

## **Review of the Irish Sea (Area 6) Oceanography**

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### **1) Definition of region**

The region covered by this Report is Area 6, the Irish Sea, defined as 51–55.6 degrees North, 2-6.5 degrees West.

### **2) Definition of topic**

The topics covered by this report are oceanography and hydrography. They include salinity, temperature and density distributions (including seasonal cycles thereof) and tidal, atmospherically forced, density-driven and residual circulation. Some optical measurements are included, but are not characterised in the summary narrative.

### **3) List of illustrations:**

Please note that it was not possible for ICES to produce plots to the format specifications of this report. All non-ICES generated plots follow the format specifications.

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#### 4) Synoptic Narrative

The Irish Sea is open to the Atlantic at both ends and can be considered as a channel approximately 300km long, greatly varying in width. It receives freshwater run-off from a large area of land, approximately 43000 km<sup>2</sup> compared to a sea area of approximately 47000km<sup>2</sup> and is generally shallow, apart from the North Channel. It is generally characterised by large tidal energy input from the Atlantic with tidal currents providing much of the energy of the region, particularly in the North Channel region between the Irish Sea and Malin shelf, where the currents exceed 1.5m.s<sup>-1</sup> at spring tides.

This region also has strong seasonal forcing by surface heating and cooling and high-energy westerly winds. During the heating phase of the seasonal cycle, the stirring of the water column (from tidal and wind forcing) competes with the surface buoyancy input to determine the degree of water column stratification. Most areas are vertically well mixed throughout the year, but where stratification does develop, it is not usually until approximately day 100 in the year, with a surface-bottom water temperature difference not exceeding 5°C and complete vertical mixing apparent from day 290 or so. The transition between mixed and stratified regions are usually marked by sharp tidal mixing fronts, located between the Isle of Man and the Irish coast or along a line joining Rosslare to Padstow (after Simpson, 1998). The position of these fronts oscillates according to tidal advection, but is otherwise fairly consistent. Along-frontal flow was shown by Hill (1997) to be in near-geostrophic balance modified by frictional stress.

Wind forcing occasionally induces substantial storm surges with amplitude and velocity generally approximately one tenth that of the tidal amplitudes and current velocities. Atmospherically forced currents only exceed tidal stream amplitudes under extreme storm conditions (Flather, 1987).

Freshwater input is relatively small and its influence on circulation is limited to two areas with significant coastal currents and haline stratification; Liverpool Bay and the Clyde Sea (Simpson, 1998). The Clyde Sea region of freshwater influence (ROFI) is more likely to retain its stratification throughout the year than the Liverpool Bay ROFI although stable stratification can occur in Liverpool Bay in the winter months.

Residual circulation is generally weak and predominantly barotropic. Except in coastal currents, the flow is of the order of 2cm.s<sup>-1</sup> or less, giving rise to a flushing time of over a year. Outflow from the North Channel (to the north) is predominantly on the eastern Scottish side and inflow is generally weaker on the surface of the Irish side (Howarth et al 1995). Frictional effects on the residual flow are amplified by the strong prevailing tidal currents, which appears to inhibit the formation of inertial motions. In regions of weaker tidal currents where stratification develops, inertial oscillations probably occur widely in the mixed layer, although there is limited direct evidence of this, and are thought to contribute about 30% to the total stirring energy input at the surface, via shear-induced mixing in the thermocline (Sherwin 1987).

According to Bowden (1980) annual mean temperature in the Irish Sea does not vary much over the area, decreasing northwards from just over 11°C at the southern end of St. George's Channel to 10°C in the North Channel and also decreasing towards the sides (see Figures 1-2, 5-6). Winter temperatures are (Figure 1) more varied, decreasing from the central channel towards the coasts. A warm tongue of over 7.5°C extends up to the North Channel but along the coast of NW England drops to below 5°C. The decrease towards the Irish coast is less marked. In summer (Figure 5) conditions are reversed, with a pool of cool (<13.5°C) water in St. George's Channel but temperatures exceeding 16°C are seen off the coasts of NW England and North Wales. The rise in temperature towards the Irish Sea is much less pronounced. Generally, seasonal temperature variation increases in range towards the coasts and the dates at which minimum and maximum temperatures are reached becomes earlier.

Salinity (Figures 3-4, 7-8) is characterised by a decrease from south to north (maximum 34.9 PSU to minimum 34) and from the centre of the channel (34.3-34.9) to the sides (32.0-34.0). This is an indication of a northerly flow of Atlantic water whose salinity is gradually reduced by freshwater from the sides. The salinity minimum is seen in the northeast, between the Solway Firth and Liverpool Bay.

Seasonal variations in salinity are small in most areas, although most noticeable near the coasts, being governed by the annual cycle of river flow.

## 5) Bibliography

This is also given in the format specified (see attached Excel spreadsheet in Appendix 1).

Bowden, K.F. 1980. Physical and Dynamical Oceanography of the Irish Sea, chapter 12 in *The North-West European Shelf Seas: The Sea Bed and the Sea in Motion II. Physical and Chemical Oceanography and Physical Resources*. FT Banner, MB Collins and KS Massie (editors). *Elsevier Oceanography Series 24B* Elsevier Scientific Publishing Company, Amsterdam, 1980. Printed in the Netherlands.

Flather, R.A. 1987. Estimates of the extreme conditions of tide and surge using a numerical model of the north-west European continental shelf. *Est Coast Shelf Sci* 24: 69-93

Hill, A.E. 1997. Buoyancy effects in coastal and shelf seas. In *The Sea* vol 10, The Global Coastal Ocean: Processes and Methods KH Brink and AH Robinson eds Wiley, NY Chapter 2

Howarth, M.J., A.J. Harrison, P.J. Knight and R.J. Player. 1995. Measurements of net flow through a channel. *Proc IEEE 5<sup>th</sup> Working Conference on Current Measurements*, SP Anderson, GF Appell and AJ Williams eds. IEEE, New York pp121-126

Sherwin, T.J. 1987. Inertial oscillations in the Irish Sea *Cont Shelf Res* 7: 191-213

Simpson, J.H. 1998. The Celtic Seas, chapter 23 in *The Sea* vol 11, pp 659-698

## 6) Description of available datasets

The following description pertains to 41 datasets held by 21 different data holding centres and as such is difficult to summarise as the coverage, resolution and parameters measured vary widely. Parameters measured include optics, atmospheric/meteorological measurements, waves, sea level, currents, salinity and temperature.

There is a good coverage – both spatially and temporally - of CTD and current meter data in the area held by BODC (see Figures 9 and 10 for spatial coverage) but sea level (tide gauges) and wave data is less well served. Figure 11 shows only 22 sites where wave data was collected and is now held by BODC and Figure 12 shows a corresponding picture for sea level data. There is other available data not held by BODC but this is very localised. This apparently poor coverage is improved considerably if model simulations are included (see, for example, European Waters Wave Model Archive); coverage is complete to a resolution of 0.25 degrees latitude and 0.4 degrees longitude. Measurements of salinity and temperature held by ICES (Figure 13) show the northern and eastern areas of the Irish Sea to be well represented, but a paucity of data for the Cardigan Bay, Bristol Channel and St. George's Channel areas. There are no direct measurements of meteorology or the atmosphere available; however there are outputs of the European atmospheric model, which has a resolution of 0.44 degrees for latitude and longitude and 11 layers vertically. The only available optical measurements are of water-leaving radiance and surface reflectance, as measured by the satellite-based Coastal Zone Colour Scanner and Sea-viewing Wide Field of View Sensor (SeaWiFS).

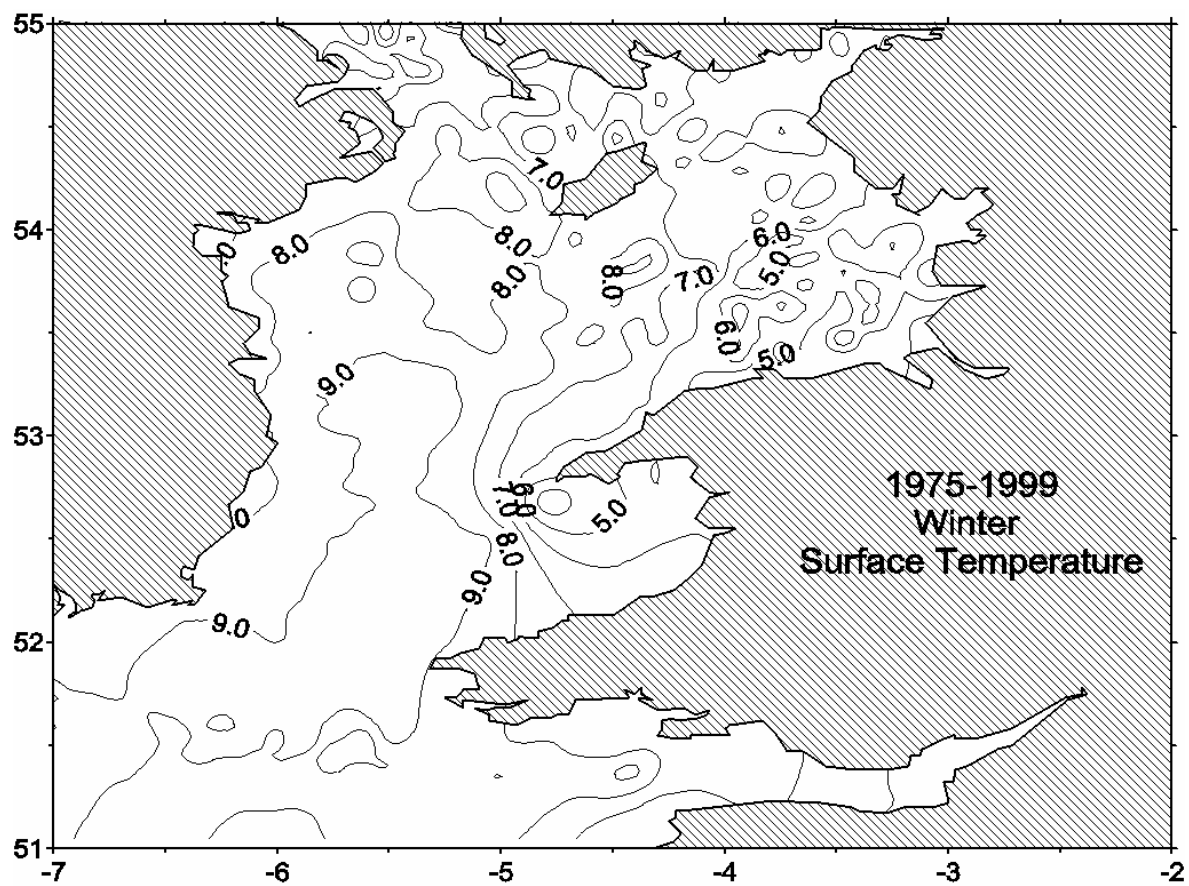


Figure 1: Winter surface temperature 1975-1999 (ICES)

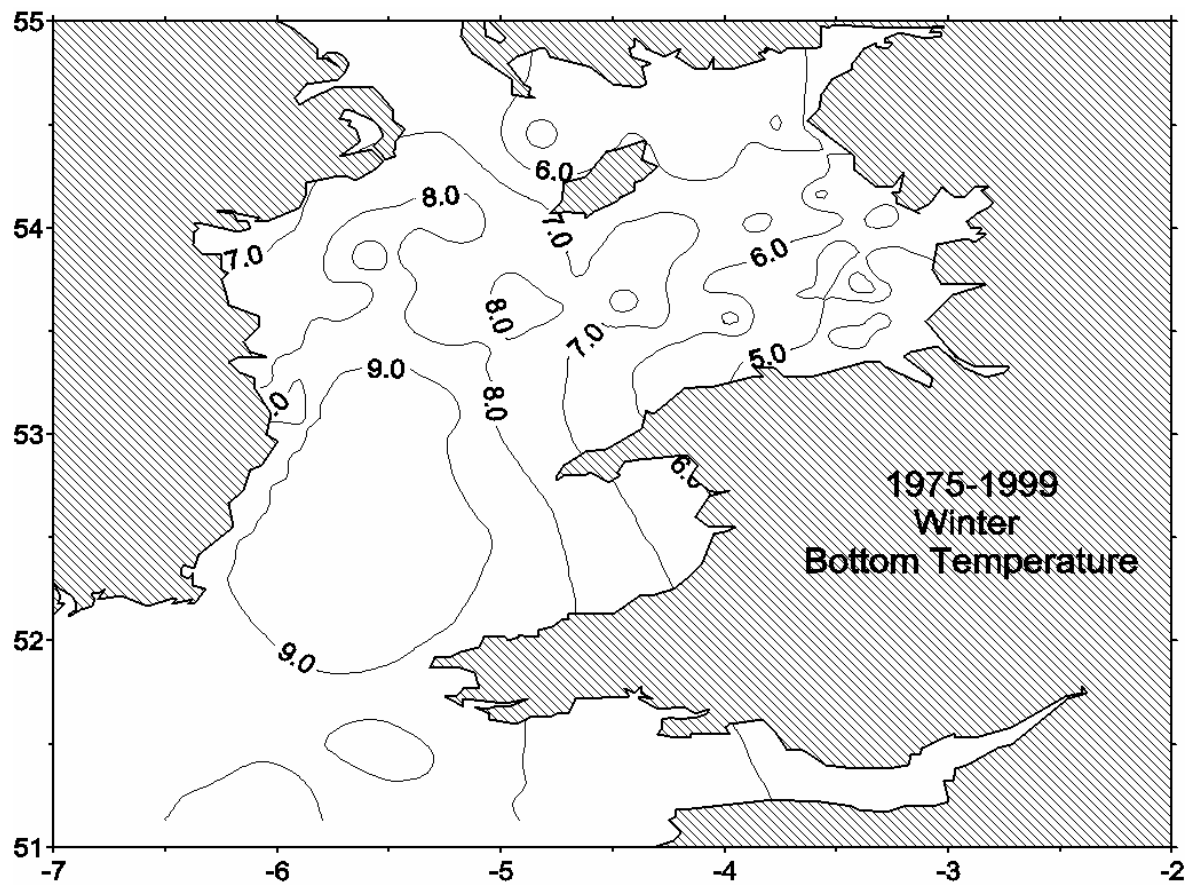
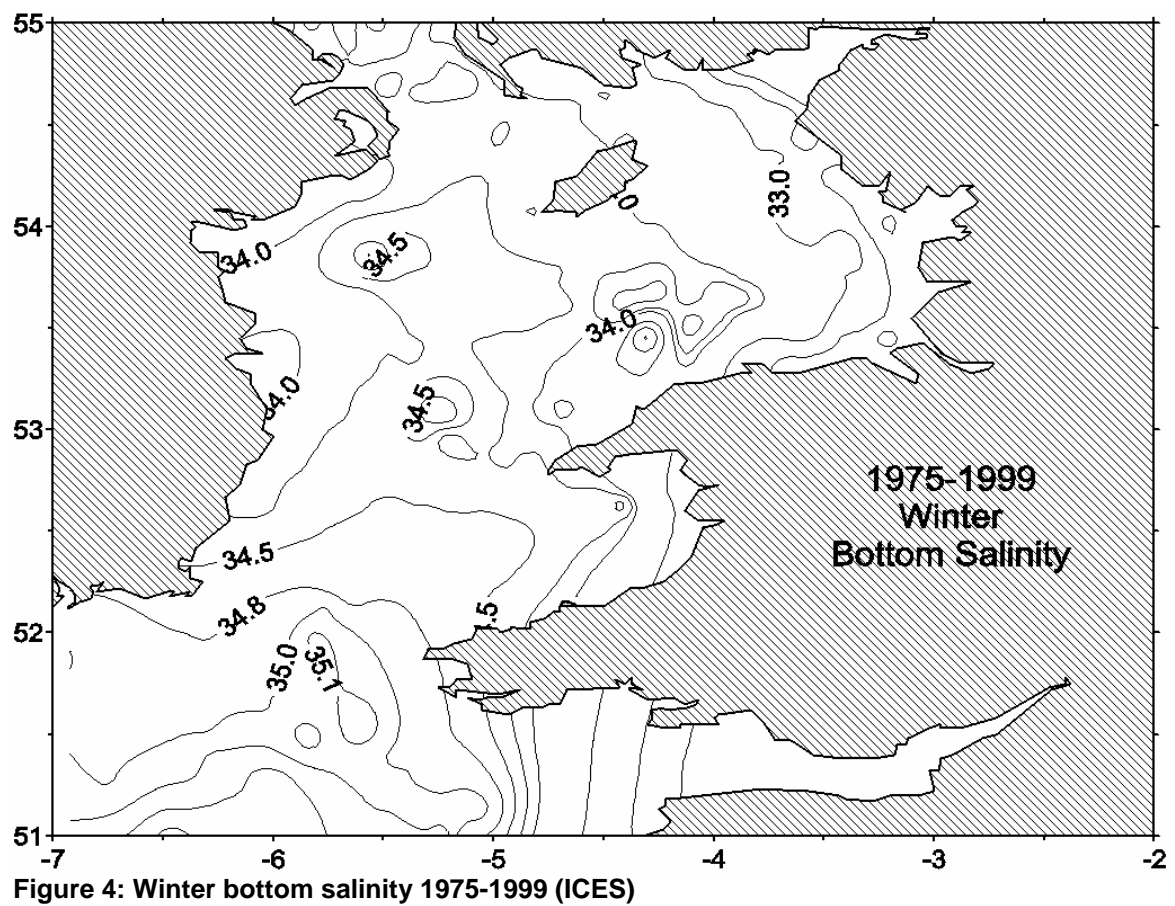
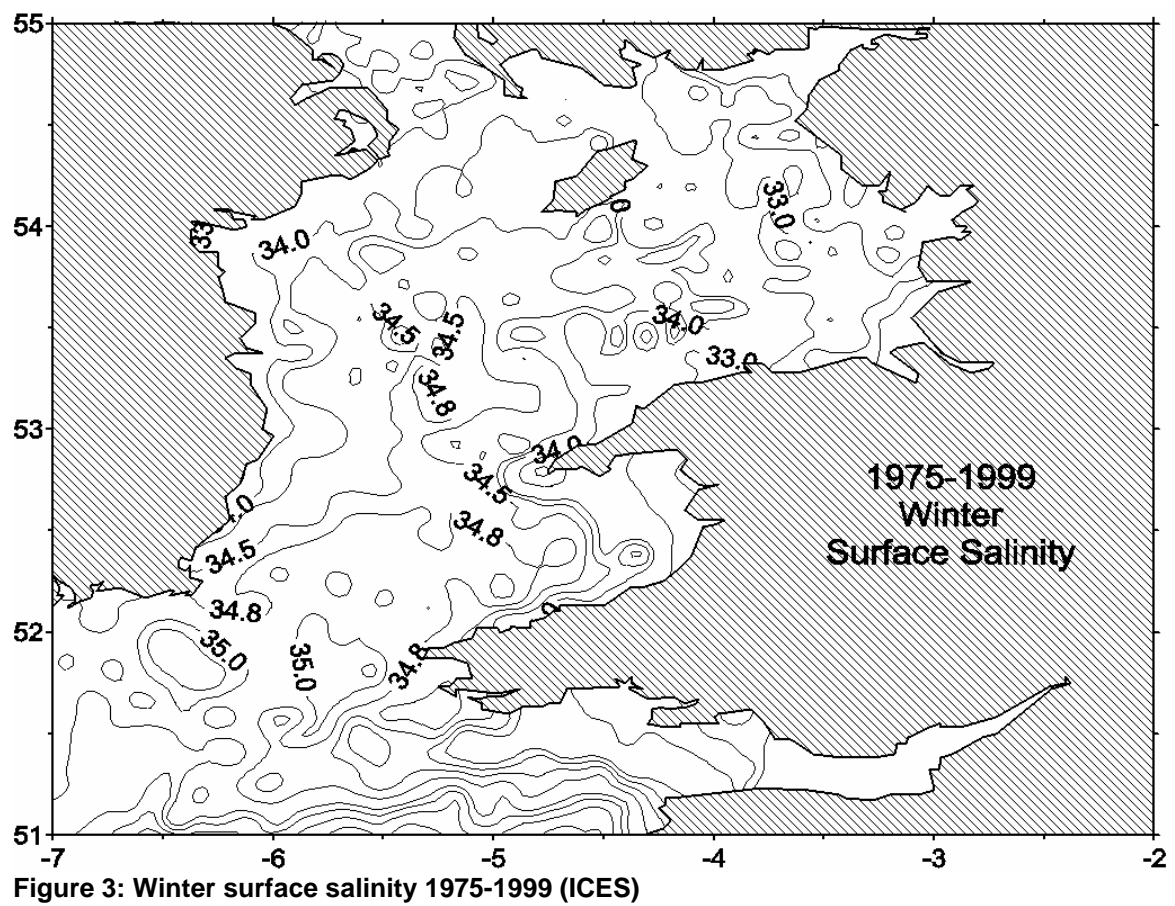


Figure 2: Winter bottom temperature 1975-1999 (ICES)



