

**Institut für Meereskunde
an der Universität Kiel**

Abt. Meeresphysik
Dr. T. J. Müller



Kiel, 10.03.1999

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Bernhard Nocht Str. 78
20359 HAMBURG

CANIGO Data Centre
Irish Marine Data Centre
Att. Mr. Ciaran Bradley
80 Harcourt Str
DUBLIN 2, Irland

Betr / subj: POSEIDON cruise 247

Bez / ref:

Dear Colleagues,

attached please find the Cruise Summary Report (CSR form) with

- a list of principal investigators
- a station list
- two station maps

Lists and maps are also on diskette.

Best regards

Thomas J. Müller
- chief scientist P247 -

cc: Datenmanagement Dt. JGOFS, Dipl.-Oz. T. Mikat (im Hause)

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POSEIDON cruise 247
06.01.-11.02.1999
Kiel - Las Palmas

Principal Investigators (PI)


pi.doc

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CRUISE SUMMARY REPORT

FOR COLLATING CENTRE USE

 Centre: _____ Ref. No: _____
 Is data exchange restricted? Yes In part No

SHIP enter the full name and international radio call sign of the ship from which the data were collected, and indicate the type of ship, for example, research ship; ship of opportunity, naval survey vessel; etc.

 Name: Poseidon Call Sign: DBKV

 Type of ship: research vessel

 CRUISE NO./NAME P247 enter the unique number, name or acronym assigned to the cruise (or cruise leg, if appropriate).

 CRUISE PERIOD start (set sail) 06 01 1999 to 11 02 1999 end (return to port) day month year day month year

 PORT OF DEPARTURE (enter name and country) Kiel, Germany

 PORT OF RETURN (enter name and country) Las Palmas, G.C., Spain

RESPONSIBLE LABORATORY enter name and address of the laboratory responsible for coordinating the scientific planning of the cruise

 Name: Institut für Meereskunde

 Address: 24105 Kiel

 Country: Germany

CHIEF SCIENTIST(S) enter name and laboratory of the person(s) in charge of the scientific work (chief of mission) during the cruise.

 Dr. Thomas J. Müller t.mueller@ifm.uni-kiel.de

Institut für Meereskunde, Düsterbrookweg 20, 24105 Kiel

OBJECTIVES AND BRIEF NARRATIVE OF CRUISE enter sufficient information about the purpose and nature of the cruise so as to provide the context in which the reported data were collected.

Within the EU funded project CANIGO, the German-Spanish observations at the time series station ESTOC (60 nm north of Gran Canaria), the JGOFS time series station KIEL276/L1 (240 nm west of Madeira) and the technical project DOMEST

- to observe and measure the regional and time variability of hydrographic parameters and currents
- to observe and measure the flux of particles in the water column
- to develop data links from in-situ ocean observations via satellites to shore bases

using vessel mounted and moored instrumentation in the subtropical eastern North Atlantic.

PROJECT (IF APPLICABLE) if the cruise is designated as part of a larger scale cooperative project (or expedition or programme), then enter the name of the project, and of the organisation responsible for coordinating the project.

 Project name: 1) CANIGO 2) ESTOC 3) JGOFS
1) EU, MAS3-CT96-0060 2) & 3) IFMK & Partnavis

SUMMARY OF MEASUREMENTS AND SAMPLES TAKEN

Except for the data already described on page 2 under 'Mooring, Bottom Mounted Gear and Drifting Systems', this section should include summary of all data collected on the cruise, whether they be measurements (e.g. temperature, salinity values) or samples (e.g. cores, net hauls)

Separate entries should be made for each distinct and coherent set of measurements or samples. Different modes of data collection (e.g. vertical profiles as opposed to underway measurements) should be clearly distinguished, as should measurement/sampling techniques that imply distinctly different accuracies or spatial/temporal resolutions. Thus, for example, separate entries would be created for i) BT drops, ii) water bot stations, iii) CTD casts, iv) towed CTD, v) towed undulating CTD profiler, vi) surface water intake measurements, etc.

Each data set entry should start on a new line - its description may extend over several lines if necessary.

NO, UNITS : for each data set, enter the estimated amount of data collected expressed in terms of the number of: 'stations'; 'miles' of track; 'days' of recording; 'cores' taken; net 'hauls'; balloon 'ascents'; or whatever unit is most appropriate to the data. The amount should be entered under 'NO' and the counting unit should be identified in plain text under 'UNITS'.

