Work Package V

Project management and coordination

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Task V.1 Data Management and Dissemination

(with contribution from the BODC Team)

Task V.1.1 *Establish and maintain a close working relationship with OMEX II-II scientists*

Data Tracking

The OMEX II-II cruise inventory has been maintained and as of 31 May 1999 contained information on twenty two cruises within the study area:

\# Côtes de la Manche CORVET (12/11/1996 – 17/11/1996): 3 data sets
\# + Charles Darwin CD105a (29/05/1997 - 09/06/1997): 12 data sets
\# + Charles Darwin CD105b (10/06/1997 - 22/06/1997): 19 data sets
\# + Belgica BG9714b (18/06/1997 - 20/06/1997): 12 data sets
\# + Belgica BG9714c (21/06/1997 - 30/06/1997): 33 data sets
\# + Belgica BG9714d (02/07/1997 - 07/07/1997): 21 data sets
\# Pelagia PE64/108 (23/06/1997 - 14/07/1997): 14 data sets
\# Pelagia PE64/109 (15/07/1997 - 05/08/1997): 21 data sets
\+ Almeida Carvalho CLIMA97 (06/12/1997 - 15/12/1997): 7 data sets
\# + Charles Darwin CD110a (23/12/1997 - 05/01/1998): 16 data sets
\# + Charles Darwin CD110b (06/01/1998 - 19/01/1998): 25 data sets
\# + Poseidon PS237-1 (26/02/1998 - 16/03/1998): 17 data sets
\# Pelagia PE64/118 (25/05/1998 - 12/06/1998): 20 data sets
Belgica BG9815b (25/06/1998 - 26/06/1998): 4 data sets
\# Belgica BG9815c (27/06/1998 - 07/07/1998): 25 data sets
Belgica BG9815d (10/07/1998 - 15/07/1998): 18 data sets
\# Côtes de La Manche GAMINEX (10/07/1998 - 19/07/1998): 4 data sets
\# Charles Darwin CD114a (29/07/1998 - 11/08/1998): 29 data sets
\# Prof. Shtokman ST0898 (01/08/1998 - 11/08/1998): 23 data sets
\# Charles Darwin CD114b (11/08/1998 - 24/08/1998): 27 data sets
\# Pelagia PE64/123 (02/09/1998 - 18/09/1998): 15 data sets
\# + Meteor M43/2 (28/12/1998 - 16/01/1999): 36 data sets

\# = Cruise report has been delivered to BODC
\+ = Cruise Summary Report has been delivered to BODC

BODC staff participated in the *Belgica BG9714b* and *c*; *BG9815c*; *Charles Darwin CD105a* and *b*; and *Meteor M43/2* cruises and gave data management support to the scientists on the cruises. In addition, *Charles Darwin CD110* and *CD114* were met at Southampton by BODC where data sheets and continuously logged data were collected. These sources, combined with further communication with the Principal Scientist of each cruise prior and post cruise, have provided invaluable information on the data collected, as well as station lists to initialise the “data inventory”. Principal investigators have been contacted directly concerning the supply of their data.

BODC staff has actively participated in meetings of the OMEX II-II Scientific Steering Committee and of Work Packages I, II and III. A poster and plenary presentation was given to the Annual Workshop in Plymouth in April 1999.

Task V.1.2 *Assemble data into the OMEX II-II project database*

As of 31 May 1999, BODC have received 86 submissions of data covering 141 of the 404 data sets collected on the cruises listed above (63 submissions including 75 data sets in the period 1 June 1998 to 31 May 1999).

Underway and CTD data have been processed and sample data loaded onto the project database. Progress to date is outlined below (data processed within the past 12 months are *italicised):*

CORVET (3 out of 3 data sets received)

- *Data sets banked: core data including grain size parameters, other sediment characteristics, radionuclides.*

CD105a (3 out of 12 data sets received)

- Underway file created (10 channels × 11 days) with temperature and salinity calibrated. PAR data calibrated.
- 8 XBTs screened and banked.
- SWATH bathymetry.
- Ship-borne ADCP processed.