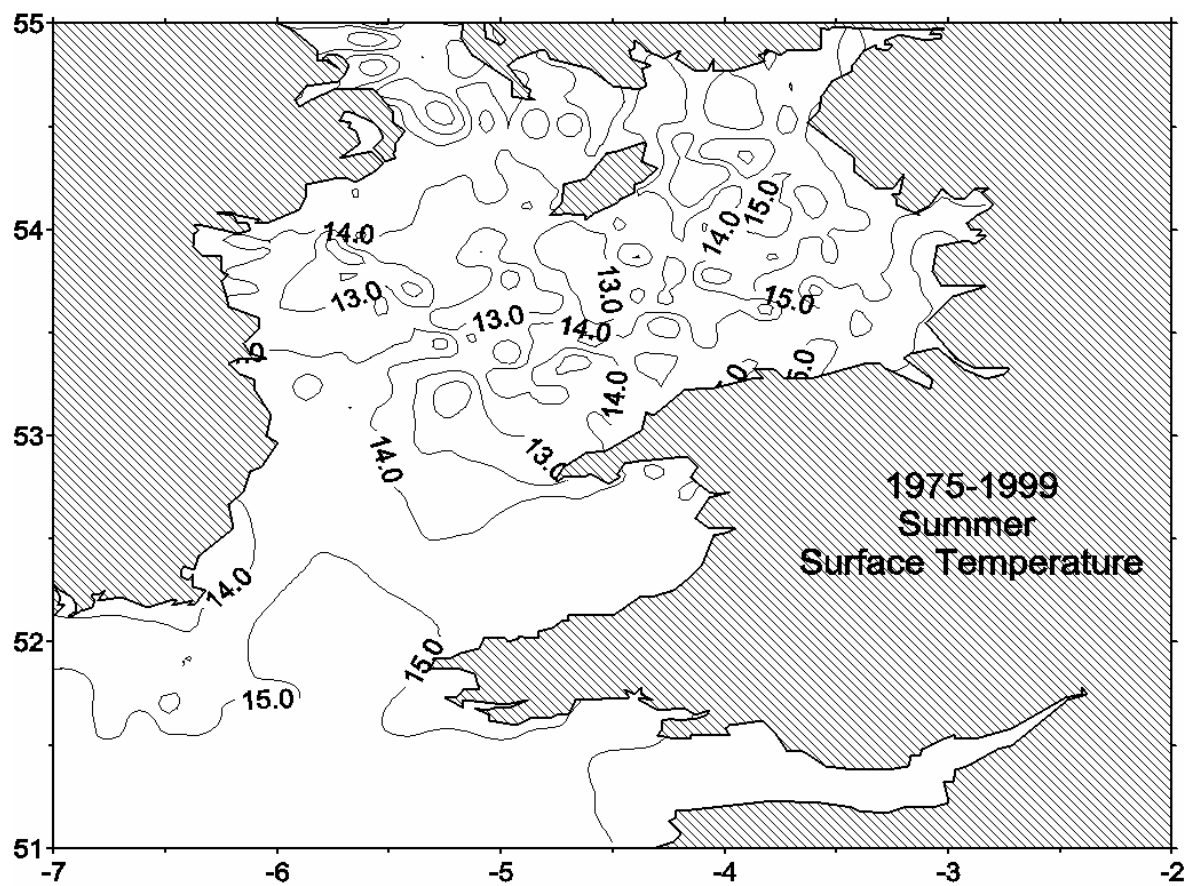


Figure 5: Summer surface temperature 1975-1999 (ICES)

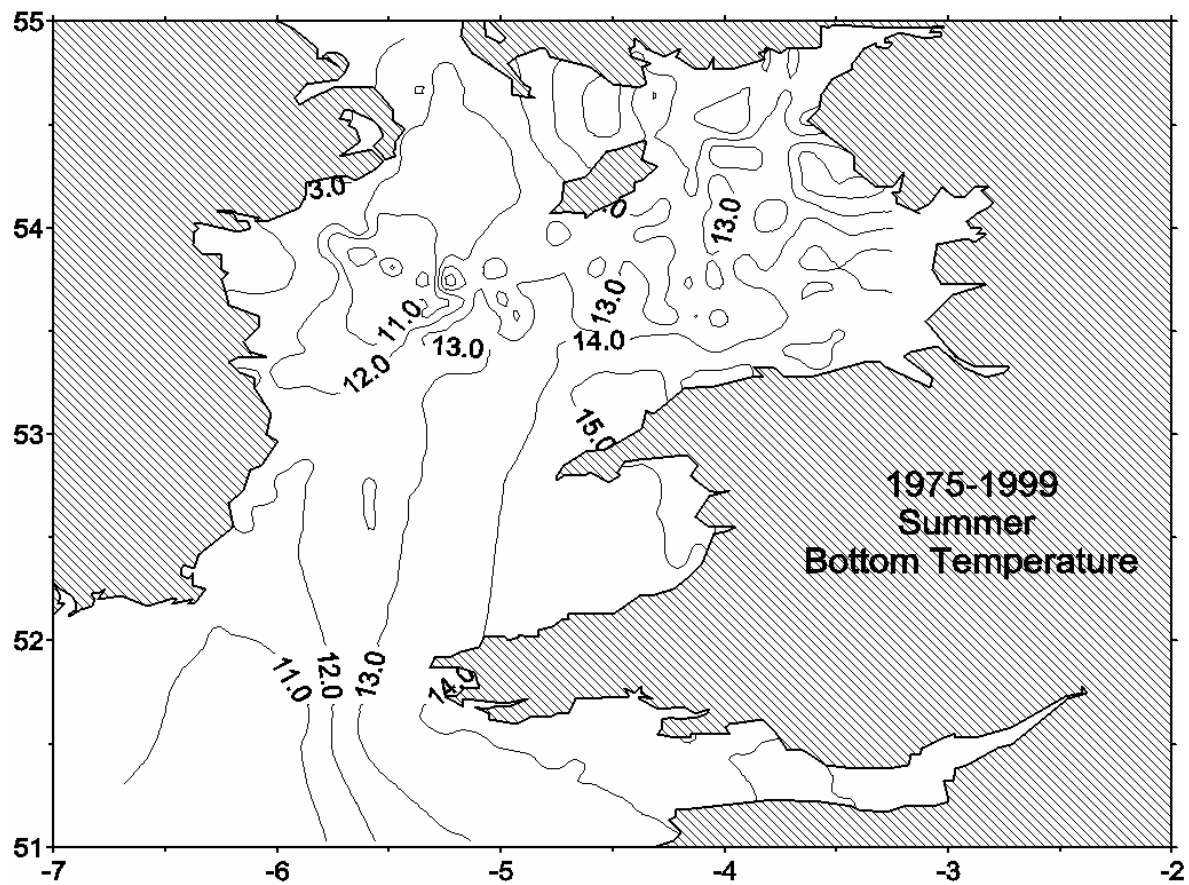


Figure 6: Summer bottom temperature 1975-1999 (ICES)

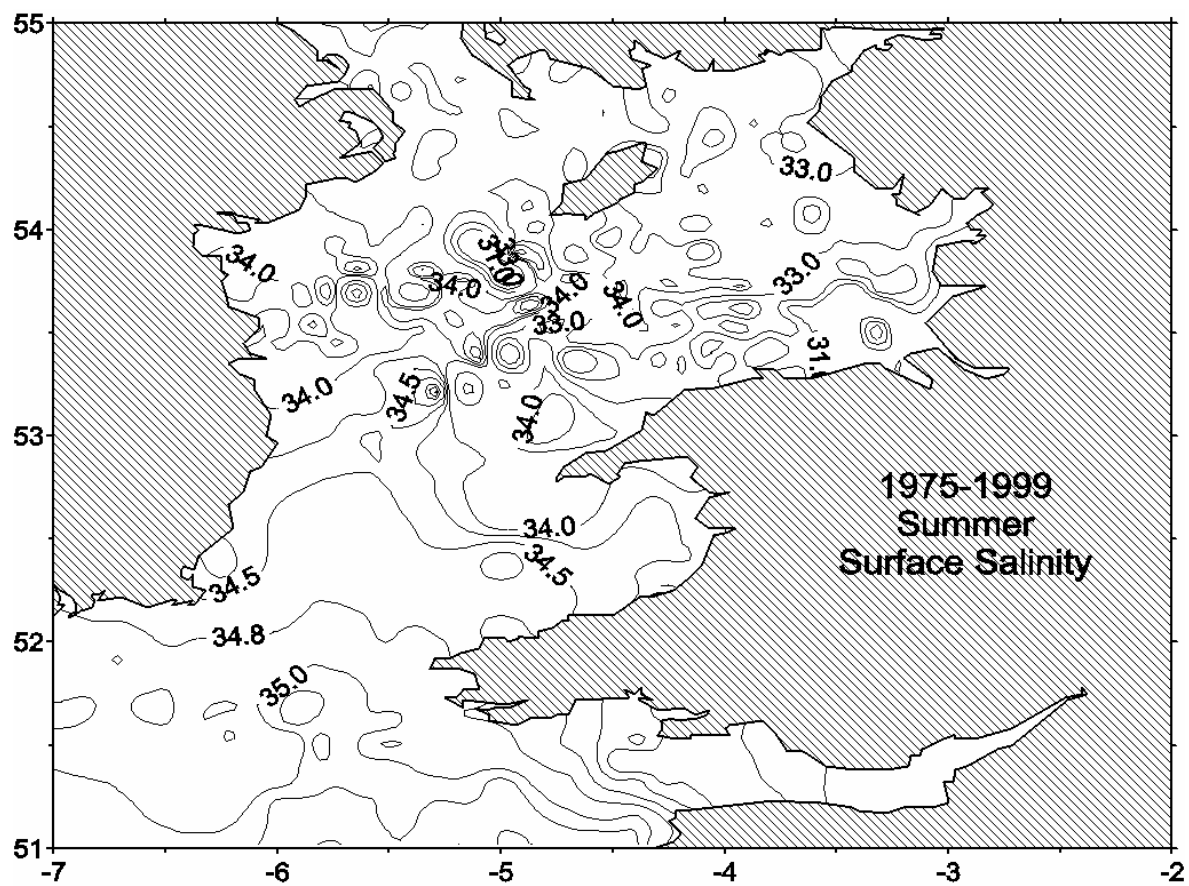


Figure 7: Summer surface salinity 1975-1999 (ICES)

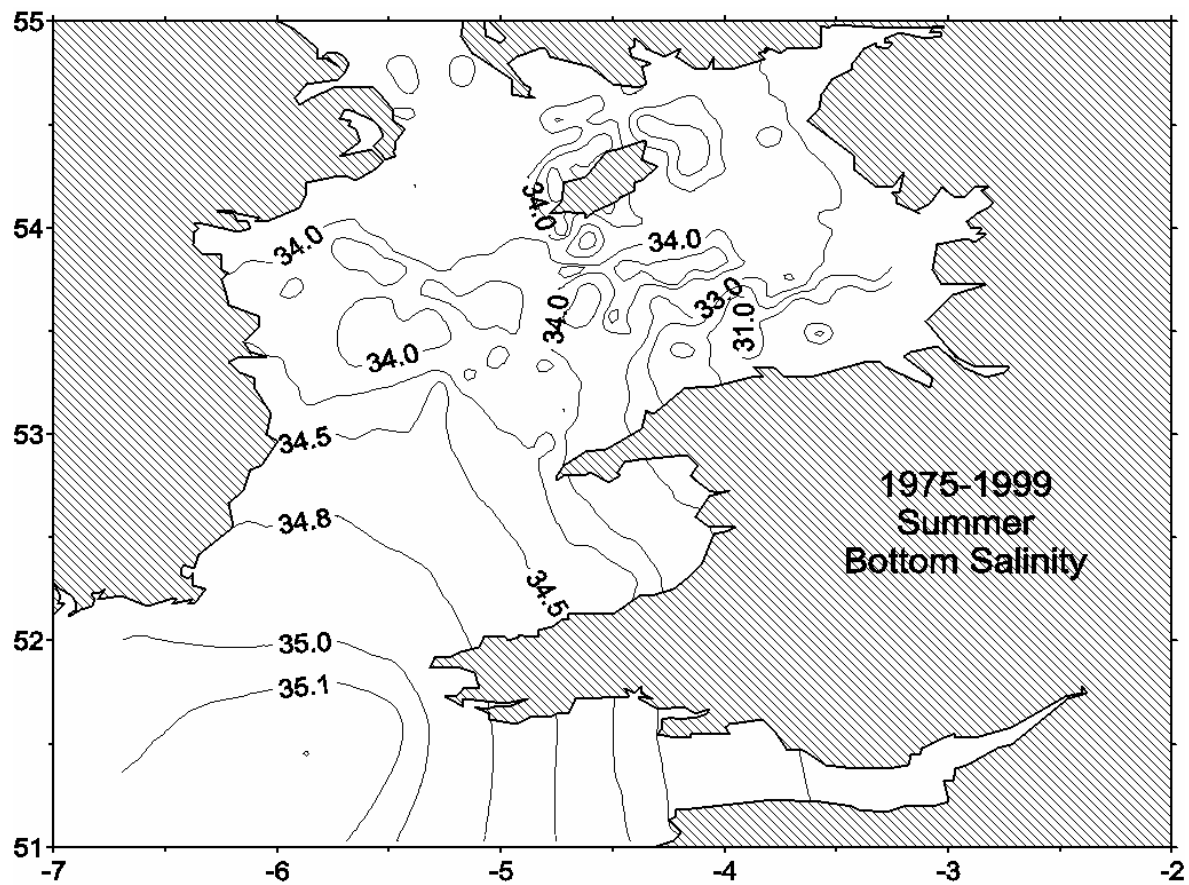


Figure 8: Summer bottom salinity 1975-1999 (ICES)

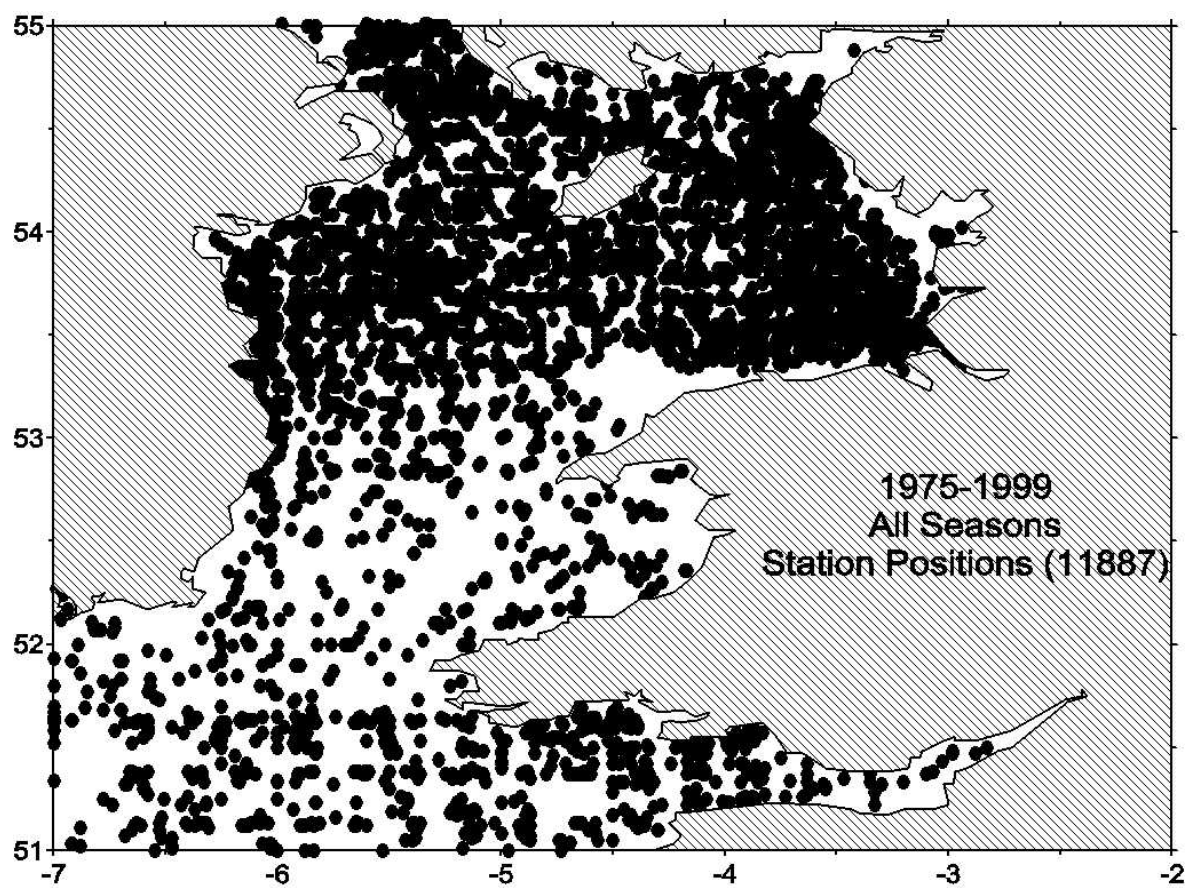


Figure 13: All station (temperature and salinity) positions 1975-1999 (ICES)



## 7) Listing of organisations, contacts and data set descriptions

Details of the 48 organisations that either hold data or are active in the area follow. The list below lists organisations and contacts. Appendix 2 lists these together with the data set descriptions.

### **a) CENTRE-NAME: Aqua-Fact International Services Ltd.**

**VISIT-ADDRESS:** Aqua-Fact International Services Ltd.,  
7 Innovation Centre,  
Newcastle,  
Galway,  
Ireland

**COUNTRY:** Ireland

#### **DESCRIPTION:**

Aqua-Fact International Services is an aquatic consultancy offering specialised expertise in the marine domain. We specialise in assessing impacts on the marine environment and offer a broad range of capabilities which include physical, chemical and biological analyses. We are the sole providers of sediment profile imaging (SPI) in Europe.

#### **Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. Brendan O'Connor

**POST-ADDRESS:** Aqua-Fact International Services Ltd.,  
7 Innovation Centre,  
Newcastle,  
Galway,  
Ireland

**PHONE:** +353 91 25009

**FAX:** +353 91 25000

### **b) CENTRE-NAME: British Gas Plc**

**VISIT-ADDRESS:** Coventry Road,  
Hinckley,  
LE10 0NA,  
United Kingdom

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.britishgas.co.uk/](http://www.britishgas.co.uk/)

#### **DESCRIPTION:**

For information relating to British Gas Plc contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

#### **Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Coventry Road,

Hinckley,  
LE10 0NA,  
United Kingdom

**PHONE:** +44 1455 251111

**c) CENTRE-NAME: British Oceanographic Data Centre (BODC)**

**VISIT-ADDRESS:** Proudman Oceanographic Laboratory,  
Bidston Observatory,  
Bidston Hill,  
PRENTON,  
Merseyside,  
CH43 7RA,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.bodc.ac.uk](http://www.bodc.ac.uk)

**DESCRIPTION:**

BODC operates on behalf of the Marine Science and Technology Board of the UK's Natural Environment Research Council and acts as the UK's focal point for international oceanographic data exchange. It participates within the Intergovernmental Oceanographic Commission (IOC)'s network of national oceanographic data centres (NODCs) and was a founding partner of the European Sea-Search network.

BODC maintains a national oceanographic database, and provides a data service to research scientists, industry, and local and central government, and to major oceanographic programmes. In particular, it provides active data management support to NERC's Thematic Projects, including the AUTOSUB, LOIS and PRIME projects and the UK components of JGOFS and WOCE. It is the WOCE Data Assembly Centre for sea level data and, on behalf of the IOC and IHO Joint Guiding Committee for the General Bathymetric Chart of the Oceans (GEBCO), is responsible for developing the GEBCO Digital Atlas. BODC also acts as the data centre for a number of EC/MAST projects including OMEX, INDIA and PROVESS.

BODC exchanges data freely with other NODCs on a bilateral basis, but reserves the right to charge other users the marginal costs involved in making data available e.g. costs of copying, materials and postage. These charges may be waived for reasonable requests in support of bona-fide scientific research. Some data held by BODC are of restricted availability, awaiting final clearance by the scientists involved in their original collection.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** BODC Enquiries Officer

**POST-ADDRESS:** Proudman Oceanographic Laboratory  
Bidston Observatory  
PRENTON CH43 7RA  
Merseyside  
United Kingdom

**PHONE:** +44 (0) 151 653 1510

**FAX:** +44 (0) 151 652 3950

**EMAIL:** [enquiries@bodc.ac.uk](mailto:enquiries@bodc.ac.uk)

**d) CENTRE-NAME: Carlingford Lough Marine Laboratory**

**VISIT-ADDRESS:** Dept. of Experimental Sciences,  
Regional Technical College,

Dundalk,  
Co. Louth,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

Carlingford Lough Marine Laboratory was established to provide baseline data on environmental quality in Carlingford Lough and to advise local shellfish farmers on the best methods of husbandry. The laboratory also plays a role in site selection and investigation of growth of new species to the Lough. The laboratory provides a bacteriological service to the growers in the area.