PI	NO	UNITS	DATA TYPE	DESCRIPTION
see page 2	see above	see above	enter code(s) from list on cover page.	Identify, as appropriate, the nature of the data and of the instrumentation/sampling gear and list the parameters measured. Include any supplementary information that may be appropriate, e.g. vertical or horizontal profiles, depth horizons, continuous recording or discrete samples, etc. For samples taken for later analysis on shore, an indication should be given of the type of analysis planned, i.e. the purpose for which the samples were taken.
A	3400 m	m	M06	POSEIDON meteorological sensors
A	3400 m	m	H11	POSEIDON thermosalinograph
A	3400 m	m	D71	POSEIDON vessel mounted RDI, 150KHz, ADCP
A	35 stations		H10	MRB / FSI CTD profiles to bottom
A	1 station		H74	7805 station L1, 33°N, 22°W
B	26 casts		H21	} 23 bottle rosette attached to CTD; up to 23 samples of each parameter; close to the bottom
			H22	
			H24	
			H25	
			H26	
			B02	
B	6 casts		H13	1500 m, north of Juan Canaria
D	7 stations		B90	foraminifera; depth ranges 0-200 m, 200-700 m, 700-2000 m; 5 intervals each
E	1800 m		B90	foraminifera from the surface, ca 3 filtration / day

PRINCIPAL INVESTIGATORS: Enter the name and address of the Principal Investigators responsible for the data collected on the cruise, and who may be contacted for further information about the data. (The letter assigned below against each Principal Investigator is used on pages 2 and 3, under the column heading 'PI', to identify the data sets for which he/she is responsible)

- A. Dr. T. J. Müller, IFMK
 B. Dr. O. Llinás, ICCM
 C. Mr. F. Lopez-Laatzon, IEO
 D. Dr. R. Schickel, UT
 E. Dr. J. Stewart, UE
 F. Prof. Dr. J. Wefer

MOORINGS, BOTTOM MOUNTED GEAR AND DRIFTING SYSTEMS

This section should be used for reporting moorings, bottom mounted gear and drifting systems (both surface and deep) deployed and/or recovered during the cruise. Separate entries should be made for each location (only deployment positions need be given for drifting systems). This section may also be used to report data collected at fixed locations which are returned to routinely in order to construct 'long time series'.

PI see top of page.	APPROXIMATE POSITION			DATA TYPE	DESCRIPTION
	LATITUDE deg. min. sec. N/S	LONGITUDE deg. min. sec. E/W		enter code(s) from list on cover page.	Identify, as appropriate, the nature of the instrumentation, the parameters (to be) measured, the number of instruments and their depths, whether deployed and/or recovered, dates of deployment and/or recovery, and any identifiers given to the site.
A	33 00 N	022 00 W		D01	K276-18 recovered; 6 D01 between 200 m and 5100 m
A	33 00 N	022 00 W		D01, B73	K276-19 moored; 6 D01 and 2 B73 between 200 m and 5100 m
A	32 43 N	021 59 W		D90	V369 recovered; sound source to track subsurface (RAFOS) floats
A	29 12 N	015 38 W		D71, D01	V367-5 recovered; 1 D71, 6 D01
A	29 11 N	015 41 W		D01	V367-6 moored, 6 D01
C	29 49 N	013 40 W		D01	EBC5 recovered, 4 D01
C	28 45 N	013 28 W		D01	EBC4 exchanged, 5 D01
A	28 44 N	013 19 W		D01, B73	EBC3/V377 exchanged, 6 D01, 2 B73
A	28 42 N	013 10 W		D01	EBC2 recovered, 6 D01
C	29 00 N	013 57 W		D01	EBC5 moored, 5 D01
B	29 10 N	015 30 W			NOOA drifter launched 31 Jan 1999
F	29 03 N	015 48 W		B73	drifting trap, launched 31 Jan 1999; lost
A	29 00 N	022 02 W		D90	V370 recovered; sound source to track subsurface (RAFOS) floats