CD105b (11 out of 19 data sets received)

- Underway file created (17 channels × 12 days) with temperature, salinity *and fluorescence* calibrated. PAR data calibrated.
- 82 CTD casts worked up with pressure, salinity, temperature, fluorescence and oxygen data calibrated, and irradiance, nephelometer and transmissiometer data processed.
- other data sets banked: water bottle salinity, temperature, *nutrients*, HPLC pigments and size fractionated chlorophyll and *primary production*.
- *Ship-borne ADCP processed and screened*
- *ADCP mooring temperature time series fully worked up.*

BG9714b (10 out of 12 data sets received)

- underway file created (16 channels × 2 days) with temperature, salinity and fluorescence data calibrated. Oxygen, pCO_2 and pH merged and screened.
- 2 CTD casts worked up with temperature, salinity and oxygen data calibrated.
- other data sets banked: non-toxic supply pigments and salinities; water bottle salinities and dissolved oxygen; CTD and non-toxic *nutrients*; CTD HPLC and fluorometric pigments; total alkalinity, pCO_2, pH and TCO_2.

BG9714c (16 out of 33 data sets received)

- underway file created (16 channels × 9 days) with temperature, salinity and fluorescence data calibrated. Oxygen, pCO_2 and pH merged and screened.
- 57 CTD casts worked up with temperature, salinity and oxygen data calibrated.
- 12 light profile casts processed.
- 13 phytoplankton light absorption spectra casts processed.
- 14 profiling radiometer spectra casts processed.
- other data sets banked: non-toxic supply pigments and salinities; water bottle salinities, dissolved oxygen, pigments and epifluorescence; light profiles; CTD and non-toxic

nutrients; CTD HPLC and fluorometric pigments; cyanobacteria, autotrophic flagellates; *phytoplankton counts;* total alkalinity, pCO_2, pH and TCO_2.

BG9714d (11 out of 21 data sets received)

- underway file created (16 channels × 5 days) with temperature, salinity and fluorescence calibrated. Oxygen, pCO_2 and pH merged and screened.
- 15 CTD casts worked up with temperature, salinity and oxygen data calibrated.
- 12 light profile casts processed.
- other data sets banked: non-toxic supply pigments and salinities; water bottle salinities and dissolved oxygen; light profiles; nutrients; total alkalinity, pCO_2, pH and TCO_2.

PE64/108 (4 out of 14 data sets received)

- 13 CTD casts comprising temperature, salinity, oxygen, attenuation and fluorescence screened and loaded.
- other data sets banked: CTD bottle oxygen; *macrofauna from box-cores and multi-cores; sediment properties.*

PE64/109 (4 out of 21 data sets received)

- 18 CTD casts comprising temperature, salinity, attenuation and fluorescence screened and loaded.
- other data sets banked: CTD bottle oxygen, salinities, nutrients and TCO_2.

CLIMA97 (0 out of 7 data sets received)

CD110a (6 out of 16 data sets received)

- underway file created (9 channels × 13 days) with temperature and salinity calibrated
- 39 CTD casts worked up with temperature, salinity and oxygen data calibrated, and irradiance, nephelometer and transmissometer data processed.
- Ship-borne ADCP processed.
- other data sets banked: non toxic supply and CTD bottle salinities, non toxic and water bottle nutrients and HPLC pigments.
- *Benthic Lander STABLE data processed and screened.*
- *60 expendable bathythermograph (XBT) drops processed and screened.*

CD110b (14 out of 25 data sets received)

- underway file created (24 channels × 13 days) with temperature, salinity, *fluorescence* and *meteorological data calibrated. Oxygen, pCO_2 and pH merged and screened.*
- 12 CTD casts worked up with temperature, salinity, *fluorescence* and oxygen data calibrated, and irradiance, nephelometer and transmissometer data processed.
- Ship-borne ADCP processed.
- other data sets banked: underway and CTD bottle salinities, *nutrients* and *HPLC pigments*; *underway, CTD bottle, underway discrete sample pCO_2, pH and alkalinity; primary production experiments, pigment light absorption profiles and epifluorescence;*
- *19 expendable bathythermograph (XBT) drops processed and screened.*

PS237/1 (2 out of 17 data sets received)

- CTD data logged and *part processed. Salinity calibrated.*

PE64/118 (4 out of 20 data sets received)

- *CTD data logged. Salinity and oxygen calibrated.*
- *other data sets loaded: macrofauna from box-cores and multi-cores; sediment properties.*

BG9815b (3 out of 4 data sets received)

- *underway file created (18 channels ´ 1.5 days) and quality controlled, fluorescence calibrated. Oxygen, pCO_2 and pH merged and screened.*
- *data sets loaded: underway discrete sample chlorophyll, phaeopigments, oxygen and alkalinity.*

BG9815c (12 out of 25 data sets received)