This laboratory is no longer operational - C/O S. McQuaid, Dr. D. Douglas, 'The Emerald', Omeath, Co. Louth. Copy of M.Sc. held at the Irish Marine DataCentre.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. Dermot J. Douglas

**POST-ADDRESS:** Dept. of Experimental Sciences,  
Regional Technical College,  
Dundalk,  
Co. Louth,  
Ireland

**PHONE:** +353 42 34785/6/7/8

**FAX:** +353 42 33505

**e) CENTRE-NAME: Centre for Environment, Fisheries and Aquaculture Science (CEFAS)**

**VISIT-ADDRESS:** CEFAS, Lowestoft Laboratory,  
Pakefield Road,  
Lowestoft,  
Suffolk,  
NR33 OHT

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.cefasc.co.uk/](http://www.cefasc.co.uk/)

**DESCRIPTION:**

CEFAS is a scientific research and monitoring centre for fisheries management and environmental protection. It provides contract research, consultancy, advice and training in fisheries science and management, marine environmental protection, aquaculture and fish and shellfish disease and hygiene to a variety of public and private sector clients around the world.

CEFAS is an agency of the UK government's Ministry for Agriculture Fisheries and Food (MAFF).

There are two broad aims for this research. Firstly, the assessment of the state of the stocks of fish and shellfish to provide a sound scientific basis for management policies at national and international level which will maintain the supply of fish and promote the efficiency of the industry; and secondly, the protection of the aquatic environment and especially its fish and shellfish resources, as well as man as a consumer of marine food, from the adverse effects of pollutants introduced through man's industrial and other activities.

There are Fisheries Laboratories at Lowestoft, Burnham-on-Crouch, Whitehaven and Weymouth. All enquiries should be directed to the Contracts Office, CEFAS, Lowestoft Laboratory, Pakefield Road, Lowestoft, Suffolk NR33 OHT, United Kingdom (Tel: +44 1502 562244; Fax: +44 1502 513865 (FAO Contracts Officer), Telex: 995543 (FAO Contracts Officer)).

At Burnham-on-Crouch research is concentrated on the protection of the aquatic environment from the disposal of non-radioactive waste and also the effects of other man-made changes such as offshore oil and marine gravel exploitation.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Contracts Office, CEFAS, Lowestoft

**POST-ADDRESS:** CEFAS, Lowestoft Laboratory,  
Pakefield Road,  
Lowestoft,  
Suffolk,  
NR33 OHT

**PHONE:** +44 1621 562244

**FAX:** +44 1621 513865

**f) CENTRE-NAME: Commissioners of Irish Lights**

**VISIT-ADDRESS:** Commissioners of Irish Lights,  
16 Lower Pembroke Street,  
Dublin 2,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

The Commissioners of Irish Lights (The Irish Lighthouse Service) is a statutory body to provide and maintain Aids to Navigation for shipping around the coast of Ireland.

The Commissioners hold a limited amount of wave data collected from seven light vessels off the East coast of Ireland.

The data are freely available on request for bona-fide use, but the Commissioners reserve the right to charge users the marginal costs involved in making data available, e.g. costs of copying, materials and postage. A brochure giving brief information on the Lighthouse Service is available from the Personnel and Administration Manager.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:**

**CONTACT-TITLE:** Engineer-in-Chief

**POST-ADDRESS:** Commissioners of Irish Lights,  
16 Lower Pembroke Street,  
Dublin 2,  
Ireland

**PHONE:** +353 1 682511

**FAX:** +353 1 618094

**g) CENTRE-NAME: Conoco (UK) Limited**

**VISIT-ADDRESS:** Park House,  
116 Park Street,  
London,  
W17 4NN,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.conoco.com/global/offices/europe/uk.html](http://www.conoco.com/global/offices/europe/uk.html)

**DESCRIPTION:**

For information relating to Conoco (UK) Limited contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Park House,  
116 Park Street,  
London,  
W17 4NN,  
United Kingdom

**PHONE:** +44 171 408 6000

**FAX:** +44 171 408 6031

**h) CENTRE-NAME: Defence Science and Technology Laboratory (DSTL)**

**VISIT-ADDRESS:** DSTL Winfrith,  
Winfrith Technology Centre,  
Dorchester,  
Dorset,  
DT2 8XJ.

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:**

**DESCRIPTION:**

The Defence Science and Technology Laboratory (DSTL), and agency of the UK Ministry of Defence, and its predecessors are involved in the collection of large volumes of oceanographic data, principally in the North Atlantic. These data are mainly physical, but also include biological data. Data are passed for banking to the Hydrographic Office, Taunton. The quality control and storage of the large volume of data generated by the continuous SeaSoar and towed thermistor chains raise particular difficulties. Most DSTL data are widely available.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. Graham Jackson

**POST-ADDRESS:** DSTL Winfrith,  
Winfrith Technology Centre,  
Dorchester,  
Dorset,  
DT2 8XJ.

**PHONE:** +44 1305 212763

**FAX:** +44 1305 212103

**EMAIL:** gjackson@dera.gov.uk

**i) CENTRE-NAME: Department of Geography, University College Cork**

**VISIT-ADDRESS:** Dept. of Geography,  
University College,  
College Road,  
Cork,

**COUNTRY:** Ireland

**DESCRIPTION:**

The research team is based in the Department of Geography and has been working upon coastal and sea-level change related study themes since 1977. Its activities are inter-related to comparable research programmes and data elsewhere in Europe and globally, through internationally coordinated work in these fields, such as that of the EC's EPOC and UNESCO's IGCP Project 274.

The main research interests lie in the areas of coastal erosion, sediment dynamics, palaeo-sea levels and coastal management.

Local databases and other information in these fields are held for work completed in Ireland and parts of the UK. Reports upon research findings, project development and conference proceedings are available, though depending on document size, charges may be made for copying and postage.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** CSLR Programme Secretary

**POST-ADDRESS:** Dept. of Geography,  
University College,  
College Road,  
Cork,  
Ireland

**PHONE:** +353 21 276871 (ext. 2517/8)

**FAX:** +353 21 271980

**j) CENTRE-NAME: Department of Mechanical Engineering, University College Galway**

**VISIT-ADDRESS:** Department of Mechanical Engineering,  
University College, Galway,

**COUNTRY:** Ireland

**DESCRIPTION:**

Research interests of the Department include offshore and ocean engineering, particularly in flexible pipelines and application of expert systems to marine riser mechanics. Extensive use is made of proprietary programs such as PATRAN and ABAQUS for finite element analysis of machine components and structures covering all areas. Computer models for the flow and dispersion of effluent in large water bodies are developed within the context of environmental impact studies.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Professor Sean McNamara

**POST-ADDRESS:** Department of Mechanical Engineering,  
University College, Galway,  
Ireland

**PHONE:** +353 91 24411 (ext. 2232)

**FAX:** +353 91 25700

**k) CENTRE-NAME: Department of Microbiology, Martin Ryan Institute**

**VISIT-ADDRESS:** University College, Galway,

Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

The Department of Microbiology (MICRO-UCG) maintains research programmes in Phytoplankton Ecology, Estuarine Systems, and the Role of Bacteria in Biogeochemical Cycles. Inshore, Coastal and Deep-Sea environments are studied. Investigations include modelling of marine ecosystems and use of image analysis of remotely sensed (satellite) sea surface data. Data sets include observations from research cruises effected within the research team. The data storage medium (ASCII text files on MS-DOS formatted floppy disk data organised in suitable columns and rows) enables ready transfer to other groups for easy use with common data processing software (Lotus 1,2,3; MS-EXCEL) on IBM PC or Apple Mackintosh computers.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. R. Raine, Dr. J. Patching

**POST-ADDRESS:** University College, Galway,  
Ireland

**PHONE:** +353 91 24411

**FAX:** +353 91 25700

**l) CENTRE-NAME: Department of Oceanography, Martin Ryan Institute**

**VISIT-ADDRESS:** Department of Oceanography,  
University College, Galway,

**COUNTRY:** Ireland

**DESCRIPTION:**

The Department of Oceanography (OCE-UCG) maintains a research program of oceanographic monitoring along the north west and south coast of Ireland. This program and data stretches back eighteen years. The data storage medium is magnetic tape, formatted floppy disk with data organised in ICES code form which enables ready transfer to other DEC, FAX and compatible computer.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Prof. Michael Orren/Mr. John J. Coyne

**POST-ADDRESS:** Department of Oceanography,  
University College, Galway,  
Ireland

**PHONE:** +353 91 67894

**FAX:** +353 91 64243

**m) CENTRE-NAME: Department of Zoology, Martin Ryan Institute**

**VISIT-ADDRESS:** Martin Ryan Marine Sciences Institute,  
University College,  
Galway,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

none given

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Prof. Brendan Keegan  
**POST-ADDRESS:** Martin Ryan Marine Sciences Institute,  
University College,  
Galway,  
Ireland  
**PHONE:** +353 91 24411  
**FAX:** +353 91 25005

**n) CENTRE-NAME: Department of Zoology, University College Dublin**

**VISIT-ADDRESS:** Department of Zoology,  
University College,  
Belfield,  
Dublin 4,

**COUNTRY:** Ireland

**DESCRIPTION:**

Marine data are mainly collected during student projects and personal research. Undergraduate theses are available in the Zoology Department; PhD and MSc theses from the University Library. Faunal samples are stored for varying periods depending on their perceived value to other users. Data are exchanged or released under special arrangement.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** Director of Marine Studies  
**POST-ADDRESS:** Department of Zoology,  
University College,  
Belfield,  
Dublin 4,  
Ireland  
**PHONE:** +353 1 693244  
**FAX:** +353 1 694409

**o) CENTRE-NAME: Drogheda Harbour Authority**

**VISIT-ADDRESS:** Harbour Offices,  
The Mall,  
Drogheda,  
County Louth

**COUNTRY:** Ireland

**DESCRIPTION:**

Channel Surveys are taken every ten years. The information is recorded in the Harbour Office. This information is not confidential.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Capt. W.P. Hanrahan  
**CONTACT-TITLE:** Harbour Master  
**POST-ADDRESS:** Harbour Offices,  
The Mall,  
Drogheda,  
County Louth,  
Ireland



**PHONE:** +353 41 38378

**FAX:** +353 41 32844

**p) CENTRE-NAME: Dublin Port and Docks Board**

**VISIT-ADDRESS:** Engineers Department,  
Dublin Port and Docks Board,  
Port Centre,  
Alexandra Road,  
Dublin 1,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

Dublin Port is the major port of the Republic and as such keeps a large amount of civil, mechanical, marine and historical data. All such information is retained in the Records Department in the Engineers Department.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. Eamon McAteer

**CONTACT-TITLE:** Hydrographic Surveyor

**POST-ADDRESS:** Engineers Department,  
Dublin Port and Docks Board,  
Port Centre,  
Alexandra Road,  
Dublin 1,  
Ireland

**PHONE:** +353 1 748771

**FAX:** +353 1 741241

**q) CENTRE-NAME: Electronic and Geophysical Services Limited**

**VISIT-ADDRESS:** Meon House,  
East Tisted,  
Alton,  
Hants,  
GU34 3QW,

**COUNTRY:** United Kingdom

**DESCRIPTION:**

Electronic and Geophysical Services Limited was formed in 1974 to provide specialist site investigation services to the Civil Engineering industry. The Company has specialised in inshore geophysical techniques (mainly shallow seismic reflection), working predominantly in water depths of 0m to 20m.

In addition to the UK Office, there are offices in Hong Kong, Malaysia and Singapore, and Joint Venture companies covering much of the Middle and Far East.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. D. Waller

**POST-ADDRESS:** Meon House,  
East Tisted,  
Alton,

Hants,  
GU34 3QW,

**PHONE:** +44 1420 587291

**FAX:** +44 1420 587480

**r) CENTRE-NAME: Environment Agency, Welsh Region**

**VISIT-ADDRESS:** Rivers House,  
S. Mellons Business Park,  
Cardiff,  
CF3 0LT,  
United Kingdom

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.environment-agency.gov.uk/](http://www.environment-agency.gov.uk/)

**DESCRIPTION:**

The Environment Agency (EA) (Welsh Region) has statutory duties and powers under the Water Resources, Pollution Control, Flood Defences, Fisheries, Recreation, Conservation and Navigation throughout Wales. Its Water Quality and Fisheries Responsibilities extend into coastal waters. The NRA is also the competent Authority for a number of European Community Directives.

The EA (Welsh Region) exchanges data between other EA Regions but reserves the right to charge for data that may be used commercially. Certain data may be restricted due to the regulatory nature of the EA's activities.

Further information regarding the EA can be obtained from the EA Public Relations Department.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. A.S. Gee

**POST-ADDRESS:** Rivers House,  
S. Mellons Business Park,  
Cardiff,  
CF3 0LT,  
United Kingdom

**PHONE:** +44 1222 770088

**FAX:** +44 1222 789555

**s) CENTRE-NAME: Environmental Protection Agency, Wexford**

**VISIT-ADDRESS:** Ardcavan,  
Co. Wexford,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

none given

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. Larry Stapleton

**POST-ADDRESS:** Ardcavan,  
Co. Wexford,  
Ireland

**PHONE:** +353 53 47120

**FAX:** +353 53 47119

**t) CENTRE-NAME: Environmental Research Unit**

**VISIT-ADDRESS:** Environmental Research Unit,  
St. Martin's House,  
Waterloo Road,  
Dublin 4,

**COUNTRY:** Ireland

**DESCRIPTION:**

The Environmental Research Unit was established in 1988 as a statutory body for the provision of the environmental research and related services which are necessary to support the major infrastructural programmes for which the Minister for the Environment and the local authorities are responsible. This work also involves research, analytical, monitoring, advisory and other services which are needed in relation to the environment. ERU is a successor organisation to An Foras Forbartha - the National Institute for Physical Planning and Construction.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. Larry Stapleton

**POST-ADDRESS:** Environmental Research Unit,  
St. Martin's House,  
Waterloo Road,  
Dublin 4,  
Ireland

**PHONE:** +353 1 602511

**FAX:** +353 1 680009

**u) CENTRE-NAME: Fisheries Research Centre (Aquaculture/Environmental Monitoring)**

**VISIT-ADDRESS:** Fisheries Research Centre,  
Department of the Marine,  
Abbotstown,  
Dublin 15,

**COUNTRY:** Ireland

**DESCRIPTION:**

The Fisheries Research Centre is the research arm of the Department of the Environment, Ireland, and has programmes in three main areas - Fish Stock Assessment, Aquaculture and Environmental Monitoring. Data are held or published in various formats and may be exchanged with other bodies.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Ms. Jacqueline Doyle (or as specified on individual data sets)

**POST-ADDRESS:** Fisheries Research Centre,  
Department of the Marine,  
Abbotstown,  
Dublin 15,  
Ireland

**PHONE:** +353 1 210111

**FAX:** +353 1 205078

**v) CENTRE-NAME: Fisheries Research Centre (Fish Stock Assessment)**

**VISIT-ADDRESS:** Fisheries Research Centre,  
Department of the Marine,  
Abbotstown, Dublin 15,

**COUNTRY:** Ireland

**DESCRIPTION:**

The Fisheries Research Centre is the research arm of the Department of the Environment and has programmes in three main areas – Fish Stock Assessment, Aquaculture and Environmental Monitoring. Data are held or published in various formats and may be exchanged with other bodies. Most of the databases in the Fish Stock Assessment Section form the basis on which national statistics for fish landings are compiled for assessment by various yearly ICES working groups. Copies are lodged in the library of the Fisheries Research Centre.

Other data bases are being established but, as yet, there are no real time series of data. A data base containing open and closed seasons for salmon fisheries broken down by region, district, river and fishing method, is being developed. A large environmental database is also being set up containing information on many important salmon rivers including flow, temperature, height, physical parameters, number of fish caught by rod, trap, net etc. -long time-series data from the Meteorological Office and the various fisheries around the country will enable the environmental effects on salmon returns to be studied.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** John Brown (or as specified on individual data sets)

**POST-ADDRESS:** Fisheries Research Centre,  
Department of the Marine,  
Abbotstown, Dublin 15,  
Ireland

**PHONE:** +353 1 210111

**FAX:** +353 1 205078

**w) CENTRE-NAME: Fisheries Research Services, Marine Laboratory, Aberdeen**

**VISIT-ADDRESS:** Fisheries Research Services,  
Marine Laboratory,  
PO Box 101,  
Victoria Road,  
Aberdeen,  
AB11 9DB,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.marlab.ac.uk/](http://www.marlab.ac.uk/)

**DESCRIPTION:**

The Marine Laboratory, Aberdeen is one of two constituent part of Fisheries Research Services (FRS) which is an executive agency of the Scottish Office (SO). The programme of the Laboratory is authorised by a committee chaired by the SO Fisheries Secretary. Research on freshwater and migratory species (principally Atlantic salmon and sea trout) is carried out by the other constituent part of FRS, the Freshwater Fisheries Laboratory, Faskally, Perthshire.

Within the United Kingdom, fisheries research and development are integrated by a Customer Group, composed of representatives of FRS, the Centre for Environment, Fisheries and Aquaculture (CEFAS) and the Department of Agriculture Northern Ireland (DANI). A UK Coordinator of Fisheries Research and Development ensures that liaison is maintained between FRS, CEFAS and DANI.

The main thrust of the Laboratory's scientific programme is in support of the fisheries management responsibilities of the Scottish Office Agriculture, Environment and Fisheries Department (SOAEFD). The objective is to monitor the state of the main fish and shellfish stocks, and effort is aimed at conserving and managing the fish and shellfish resources to support an efficient, market-orientated fishing industry. Thus, the largest part of the research programme is directed at investigation of the main fish stocks exploited by Scottish fishermen. Attention is also paid to investigating the various technical measures adopted to promote the conservation of fish stocks. The Laboratory maintains a strong interest in the events and processes taking place in the oceanic and coastal waters around Scotland, ranging from broad interactions between water movements and fisheries to the more local effects on fish nursery grounds. The Laboratory supports The Scottish Office in its environmental interests, conducting research aimed at monitoring and protecting the quality of the seas around Scotland and their fisheries from the adverse effects of environmental change. There is a need for information and advice on the circulation of waters around Scotland and the consequent dispersion of particular contaminants arising from man's activities. The Laboratory also has an interest in the field of fish farming. Here, some of the important roles are the statutory inspection of fish and shellfish farms and the prevention of the spread of fish diseases within the environment.

#### **Data Contact(s) within Data Holding**

**CONTACT-TITLE:** Director

**POST-ADDRESS:** Fisheries Research Services,  
Marine Laboratory,  
PO Box 101,  
Victoria Road,  
Aberdeen,  
AB11 9DB,  
United Kingdom

**PHONE:** +44 1224 876544

**FAX:** +44 1224 295511

#### **x) CENTRE-NAME: Forbairt Ocean Services Department**

**VISIT-ADDRESS:** Glasnevin,  
Dublin 9

**COUNTRY:** Ireland

#### **DESCRIPTION:**

Forbairt (formerly EOLAS) Ocean Services Department is an Irish Semi State organisation which contributes to industrial and economic growth through the development, application and promotion of Science and Technology. The Ocean Services Department is responsible for offshore certification, consultancy in offshore and coastal engineering, and maximisation of Irish involvement in its offshore industry. It retains a comprehensive set of environmental data for the Irish Sphere - waves, winds and currents - measured, analytically derived and observed.

#### **Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Gerard Keane

**POST-ADDRESS:** Glasnevin,  
Dublin 9

**PHONE:** +353 1 370101

**FAX:** +353 1 379620

#### **y) CENTRE-NAME: Hadley Centre for Climate Prediction and Research**

**VISIT-ADDRESS:** Meteorological Office,

London Rd,  
Bracknell,  
Berkshire,  
RG12 2SY,  
United Kingdom

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.meto.gov.uk/sec5/CR\\_div/cr\\_info.html](http://www.meto.gov.uk/sec5/CR_div/cr_info.html)

**DESCRIPTION:**

The Hadley Centre for Climate Prediction and Research is jointly funded by the Department of the Environment and the Meteorological Office. The main objective of the Centre is to provide for the Government an authoritative, up-to-date assessment of both natural and man-made climate change. The main aspects of the research programme are:

1. to simulate the present climate and understand its natural variability;
2. to understand the factors controlling climate change and to predict global and regional climate change up to the end of the 21st century;
3. to develop and use global climate models to support the above tasks;
4. to provide a focus for both national research programmes relevant to climate change prediction and for interaction with international programmes;
5. to facilitate the incorporation of results from these programmes into the prediction models.

The Hadley Centre is situated at Bracknell, close to the Meteorological Office Headquarters. It was opened in the spring of 1990 and there are now approximately 100 scientists and support staff working at the Centre. There are also facilities for a number of visiting scientists to work on problems of mutual interest.