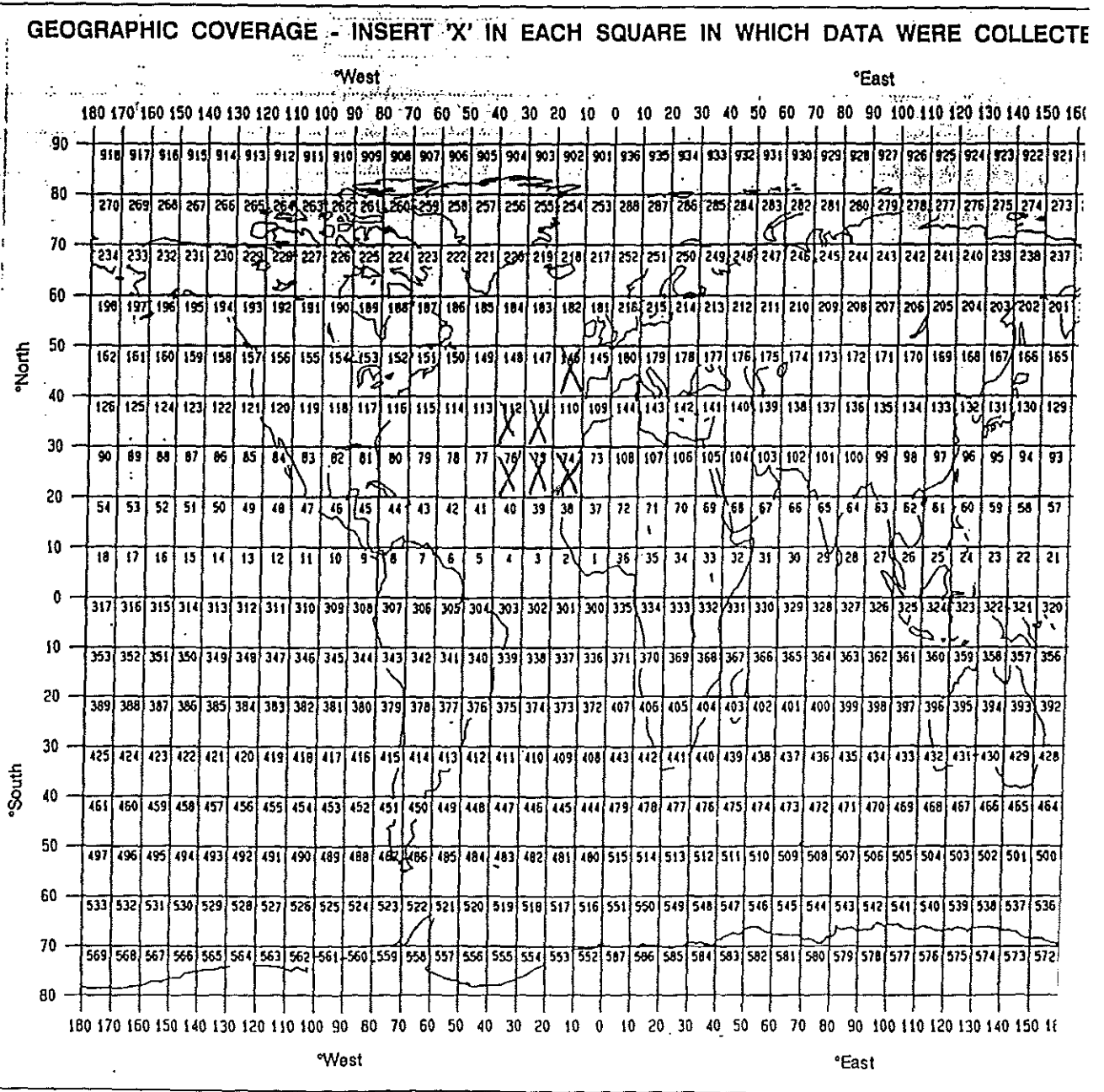
TRACK CHART: You are strongly encouraged to submit, with the completed report, an annotated track chart illustrating the route followed and the points where measurements were taken. Insert a tick (✓) in this box if a track chart is supplied.

GENERAL OCEAN AREA(S): Enter the names of the oceans and/or seas in which data were collected during the cruise - or commonly recognised names (see, for example, International Hydrographic Bureau Special Publication No. 23, 'Limits of Oceans and Seas').