- *Underway file created (19 channels ´ 10 days) and temperature, salinity and fluorescence calibrated. Oxygen, pCO_2 and pH merged and screened.*
- *51 CTD casts processed and salinity and oxygen calibrated.*
- *25 Seabird light profiles processed quality controlled and loaded.*
- other data sets banked: *non toxic HPLC pigments, water bottle nutrients; CTD bottle and underway discrete pCO_2, pH, oxygen, alkalinity, chlorophyll and phaeopigments; other underway discrete sample chlorophyll and phaeopigments.*

BG9815d (10 out of 18 data sets received)

- *23 CTD casts processed and salinity and oxygen calibrated.*
- *Underway file created (19 channels ´ 4 days) and temperature, salinity and fluorescence calibrated. Oxygen, pCO_2 and pH merged and screened.*
- other data sets banked: *chlorophyll and phaeopigments; CTD bottle and underway discrete pCO_2, pH, oxygen, alkalinity, chlorophyll and phaeopigments*

GAMINEX (0 out of 4 data sets received)

CD114a (10 out of 29 data sets received)

- *Underway file created (33 channels ´ 13 days) with temperature, salinity and fluorescence calibrated. Oxygen, pCO_2 and pH merged and screened. Nutrients merged and screened*
- *48 (+ 34 Yo-yo) CTD casts processed and temperature and salinity calibrated.*
- other data sets banked: *water bottle and non toxic salinity, CPR temperature, salinity, chlorophyll; CTD bottle, underway discrete pCO_2, pH, oxygen, alkalinity; water bottle nutrients; water bottle epifluorescence, pigment light absorption profiles; CTD bottle and underway discrete size-fractionated chlorophyll.*
- *Benthic Lander STABLE data processed and screened.*

ST0898 (4 out of 23 data sets received)

- *23 CTD casts with fluorescence calibrated.*
- *Data sets banked: CTD bottle nutrients and chlorophyll; CTD bottle phytoplankton counts.*

CD114b (6 out of 27 data sets received)

- *Underway file created (33 channels ´ 13 days) with temperature and salinity calibrated. Oxygen, pCO_2 and pH merged and screened. Nutrients merged and screened*
- *34 CTD casts processed and temperature, salinity and fluorescence calibrated.*
- other data sets loaded: *water bottle and non toxic salinity, CPR temperature, salinity, chlorophyll; CTD bottle, underway discrete pCO_2, pH, oxygen, alkalinity; CTD bottle and underway discrete size-fractionated chlorophyll; CTD bottle nutrients.*

PE64/123 (2 out of 15 data sets received)

- *8 CTD casts with transmissiometer data and fluorescence processed.*
- *data sets banked: CTD bottle oxygen*

M43/2 (6 out of 36 data sets received)

- *46 CTD casts with oxygen and attenuation processed and T/S and oxygen calibrated.*
- *Underway file created (26 channels ´ 17 days). Thermosalinograph calibrated. Oxygen, pCO_2 and pH merged and screened.*
- *Data sets banked: CTD bottle salinities; CTD bottle and underway discrete underway pCO_2, pH, oxygen, alkalinity;*

Task V.1.3 *Provide a timely and effective data access service for OMEX II-II scientists*

World Wide Web Information Service On OMEX Data

Based on a close collaboration between the OMEX Coordination Office (01a ULB-a) and the OMEX Data Management Office (29 BODC), the OMEX World Wide Web site has been redesigned, and maintained over the past 12 months. The new service "went public" on 30 November 1998. In addition, the web server was upgraded at the end of March 1998, which involved conversion of the site to run under new server software. The updated pages are divided to cover each of the phases of the OMEX project, *i.e.*, OMEX I 1993 - 1996, OMEX II-I "Bridging Phase" 1996-1997 and OMEX II-II 1997 - 2000. The OMEX Home Page also links into an OMEX overview page.

The OMEX I section (187 documents) includes an introduction, the scientific objectives, sub-project descriptions, a full listing of cruises and data events with cruise tracks, an advertisement for the dataset on CD-ROM and a full listing of the OMEX I Final Report papers and refereed journal publications resulting from the project.

The OMEX II-I section (8 documents) includes the project description and a full listing of papers included in the OMEX II-I Final Report. Refereed journal publications resulting from this phase of the project are also listed.

The OMEX II-II section is divided into "public" and "secure" parts. The "secure" part is limited to access by registered OMEX II-II participants only and is accessible *via* a purpose-written login script. The "public" area (122 documents) includes a project description, a list of cruises with cruise tracks, directories of participating organisations and partners, and a listing of the papers in the OMEX II-II First Annual Science Report. The Report on the OMEX II-II Mid-Term Workshop is also available here and includes the poster abstracts, the actual posters (where these were made available) and the key outcomes of the meeting (see, **Task V.2.2**).