Climate data and other proprietary information available in the Hadley Centre may be supplied for bona fide research purposes. Commercial or business use is not permitted without the written authority of the UK Meteorological Office.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. David A. Bennetts

**POST-ADDRESS:** Meteorological Office,  
London Rd,  
Bracknell,  
Berkshire,  
RG12 2SY,  
United Kingdom

**PHONE:** +44 1344 856653

**FAX:** +44 1344 854898

**EMAIL:** [dabennetts@email.meto.govt.uk](mailto:dabennetts@email.meto.govt.uk)

**z) CENTRE-NAME: Hamilton Oil Co Limited**

**VISIT-ADDRESS:** St Magnus House,  
Guild Street,  
Aberdeen,  
AB1 2NF

**COUNTRY:** United Kingdom

**DESCRIPTION:**

For information relating to Hamilton Oil Co Limited contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** St Magnus House,  
Guild Street,  
Aberdeen,  
AB1 2NF,  
United Kingdom

**PHONE:** +44 1224 211000

**FAX:** +44 1224 210387

**aa) CENTRE-NAME: HR Wallingford Group Ltd.**

**VISIT-ADDRESS:** HR Wallingford Ltd.,  
Howbery Park,  
Oxon,  
OX10 8BA,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.hrwallingford.co.uk/](http://www.hrwallingford.co.uk/)

**DESCRIPTION:**

HR Wallingford Group Ltd. is an independent private company limited by guarantee, with the status of Research Association. The Group specialises in civil engineering and environmental hydraulics and problems of water management. Based at Wallingford in South Oxfordshire, UK, the Group employs over 260 engineers, scientists, mathematicians, technicians and support staff. The main work is predictive physical and computational modelling, desk studies and field data collection. Our expertise includes ports and harbours, inshore waters and coast protection, offshore structures, water resources and hydrology, among others. The Group has offices in Belgium, France, Hong Kong, Italy and Malaysia.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. Christopher B. George

**CONTACT-TITLE:** Director of Business Development

**POST-ADDRESS:** HR Wallingford Ltd.,  
Howbery Park,  
Oxon,  
OX10 8BA,  
United Kingdom

**PHONE:** +44 1491 835 381

**FAX:** +44 1491 832 233

**EMAIL:** [chrisg@hrwallingford.co.uk](mailto:chrisg@hrwallingford.co.uk)

**ab) CENTRE-NAME: ICES Secretariat, International Council for the Exploration of the Sea**

**VISIT-ADDRESS:** Palaegade 2-4,  
1261 Copenhagen K

**COUNTRY:** Denmark

**CENTRE-WEBSITE:** [www.ices.dk](http://www.ices.dk)

**DESCRIPTION:**

ICES is the oldest international marine science organization. It was formed in 1902 to promote the scientific understanding of the mechanisms inducing variability in North Atlantic commercial fish stocks, including their ecological interactions. Its member countries, of which there are currently 19, are located around the North Atlantic and its adjacent seas, particularly the North Sea and the Baltic Sea. Although its original remit concerned the scientific aspects of fisheries, the current remit of ICES has matured into providing member countries and various North Atlantic Regulatory Commissions with scientific and management advice concerning fisheries and environmental quality. To meet this end ICES addresses a wide range of issues from fundamental marine science questions to technical questions relating to fish capture via approximately 100 Working and Study groups, who provide the basic material for consideration by its advisory committees.

To support its advisory role, ICES has sought to promote and support marine science programmes by means of stimulating member governments to participate in collaborative programmes. In particular the main thrust of the activities of the ICES Secretariat is to provide professional support and publication facilities for use by scientists working to meet ICES' objectives. In former days, ICES concerned itself with the publication of raw scientific data as well as the prominent research findings of the day, and this has evolved into the scientific management of a number of data banks concerned with fish catches, fisheries biological data, oceanographic data, and data on marine contaminants. ICES promotes the collection of data of the highest accuracy by means of, for example, coordinating intercalibration exercises, and providing advice on quality assurance procedures.

The oceanographic data activities of the Secretariat are concerned primarily with oceanographic profile data. These data are provided by member countries. ICES endeavours to work closely with existing National Data Centres, and provides advice and products to fisheries scientists on the use of oceanographic data. Data are not necessarily freely available. Details of restrictions will be provided on request. ICES also maintains a computerised inventory of cruise summary reports, which also doubles as a catalogue of its data holdings. Currently this inventory contains detailed information about 13,000 marine scientific cruises and programmes that have been conducted since 1967 when this inventory system was introduced.

ICES member countries are Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Latvia, Netherlands, Norway, Russia, Spain, Sweden, Poland, Portugal, UK, USA.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** General Secretary

**POST-ADDRESS:** Palaegade 2-4,  
1261 Copenhagen K

**PHONE:** +45 33 154225

**FAX:** +45 33 939215

**EMAIL:** [ocean@ices.dk](mailto:ocean@ices.dk)

**ac) CENTRE-NAME: Industrial Research and Technology Unit (IRTU), Industrial Science Centre, Lisburn**



**VISIT-ADDRESS:** Industrial Science Centre (ISC),  
17 Antrim Road,  
Lisburn,  
BT28 3AL,  
Co. Antrim,  
Northern Ireland,  
United Kingdom

**COUNTRY:** United Kingdom

**DESCRIPTION:**

The Industrial Science Centre (ISC) is an integral part of IRTU- DED's Industrial Research and Technology Unit. IRTU's role is to improve the competitiveness of industry and strengthen the economy of Northern Ireland by encouraging industrially relevant research and development and technology transfer. A broad range of essential technical services is available to industry and government.

Within the ISC the Aquatic Sciences section provides scientific, survey and monitoring services in the disciplines of both freshwater and marine science. The major client is the Department of the Environment (NI), Environmental Service, although private individuals may avail themselves of the services. Data collected are available by permission of the relevant client.

Marine surveys include data on sludge disposal sites, estuarine water quality, bathing water quality, hydrographic models, fish farm impacts, etc. A large number of pre-1985 reports are awaiting cataloguing for inclusion in EDMED.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. J.P. Breen

**POST-ADDRESS:** Industrial Science Centre (ISC),  
17 Antrim Road,  
Lisburn,  
BT28 3AL,  
Co. Antrim,  
Northern Ireland,  
United Kingdom

**PHONE:** +44 1846 665161

**FAX:** +44 1846 676054

**ad) CENTRE-NAME: Irish Hydrodata Limited**

**VISIT-ADDRESS:** Rathmacullig West,  
Ballygarvan,  
Co. Cork,

**COUNTRY:** Ireland

**DESCRIPTION:**

A small private metocean survey company established in 1979 to provide expertise within Ireland in the collection, analysis and reporting of metocean data in offshore, coastal, lakes and river environments. Studies would be conducted for government departments, local authorities, consulting engineers or private clients. Brochures available from 'Contact Point'.

Data sets cover physical, chemical and biological oceanography, marine/coastal meteorology, hydrography, and marine geology and geophysics. Data collection is subject to full QA/QC procedures and data analyses are fully quality controlled, usually to appropriate guidelines issued by UKOOA/MIAS/IOS etc. All data, whether original magnetic tapes from recording instrumentation or hard copy field logs are archived in the data centre together with subsequent analysed data and plots.

**Data Contact(s) within Data Holding Centre****CONTACT-TITLE:** Data Centre Manager**POST-ADDRESS:** Rathmacullig West,  
Ballygarvan,  
Co. Cork,  
Ireland.**PHONE:** +353 21 311255**FAX:** +353 21 968604**ae) CENTRE-NAME: Irish Marine Data Centre (ISMARE)****VISIT-ADDRESS:** Marine Institute,  
80 Harcourt Street,  
Dublin 2,**COUNTRY:** Ireland**DESCRIPTION:**

The Irish Marine Data Centre was established under the EU STRIDE operational programme for Ireland. The function of the centre is to gather existing information on the marine environment and to evaluate, organise and make available that information for dissemination. The data centre is also concerned with the long-term preservation of data. In accordance with the Intergovernmental Oceanographic Commission (IOC) guideline for National Oceanographic Data Centres (NODCs), this centre acts as a national focal point for the access and dissemination of oceanographic data and information. The data centre offers its services to the general scientific community, to government and to industrial users.

Also in accordance with the IOC guidelines the data centre makes its services available for assisting in international data exchange. It is recommended by the IOC and the data centre that data users, with a requirement for international data, should first approach the national oceanographic/marine data centre.

The data centre does not currently handle all oceanographic/marine data types. The decision to compile a national oceanographic data set of one type must be recommended by the centre's management and approved by a steering committee.

Once established, a national data set will be maintained by the centre on an ongoing basis. As a national data set of one type becomes established, additional sets are considered. In addition to compiling national data sets, which generally comprise all the available data of one type for Irish territorial waters, the data centre also works on project specific data sets. A project specific data set may involve several data types and one or more regional geographic areas. The data centre manages data/information from a number of EU projects in non-Irish waters.

In addition to providing data management services, the data centre is available to advise on the technical aspects of data management and data exchange. The centre may, in some situations, provide specific data management tools which will allow organisations better management of their own data. The data centre is also actively involved in the compilation of national and international guidelines for oceanographic data management. The centre is represented on a number of international committees concerned with marine data management and exchange.

**Data Contact(s) within Data Holding Centre****CONTACT-NAME:** Manager**POST-ADDRESS:** Marine Institute,  
80 Harcourt Street,

Dublin 2,  
Ireland

**PHONE:** +353 1 4757100  
**FAX:** +353 1 4757100  
**EMAIL:** data.centre@marine.ie

**af) CENTRE-NAME: Joint Research Centre (JRC)**

**CENTRE-HOST:** Centro Comune di Ricerca (CCR)  
**VISIT-ADDRESS:** JRC Ispra  
Space Application Institute  
Marine Environment  
TP 272  
I - 21020 ISPRA (VA) - Italy

**COUNTRY:** Italy

**CENTRE-WEBSITE:** [www.jrc.it](http://www.jrc.it)

**DESCRIPTION:**

Key facts

The primary mission of Space Application Institute (SAI) is to develop and promote the use of space derived data in the service of EU policies, especially those relating to agriculture, fisheries, transport and anti-fraud. SAI also seeks to make the best use of information from space systems, to maximize the return from European investments in space and to help the Union reinforce its role in international action on the environment and sustainable development. Combining the unique information available from space with modelling techniques, data management tools and the ever increasing possibilities for rapid dissemination of information offer SAI's activities a large range of applications.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Leo Nykjaer  
**CONTACT-TITLE:** dr  
**POST-ADDRESS:** Leo Nykjaer  
Space Applications Institute  
Joint Research Centre  
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Italy  
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**FAX:** +390332 789034  
**EMAIL:** leo.nykjaer@jrc.it

**CONTACT-NAME:** Vittorio BARALE  
**CONTACT-TITLE:** dr  
**POST-ADDRESS:** ME SAI (tp 272)  
Joint Research Centre  
I-21020 Ispra (VA)  
Italy  
**PHONE:** +39 0332 789274

**FAX:** +39 0332 789034  
**EMAIL:** vittorio.barale@jrc.it

**ag) CENTRE-NAME: MARENCO Environmental Consultants**

**VISIT-ADDRESS:** Elmwood House,  
74 Boucher Road,  
Belfast  
BT12 6RZ,  
Northern Ireland,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.marenco.co.uk](http://www.marenco.co.uk)

**DESCRIPTION:**

MARENCO is Northern Ireland's foremost independent science- based environmental consultancy. Founded in 1987, the company has a nucleus of experienced scientists offering a professional, multi-disciplinary service on environmental issues.

MARENCO operates on the 'team principle' where qualified scientists from different fields work closely together, pooling their considerable knowledge and experience. Recent clients have included industry, local authorities, government agencies and water companies. MARENCO staff have a wide experience of fieldwork throughout the world, often under difficult or hazardous conditions.

As well as environmental impact assessment for proposed developments, contracts undertaken have covered issues as diverse as fish farming, dye and bacterial tracing, estuarine pollution, water quality analysis, littoral and sublittoral surveys, multivariate data analysis and conservation management plans for designated areas, leading to a number of comprehensive databases.

A detailed brochure outlining MARENCO's comprehensive capabilities is available from the General Manager.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. Paul McArdle

**CONTACT-TITLE:** General Manager

**POST-ADDRESS:** Elmwood House,  
74 Boucher Road,  
Belfast  
BT12 6RZ,  
Northern Ireland,  
United Kingdom

**PHONE:** +44 2890 682275

**FAX:** +44 2890 664939

**EMAIL:** info@marenco.co.uk

**CONTACT-NAME:** Dr Beverley Kelso

**CONTACT-TITLE:** Marine Consultant

**POST-ADDRESS:** Elmwood House,  
74 Boucher Road,  
Belfast  
BT12 6RZ,  
Northern Ireland,

United Kingdom

**PHONE:** +44 2890 682275  
**FAX:** +44 2890 664939  
**EMAIL:** info@marengo.co.uk

**ah) CENTRE-NAME: Marine Computation Services (MCS) International**

**VISIT-ADDRESS:** 3 Buttermilk Walk,  
Galway,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

Marine Computation Services (MCS) International are involved in Environmental Impact Assessments of coastal and inland waters, which involves mathematical modelling and sometimes in-situ measurements; also involved in the design of offshore structures.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Anthony Cawley  
**POST-ADDRESS:** 3 Buttermilk Walk,  
Galway,  
Ireland  
**PHONE:** +353 91 66455  
**FAX:** +353 91 66457

**ai) CENTRE-NAME: Marine Consultancy Service, Meteorological Office**

**VISIT-ADDRESS:** Johnson House,  
London Road,  
Bracknell,  
Berkshire,  
RG12 2SY,  
United Kingdom

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.met-office.gov.uk/marine/](http://www.met-office.gov.uk/marine/)

**DESCRIPTION:**

The UK Meteorological Office collects and archives global weather reports made by the international meteorological community. Additionally, certain products from the operational numerical weather and sea-state models are archived for future use.

The Marine Advisory Service provides data analysis and consultancy services on any aspect of marine meteorology. A wide range of retrieval and analysis software is used to summarize data for planning, design and research purposes.

**Data Contact(s) within Data Holding Centre**

**POST-ADDRESS:** Marine Advisory Service,  
Johnson House,  
London Road,  
Bracknell,  
Berkshire,  
RG12 2SY,

United Kingdom

**PHONE:** +44 1344 854974 or 854979

**FAX:** +44 1344 854906

**aj) CENTRE-NAME: New University of Lisbon, Department of Environmental Sciences and Engineering (IMAR network)**

**VISIT-ADDRESS:** Faculdade de Ciências e Tecnologia  
Monte de Caparica  
2825-114 Caparica  
Telephone: +351 212948300  
Fax: +351 212954461

**COUNTRY:** Portugal

**CENTRE-WEBSITE:** [www.fct.unl.pt](http://www.fct.unl.pt)

**DESCRIPTION:**

The Department of Environmental Sciences and Engineering is a member of the Portuguese IMAR (Institute of Marine Research) network. It is an interdisciplinary department which focuses on many aspects of environmental research, including coastal management and pollution research, simulation and systems analysis, toxicology and fundamental ecology.

An undergraduate course in Environmental Engineering is taught, as well as MSc. courses in Sanitary Engineering, Land Planning and (starting September 1993) Marine Science.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Prof. J. Gomes Ferreira/Prof. M.H. Costa

**POST-ADDRESS:** DCEA,  
Faculdade de Ciências e Tecnologia,  
Quinta da Torre,  
2825 Monte de Caparica,  
Portugal

**PHONE:** +351 1 29554464

**FAX:** +351 1 2954461

**ak) CENTRE-NAME: Nuclear Electric Plc**

**VISIT-ADDRESS:** Loc 106,  
Barnett Way,  
Barnwood,  
Gloucester,  
GL4 7RS,

**COUNTRY:** United Kingdom

**DESCRIPTION:**

For information relating to Nuclear Electric Plc contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre****CONTACT-TITLE:** The Director**POST-ADDRESS:** Loc 106,  
Barnett Way,  
Barnwood,  
Gloucester,  
GL4 7RS,  
United Kingdom**PHONE:** +44 1452 652222**FAX:** +44 1452 652776**al) CENTRE-NAME: Plymouth Marine Laboratory (PML)****VISIT-ADDRESS:** Plymouth Marine Laboratory,  
Prospect Place,  
The Hoe,  
Plymouth,  
PL1 3DH,  
Devon,**COUNTRY:** United Kingdom**CENTRE-WEBSITE:** [www1.npm.ac.uk/](http://www1.npm.ac.uk/)**DESCRIPTION:**

The Plymouth Marine Laboratory (PML) was formed in 1988 through the merger of the former Institute for Marine Environmental Research and the Marine Biological Association. Research interests include the role of the oceans in the global carbon cycle; physical, chemical and biological processes in seas and estuaries; plant and animal communities; cell biology and response of marine organisms to pollutants. Facilities include a major library.

**Data Contact(s) within Data Holding Centre****CONTACT-TITLE:** The Director**POST-ADDRESS:** Plymouth Marine Laboratory,  
Prospect Place,  
The Hoe,  
Plymouth,  
PL1 3DH,  
Devon,  
United Kingdom**PHONE:** +44 1752 222772**FAX:** +44 1752 670637**am) CENTRE-NAME: Port Erin Marine Laboratory (PEML), University of Liverpool****VISIT-ADDRESS:** Port Erin Marine Laboratory,  
Port Erin,  
Isle of Man,**COUNTRY:** United Kingdom**CENTRE-WEBSITE:** [www.liv.ac.uk/peml/](http://www.liv.ac.uk/peml/)**DESCRIPTION:**

The Port Erin Marine Laboratory, established in 1892, provides facilities for Liverpool University staff,

students and researchers, as well as visiting workers. It is part of the University of Liverpool's School of Biological Sciences.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. J.R. Allen  
**POST-ADDRESS:** Port Erin Marine Laboratory,  
Port Erin,  
Isle of Man,  
United Kingdom  
**PHONE:** +44 1624 832027  
**FAX:** +44 1624 835788

**an) CENTRE-NAME: PowerGen Plc**

**VISIT-ADDRESS:** New Plant Options,  
Haslucks Green Road,  
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Solihull,  
West Midlands,  
B90 4PD,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.pgen.com/](http://www.pgen.com/)

**DESCRIPTION:**

For information relating to PowerGen Plc contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director  
**POST-ADDRESS:** New Plant Options,  
Haslucks Green Road,  
Shirley,  
Solihull,  
West Midlands,  
B90 4PD,  
United Kingdom  
**PHONE:** +44 121 701 2000

**ao) CENTRE-NAME: Proudman Oceanographic Laboratory (POL)**

**VISIT-ADDRESS:** Proudman Oceanographic Laboratory,  
Bidston Observatory,  
Birkenhead,  
Merseyside  
L43 7RA,  
United Kingdom



**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.pol.ac.uk/](http://www.pol.ac.uk/)

**DESCRIPTION:**

The Laboratory is a component body of the Natural Environment Research Council. Research is carried out on the dynamics of the seas over the continental shelf and its margins, and on sea levels, ocean topography and tides, worldwide. The British Oceanographic Data Centre (BODC) and the Permanent Service for Mean Sea Level (PSMSL) are housed at the Laboratory.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Proudman Oceanographic Laboratory,  
Bidston Observatory,  
Birkenhead,  
Merseyside  
L43 7RA,  
United Kingdom

**PHONE:** +44 151 653 8633

**FAX:** +44 151 653 6269

**ap) CENTRE-NAME: Severn Tidal Power Group**

**VISIT-ADDRESS:** Balfour Beatty Projects and Engineering Limited,  
Marlowe House,  
Station Road,  
Sidcup,  
Kent,  
DA15 7AU,  
United Kingdom

**COUNTRY:** United Kingdom

**DESCRIPTION:**

For information relating to Severn Tidal Power Group contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Balfour Beatty Projects and Engineering Limited,  
Marlowe House,  
Station Road,  
Sidcup,  
Kent,  
DA15 7AU,  
United Kingdom

**PHONE:** +44 181 300 3355

**FAX:** +44 181 300 5735

**aq) CENTRE-NAME: Storm Tide Forecasting Service (STFS), Meteorological Office**

**VISIT-ADDRESS:** Meteorological Office,  
London Road,  
Bracknell,  
Berkshire,  
RG12 2SZ,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.met-office.gov.uk](http://www.met-office.gov.uk)

**DESCRIPTION:**

The Storm Tide Forecasting Service (STFS) is operated by the Meteorological Office on behalf of the Ministry of Agriculture Fisheries and Food. STFS monitors tidal levels around the coasts of Britain. Established in 1953 to provide warning of coastal flooding, the service expanded in September 1973 to also warn of negative surges in the Southern North Sea that might present a navigation hazard. Further expansion to cover coastal flooding on the West Coast took place in 1978 followed by arrangements to cover the South Coast in 1983.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** STFS Manager

**POST-ADDRESS:** Meteorological Office,  
London Road,  
Bracknell,  
Berkshire,  
RG12 2SZ,  
United Kingdom

**PHONE:** +44 1344 854914

**FAX:** +44 1344 456663

**ar) CENTRE-NAME: United Kingdom Hydrographic Office, Taunton**

**VISIT-ADDRESS:** UK Hydrographic Office,  
Taunton,  
Somerset,  
TA1 2DN,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.ukho.gov.uk/](http://www.ukho.gov.uk/)

**DESCRIPTION:**

The UK Hydrographic Office is a Defence Support Agency operating as a Trading Fund whose mission is to meet national, defence and civil customer's needs for charts and other hydrographic information in support of safe navigation. It is now providing this information increasingly in digital form. The UKHO has a world wide series of charts and publications which it markets through a network of distributors to its commercial customers.