Eastern North Atlantic

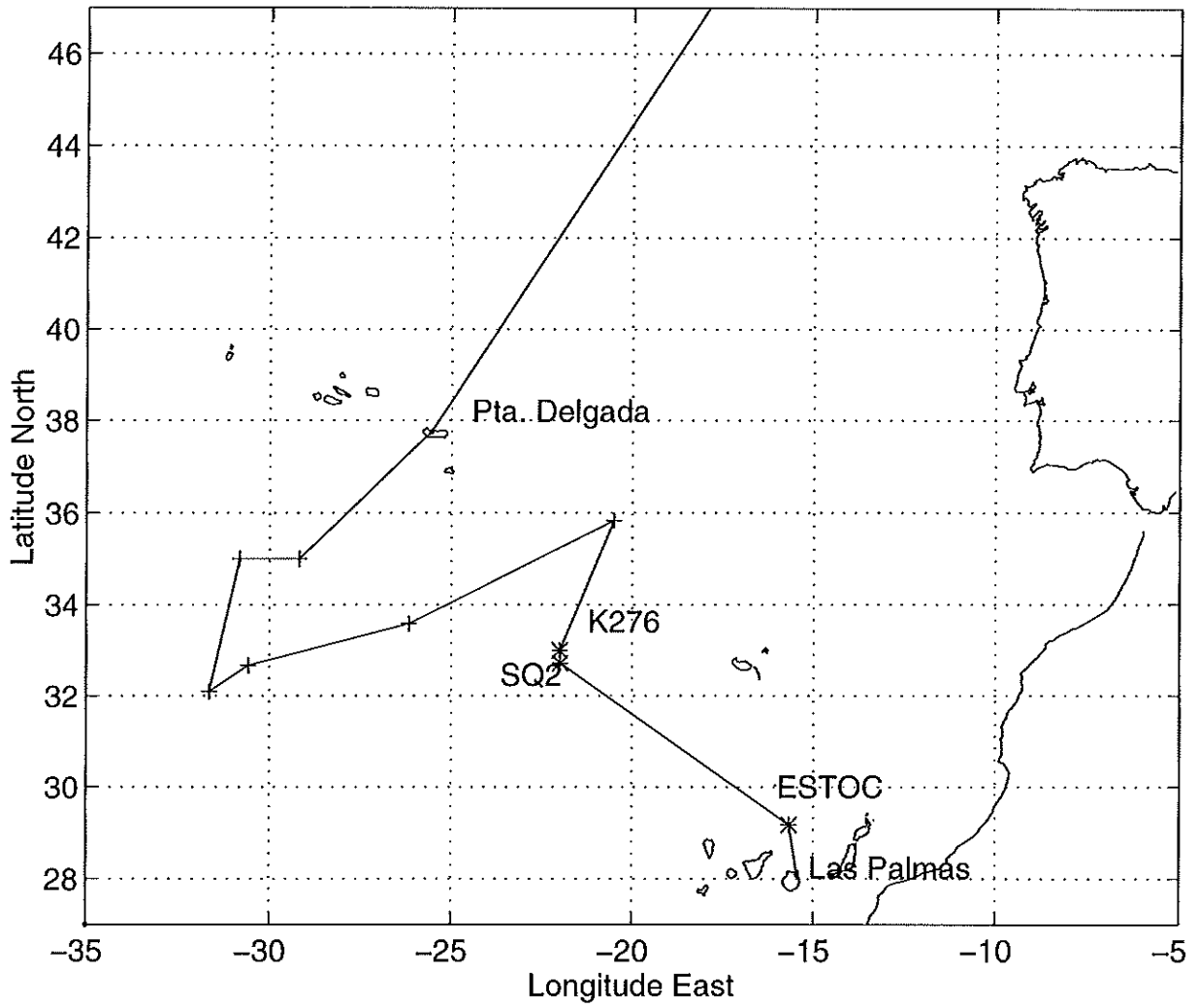
SPECIFIC AREAS: If the cruise activities were concentrated in a specific area(s) of an ocean or sea, then enter a description area(s). Such descriptions may include references to local geographic areas, to sea floor features, or to geographic coordinates.