The OMEX II-II Partners' Area (158 documents) contains an "OMEX News" section with information of forthcoming meetings, cruises and other relevant events. The minutes of the Scientific Steering Committee and Work Package Meetings are also to be found here.

The OMEX II-II First Annual Science Report in its entirety is also available. The data management pages include an OMEX II-II list of cruises and a full copy of the "data tracking" system with information on the data sets collected on each cruise and the status of their submission to BODC, updated inline with the data inventory spreadsheet. Cruise Reports when available can be retreved electronically on the web site. Also included is a WWW copy of the "data event" table which is automatically updated daily from the ORACLE database. Cruise tracks are made available from the pages.

During the development of the new OMEX web site, the original site was maintained and made available. During the period 1 June 1998 to 31 May 1999 there were 10246 accesses to the OMEX WWW pages of which 2367 involved access to more than one page (All figures are minus accesses *via* search engines).

Since 1 December 1998, a secure area solely for access by OMEX participants has been made available. Up to date, 75 participants have registered for the service and there has been 739 user sessions. An on-line registration system for the OMEX II-II Annual Workshop registered 135 submissions.

On-Line Access To The OMEX Database

Five OMEX II-II participants have accessed the OMEX online database directly in 23 user sessions during the period 1 December 1997 to 31 May 1999.

Ad-Hoc Data Requests Serviced By BODC For OMEX

One hundred and twenty three ad-hoc requests for data and/or information have been completed for participants in the OMEX II-II project during the period 1 December 1997 to 31 May 1999. Requests have been serviced for 19 organisations in 9 countries.

Task V.1.4 *Act as a data interface between OMEX II-II and other related MAST projects*

Distribution Of The OMEX I Project Data Set

During the past 12 months, 43 copies of the CD-ROM have been distributed resulting in a total number to date of 184 copies delivered to 130 institutes in 26 countries.

Task V.1.5 *"Electronic publication" of the final project data set on CD-ROM*

In preparation for the eventual publication of the final project data set, further software development has been carried out on BODC's Explorer suite of data interface systems including the Database Explorer, Moorings Explorer and Underway Explorer software.

Task V.2 Project planning and coordination

Task V.2.1 *Organisation of Scientific Steering Committee meetings*

The OMEX II-II Scientific Steering Committee (SSC) meeting was held during the mid-term workshop hosted by Plymouth Marine Laboratory from 25-27 April 1999. All members were present. Various issues were discussed only briefly due to the lack of time available. Preliminary planning was made for the Final OMEX II-II workshop which would take place during the same period as the Liège Colloquium 2000 (8-12 May 2000). It was suggested that OMEX should present about 10 talks during the general session in the morning and OMEX specific sessions be organised in the afternoon. This is currently under negotiation with Prof. J. Nihoul who is the coordinator of the colloquium.

The distribution of OMEX Brochures was continued and reached a total number of about 90 internationally-renowned scientists and marine institutions and organisations, so far.

Task V.2.2 *Preparation of annual workshops and workshop proceedings*

A Work Package I meeting mainly devoted to discussion of the results from the cruise *Charles Darwin CD114* and the associated modelling efforts was held on 18-20 Feb. 1999 at SINTEF, Trondheim, Norway. A Work Package III subproject meeting on benthic processes was held on the 24th of April 1999 at PML, Plymouth, UK, prior to the mid-term OMEX workshop. Benthic partners presented their results obtained during the second project year. The OMEX Coordination Office was represented in both Work Package meetings.

The OMEX II-II Mid-Term Workshop went smoothly, due to the adequate preparatory work from the OMEX Coordination Office with the logistic support from the PML Workshop Team. Poster sessions were conducted where partners presented their results obtained during the second project year. Thematic parallel sessions on specific topics were organised and the discussions were summarized by the rapporteurs. A "Short Report on the OMEX II-II Mid-Term Workshop" is available on the web (see, http://www.pol.ac.uk/bodc/omex/omexii-ii/report/midterm-workshop-report.html), that already includes the Abstracts from the Plenary Session talks, and the Reports from the 6 Parallel Sessions.

After the Workshop, a general announcement was prepared in collaboration with the PML Workshop Team, the EU-DGXII / MAST representative and a free-lance journalist to be released to the media.

The Second Annual Science Reports from all partners have been edited and assembled by ULB-a in electronic format and the entire volume could be made available from the web site shortly after the report submission to the MAST office.