The UK Hydrographic Office also maintains the national hydrographic archive by supporting the national hydrographic survey programme, promoting international exchange and co-operation in the supply of data and acquiring hydrographic material from all sources available.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** John Pepper

**CONTACT-TITLE:** Senior Products Manager

**POST-ADDRESS:** Marketing Branch  
Hydrographic Office,  
Taunton,  
Somerset,  
TA1 2DN,  
United Kingdom

**PHONE:** +44 1823 337900

**FAX:** +44 1823 284077

**EMAIL:** john.pepper@ukho.gov.uk

**as) CENTRE-NAME: University Marine Biological Station (UMBS), Millport**

**VISIT-ADDRESS:** University Marine Biological Station,  
Millport,  
Isle of Cumbrae,  
KA28 0EG,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.gla.ac.uk/Acad/Marine/](http://www.gla.ac.uk/Acad/Marine/)

**DESCRIPTION:**

The University Marine Biological Station is a national field teaching facility with four full time academic staff plus several contract researchers. Activities include benthic surveys, study of shell fisheries, antifouling, aquaculture and a variety of ecological and physiological studies of marine organisms. Marine microbiology has a high profile. Two research vessels, diving facilities and support staff are available.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** University Marine Biological Station,  
Millport,  
Isle of Cumbrae,  
KA28 0EG,  
United Kingdom

**PHONE:** +44 1475 530581

**FAX:** +44 1475 530601

**at) CENTRE-NAME: University of Wales, Bangor, School of Ocean Sciences**

**VISIT-ADDRESS:** School of Ocean Sciences,  
University College of North Wales,  
Marine Sciences Laboratories,  
Menai Bridge,  
Gwynedd,  
LL59 5EH,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.sos.bangor.ac.uk/](http://www.sos.bangor.ac.uk/)

**DESCRIPTION:**

The School of Ocean Sciences (SOS) is part of the University of Wales Bangor. It is one of the two United Kingdom universities specialising in oceanography. The SOS is one of the largest marine science academic departments in Europe. Its research interests are multi-disciplinary (i.e. biological, chemical, geological and hydrodynamical) and relate not only to the water mass and what is

contained within it, but also the sediments lying below it.

The SOS is participating in several Natural Environment Research Council (NERC) Community Research Projects (CRPs), including the North Sea Project, the Biogeochemical Ocean Flux Study (BOFS), and the Land Ocean Interaction Study (LOIS). It acted as host laboratory to the NERC Community Research Project Plankton Reactivity in the Marine Environment (PRIME). In addition, the School is taking part in a number of CEC MAST projects, including PROFILE, MORENA, European Coastal Transition Zone project and Mapping of Sea Bottom Topography in a Multi-Sensor Approach.

Further details of the Department are available from the Departmental Secretary.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** Head of Department

**POST-ADDRESS:** School of Ocean Sciences,  
University College of North Wales,  
Marine Sciences Laboratories,  
Menai Bridge,  
Gwynedd,  
LL59 5EH,  
United Kingdom

**PHONE:** +44 1248 351151

**FAX:** +44 1248 716367

**EMAIL:** enquiries@sos.bangor.ac.uk

**au) CENTRE-NAME: Wexford County Council**

**VISIT-ADDRESS:** Wexford County Council,  
County Hall,  
Wexford,

**COUNTRY:** Ireland

**DESCRIPTION:**

The County Council has been responsible for carrying out (or commissioning) a variety of environmental quality monitoring measurements along the coast of County Wexford. It has a policy of making this information available, free of charge, upon request from any person, under the following conditions:

a) the person receiving the information acknowledges that the information is from the Council and does not claim ownership of same;

b) the person quoting from the Council's statistics does not quote selectively from these statistics.

**Data Contact(s) within Data Holding Centre**

**ADDRESS:** County Engineer's Department  
Wexford County Council,  
County Hall,  
Wexford,  
Ireland

**PHONE:** +353 53 22211

**av) CENTRE-NAME: Wicklow Harbour Commissioners**

**VISIT-ADDRESS:** Wicklow Harbour Commissioners,  
North Quay,

Wicklow,  
County Wicklow,

**COUNTRY:** Ireland

**DESCRIPTION:**

Wicklow is a commercial port but also caters for leisure activities. Paper, timber, steel, lead, machinery, stone, coal, woodchips and bark are the usual types of cargo handled. The harbour is situated two miles north of Wicklow Head. The river Leitrim flows through the harbour. The outer harbour is formed by two piers. Main commercial activity takes place in the inner harbour where berths for vessels are situated on both banks of the river. Information concerning depths and port facilities are available on request.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Secretary

**POST-ADDRESS:** Wicklow Harbour Commissioners,  
North Quay,  
Wicklow,  
County Wicklow,  
Ireland

**PHONE:** +353 404 67455

**8) Spreadsheet of bibliography and metadata**

See attached Excel spreadsheet (Appendix 1).

## Appendix 1: Excel spreadsheet for Bibliography and Metadata Listings

reference type	author	year	title	name	volume	issue	pages	ISBN/ISSN	publisher/inst	place	number of vols	editor	type	scale	notes
book section	Bowden KF	1980	Physical and Dynamical Oceanography of the Irish Sea	The North-West European Shelf Seas: The Sea Bed and the Sea in Motion.	24B		chapter 12		Elsevier Scientific Publishing Company	Amsterdam		FT Banner, MB Collins and KS Massie			reference for summary narrative
journal article	Flather RA	1987	Estimates of the extreme conditions of tide and surge using a numerical model of the shelf.	Est Coast Shelf Sci	24		64-93								reference for summary narrative
book section	Hill AE	1997	Buoyancy effects in coastal and shelf seas	The Sea	10		chapter 2		Wiley	New York		KH Brink and AH Robinson			reference for summary narrative
conference procs	Howarth MJ et.al	1995	Measurements of net flow through a channel.	Proc IEEE 5th Working Conference on Current Measurements			121-126		IEEE	New York		SP Anderson, GF Appell and AJ Williams			reference for summary narrative
journal article	Sherwin TJ	1997	Inertial oscillations in the Irish Sea	Cont Shelf Res	7		191-213								reference for summary narrative
book section	Simpson JH	1998	The Celtic Seas	The Sea	11		659-698		Wiley	New York		KH Brink and AH Robinson			reference for summary narrative
electronic source	Ormond R	1992	Sea surface temperature at Keppel Pier, Clyde Estuary (1949-)	dataset					University Marine Biological Station	Millport			The data set comprises sea surface temperature measurements taken daily at approx 9am with a dipstick thermometer		Location=Clyde Sea, free, quality 2, lat 55-56, long 4-5W.
electronic source	Allen J	1993	Port Erin temperature and salinity data set (1904-)	dataset					Port Erin Marine Laboratory	Isle of Man			Temperature and salinity data have been collected by in Port Erin Bay, Isle of Man. Temperature is recorded twice daily (1000h and 1600h) and salinity daily at 1600h.		Location=Port Erin Bay, free, quality 2, lat 54-55, long 4-5West.
journal article	Slinn, J	1974	Irish Sea nutrient and hydrography data set (1954- )	Estuarine and Coastal Marine Science	2								Nutrient and hydrographic data are collected in two areas. Firstly at station about 5km west of Port Erin (54deg 5.5'N, 4deg 50'W) known as 'Cypris' station, and secondly at 9 stations approximately 10 nautical miles apart along the 54deg N parallel from the Irish to the English coast.		location west of Port Erin, free, quality 2, lat 54-54.1, long 4-5W
electronic source	Rickards L	1993	Regions of Freshwater Influence (ROFI) Data Set (1990-1993)	dataset					University of Wales, Bangor,				temperature, salinity, transmittance, chlorophyll, suspended sediments, current speed and direction		location=Rhine Outflow, English Channel; Clyde Outflow, Irish Sea, free, quality 3, lat 51-55.6, lon 2-6.5W
electronic source	Rickards L	1994	CTD and moored current meter data in the Irish Sea (1979-)	dataset					University of Wales, Bangor,				The data set comprises over 1300 CTD profiles collected in the Irish Sea from 1977 onwards on over 40 cruises. Some of these are on a grid in Liverpool Bay, while the remainder are from the western Irish Sea. In addition, moored current meter and thermistor chain data have been collected.		location Liverpool Bay, western Irish Sea, free, quality 3, lat 51-55.6, lon 2-6.5W
report	Geddes, N.R.	1993	Measured Data Sets held by DRA Sonar Performance Division	Report DRA/US/USSF/TM93201 /1.0					DERA	Portland			The data set comprises a thermistor chain trial in deep water south of the shelf, to assess the internal wave climate in the upper 200m. Navigation data were also collected.		location SW approaches, cost, quality 2, availability uncertain; contact NR Geddes
map	The Admiralty	1988	UK Admiralty Co-tidal and Co-Range Charts and tidal stream atlases around the British Isles	dataset					The Admiralty				Co-tidal and co-range charts show lines of equal range and equal times of tides, or data of harmonic constants, for certain areas around the United Kingdom. Sixteen atlases show diagrammatically, with the use of arrows, the tidal streams in parts of north-west Europe at hourly intervals.		location all Irish Sea, cost, quality 3, lat 51-55.6, lon 2-6.5, for availability see www.ukho.gov.uk/

report	S.D. Utting	UK coastal sea water 1982 quality survey (1980-1982)	CEFAS internal report	CEFAS	Lowestoft			Sea water was collected at high tide on a weekly basis from March to October inclusive. Temperature was taken at the time of collection using a thermometer.	location Anglesey and Conway, free, quality 1, lat 53-54, lon 3-5 W, availability contact Contracts Office, CEFAS, Lowestoft
electronic source	Medler K	CEFAS Laboratory, Lowestoft, moored current 1997 meter data set (1968-)	dataset	CEFAS	Lowestoft			The data set comprises time series measurements of ocean currents from moored instruments, mainly collected in the continental shelf seas around the British Isles. CTD data are also available	location all Irish Sea, free, quality 4, lat 51-55.6, lon 2-6.5, for availability see Contracts Office, CEFAS, Lowestoft
report	Jones, S.R. and Jeffs, T.M	Near Surface sea temperatures in coastal waters of the North Sea, English Channel and Irish 1991 Sea	MAFF Fisheries Research Data Report No. 24	CEFAS	Lowestoft	24		Sea temperature at a network of stations	location all Irish Sea, free, quality 2, lat 51-55.6, lon 2-6.5, for availability see Contracts Office, CEFAS, Lowestoft
electronic source	Medler K	UK shelf seas nutrients 1997 data set (1960-)	dataset	CEFAS	Lowestoft			This data set consists of a database which holds all available MAFF/ CEFAS nutrient data collected since 1960, and is regularly updated.	location all Irish Sea, free, quality 2, lat 51-55.6, lon 2-6.5, for availability see Contracts Office, CEFAS, Lowestoft
electronic source	Kershaw PJ	Artificial radionuclides in the waters of the north west 1993 European shelf seas	dataset	CEFAS	Lowestoft			The distribution of artificial radionuclides released into the marine environment as a result of fuel reprocessing (Sellafield, La Hague, Dounreay), the normal operation of nuclear power stations (e.g. Sizewell, Winfrith, UK) and inadvertent releases (e.g. Chernobyl) have been investigated in detail.	location all Irish Sea, free, quality 2, lat 51-55.6, lon 2-6.5, for availability see Contracts Office, CEFAS, Lowestoft
journal article	Francis, P.E	U.K. Meteorological Office European Waters Wave 1985 Model Archive	Meteorology magazine	Met Office		114	234-241	Nested within the Global Wave Model (q.v.) is a European Waters WaveModel, which is a depth-dependent second-generation model operating on a latitude/longitude grid with spacing 0.25 degrees latitude by 0.4 degrees longitude.	location all Irish Sea, cost, quality 4, lat 51-55.6, lon 2-6.5, for availability see Marine Advisory Service
report	Turrell, W.R. and Slessor, G	) Annual Cycles of Physical, Chemical, and Biological Parameters in Scottish 1992 Waters	Scottish Fisheries Working Paper	Marine Lab Aberdeen	Aberdeen	5		This data set comprises CTD and/or STD profiles and current meter data, hydrographic data and self-recording instrument data.	location Scottish coast, free, quality 3, lat 54-55.6, lon 2-6.5, for availability see BODC and/or ICES
electronic source	Rickards L	POL Databank of Bottom Pressure Recorder Data from the shelf seas around 2001 the UK (1970-1983)	dataset	Proudman Oceanographic Lab	Birkenhead			The data set comprises time series measurements from offshore pressure gauges mounted on the sea floor.	location continental shelf seas, free, quality 3, lat 51-55.6, lon 2-6.5W, available from BODC
electronic source	Rickards L	UK National Databank of Moored Current Meter Data 1998 (1967-)	dataset	BODC	Birkenhead			The data set comprises time series measurements of ocean current from moored instruments, mainly collected in the continental shelf seas around the British Isles.	location continental shelf seas, free, quality 3, lat 51-55.6, lon 2-6.5W, available from BODC, unless commercially confidential
electronic source	Rickards L	NW European Shelf Tidal Current Constituent Data 2001 Bank (1970- 1988)	dataset	BODC	Birkenhead			The data set comprises full tidal analyses for over 800 current meter records collected at 400 sites in the seas around the British Isles, covering the continental shelf area and the shelf slope.	location continental shelf seas, free, quality 3, lat 51-55.6, lon 2-6.5W, available from BODC.
electronic source	Rickards L	UK National Databank of CTD/STD profiles (1975-)	dataset	BODC	Birkenhead			The CTD/STD databank comprises approximately 27,000 profiles of conductivity-temperature-depth data, collected by UK laboratories, from 1975 onwards.	location continental shelf seas, free, quality 3, lat 51-55.6, lon 2-6.5W, available from BODC.



electronic source	Rickards L	UK classical hydrographic station data set (1893-)	dataset				BODC	Birkenhead	This data set, compiled by the ICES Oceanographic Data Centre, comprises some 90939 profiles, all have been quality checked, cross-checked against original documentation, and all duplications removed.	location continental shelf seas, free, quality 4,lat 51-55.6, lon 2 6.5W, available from BODC.
electronic source	Rickards L	UK National Databank of Wave Data (Short term statistics) (1955-1985)	dataset				BODC	Birkenhead	The data set comprises time series of wave height and period data from in-situ wave recorders at fixed locations.	location continental shelf seas, free, quality 4,lat 51-55.6, lon 2 6.5W, available from BODC.
electronic source	Rickards L	MAFF Sea Surface Temperature and Salinity Data Set (ship routes to and from the UK) (1963-1990)	dataset				BODC	Birkenhead	Sea surface temperature and salinity data have been collected by ships regularly plying routes between ports in the British Isles and the Continent, and on routes to the Ocean Weather Stations (OWS) in the NorthAtlantic.	location continental shelf seas, free, quality 4,lat 51-55.6, lon 2 6.5W, available from BODC.
electronic source	Rickards L	Port Erin (Isle of Man, Irish Sea) Temperature, Salinity and Nutrient Data Set (1904-1982)	dataset				BODC	Birkenhead	Temperature is recorded twice daily (at 1000h and 1600h) and salinity daily (at 1000h) at Port Erin breakwater. Measurements began in 1904 and this data set includes data up to 1982.	location Isle of Man, free, quality 2,lat 54-54.1, lon 4-.5W, available from BODC.
electronic source	Rickards L	POL Moored Current Meter and CTD/STD Databank (1968-)	dataset				Proudman (POL)	Birkenhead	The data set comprises time series measurements of ocean currents from moored instruments, mainly collected in the continental shelf seas around the British Isles. CTD and STD measurements are also included.	location continental shelf seas, free, quality 4,lat 51-55.6, lon 2 6.5W, available from BODC.
electronic source	Rickards L	The POL Operational Storm Surge Model Data Archive (1982-)	dataset				Proudman (POL)	Birkenhead	A storm surge forecast scheme, makes use of meteorological data from the Limited Area Model (LAM) which runs operationally at the UK Meteorological Office for weather forecasting	location continental shelf seas, free, quality 3,lat 51-55.6, lon 2 6.5W, available from BODC.
report	Proctor, R. and Smith, J.A	. The depth-averaged residual circulation on the North West European Shelf, August 1988 - October 1989	Proudman Oceanographic Laboratory Rep	20	1-255		Proudman (POL)	Birkenhead	Hourly values of tide and surge (elevation and horizontal components of current) have been combined to produce the residual circulation of the North Sea and the seasonal flow around the shelf.	location continental shelf seas, free, quality 3,lat 51-55.6, lon 2 6.5W, available from BODC.
report	Prandle, D	HF Radar along the Cumbrian coast (October-December 1989) and in the eastern Irish Sea (1985-1989)	Proudman Oceanographic Laboratory Rep	31			Proudman (POL)	Birkenhead	A three phase deployment of the new Ocean Surface Current Radar system (OSCR-2) was made along the Cumbrian coast between Walney Island and Silloth	location Cumbrian coast, free, quality 3,lat 54-55, lon 3-4 W, available from BODC
report	Knight, P.J.et.al.	Current Profile and River Bed Pressure and Temperature Records, July 1992 - River Mersey,	Proudman Oceanographic Laboratory Rep	27	1-115		Proudman (POL)	Birkenhead	The data set comprises records for six moorings situated along a transect across the River Mersey at 53deg 25'N, 3deg 1'W.	location Mersey, free, quality 3, lat 53.4-53.5, lon 3-3.1 W,available from BODC
electronic source	Ferris N	Drogue float measurements around the coast of Northern Ireland for computer model validation (1987-1989)	dataset				IRTU	Lisburn	current speed and direction at various depths	location N Irish coast, cost, quality 2,lat 51-55.6, lon 2-6.5W, availability subject to customer release
electronic source	Osborne, M	Water level data from the Duddon Estuary (1992) and surface current data from the Severn Estuary (1988)	dataset				Severn Tidal Power Group		The data set comprises two data series: firstly, water level data from the Duddon estuary, eastern Irish Sea (54deg 10.78'N, 003deg 15.72'W, water depth 5m), secondly, surface current vector data for 36 radar intersects, collected in the Severn Estuary (51deg 15'N, 003deg 12'W)	location Duddon and severn, cost, quality 2, lat 54-55.5, lon 3-3.5 W; contact Metocean for details of availability

report	Hawkes PJ	'Wave data around the coast of England and Wales: A review of instrumentally recorded 1995 information',	HR Wallingford Report			HR Wallingford	Wallingford	Reports include standard plots of wave height, period, direction where available, and extremes.	location all Irish Sea, cost, quality 3,lat 51-55.6, lon 2-6.5, for availability see HR Wallingford
report	Hawkes PJ	'UK Meteorological Office 1995 Wave Model'	HR Wallingford Report			HR Wallingford	Wallingford	Three-hourly hindcasts of wind and wave conditions	location European waters, 25-30km grid, cost, quality 2,lat 51-55.6, lon 2-6.5W, available from HR Wallingford
journal article	Pratt, I.T.	Storm surges greater than 1995 0.6m (1956-)	Weather	50	42-48	Met Office		Records of events where surge residual elevations exceed 0.6m are kept	location all Irish Sea, cost, quality 2,lat 51-55.6, lon 2-6.5, for availability see Storm Tide Forecasting Service, Met Office
report	Dooley, H	Oceanographic profile data from the North Atlantic and adjacent seas (1896 2000 onwards)	ICES information sheet			ICES	Denmark	Oceanographic profile data from the North Atlantic and adjacent seas (1896 onwards)  The aim of the project was to measure the wave heights at the seven locations prior to replacing the manned lightvessels with buoys and automated lightfloats	location all Irish Sea, free, quality 4,lat 51-55.6, lon 2-6.5, for availability see ICES
electronic source	Rickards L	Wave data from 2000 lightvessels in the Irish Sea	dataset			BODC	Birkenhead		location all Irish Sea, free, quality 3,lat 51-55.6, lon 2-6.5, available from BODC
electronic source	Keane G	Compilation of wave data in the Irish sector of the Irish 2000 Sea	dataset			Forbairt Ocean Services Department		Compilation of wavestaff measurementsand model output of Met Office fine mesh wave model	location all Irish Sea, cost, quality 3,lat 51-55.6, lon 2-6.5, partly available from BODC, otherwise restricted
electronic source	Raine R	Hydrographic stations (STD profiles) in Irish coastal 2000 waters	dataset			Martin Ryan Institute		Files of temperature-salinity profiles for every station sampled by the Departments's research team. Data calibrated with reversing thermometers and shore-based inductively coupled salinometer.	location all Irish Sea, free, quality 2,lat 51-55.6, lon 2-6.5, freely available from Martin Ryan Institute
electronic source	McNamara N	Computer modelling of waves, wave energy and water circulation in Irish 1991 waters	dataset			Department of Mechanical Engineering	Galway	A range of computer simulation studies	location all Irish Sea, free, quality 2,lat 51-55.6, lon 2-6.5,available from University College of Galway.
journal article	Mansfield M	Dublin Bay Water Quality 1992 Management Plan	Environmental Protection Agency technical report	3		EPA	Wexford	The work comprised field studies of currents and dispersion in Dublin Bay, particularly those affecting dispersal and fate of discharge from the main sewage outfall at Ringsend.	location Dublin Bay, free, quality 2, lat 53deg 21'N,lon 6deg 15'W, available from EPA
electronic source	Cheilachair O	Irish ocean temperature 1995 data set	dataset			Irish Marine Data Centre	Dublin	Over 50,000 temperature profiles have been obtained from sources including the US NODC (CD-ROMs NODC-02 and NODC-03) and the UK Royal Navy Hydrographic Office (Royal Navy Bathythermograph Data CD-ROM, 1947-1990).	location all Irish Sea, free, quality 3,lat 51-55.6, lon 2-6.5,available from Irish Marine Data Centre (ISMARE).
journal article	Bulgarelli B. and F. Melin	). SeaWiFS data processing code REMBRANDT version 1.0. 2000 Code Elements.	COAST Annual Report 2000			Joint Research Centre	Ispra (VA)	The Sea-Viewing Wide Field of View Ocean Sensor (SeaWiFS) Archive includes images at level 1 (original top-of-the-atmosphere radiances), at level 2 (surface reflectances and derived geophysical parameters) and at level 3 (remapped, composited statistical products).	location all Irish Sea, free, quality 3,lat 51-55.6, lon 2-6.5,available from the Joint Research Centre.

