolved Methylamines

These parameters were determined by **Stuart Gibb** from the Plymouth Marine Laboratory, UK.

Dissolved Oxygen

Dissolved oxygen determinations by Winkler titration were made by the following groups during OMEX I.

Wim Helder, **Lutz Lohse** and **Eric Epping** from the Netherlands Institute for Sea Research (NIOZ) with technical assistance from **Henk Franken**, **Johan van Heerwarden** and **Maria Belzunce-Segarra,** and analytical assistance from **Rikus Kloosterhuis** and **Marlene Dekker**.

Michel Frankignoulle from the University of Liège, Belgium, with analytical support from **Isabelle Bourge, Christine Canon, Claire Daemers** and **Alberto Borges.**

Uwe Brockmann, Thomas Raabe, Monika Schuett and **Ilse Buens** from Hamburg University, Germany.

Wolfgang Balzer, **Aloys Deeken**, **Christian Maess** and **Sabine Otto** from the University of Bremen, Germany.

Pablo Serrett from the University of Oviedo, Spain.

Scientists from Southampton Oceanographic Centre, UK. **Rachel Mills** analysed the samples from CD84. **Matt Cooper** (Cambridge University) and **Anneke Lubben**, supervised by **David Hydes** and **Peter Statham**, collected the data from DI216.

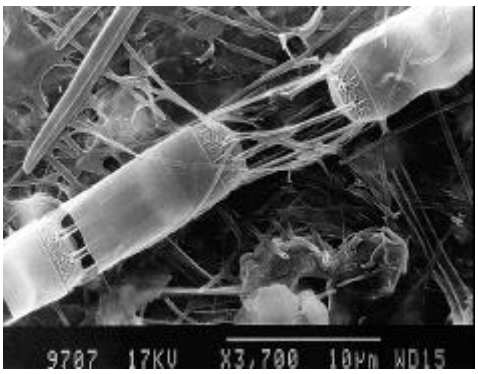
Ricardo Prego from IIM, Vigo, Spain.

Microzooplankton Biomass and Grazing

Microzooplankton abundance, biomass and grazing together with data on heterotrophic and photosynthetic nanoflagellates were provided by **Peter Burkill, Elaine Edwards** and **Claire Stelfox** from the Plymouth Marine Laboratory, UK.

Phytoplankton Species Counts

Phytoplankton species counts were provided by two groups:



Paul Wassmann, Inger Andreassen and **Tatjana Ratkova** from the University of Tromsø, Norway.

Alan Pomroy from the Plymouth Marine Laboratory, UK.

Zooplankton and Terrestrial Detritus

The zooplankton counts in the OMEX I database were provided by **Paul Wassmann, Inger Andreassen** and **Tatjana Ratkova** from the University of Tromsø, Norway.

Radionuclides

The OMEX radionuclide data were provided by **M. Thouard** from DIRCEN-CEA/SMSR, Monthlery, France.

Pelagic Biological Data

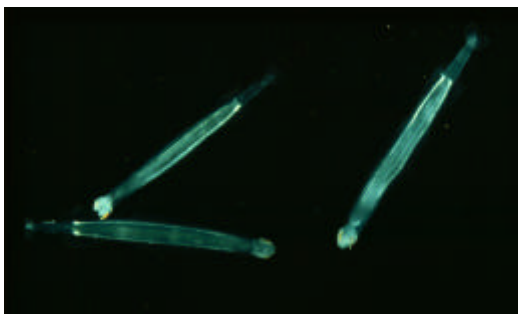
CPR Data

The Continuous Plankton Recorder data were supplied by **Sonia Batten** from The Sir Alister Hardy Foundation for Ocean Science with the data handling assistance of **Andy Warner** and **Harry Hunt**. Their thanks go to the captains and crews of the many 'ships of opportunity' that collected the samples and to all the analysts past and present who contributed to the data set.

LHPR Data

The Longhurst-Hardy Plankton Recorder samples were collected and processed by **Richard Lampitt, Jackie Hunter** and **Andrew Hirst** from the Southampton Oceano-graphic Centre, UK.

RMT Data



The Remote Mid-Water Trawl samples were collected and processed by **Richard Lampitt, Howard Roe, Martin Angel, Phil Pugh** and **Pat Hargreaves** from the Southampton Oceanographic Centre, UK.

Particle Flux Data

Moored Sediment Traps

The successful deployment and recovery of the moored sediment traps owes much to the skills of captains and crew of FS Poseidon, RRS Charles Darwin, FS Meteor and RRS Discovery and the moorings expertise of **Keith Goy** from Southampton Oceanographic Centre.

The traps were prepared and the samples collected by **Avan Antia** from Kiel University. **Avan Antia** was also responsible for the initial sample preparation (picking swimmers and splitting the samples) and the determination of dry weight, carbon, nitrogen, biogenic silica, pigment, alkenone and taxon fluxes. In this work, she was assisted by **Petra Berger, Marita Krumbholz, Eike Breitbarth, Torsten Marquardt, Ingo Thordsen** and **Olaf Friedrichs.** Avan also supplied $\delta^{15}N$ determinations on trap material obtained in collaboration with **M. Voss** from Institut für Ostseeforschung, Warnemünde, Germany.

The prepared and split trap samples were submitted to the following groups for further parameter and flux determinations:

> **Frank Dehairs** from Brussels Free University (VUB), Belgium, supplied trace metal flux data. Colleagues concerned with the VUB OMEX cruise work were **Jean-Pierre Clément, Marc Elskens, Leo Goeyens, Sandra Marguillier, Jacques Navez** and **Johan Vervlimmeren.**
>
> Particulate trace metals on pumped and centrifuged samples were determined by **Lei Chou, Olivier Dufour, Hugues Paucot** and **Nathalie Roevros** from Brussels Free University (ULB), Belgium.
>
> **Jean-Marie Jouanneau, Olivier Weber** and **Gérard Chabaud** from the University of Bordeaux, France, determined the grain size distribution of the trap material.

Drifting Sediment Traps

Drifting sediment traps were deployed by the University of Tromsø, Norway. Carbon, nitrogen and pigment fluxes were determined by **Paul Wassmann, Inger Andreassen** and **Sigrid Oygarden.** Taxon fluxes were determined by **Paul Wassmann, Inger Andreassen** and **Tatjana Ratkova.**

Lander Sediment Traps

Alexis Khripounoff from IFREMER, France, provided mass, carbon and nitrogen flux data from the MAP lander deployments on the Meriadzek Terrace.

Pigment fluxes, measured using the traps fitted to the BOLAS lander were determined by **Gerard Duineveld** from the Netherlands Institute of Sea Research.

Rate Measurements

The term 'rate measurement' in the context of the OMEX I data set includes a range of experiments that determined the uptake of radioactive isotopes from the dissolved phase into the particulate phase.

Andy Rees and **Ian Joint** from the Plymouth Marine Laboratory, UK, determined ^{15}N new and regenerated production from *in-situ* and on-deck 24-hour incubation experiments.

Andy Rees, Alan Pomroy and **Ian Joint** from the Plymouth Marine Laboratory, UK, determined primary production from 24-hour ^{14}C in-situ and on-deck experiments.

Kirsten Donald and **Ian Joint** from the Plymouth Marine Laboratory, UK, determined ^{33}P uptake from in-situ and on-deck 24-hour incubation experiments.

Trace metal uptake rate kinetics using gamma emitting isotopes were measured by **Michèle Loijens** and **Veronique Herzl** from Brussels Free University (ULB), Belgium.