28° - 48° N
042° - 032° W

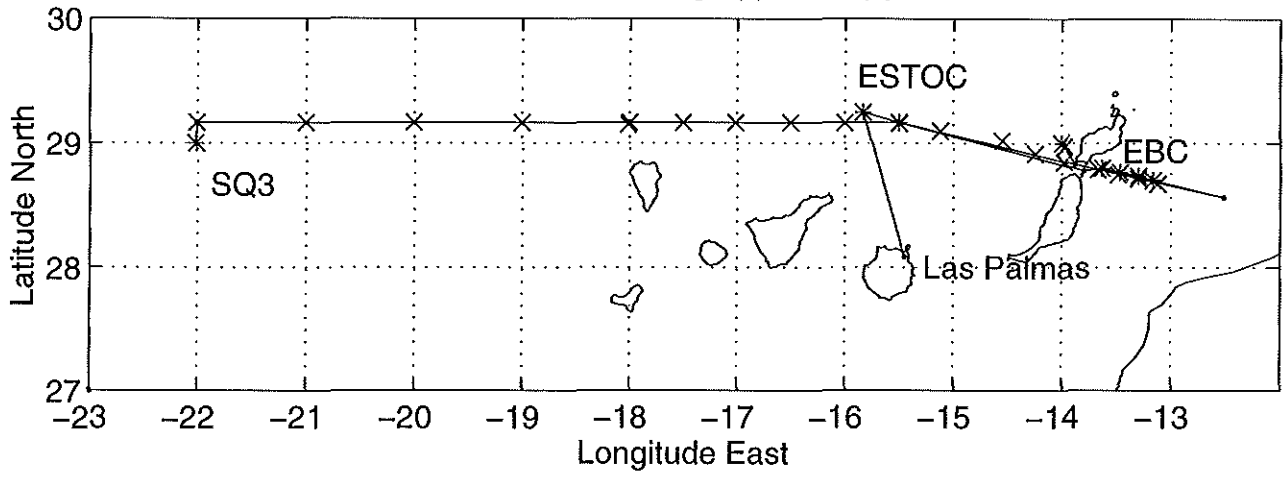


THANK YOU FOR YOUR COOPERATION

P247/1-2: Moorings (*), CTD and multinet (x)



P247/3: moorings (*), CTD (x)



POSEIDON 247 station and sample log
 Status: 09-MAR-1999

List of abbreviations:

St : Station no.
 C : CTD cast no., monotonically increasing during the cruise;
 all casts to near bottom if not indicated else
 Wd : Water Depth
 Instr : Type of instrumentation or mooring or equipment
 DTRAP: Drifting sediment traps
 MN : Multiple closing plankton net
 NB2 : Neil Brown CTD, IFMK code NB2 with 12x12 l bottle rosette
 FSI : Falouth Scientific CTD; IFMK code FSI1 with 24x10 l bottle rosette
 vADCP: vessel mounted RDI ADCP, 150 KHz
 PC-LOG: on-line log of GPS date, time, position, pitch & roll;
 near-surface T, S; meteorological data
 CS : Core station with 2 casts for the ICCM

Additional sensors on and samples taken from CTD/rosette:

- 1 F Fluorometer attached to CTD
- 2 A self-contained lowered RD Instruments ADCP S/N 599 attached to CTD/rosette
- 3 W self-contained lowered RD Instruments WorkHorse ADCP attached to rosette
- 4 O oxygen
- 5 N nutrients
- 6 C chlorophyll
- 7 S salt
- 8 R Ruhmor single corer attached to CTD/rosette frame
- 9 CO2 Alkalinity profile for CO2 system

Date	Time	St	C	Latitude	Longitude	Wd	Inst	
1999	UTC			North	West			
MMDD	hhmm			GG MM.MM	GGG MM.MM	[m]		
0106	0830							sail from IFM Kiel
0110	0900							start PC-LOG; start vADCP
0115	0945							Pta. Delgada; end of P247/1
0116	1055							sail from Pta. Delgada begin of P247/2
0116	1130							start vADCP; start PC-Log
0117	1030	001	001	35 00.09	029 11.04	3616	NB2	R, S
							MN	100 m, 700 m, 2000 m
0118	0515	002	-99	35 00.00	031 00.0	3031	MN	100 m, 700 m, 2000 m
0118	1120	002	002	34 57.7	031 04.3	3135	NB2	S
0119	1105	003	-99	32 06.0	031 39.0	4187	MN	100 m, 700 m, 2000 m
0119	1212	003	003	32 07.14	031 41.57	4245	NB2	R, S
0119	2130	004	004	32 40.01	030 34.76	3293	NB2	R, S
0119	2310	004	-99	32 40.2	030 33.1	3236	MN	100 m, 700 m, 2000 m
0121	0518	005	-99	33 35.0	026 10.0	4765	MN	100 m, 700 m, 2000 m
0121	1135	005	005	33 36.2	026 07.9	4766	NB2	
0122	2210	006	-99	35 50.0	020 30.0	5203	MN	100 m, 700 m, 2000 m
0123	0718	006	006	35 49.4	020 25.8	5217	FSI	A, S
0124	0130	007	-99	33 05.0	022 00.0	5226	MN	100 m, 700 m, 2000 m
0124	0900	008	-99	32 59.5	021 59.9	5217	V276-18	recover mooring K276
0124	1600	009	-99	32 43.1	021 58.8	5190	V369	recover mooring SQ2
0124	2025	010	007	33 00.06	021 59.97	5217	FSI	A, CO2, S; near K276/L1
0125	1008	011	-99	32 58.1	022 00.5	5216	V276-19	set mooring K276/L1
0127	0950	012	-99	29 11.9	015 38.4	3616	V367-05	recover mooring; ESTOC

CODE LIST OF DATA TYPES

In order to assist computer-based retrieval of information on the data reported on Cruise Summary Reports, you are requested to assign against each of the entries made on Page 2 ("Moorings, bottom mounted gear and drifting systems") and Page 3 ("Summary of measurements and samples taken") one or more data type codes from the following list.