The Coastal Zone Color Scanner (CZCS) European Archive was generated by the OceanColour European Archive Network (OCEAN) Project, which performed a complete reappraisal of all of the CZCS ocean colour data available for the European Seas, for the period between 1979 and 1985.

location all Irish Sea, free, quality 3,lat 51-55.6, lon 2-6.5,available from the Joint Research Centre.

journal article	Barale, V. et.al.	'OCEAN' PROJECT: THE EUROPEAN ARCHIVE OF 1999 CZCS HISTORICAL DATA, Remote Sensing	International Journal of	20	7 1201-1218	Joint Research Centre	Ispira (VA)
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## Appendix 2: Complete listing of organisations, contacts and data set descriptions

**a) CENTRE-NAME: Aqua-Fact International Services Ltd.**

**VISIT-ADDRESS:** Aqua-Fact International Services Ltd.,  
7 Innovation Centre,  
Newcastle,  
Galway,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

Aqua-Fact International Services is an aquatic consultancy offering specialised expertise in the marine domain. We specialise in assessing impacts on the marine environment and offer a broad range of capabilities which include physical, chemical and biological analyses. We are the sole providers of sediment profile imaging (SPI) in Europe.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. Brendan O'Connor

**POST-ADDRESS:** Aqua-Fact International Services Ltd.,  
7 Innovation Centre,  
Newcastle,  
Galway,  
Ireland

**PHONE:** +353 91 25009

**FAX:** +353 91 25000

**b) CENTRE-NAME: British Gas Plc**

**VISIT-ADDRESS:** Coventry Road,  
Hinckley,  
LE10 0NA,  
United Kingdom

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.britishgas.co.uk/](http://www.britishgas.co.uk/)

**DESCRIPTION:**

For information relating to British Gas Plc contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Coventry Road,  
Hinckley,  
LE10 0NA,  
United Kingdom

**PHONE:** +44 1455 251111

**DATASET-NAME:** Current meter and water level data at several sites around the UK (1980-1984, 1992-1993)

**TIME-PERIOD:** from July 1980 to December 1984; from August 1992 to March 1993

**GEOGRAPHIC-  
COVERAGE:** North Channel, Irish Sea, St. Georges Channel, North Sea, west of Shetland

**PARAMETERS:** current speed and direction, water levels

**INSTRUMENTS:** Neil Brown ACM, Aanderaa RCM4, Aanderaa RCM7, NBA DNC-3, Acoustic Doppler; Aanderaa WLR7, Aanderaa WLR-5, NBA DNW-5

**SUMMARY:**

The data set comprises current meter measurements made in the North Channel, Cardigan Bay, west of Shetland, Rough Field (North Sea) and Morecambe Bay. In addition, water level measurements were made in the North Channel, Morecambe Bay, West Sole B and Buchan Field. The data are summarised below:

Site	Latitude (deg min)	Longitude (deg min)	Water Depth (m)	Start Date	End Date
Currents:					
Morecambe Bay	53 51.5N	003 37W	30	30 Oct 1982	22 Jan 1983
Rough Field	53 50.8N	000 26.13E	38	28 Mar 1984	10 May 1984
W of Shetland	61 06.68N	002 06.1W	548	25 Jun 1984	24 Jul 1984
Cardigan Bay	52 22.13N	004 48.55W	49	08 Nov 1984	06 Dec 1984
North Channel	54 58.41N	005 12.14W	30	09 Aug 1992	14 Sep 1992
North Channel	54 52.07N	005 43.23W	56	17 Feb 1993	21 Mar 1993
North Channel	54 53.06N	005 38.29W	115	17 Feb 1993	21 Mar 1993
North Channel	54 58.01N	005 21.08W	170	17 Feb 1993	24 Mar 1993
Levels:					
Buchan Field	57 54N	000 04E	120	24 Jul 1980	08 Aug 1980
West Sole B	53 43N	001 07E	25	01 Apr 1981	04 May 1981
Morecambe Bay	53 51.5N	003 37W	30	07 Dec 1982	22 Jan 1983
North Channel	54 52.38N	005 29.54W	137	17 Oct 1992	28 Nov 1992

**STORAGE-MEDIUM:** magnetic media

**AVAILABILITY:** Contact Metocean for details

**COMPLETED-BY:** M. Osborne, Metocean/L.J. Rickards, BODC

**REVISION-DATE:** 1/28/94

**c) CENTRE-NAME:** British Oceanographic Data Centre (BODC)

**VISIT-ADDRESS:** Proudman Oceanographic Laboratory,  
Bidston Observatory,  
Bdston Hill,  
PRENTON,  
Merseyside,  
CH43 7RA,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.bodc.ac.uk](http://www.bodc.ac.uk)

**DESCRIPTION:**

BODC operates on behalf of the Marine Science and Technology Board of the UK's Natural

Environment Research Council and acts as the UK's focal point for international oceanographic data exchange. It participates within the Intergovernmental Oceanographic Commission (IOC)'s network of national oceanographic data centres (NODCs) and was a founding partner of the European Sea-Search network.

BODC maintains a national oceanographic database, and provides a data service to research scientists, industry, and local and central government, and to major oceanographic programmes. In particular, it provides active data management support to NERC's Thematic Projects, including the AUTOSUB, LOIS and PRIME projects and the UK components of JGOFS and WOCE. It is the WOCE Data Assembly Centre for sea level data and, on behalf of the IOC and IHO Joint Guiding Committee for the General Bathymetric Chart of the Oceans (GEBCO), is responsible for developing the GEBCO Digital Atlas. BODC also acts as the data centre for a number of EC/MAST projects including OMEX, INDIA and PROVESS.

BODC exchanges data freely with other NODCs on a bilateral basis, but reserves the right to charge other users the marginal costs involved in making data available e.g. costs of copying, materials and postage. These charges may be waived for reasonable requests in support of bona-fide scientific research. Some data held by BODC are of restricted availability, awaiting final clearance by the scientists involved in their original collection.

#### **Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** BODC Enquiries Officer  
**POST-ADDRESS:** Proudman Oceanographic Laboratory  
Bidston Observatory  
PRENTON CH43 7RA  
Merseyside  
United Kingdom  
**PHONE:** +44 (0) 151 653 1510  
**FAX:** +44 (0) 151 652 3950  
**EMAIL:** enquiries@bodc.ac.uk

**DATASET-NAME:** POL Databank of Bottom Pressure Recorder Data from the shelf seas around the UK (1970-1983)

**TIME-PERIOD:** from 1970 to 1983  
**GEOGRAPHIC-  
COVERAGE:** Continental shelf areas around the British Isles.  
**PARAMETERS:** total pressure (seawater plus atmospheric), relative pressure  
**INSTRUMENTS:** pressure sensors

#### **SUMMARY:**

The data set comprises time series measurements from offshore pressure gauges mounted on the sea floor. The data holdings are approximately 250 observation months from 100 sites. The data have been collected in the continental shelf seas around the British Isles. Data records contain date/time, total pressure and, occasionally, temperature. The sampling interval is typically 15 minutes or hourly, over deployment periods ranging from 1 to 6 months. Data were collected mainly by the Proudman Oceanographic Laboratory (POL), Bidston and are managed by BODC.

**DATA-WEBSITE:** [www.bodc.ac.uk/projects/wocedac/gloup/gloupbpr.html](http://www.bodc.ac.uk/projects/wocedac/gloup/gloupbpr.html)

**ORIGINATOR:** Proudman Oceanographic Laboratory

**STORAGE-MEDIUM:** Magnetic and optical disk

**AVAILABILITY:** Data are freely available from BODC or POL.

**SUPPLY-DETAILS:** The data are available for download from the BODC and POL ([www.pol.ac.uk/psmsl/programmes/gloop.html](http://www.pol.ac.uk/psmsl/programmes/gloop.html)) web sites. Data are in ASCII format. These data can also be supplied on floppy disk.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/19/01

**DATASET-NAME: UK National Databank of Moored Current Meter Data (1967-)**

**TIME-PERIOD:** from 1967 onwards

**GEOGRAPHIC-  
COVERAGE:** NE Atlantic and continental shelf areas around the British Isles

**PARAMETERS:** current speed, current direction; also temperature, pressure and conductivity

**INSTRUMENTS:** Current meters including Aanderaa, Plessey, NBA, RDI ADCPs, etc.

**SUMMARY:**

The data set comprises time series measurements of ocean currents from moored instruments, mainly collected in the continental shelf seas around the British Isles (for example, the North Sea, Irish Sea, Celtic Sea) or the eastern North Atlantic. Data holdings are approximately 3700 data series comprising 7000 meter months of data, primarily from UK laboratories. Data records contain current speed and direction. In addition, temperature is often measured and pressure and conductivity are occasionally measured. Sampling intervals vary between 5 and 60 minutes. Current meter deployments are typically 2-8 weeks duration in shelf areas but up to 6-12 months in the open ocean. There are about 50 sites with 1 or more years of data; 6 sites have 3 to 8 years of data. About 25 per cent of the data are in water depths of greater than 200m.

A computerised inventory is available on-line ([www.bodc.ac.uk](http://www.bodc.ac.uk)) to conduct searches.

Data are quality controlled prior to loading to the databank. Data cycles are visually inspected by means of a sophisticated screening software package using a high-speed graphics workstation. Data from current meters on the same mooring or adjacent moorings can be overplotted. Data can be displayed as time series or scatter plots. Series header information accompanying the data is checked and documentation compiled detailing data collection and processing methods.

**DATA-WEBSITE:** [www.bodc.ac.uk/services/current\\_meter\\_search/current\\_meter\\_search.html](http://www.bodc.ac.uk/services/current_meter_search/current_meter_search.html)

**STORAGE-MEDIUM:** Magnetic and optical disk

**AVAILABILITY:** Some restrictions apply to recently collected data and data collected by commercial companies. BODC reserves the right to charge for the marginal costs involved in making data available e.g. costs of copying, materials and postage.

**SUPPLY-DETAILS:** Searches for data can be made from the BODC web site. Data requested can be made available by BODC via ftp, CD-ROM or on floppy disk. Data are supplied in ASCII format.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/19/01

**DATASET-NAME: NW European Shelf Tidal Current Constituent Data Bank (1970- 1988)**

**TIME-PERIOD:** from approx. 1970 to 1988



**GEOGRAPHIC-  
COVERAGE:** NW European Shelf (North Sea, Irish Sea, English Channel)

**PARAMETERS:** tidal constituents

**SUMMARY:**

The data set comprises full tidal analyses for over 800 current meter records collected at 400 sites in the seas around the British Isles, covering the continental shelf area and the shelf slope. The vast majority of the analyses in this data set are based on harmonic analyses, where the amplitude and phases of the tidal constituents are determined by a least squares fit. The data were selected from the BODC Current Meter Databank so as to provide representative coverage over the shelf areas - only good quality series were selected.

**STORAGE-MEDIUM:** Magnetic disk; Oracle RDBMS

**AVAILABILITY:** BODC reserves the right to charge for the marginal costs involved in making data available e.g. costs of copying, materials and postage.

**SUPPLY-DETAILS:** Data requested can be made available by BODC via ftp or on floppy disk. Data are supplied in ASCII format.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/19/01

**DATASET-NAME:** UK National Databank of CTD/STD profiles (1975-)

**TIME-PERIOD:** from 1975 onwards

**GEOGRAPHIC-  
COVERAGE:** Primarily North Atlantic and UK continental shelf, some Indian Ocean and Southern Ocean data

**PARAMETERS:** conductivity/salinity, temperature, depth/pressure, occasionally oxygen, transmittance, chlorophyll fluorescence

**INSTRUMENTS:** electronic conductivity/salinity-temperature-depth recorders (e.g. Neil Brown, Plessey CTD), oxygen sensors, transmissometers, fluorometers

**SUMMARY:**

The CTD/STD databank comprises approximately 27,000 profiles of conductivity-temperature-depth data, collected by UK laboratories, from 1975 onwards. These data have been collected on about 200 research cruises. Recent data collected during NERC Community Research Projects (for example, the North Sea Project, the Biogeochemical Ocean Flux Study and the World Ocean Circulation Experiment) are not included in this data set.

Data from about 75 cruises have been collected in the shelf seas around the British Isles (i.e. North Sea, Irish Sea). The data have usually been supplied as 1 second averages. Since the CTD is usually lowered through the water column at rates of between 0.5 and 1.5 m/s, this means that the data are at depth intervals of between 0.5 to 1.5m. Approximately 50 per cent of the total number of profiles have been collected in the shelf seas, most of these being in the Irish Sea.

The remaining data were collected in the deep ocean, although some data were collected on sections from the continental shelf oceanwards. Profiles collected in the deep ocean may obtain data down to 5000m. Data are usually supplied as 2, 5 or 10 decibar averages. 40 per cent of these data have been collected on a section from the west coast of Scotland to Rockall, repeated several times each year over the last 15 years. These measurements have been carried out by the Dunstaffnage Marine Laboratory, Oban, UK. Apart from 5 cruises to the Indian Ocean, 1 to the South Atlantic and 5 to the Southern Ocean, most of the remaining 50 cruises have been in the North East Atlantic.

**DATA-WEBSITE:** [www.bodc.ac.uk/](http://www.bodc.ac.uk/)

**ORIGINATOR:** Data have been supplied to BODC by many organisations including NERC centre/surveys and units, the Centre for Environment, Fisheries and Aquaculture Science (CEFAS), the Fisheries Research Services (FRS, Scottish Executive Rural Affairs Department (SERAD)), the Ministry of Defence (MoD) and university departments.

**STORAGE-MEDIUM:** Magnetic and optical disk

**AVAILABILITY:** Some restrictions apply to recently collected data. BODC reserves the right to charge for the marginal costs involved in making data available e.g. costs of copying, materials and postage.

**SUPPLY-DETAILS:** Data requested can be made available by BODC via ftp, CD-ROM or on floppy disk. Data are supplied in ASCII format.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/19/01

**DATASET-NAME: UK classical hydrographic station data set (1893-)**

**TIME-PERIOD:** from 1893 onwards

**GEOGRAPHIC-  
COVERAGE:** shelf seas around the UK, eastern North Atlantic, Norwegian Sea, Barentsz Sea, Mediterranean Sea, South Atlantic, Southern Oceans, Indian Ocean, Arabian Sea, East Indian Archipelago (Indonesia)

**PARAMETERS:** temperature, salinity, nutrients, oxygen, pH, alkalinity, chlorophyll a

**SUMMARY:**

Oceanographic data has been routinely collected by UK research and naval vessels since the beginning of the twentieth century. This data set, compiled by the ICES Oceanographic Data Centre, comprises some 90939 profiles. All of the profiles in this data set have been quality checked, cross-checked against original documentation, and all duplications removed. This data set is one of the most complete of its kind in the world; about 90 per cent of the data known to have been collected prior to 1970 have been 'rescued' and work will continue to rescue the remainder.

The data set only includes the classical oceanographic parameters of temperature, salinity, nutrients, oxygen, pH, alkalinity, and chlorophyll-a. In recent years, CTD data have been collected in a higher resolution form than water bottle data; these have been included in this data set in a reduced resolution/water bottle form and merged with any available chemical parameters. The data comprising this data set have been collected in the shelf seas around the UK, the North Atlantic, the Norwegian Sea, the Barentsz Sea, the Mediterranean Sea, the South Atlantic, the Southern Oceans, the Indian Ocean, the Arabian Sea and the East Indian Archipelago (Indonesia).

**STORAGE-MEDIUM:** magnetic and optical disk files

**AVAILABILITY:** The data set is available from BODC or from ICES. These data are also included in the World Ocean Atlas CD-ROM data set available from the Ocean Climate Laboratory, US NODC ([www.nodc.noaa.gov](http://www.nodc.noaa.gov)).

**SUPPLY-DETAILS:** Data can be requested from BODC or downloaded directly from the ICES web site ([www.ices.dk/ocean](http://www.ices.dk/ocean)) as part of the larger ICES Oceanographic Data Set.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/19/01

**DATASET-NAME: UK National Databank of Wave Data (Short term statistics) (1955-1985)**

**TIME-PERIOD:** from 1955 onwards

**GEOGRAPHIC-  
COVERAGE:** Continental shelf areas around the British Isles; also some data in the NE Atlantic.

**PARAMETERS:** significant/characteristic wave height, mean zero crossing period

**INSTRUMENTS:** shipborne wave recorders, moored waverider buoys, pressure recorders.

**SUMMARY:**

The data set comprises time series of wave height and period data from in-situ wave recorders at fixed locations. Data holdings include over 1500 recording months of data from some 60 sites, primarily from UK and Irish laboratories. Principal parameters are significant/characteristic wave height and mean zero crossing period - usually derived from the analysis of 20 or 30 minute recordings taken at intervals of the order of 3 hours. Recording periods vary from 2 months at some sites to over 15 years. The longer series are noted below:

Site Name	Latitude dd mm.mh	Longitude ddd mm.mh	Data Recording Period dd mmm yyyy - dd mmm yyyy
Channel Lightvessel	49 54.4N	002 53.7W	01 Sep 1979 - 31 Dec 1985
Dowsing Lightvessel	53 34.0N	000 50.2W	01 May 1970 - 30 Apr 1971 01 Nov 1975 - 30 Jun 1981 01 Jan 1982 - 31 Dec 1982 01 Jan 1984 - 31 Dec 1984
Ocean Weather Ship Lima	57 00.0N	020 00.0W	01 Jan 1975 - 31 Dec 1983
Saint Gowan Lightvessel	51 30.0N	004 59.8W	01 Aug 1975 - 31 Jul 1976 01 Dec 1976 - 31 Dec 1983
Seven Stones Lightvessel	50 03.8N	006 04.4W	31 Jan 1962 - 31 Jan 1963 01 Jan 1968 - 31 Dec 1969 01 Jul 1971 - 30 Jun 1974 01 Apr 1975 - 31 Dec 1985

**DATA-WEBSITE:** [www.bodc.ac.uk/](http://www.bodc.ac.uk/)

**STORAGE-MEDIUM:** Magnetic and optical disk

**AVAILABILITY:** The data are available upon request from BODC; some data have not yet been quality controlled.

**SUPPLY-DETAILS:** Data can be supplied as ASCII files via ftp, on CD-ROM or floppy disk.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/19/01

**DATASET-NAME: UK Digital Marine Atlas (Third Edition)**

**TIME-PERIOD:** not specified

**GEOGRAPHIC-  
COVERAGE:** 45deg N to 65deg N, 15deg W to 15deg E, although a number of data sets, particularly those concerned with coastal phenomena, are of more localised extent, and a few charts extend to a wider geographic area.

**PROJECT:** UK Digital Marine Atlas Project (UKDMAP)

**PARAMETERS:** marine geology and geomorphology; marine and coastal parks, reserves and protected areas; marine and coastal conservation in Great Britain; sea birds; sea mammals; marine biology; currents, tides and surges; winds, waves and weather; seawater temperature, salinity and nutrients; chemical distributions; exploitation of the marine environment; fishing areas and fish spawning areas; data catalogues

**SUMMARY:**

The UK Digital Marine Atlas (UKDMAP) has been developed as a reference work on all aspects of the coastline and seas around the British Isles which will be of use to the scientific, educational, government and commercial sectors. The Third Edition contains over 1600 charts covering a wide range of themes, with a variety of presentation methods, including contoured plots of physical, chemical and geological parameters, colour coded distribution charts of sea-use, biological and fisheries information, and geo-referenced directories which present detailed information on demand. The Atlas is not a Geographic Information System (GIS), but a combination of a vastly more versatile equivalent of the traditional printed atlas and a series of geo-referenced catalogues and indices of material related to the marine environment.