Task V.2.3 *Collection and Transmission of the Six-Monthly Management Reports*

Work Package leaders have reported on the activities of their respective groups in a timely manner and the 24-month Management Report for OMEX II-II has been prepared and transmitted to the MAST office (ULB-a).

Task V.3 Administrative management

Task V.3.1 *Contract formulation and assertion with all the participants*

A list of personnel employed by the OMEX II-II project since the beginning of the contract is given in Table V.1.

Task V.3.2 *Financial management including the collection of financial reports and justifying documents from all partners*

The cost statements of the second project year from the partners are being assembled by the accounting office of the University of Brussels. They are expected to be transmitted to the Commission within one-month time.

Task V.3.3 *Purchase of heavy equipment to be deployed at sea*

No purchase of OMEX durables has been made during the last six months. UCG current meter mooring was recovered by the local Spanish authorities. ULB-a is waiting for the instructions from UCG concerning the arrangement for the transport of the mooring from Spain to Galway. Also, the invoice is still to be received from UCG regarding the calibration of the current meters.

Table V.1
List of Scientific Personnel Employed by the OMEX II-II Contract During the First 24 Months.

Institute	People
ULBruxelles	Bernard Avril, Andrea Bullock, Christine Canon, Nicolas Canu, Lei Chou, Stéphane de Beer, Bruno Delille, Olivier Dufour
POL	Mohammed Amin, Mike Burke, Alan Davies, Philip Hall, Geoff W. Hargreaves, M. John Howarth, John Humphery, John Huthnance, Philip Knight, Jim Mckeown, Stephen Moore, Jiuxing Xing
UITØ	Inger J. Andreassen, Eirik Nordby, Kalle Olli, Christian Wexels-Riser Elisabeth Halvorsen
PML	Peter Burkill, Elaine Edwards, Andres Garcia Ian Joint, Alan Pomroy, Andy Rees, Malcolm Woodward Denise Cummings, Stuart Gibb, Fauzi Mantoura, Axel Miller, Georgina Spyres Steve Groom, Peter Miller, Tim Smyth
NIOZ	Henko de Stigter, Tjeerd van Weering H.G. Eric Epping, Wim Helder, Lutz Lohse Marc Lavaleye Hendrik van Aken, Margriet Hiehle, Ronald de Koster
RISØ	Lise-Lotte Geernaert-Sørensen, Hans E. Jørgensen, Jørgen F. Kjeld, Søren Larsen
BODC	Ray Cramer, Richard Downer, Alison Faircoulgh, Zeljko Loncar, Roy Lowry, , David Neave, Andrew Tabor, Pauline Weatherall
SAHFOS	Rebecca Allen, Roger Barnard, Sonia Batten, Clare Buckland, Martin Edwards, Julie Finlayson, Lance Gregory, Harry Hunt, Tony John, David Johns, Tanya Jonas, David Joyce, Paul Tranter, Tony Walne, Andrew Warner, Claire Wotton, Jade Wright
SOC	Richard Lampitt, Andrew Hirst, Howard Roe, Ben Boorman
UCambridge	Ian Hall
UWBangor	Ricardo Torres Toby Sherwin, Marc Inall
NUIG (UCG)	Martin White
ULiège	Kinh Trang Dotansi, Emile Libert, Bénédicte Bastin
VUBrussel	Natacha Brion, Semeneh Mengesha, Nathalie Kindermans, Sandra De Galan
LSCE (CFR)	None
UBordeaux	None
GEOMAR	Laurenz Thomsen, Gregor Rehder, Katja Heeschens, Michael Poser, Sebastian Wolf
IfM	Rolf Peinert
NIOO	Karline Soetaert, Leon Moodley, Wim Dimmers, Vanni de Clippele, Hilde Bouma, Agnès Muthumbi Els Flach
IIM	Belen Arbones, Maria Luisa Villarino, Pilar Pazos, Maria Dolores Doval
UVigo	Javier Freire Sanchez
IST	Frank Braunschweig, Henrique Coelho, João Delfino, Paulo Leitão, Helder Martins, Ricardo Miranda, Pedro Vicente
UAlgarve	Carla Garcia, Paulo Pedro, Carlos Rocha
IPIMAR	None
UOviedo	Sergio Cabrera Gómez, Rafael Gonzalez-Quiros, Alejandro Isla de la Roz, Angel Lopez-Urrutia, Leticia Viesca Lombardia
IH	None
IEO	Antonio Bode, Manuel Varela, Nicolás González, Jorge Lorenzo Salamanca
SINTEF	Dag Slagstad