Please note that the list is restricted to the more common types of oceanographic data. For those data types not included on the list you are requested to use codes D90, H90, P90, B90, M90, and G90 (for other types of physical oceanography, chemical oceanography, contamination, biology & fisheries, meteorology, and geology & geophysics data respectively).

For some entries you will find that only one code is required (e.g. for BTs, only H13 is needed), while for others a string of codes may be appropriate (e.g. for water bottle stations with measurements of temperature, salinity, oxygen, nitrate and phosphate, the codes H09, H21, H24 and H22 would be assigned to the entry).

PHYSICAL OCEANOGRAPHY

- H71 Surface measurements underway (T, S)
- H13 Bathythermograph drops
- H09 Water bottle stations
- H10 CTD stations
- H11 Subsurface measurements underway (T, S)
- H72 Thermistor chain
- H16 Transparency (e.g. transmissometer)
- H17 Optics (e.g. underwater light levels)
- H73 Geochemical tracers (e.g. freons)
- D01 Current meters
- D71 Current profiler (e.g. ADCP)
- D03 Currents measured from ship drift
- D04 GEK
- D05 Surface drifters / drifting buoys
- D06 Neutrally buoyant floats
- D09 Sea level measurements (including bottom pressure recorders and inverted echo-sounders)
- D72 Instrumented wave measurements
- D90 Other physical oceanographic measurements

CHEMICAL OCEANOGRAPHY

- H21 Oxygen
- H74 Carbon dioxide
- H33 Other dissolved gases
- H22 Phosphates
- H23 Total-P
- H24 Nitrates
- H25 Nitrites
- H75 Total-N
- H76 Ammonia
- H26 Silicates
- H27 Alkalinity
- H28 pH
- H30 Trace elements
- H31 Radioactivity
- H32 Isotopes
- H90 Other chemical oceanographic measurements

CONTAMINATION

- P01 Suspended matter
- P02 Trace metals
- P03 Petroleum residues
- P04 Chlorinated hydrocarbons
- P05 Other dissolved substances
- P12 Bottom deposits
- P13 Contaminants in organisms
- P90 Other contaminant measurements

BIOLOGY & FISHERIES

- B01 Primary productivity
- B02 Phytoplankton pigments (e.g. chlorophyll, fluorescence)
- B71 Particulate organic matter (e.g. POC, PON)
- B06 Dissolved organic matter (e.g. DOC)
- B72 Biochemical measurements (e.g. lipids, aminoacids)
- B73 Sediment traps
- B08 Phytoplankton
- B09 Zooplankton
- B03 Seston
- B10 Neuston
- B11 Nekton
- B13 Eggs / larvae
- B07 Pelagic bacteria / micro-organisms
- B16 Benthic bacteria / micro-organisms
- B17 Phytobenthos
- B18 Zoobenthos
- B25 Birds
- B26 Mammals & reptiles
- B14 Pelagic fish
- B19 Demersal fish
- B20 Molluscs
- B21 Crustaceans
- B28 Acoustic reflection on marine organisms
- B37 Taggings
- B64 Gear research
- B65 Exploratory fishing
- B90 Other biological / fishery measurements

METEOROLOGY

- M01 Upper air observations
- M02 Incident radiation
- M05 Occasional standard measurements
- M06 Routine standard measurements
- M71 Atmospheric chemistry
- M90 Other meteorological measurements

GEOLOGY & GEOPHYSICS

- G01 Dredge
- G02 Grab
- G03 Core - rock
- G04 Core - soft bottom
- G08 Bottom photography
- G71 In-situ seafloor measurements
- G72 Geophysical measurements made at depth (below near surface and above seafloor)
- G73 Single-beam echosounding
- G74 Multi-beam echosounding
- G24 Long/short range side scan sonar
- G75 Single channel seismic reflection
- G76 Multichannel seismic reflection
- G26 Seismic refraction
- G27 Gravity measurements
- G28 Magnetic measurements
- G90 Other geological or geophysical measurements