The Atlas has been developed by the British Oceanographic Data Centre with funding by the Natural Environmental Research Council, the Ministry of Agriculture, Fisheries and Food, the Scottish Office Agriculture and Fisheries Department, the Nature Conservatory Council and the National Rivers Authority.

**DATA-WEBSITE:** [www.bodc.ac.uk/](http://www.bodc.ac.uk/)

**ORIGINATOR:** Material for UKDMAP has been supplied from a wide variety of sources.

**STORAGE-MEDIUM:** CD-ROM

**AVAILABILITY:** The Atlas, including its display software, is distributed on CD-ROM. The Third Edition of the Atlas is distributed by BODC at a price of 140 pounds sterling (70 pounds academic discount).

**SUPPLY-DETAILS:** The Atlas, including its display software, is distributed on CD-ROM.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/24/01

**DATASET-NAME:** MAFF Coastal Sea Surface Temperature Data Set (England and Wales) (1963-1990)

**TIME-PERIOD:** from 1963 to 1990

**GEOGRAPHIC-  
COVERAGE:** Coastal sites: North Sea, Irish Sea, English Channel

**PARAMETERS:** sea surface temperature

**SUMMARY:**

The MAFF Fisheries Laboratory, Lowestoft, UK, set up a network of coastal observing sites in the early 1960s to provide information on sea water temperatures close inshore around England and Wales. Sites were selected on the basis of good exposure to the open sea as far from the shoreline as practicable, in most cases from piers and breakwaters between 50 and 200m from the shoreline. Sea water temperature measurements were taken close to the time of high water at intervals of three to four days. About 50 observing sites were involved in the measuring programme. A few observing sites were already in existence when the network started. For example, observations at the Seven Stones and Varne Lightvessels go back as far as 1905. Results from these measurements can be useful for effluent and cooling water intake design studies.

The data set held by BODC covers the years from about 1960 onwards for about 50 sites. The MAFF Fisheries Laboratory at Lowestoft has recently set up a database for these data, supplemented by both earlier data and also by data from non-MAFF sources.

**REFERENCE:** Jones, S.R. 1981 Ten years of measurement of coastal sea temperatures. Weather, 36(2), pp 48-55. Jones, S.R. and Jeffs, T.M. 1991 Near surface sea temperatures in coastal waters of the North Sea, English Channel and Irish Sea. Fisheries Research Data Report No. 21.

**ORIGINATOR:** CEFAS Lowestoft Laboratory

**STORAGE-MEDIUM:** Magnetic and optical disk

**AVAILABILITY:** Contact BODC for details of data supply. The data are also available from the CEFAS Lowestoft Laboratory, Lowestoft, Suffolk, NR33 0HT, UK

**SUPPLY-DETAILS:** Data can be made available from BODC on floppy disk or via ftp over Internet.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/24/01

**DATASET-NAME:** MAFF Sea Surface Temperature and Salinity Data Set (ship routes to and from the UK) (1963-1990)

**TIME-PERIOD:** from 1963 to 1990

**GEOGRAPHIC-  
COVERAGE:** North Sea, Irish Sea, English Channel, NE Atlantic to 15deg W

**PARAMETERS:** sea surface temperature, surface salinity

**SUMMARY:**

Sea surface temperature and salinity data have been collected by ships regularly plying routes between ports in the British Isles and the Continent, and on routes to the Ocean Weather Stations (OWS) in the North Atlantic. The data have been collected on behalf of MAFF Lowestoft since the early 1960s. Thirty individual shipping routes have been involved, approximately weekly measurements being taken at intervals ranging from 10 to 50 miles depending on the route. These observations provide useful information on the seasonal and short-term variability of temperature off-shore, and may contribute to a knowledge of extreme values.

The shipping routes and dates when data were collected are as follows:

Clyde - OWS Alpha	May 1963 - Feb 1974
Clyde - OWS Lima	Mar 1963 - May 1965
	Jul 1975 - Dec 1990
Clyde - OWS India	Jan 1963 - Jul 1975
Clyde - OWS Juliett	Jan 1963 - Jul 1975
Clyde - OWS Kilo	Mar 1963 - Dec 1972
Folkstone - Boulogne	Jan 1963 - Aug 1966
Bristol - Finistere	Jan 1963 - Nov 1968
Scilly - Shamrock	May 1967 - Mar 1974
Newhaven - Dieppe	Apr 1963 - Feb 1990
Southampton - St. Malo	May 1963 - Sep 1964
Weymouth - Channel Islands	Nov 1970 - Nov 1985
Weymouth - Cherbourg	Apr 1986 - Sep 1986
Hull - Kristiansand	Jan 1963 - May 1976
Leith - Copenhagen	Jan 1963 - Mar 1968
Leith - Bremen	Jan 1963 - Apr 1972
Fishguard - Cork	Jan 1963 - Oct 1968
Swansea - Cork	May 1970 - Mar 1979
Holyhead - Kish	Jan 1963 - Feb 1966
Larne - Stranraer	Jan 1963 - Feb 1966
	Jan 1971 - Dec 1986
Fishguard - Waterford	Jan 1963 - Dec 1966
Southampton - Le Havre	Jan 1963 - May 1964
Heysham - Belfast	Feb 1965 - May 1977
Whitehaven - Anglesey	Feb 1965 - Jan 1969
Liverpool - Douglas	Mar 1965 - Nov 1968
Liverpool - Dublin	Mar 1965 - Aug 1979

Liverpool - Belfast	Dec 1970 - Nov 1978
Felixstowe - Rotterdam	Aug 1970 - Dec 1990
Liverpool - Larne	Jan 1987 - Dec 1988

**ORIGINATOR:** CEFAS Lowestoft Laboratory

**STORAGE-MEDIUM:** Magnetic and optical disk

**AVAILABILITY:** Contact BODC for details of data supply. They are also available from the CEFAS Lowestoft Laboratory, Lowestoft, Suffolk, NR33 0HT, UK

**SUPPLY-DETAILS:** Data are available from BODC on floppy disk or via ftp over Internet.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/24/01

**DATASET-NAME:** Port Erin (Isle of Man, Irish Sea) Temperature, Salinity and Nutrient Data Set (1904-1982)

**TIME-PERIOD:** from 1904 to 1982

**GEOGRAPHIC-  
COVERAGE:** Isle of Man, Irish Sea

**PARAMETERS:** temperature, salinity, oxygen, nutrients, chlorophyll-a

**INSTRUMENTS:** Meteorological Office issue sea water thermometer, Nansen- Petterson water bottle, Hilger 'Spekker' Colorimeter.

#### **SUMMARY:**

Data have been collected by the Port Erin Marine Laboratory (part of the University of Liverpool) at Port Erin, Isle of Man in the Irish Sea. Temperature is recorded twice daily (at 1000h and 1600h) and salinity daily (at 1000h) at Port Erin breakwater. Measurements began in 1904 and this data set includes data up to 1982. Temperatures are recorded using a Meteorological Office issue sea water thermometer. Salinity was determined by titration against silver nitrate until 1965, with an AutoLab Salinometer used thereafter.

In addition, temperature, salinity, oxygen, chlorophyll and nutrient data have been collected at 5 depths in Port Erin Bay (54deg 05.3'N, 004deg 50.0'W, water depth 37m) since 1954; this data set includes data collected up to 1982. Samples have been collected with a Nansen-Petterson insulated water bottle and temperatures recorded to the nearest 0.1deg C. Salinity was determined as described above. Nutrients were estimated colorimetrically; dissolved oxygen was determined by the Winkler technique. Chlorophyll-a was estimated using the methods recommended by SCOR-UNESCO Working Group 17 (see Report of the SCOR-UNESCO Working Group 17 on Determination of Photosynthetic Pigments (minimo) 1964, Sydney).

More recent data have been collected and may be obtained from the Port Erin Marine Laboratory.

**STORAGE-MEDIUM:** Magnetic and optical disk

**AVAILABILITY:** Contact BODC for details of data supply. Access to this data set is dependent on the agreement of the data collectors. They are also available, including more recently collected data, from the Port Erin Marine Laboratory, Port Erin, Isle of Man, UK

**SUPPLY-DETAILS:** The data can be made available by BODC on floppy disk or via ftp.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/24/01

**DATASET-NAME: UK National Tide Gauge Chart Archive**

**TIME-PERIOD:** from the late 1800s onwards

**GEOGRAPHIC-  
COVERAGE:** Mainly around the UK, but some from various sites around the world

**PARAMETERS:** sea surface elevation

**INSTRUMENTS:** variuos tide gauges (primarily stilling well/float gauges)

**SUMMARY:**

A large number of charts (originals and copies) together with tabulations of data are also available, some of which date back to the 1850s. A more detailed description of these will be available once they have been systematically catalogued and archived.

**ORIGINATOR:** Charts have been received from many organisations, but the majority of the holdings were supplied by the UK Hydrographic Office.

**STORAGE-MEDIUM:** Paper charts, tabulations and paper listings

**AVAILABILITY:** Contact BODC for further details

**SUPPLY-DETAILS:** Contact BODC for further details

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 1/19/01

**d) CENTRE-NAME: Carlingford Lough Marine Laboratory**

**VISIT-ADDRESS:** Dept. of Experimental Sciences,  
Regional Technical College,  
Dundalk,  
Co. Louth,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

Carlingford Lough Marine Laboratory was established to provide baseline data on environmental quality in Carlingford Lough and to advise local shellfish farmers on the best methods of husbandry. The laboratory also plays a role in site selection and investigation of growth of new species to the Lough. The laboratory provides a bacteriological service to the growers in the area.

This laboratory is no longer operational - C/O S. McQuaid, Dr. D. Douglas, 'The Emerald', Omeath, Co. Louth. Copy of M.Sc. held at the Irish Marine DataCentre.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. Dermot J. Douglas

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Regional Technical College,  
Dundalk,  
Co. Louth,  
Ireland

**PHONE:** +353 42 34785/6/7/8

**FAX:** +353 42 33505



**DATASET-NAME: Water chemistry of Carlingford Lough, Ireland**

**TIME-PERIOD:** from November 1989 onwards

**GEOGRAPHIC-COVERAGE:** Carlingford Lough on the East Coast of Ireland

**PROJECT:** Carlingford Lough - An Integrated Environmental & Resource Development Survey

**PARAMETERS:** pH, temperature, dissolved oxygen, conductivity, salinity, silicate, ammonia, nitrite, nitrate, phosphate, suspended solids, B.O.D.

**INSTRUMENTS:** Field - water sampling bottles and pumps, spectrophotometers, A.A.S. field meters

**SUMMARY:**

The variation in the levels of the parameters mentioned has been determined both horizontally and vertically in Carlingford Lough since the survey began in November 1989. Samples are taken from fixed sampling sites on a fortnightly basis and subjected to same day analysis.

**REFERENCE:** Carlingford Lough Marine Laboratory Bulletins - ISSN 0791-4512

**STORAGE-MEDIUM:** high density 3.5 inch and 5.25 inch floppy discs

**AVAILABILITY:** data freely available on request

**COMPLETED-BY:** Dermot J. Douglas

**REVISION-DATE:** 4/26/91

**DATASET-NAME: Study of the soft clam 'Mya arenaria' L. in Irish waters (1990- 1991)**

**TIME-PERIOD:** from 15 May 1990 to 15 October 1991 at 1 station

**GEOGRAPHIC-COVERAGE:** Carlingford Lough, Omeath, Co. Louth, east coast of Ireland (54deg 2'N, 6deg 8'W)

**PARAMETERS:** Primary productivity, phytoplankton, molluscs, current meters, subsurface temperature/salinity underway, surface temperature/salinity underway, oxygen, phosphates, nitrates, silicates, pH, ammonia, contamination in suspended matter

**INSTRUMENTS:** YSI S.C.T. meter, Syland DO/temperature meter, plankton sampling net of mesh 60 microns

**SUMMARY:**

A study of the soft clam 'Mya arenaria' L. in Irish waters was carried out. The aims of the study were to identify locations where the soft clam is found around Ireland; to assess growth in the clam at Omeath and to evaluate the commercial potential for soft clam culture in Carlingford Lough; to investigate the clam's ability to burrow in different substrates and to age clam shells using a staining technique. In terms of sampling frequency, a monthly evaluation was carried out in 1990 of physical and chemical factors affecting growth. Clam growth was measured on five different occasions during trial.

**REFERENCE:** Unpublished M.Sc. thesis presented to the NCEA in 1993.

**STORAGE-MEDIUM:** Printed paper/tables



**AVAILABILITY:** Freely available

**COMPLETED-BY:** Mr. Joe Ryan

**REVISION-DATE:** 11/1/94

**e) CENTRE-NAME: Centre for Environment, Fisheries and Aquaculture Science (CEFAS)**

**VISIT-ADDRESS:** CEFAS, Lowestoft Laboratory,  
Pakefield Road,  
Lowestoft,  
Suffolk,  
NR33 OHT

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.cefasc.co.uk/](http://www.cefasc.co.uk/)

**DESCRIPTION:**

CEFAS is a scientific research and monitoring centre for fisheries management and environmental protection. It provides contract research, consultancy, advice and training in fisheries science and management, marine environmental protection, aquaculture and fish and shellfish disease and hygiene to a variety of public and private sector clients around the world.

CEFAS is an agency of the UK government's Ministry for Agriculture Fisheries and Food (MAFF).

There are two broad aims for this research. Firstly, the assessment of the state of the stocks of fish and shellfish to provide a sound scientific basis for management policies at national and international level which will maintain the supply of fish and promote the efficiency of the industry; and secondly, the protection of the aquatic environment and especially its fish and shellfish resources, as well as man as a consumer of marine food, from the adverse effects of pollutants introduced through man's industrial and other activities.

There are Fisheries Laboratories at Lowestoft, Burnham-on-Crouch, Whitehaven and Weymouth. All enquiries should be directed to the Contracts Office, CEFAS, Lowestoft Laboratory, Pakefield Road, Lowestoft, Suffolk NR33 OHT, United Kingdom (Tel: +44 1502 562244; Fax: +44 1502 513865 (FAO Contracts Officer), Telex: 995543 (FAO Contracts Officer)).

At Burnham-on-Crouch research is concentrated on the protection of the aquatic environment from the disposal of non-radioactive waste and also the effects of other man-made changes such as offshore oil and marine gravel exploitation.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Contracts Office, CEFAS, Lowestoft

**POST-ADDRESS:** CEFAS, Lowestoft Laboratory,  
Pakefield Road,  
Lowestoft,  
Suffolk,  
NR33 OHT

**PHONE:** +44 1621 562244

**FAX:** +44 1621 513865

**DATASET-NAME: UK coastal sea water quality survey (1980-1982)**

**TIME-PERIOD:** from 1980 to 1982

**GEOGRAPHIC-** 9 sites (Walton-on-the-Naze, Reculver, Whitstable, Beaulieu, Milford Haven,

**COVERAGE:** Inland Sea and Tal-y-foel (Anglesey), Conwy, Connel) on the UK coastline

**PARAMETERS:** Temperature, salinity, phytoplankton, pH, nutrients (silicate, nitrate, nitrite, orthophosphate, inorganic and organic carbon), Vibrios and total bacteria

**SUMMARY:**

Sea water was collected at high tide on a weekly basis from March to October inclusive. Temperature was taken at the time of collection using a thermometer. Sea water subsamples (0.1 ml) were spread over nutrient agar and TCBS medium immediately after collection for the assessment of total bacteria and Vibrio spp respectively. Salinity was measured by refractometer and pH with a pH meter. Nutrients were measured by colorimetric methods using an automatic analyzer.

Phytoplankton identification and enumeration were carried out using a binocular microscope

**DATA-WEBSITE:** [www.cefas.co.uk/](http://www.cefas.co.uk/)

**STORAGE-MEDIUM:** Magnetic disk

**AVAILABILITY:** Report - data available on application. Contact the Contracts Office, CEFAS, Lowestoft.

**COMPLETED-BY:** S.D. Utting

**REVISION-DATE:** 7/1/94

**DATASET-NAME: CEFAS Laboratory, Lowestoft, moored current meter data set (1968-)**

**TIME-PERIOD:** from 1968 onwards

**GEOGRAPHIC-COVERAGE:** NE Atlantic, North Sea, Irish Sea, English Channel, Denmark Strait and South West Indian Ocean

**PARAMETERS:** current speed, current direction, also temperature, pressure and conductivity

**SUMMARY:**

The data set comprises time series measurements of ocean currents from moored instruments, mainly collected in the continental shelf seas around the British Isles (for example, the North Sea, Irish Sea, English Channel) or the eastern North Atlantic. Data holdings are approximately 2000 data series. Data records contain current speed and direction. In addition, temperature is often measured and pressure and conductivity are occasionally measured. Sampling intervals vary between 5 and 60 minutes. Current meter deployments are typically 2-8 weeks duration in shelf areas but up to 6-12 months in the open ocean.

**DATA-WEBSITE:** [www.cefas.co.uk/](http://www.cefas.co.uk/)

**STORAGE-MEDIUM:** Magnetic tape/disk

**AVAILABILITY:** Data are available on floppy disk; contact the Contracts Office, CEFAS, Lowestoft

**COMPLETED-BY:** K. Medler, CEFAS

**REVISION-DATE:** 12/1/97

**DATASET-NAME: CTD data set (1980-)**

**TIME-PERIOD:** from 1980 onwards

**GEOGRAPHIC-COVERAGE:** primarily North Sea and Irish Sea, some North Atlantic

**PARAMETERS:** temperature, salinity

**INSTRUMENTS:** electronic conductivity/salinity-temperature-depth recorders (mainly Guildline and Falmouth Scientific Inc. CTDs)

**SUMMARY:**

CTD data are collected on several cruises each year, primarily in the North Sea and Irish Sea, although some were collected in the North Atlantic. Data were collected prior to 1981, but were of poor quality; these have not been processed.

**DATA-WEBSITE:** [www.cefas.co.uk/](http://www.cefas.co.uk/)

**STORAGE-MEDIUM:** magnetic tape

**AVAILABILITY:** Contact the Contracts Office, CEFAS, Lowestoft. Data are available on floppy disk; most data are also available from BODC; some restrictions may apply to recently collected data.

**COMPLETED-BY:** K. Medler, CEFAS

**REVISION-DATE:** 12/1/97

**DATASET-NAME:** Near surface sea temperature in coastal waters of the North Sea, English Channel and Irish Sea (1877-)

**TIME-PERIOD:** from 1877 onwards

**GEOGRAPHIC-  
COVERAGE:** Coastal sites around England and Wales (North Sea, English Channel and Irish Sea)

**PARAMETERS:** sea temperature

**INSTRUMENTS:** Negratti and Zambra reversing thermometers, thermistor thermometers

**SUMMARY:**

In the early 1960s, it was apparent to fisheries oceanographers at Lowestoft that very little information was available on a synoptic basis concerning sea temperatures in inshore waters around England and Wales. Accordingly, in the mid-1960s a network of observers at a number of coastal locations was set up. The present network includes 18 stations operated by CEFAS and a further 17 stations operated by various authorities outside CEFAS. The frequency of the observations varies considerably and may not be recorded for much of the early data. At present, for the stations operated by CEFAS, observations are taken between 8 and 12 times per month, usually close to the time of high water. For some of the non-CEFAS stations, the frequency is even better; in some cases as often as one reading per day.

Initially CEFAS observers used Negretti and Zambra reversing thermometers in a metal frame on a hand-held line, which were later replaced by a thermistor thermometer designed and built in-house. Currently, CEFAS observers are gradually being equipped with a commercially available portable thermistor. The database held at CEFAS, Lowestoft, has expanded in recent years, to include data from a large number of non-CEFAS sources. In particular, data from Meteorological Office for a number of lighthouses and offshore lightvessels have been included, because they are often of long duration and therefore provide very useful time series.

Data sets, varying widely in completeness, are now held for 99 locations and total over 3100 years of data.

**REFERENCE:** Jones, S.R. and Jeffs, T.M. 1991 Near Surface sea temperatures in coastal waters of the North Sea, English Channel and Irish Sea. MAFF Fisheries Research Data Report No. 24.

**DATA-WEBSITE:** [www.cefas.co.uk/](http://www.cefas.co.uk/)

**STORAGE-MEDIUM:** Magnetic tape

**AVAILABILITY:** Contact the Contracts Office, CEFAS, Lowestoft  
**COMPLETED-BY:** K. Medler, CEFAS  
**REVISION-DATE:** 12/1/97

**DATASET-NAME: UK shelf seas nutrients data set (1960-)**

**TIME-PERIOD:** from 1960 onwards  
**GEOGRAPHIC-  
COVERAGE:** North Sea, English Channel and Irish Sea  
**PARAMETERS:** Total oxidized nitrogen, nitrite, silicate, phosphate, ammonia, temperature and salinity

**SUMMARY:**

This data set consists of a database which holds all available MAFF/CEFAS nutrient data collected since 1960, and is regularly updated. At present it includes samples collected from 130 MAFF/CEFAS cruises, and the measurements for 19,000 samples. Temperature and salinity data are also included.

**DATA-WEBSITE:** [www.cefasc.co.uk/](http://www.cefasc.co.uk/)

**STORAGE-MEDIUM:** Magnetic disk

**AVAILABILITY:** Contact the Contracts Office, CEFAS, Lowestoft  
**COMPLETED-BY:** K. Medler, CEFAS  
**REVISION-DATE:** 12/1/97

**DATASET-NAME: Artificial radionuclides in the waters of the north west European Shelf Seas (1972-)**

**TIME-PERIOD:** from 1972 onwards  
**GEOGRAPHIC-  
COVERAGE:** Irish Sea, English Channel, Malin Shelf, North Sea, Norwegian Sea, Barents Sea  
**PROJECT:** MAST 52-C (technetium, antimony only)  
**PARAMETERS:** artificial radionuclides (caesium, plutonium, americium, technetium, antimony), Kds, suspended load, salinity

**SUMMARY:**

The distribution of artificial radionuclides released into the marine environment as a result of fuel reprocessing (Sellafield, La Hague, Dounreay), the normal operation of nuclear power stations (e.g. Sizewell, Winfrith, UK) and inadvertent releases (e.g. Chernobyl) have been investigated in detail. Annual surveys of caesium in the Irish Sea were carried out throughout the 1970s and 1980s, with less frequent surveys in more distant waters. Speciation measurements and Kd determinations have been made on many occasions for the transuranium radionuclides. Technetium and antimony measurements in the Channel and southern North Sea have been made as part of a collaborative EC MAST project. Two Irish Sea models have been developed to assist in the interpretation of the data. CTD and salinity data are also available.

**DATA-WEBSITE:** [www.cefasc.co.uk/](http://www.cefasc.co.uk/)

**STORAGE-MEDIUM:** magnetic disk, paper files, published reports

**AVAILABILITY:** Contact the Contracts Office, CEFAS, Lowestoft  
**COMPLETED-BY:** P.J. Kershaw, CEFAS

**REVISION-DATE:** 1/12/93

**DATASET-NAME:** Naturally occurring radionuclides in sea water and sediments (1983-)

**TIME-PERIOD:** from 1983 onwards

**GEOGRAPHIC-  
COVERAGE:** Irish Sea, southern North Sea

**PARAMETERS:** naturally occurring radionuclides (uranium, thorium, polonium, lead, radium),  
Kds, suspended load, salinity

**INSTRUMENTS:** Niskin bottles, surface pumps, transmissometer, sediment cores and grabs

**SUMMARY:**

Radionuclides in the uranium- and thorium-decay series, having differing half-lives and chemical properties, have been measured in sediments and seawater to quantify the rates of important sediment processes such as bioturbation, sediment accumulation and scavenging of dissolved elements by suspended particulate. The influence of water depth and sediment type have been investigated, and scavenging over a number of time scales (e.g. tidal cycle, seasonal) has been assessed. In addition, anthropogenic enhancement of concentrations has been identified in relation to phosphate processing and nuclear fuel fabrication in the eastern Irish Sea and the Esk and Ribble estuaries.

**DATA-WEBSITE:** [www.cefas.co.uk/](http://www.cefas.co.uk/)

**STORAGE-MEDIUM:** magnetic disk, paper files, published literature

**AVAILABILITY:** Contact the Contracts Office, CEFAS, Lowestoft

**COMPLETED-BY:** P.J. Kershaw, CEFAS

**REVISION-DATE:** 1/12/93

**DATASET-NAME:** Irish Sea Nephrops Larvae Surveys (1982 and 1985)

**TIME-PERIOD:** April to June 1982 and April to June 1985

**GEOGRAPHIC-  
COVERAGE:** Mainly western Irish Sea with some limited coverage east of the Isle of Man

**PARAMETERS:** Plankton, nutrients, temperature, salinity

**SUMMARY:**

1982: Five surveys of 60-80 samples were carried out to estimate the spawning stock biomass of the western Irish Sea Nephrops. Plankton samples were sorted and all fish eggs and larvae were identified to species level where possible. Nephrops (*Nephrops norvegicus*) larvae were also sorted and staged into 4 developmental stages. Seasonal production estimates and mortality rates have been calculated for Nephrops. Temperature and salinity 'V' shape profiles are available at each sampling position. Surface salinity values are available from bottle samples and nutrient data (nitrate, nitrite, phosphate and silicate) are available from each sampling position.

1985: Four surveys of 70-90 stations were carried out to estimate the spawning stock biomass of Western Irish Sea Nephrops. The analysis was as described for 1982. Environmental parameters were also as described above for 1982.

**REFERENCE:** J.H. Nichols, D.B. Bennett, D.J. Symonds and R. Grainger. Estimation of the stock size of adult Nephrops norvegicus (L.) from larvae surveys in the Western Irish Sea in 1982. Journal of Natural History. 1987, 21, 1433-1450.

B.M. Thompson, J.H. Nichols and J.P. Hillis. Estimation of the stock size of adult

Nephrops from larvae surveys in the Irish Sea in 1985. ICES. CM 1986/K:5 (mimeo).

J.H. Nichols et al. Spring plankton surveys of the Irish Sea in 1982, 1985, 1987, 1988 and 1989: hydrography and the distribution of fish eggs and larvae. Fisheries Research Technical Report No. 95.

**DATA-WEBSITE:** [www.cefasc.co.uk/](http://www.cefasc.co.uk/)  
**STORAGE-MEDIUM:** paper  
**AVAILABILITY:** Contact the Contracts Office, CEFAS, Lowestoft  
**COMPLETED-BY:** S. Milligan, CEFAS, Lowestoft Laboratory  
**REVISION-DATE:** 12/2/97

**DATASET-NAME: Western European Shelf Groundfish Survey (1982-)**

**TIME-PERIOD:** from 1982 onwards. Survey is on-going and is undertaken during March each year (30 days). Between 1982 and 1988 surveys (30 days) were also undertaken in December.

**GEOGRAPHIC-COVERAGE:** Initially, the Western European Shelf between Shetland in the North to the southern part of the Bay of Biscay in the South; from 1988 the area has been standardised to cover ICES divisions VIIe-j and VIIIa

**PARAMETERS:** Fish distribution and abundance, size and age compositions, sea surface temperature, bottom temperature

**INSTRUMENTS:** Portuguese high-headline bottom trawl, fitted with bunt tickler chain, rubber bobbins and SCANMAR net and temperature sensor equipment; CTD

**SUMMARY:**

The surveys were originally carried out to investigate the distribution and abundance of juvenile mackerel. From 1982-1988, two surveys were carried out each year, one in March and a second in December, each of about 30 days duration. Between 1982 and 1985, the surveys had no standardised format, and the area of coverage extended from the southern part of the Bay of Biscay northwards along the western European shelf to Shetland. By 1986, the initial objectives had been met and the survey evolved into a standardised groundfish survey of the Celtic Sea between the latitudes 47deg 30'N and 52deg N. The surveys are used to monitor the annual changes in distribution and abundance of length and age of all finfish species caught. Data from the survey series are used to provide additional fishery-independent information for the assessment of stocks of commercial interest that are caught in the area.

New tows were added in 1997 to investigate species distribution at depths greater than 300m. Since 1996 CTD has been used to provide temperature and salinity data.

**DATA-WEBSITE:** [www.cefasc.co.uk/](http://www.cefasc.co.uk/)  
**STORAGE-MEDIUM:** Magnetic disk (CEFAS Fishing Surveys System), 3.5" floppy disk (ancillary data), ACCESS database (station positions)  
**AVAILABILITY:** Contact the Contracts Office, CEFAS, Lowestoft  
**COMPLETED-BY:** S. Warnes  
**REVISION-DATE:** 12/2/97

**f) CENTRE-NAME: Commissioners of Irish Lights**

**VISIT-ADDRESS:** Commissioners of Irish Lights,  
16 Lower Pembroke Street,  
Dublin 2,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

The Commissioners of Irish Lights (The Irish Lighthouse Service) is a statutory body to provide and maintain Aids to Navigation for shipping around the coast of Ireland.

The Commissioners hold a limited amount of wave data collected from seven light vessels off the East coast of Ireland.

The data are freely available on request for bona-fide use, but the Commissioners reserve the right to charge users the marginal costs involved in making data available, e.g. costs of copying, materials and postage. A brochure giving brief information on the Lighthouse Service is available from the Personnel and Administration Manager.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:**

**CONTACT-TITLE:** Engineer-in-Chief

**POST-ADDRESS:** Commissioners of Irish Lights,  
16 Lower Pembroke Street,  
Dublin 2,  
Ireland

**PHONE:** +353 1 682511

**FAX:** +353 1 618094

**DATASET-NAME:** Wave data from lightvessels in the Irish Sea

**TIME-PERIOD:** from 1964 to 1978

**GEOGRAPHIC-  
COVERAGE:** 7 locations off the East Coast of Ireland

**PROJECT:** engineering - replacement of manned lightvessels

**PARAMETERS:** wave heights

**SUMMARY:**

The aim of the project was to measure the wave heights at the seven locations prior to replacing the manned lightvessels with buoys and automated lightfloats. The sites were as follows:

South Rock Lightvessel	54 deg 24.3'N; 005 deg 21.5'W
Kish Bank Lightvessel	53 deg 19.3'N; 005 deg 54.8'W
Codling Lightvessel	53 deg 03.0'N; 005 deg 40.7'W
Arklow Lightvessel	52 deg 39.5'N; 005 deg 58.0'W
Barrels Lightvessel	52 deg 06.8'N; 006 deg 23.5'W
Coningbeg Lightvessel	52 deg 02.4'N; 006 deg 39.7'W
Daunt Lightvessel	51 deg 43.0'N; 008 deg 15.5'W

Data were collected at each site for approximately 12 to 14 months. The data were subsequently converted to computer compatible form and validated. The analysis was carried out at Trinity College Dublin and subsequently by MIAS, the Marine Information and Advisory Service of the Institute of Oceanographic Sciences in the UK.

Full sets of the MIAS data screening presentations of the data for each site, together with line printer tabulations of numerical values, where appropriate, are available, such as Hs and Hmax, probability return periods etc.

**REFERENCE:** further information and data on magnetic tape available from BODC, Proudman Oceanographic Laboratory, Bidston Observatory, Birkenhead, Merseyside L43 7RA, England (formerly MIAS)

**STORAGE-MEDIUM:** chart records, computer listings of results, hard copy A4 sheets (40 per location)

**AVAILABILITY:** data freely available on request

**COMPLETED-BY:** Michael C. Taylor

**REVISION-DATE:** 1/23/92

**g) CENTRE-NAME: Conoco (UK) Limited**

**VISIT-ADDRESS:** Park House,  
116 Park Street,  
London,  
W17 4NN,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.conoco.com/global/offices/europe/uk.html](http://www.conoco.com/global/offices/europe/uk.html)

**DESCRIPTION:**

For information relating to Conoco (UK) Limited contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Park House,  
116 Park Street,  
London,  
W17 4NN,  
United Kingdom

**PHONE:** +44 171 408 6000

**FAX:** +44 171 408 6031

**DATASET-NAME:** **Current meter data from ten locations, mainly near the Shetlands (1981,1982,1984,1987)**

**TIME-PERIOD:** from August to September 1981, November 1982, January to August 1984 and March 1987

**GEOGRAPHIC-  
COVERAGE:** North Sea, English Channel, Irish Sea



**PARAMETERS:** Current speed and direction

**SUMMARY:**

The data set comprises moored current meter measurements, gathered by Offshore Environmental Systems (OES), except the Viking B Platform data, which were collected by Moortech. The series are detailed below:

Site	Latitude (deg min)	Longitude (deg min)	Water Depth (m)	Start Date	End Date
Viking B Pl.	53 26.75N	002 20.17E	20	18 Aug 1981	20 Sep 1981
Viking B Pl.	53 26.75N	002 20.17E	20	21 Aug 1981	20 Sep 1981
SW of Mount's Bay Cornwall	49 26.4N	005 37.6W	101	02 Nov 1982	28 Nov 1982
W of Shetland	62 26N	001 00.4W	684	07 Jan 1984	11 Mar 1984
N of Shetland	62 23.83N	000 49.9E	690	16 May 1984	26 Aug 1984
N of Shetland	62 24.4N	000 45.62E	690	16 Mar 1984	15 May 1984
N of Shetland	62 24.4N	000 45.62E	690	14 May 1984	13 May 1984
N of Shetland	62 25.95N	000 59.7E	684	07 Jan 1984	12 Mar 1984
N of Shetland	62 25.88N	000 59.7E	684	07 Jan 1984	12 Mar 1984
North Wales	53 36.5N	003 55.1W	43	11 Mar 1987	23 Mar 1987

**STORAGE-MEDIUM:** digital

**AVAILABILITY:** Contact Metocean for further details

**COMPLETED-BY:** M. Osborne, Metocean/L.J. Rickards, BODC

**REVISION-DATE:** 1/28/94

**h) CENTRE-NAME: Defence Science and Technology Laboratory (DSTL)**

**VISIT-ADDRESS:** DSTL Winfrith,  
Winfrith Technology Centre,  
Dorchester,  
Dorset,  
DT2 8XJ.

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:**

**DESCRIPTION:**

The Defence Science and Technology Laboratory (DSTL), and agency of the UK Ministry of Defence, and its predecessors are involved in the collection of large volumes of oceanographic data, principally in the North Atlantic. These data are mainly physical, but also include biological data. Data are passed for banking to the Hydrographic Office, Taunton. The quality control and storage of the large volume of data generated by the continuous SeaSoar and towed thermistor chains raise particular difficulties. Most DSTL data are widely available.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. Graham Jackson

**POST-ADDRESS:** DSTL Winfrith,  
Winfrith Technology Centre,  
Dorchester,  
Dorset,  
DT2 8XJ.

**PHONE:** +44 1305 212763

**FAX:** +44 1305 212103

**EMAIL:** gjackson@dera.gov.uk

**DATASET-NAME:** Internal wave climate off South West Approaches (1982)

**TIME-PERIOD:** from 11 to 20 September 1982

**GEOGRAPHIC-  
COVERAGE:** South West Approaches, deep water south of European Continental Shelf

**PARAMETERS:** temperature

**SUMMARY:**

The data set comprises a thermistor chain trial in deep water south of the European Continental Shelf, to assess the internal wave climate in the upper 200m. Navigation data were also collected.

Data were collected by the Applied Oceanography Section of the Sonar Performance Division at DRA, Portland. Data are stored in the DRA archive system and have been processed to the DRA standard MIDAS user data file format. The data have been screened for format and data errors and corrected to produce a 'clean' data set.

**REFERENCE:** Geddes, N.R. 1993 Measured Data Sets held by DRA Sonar Performance Division (1993). Report DRA/US/USSF/TM93201/1.0

**STORAGE-MEDIUM:** computer files (DRA archive system managed by the Portland Computer Bureau)

**AVAILABILITY:** Contact N.R. Geddes, DRA, Portland, for details of availability.

**COMPLETED-BY:** N.R. Geddes, DRA and L.J. Rickards, BODC

**REVISION-DATE:** 11/12/94

**i) CENTRE-NAME:** Department of Geography, University College Cork

**VISIT-ADDRESS:** Dept. of Geography,  
University College,  
College Road,  
Cork,

**COUNTRY:** Ireland

**DESCRIPTION:**

The research team is based in the Department of Geography and has been working upon coastal and sea-level change related study themes since 1977. Its activities are inter-related to comparable research programmes and data elsewhere in Europe and globally, through internationally coordinated work in these fields, such as that of the EC's EPOC and UNESCO's IGCP Project 274.

The main research interests lie in the areas of coastal erosion, sediment dynamics, palaeo-sea levels and coastal management.

Local databases and other information in these fields are held for work completed in Ireland and parts of the UK. Reports upon research findings, project development and conference proceedings are available, though depending on document size, charges may be made for copying and postage.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** CSLR Programme Secretary

**POST-ADDRESS:** Dept. of Geography,  
University College,  
College Road,

Cork,  
Ireland

**PHONE:** +353 21 276871 (ext. 2517/8)

**FAX:** +353 21 271980

**DATASET-NAME:** Radiocarbon dates on sea-level position and change indicators  
(0-10,000 yrs B.P.)

**TIME-PERIOD:** from 1 January 1977 onwards

**GEOGRAPHIC-  
COVERAGE:** east and south coast Ireland; east and south coast England

**PROJECT:** EPOC (European Programme on Climatic Change) and IGCP (International Geological Correlation Programme), Projects 61, 200 and 274

**PARAMETERS:** palaeosea-levels

**INSTRUMENTS:** geodetically surveyed height and radiometric age data upon  
geomorphologically, geologically and palaeo-environmentally defined indicators  
of former sea-level positions

**SUMMARY:**

The data form a time and height series upon former sea-level positions at different coastal localities (including different environmental types), along coasts in Ireland and England. Measurements of these positions have been gained through accurate height levelling of stratigraphic data and palaeo-environmental reconstruction techniques, using primarily radiometric methods to define age. Accuracy is dependent upon survey/field methods used in each case. Normal vertical errors are  $< + 0.10\text{m}$  of former sea-level position and age at  $+ 1$ .

The data represent a time depth plot/series at each defined location covering the period 10,000 - 0 B.P. in many cases only 1 - 2 data points are available upon individual cores at each site. All data are, however, quality controlled and derive from more extensive stratigraphic and palaeo-environmental work at sites.

Data points are in part stored already in the IGCP data store in Durham University, (Dept. of Geography), UK. This contains a European - North Atlantic data base of over 600 controlled points, supplied by different institutions in the regions.

Information is available on request on disc or as hard copy.

**REFERENCE:** project reports, data summaries and graphical plots, together with further  
information on coastal change/palaeo-environmental reconstruction data from  
CSLR Programme Secretary

**STORAGE-MEDIUM:** one floppy disc, printed report form

**AVAILABILITY:** data freely available on request

**COMPLETED-BY:** R.J. Devoy

**REVISION-DATE:** 5/1/91

**j) CENTRE-NAME:** Department of Mechanical Engineering, University College Galway

**VISIT-ADDRESS:** Department of Mechanical Engineering,  
University College, Galway,

**COUNTRY:** Ireland

**DESCRIPTION:**

Research interests of the Department include offshore and ocean engineering, particularly in flexible pipelines and application of expert systems to marine riser mechanics. Extensive use is made of proprietary programs such as PATRAN and ABAQUS for finite element analysis of machine components and structures covering all areas. Computer models for the flow and dispersion of effluent in large water bodies are developed within the context of environmental impact studies.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Professor Sean McNamara

**POST-ADDRESS:** Department of Mechanical Engineering,  
University College, Galway,  
Ireland

**PHONE:** +353 91 24411 (ext. 2232)

**FAX:** +353 91 25700

**DATASET-NAME:** Computer modelling of waves, wave energy and water circulation in Irish waters

**TIME-PERIOD:** not relevant

**GEOGRAPHIC-  
COVERAGE:** various areas around the Irish coast

**PARAMETERS:** wave energy, water circulation

**SUMMARY:**

A range of computer simulation studies including topics such as:

Finite element Analysis of Advective-Diffusion in Estuaries  
Discretization of Ocean Wave Spectra  
Computational Scheme for Offshore Circulation Studies  
Computer simulation of Water Circulation in Galway Bay  
Performance of a Large Scale Wave Energy Converter - KAIMEI  
Optimum Power Absorption of Wave Energy Devices  
Analysis and Evaluation of Wave Energy Data from the KAIMEI Sea Trials  
Application of Constraints in Modelling Tidal Power Resources

Much of the resulting information is to be found in the published literature and in various reports

**REFERENCE:** A list of publications is available

**COMPLETED-BY:** Professor J.F. McNamara

**REVISION-DATE:** 4/23/91

**k) CENTRE-NAME:** Department of Microbiology, Martin Ryan Institute

**VISIT-ADDRESS:** University College, Galway,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

The Department of Microbiology (MICRO-UCG) maintains research programmes in Phytoplankton Ecology, Estuarine Systems, and the Role of Bacteria in Biogeochemical Cycles. Inshore, Coastal and Deep-Sea environments are studied. Investigations include

modelling of marine ecosystems and use of image analysis of remotely sensed (satellite) sea surface data. Data sets include observations from research cruises effected within the research team. The data storage medium (ASCII text files on MS-DOS formatted floppy disk data organised in suitable columns and rows) enables ready transfer to other groups for easy use with common data processing software (Lotus 1,2,3; MS-EXCEL) on IBM PC or Apple Mackintosh computers.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. R. Raine, Dr. J. Patching

**POST-ADDRESS:** University College, Galway,  
Ireland

**PHONE:** +353 91 24411

**FAX:** +353 91 25700

**DATASET-NAME: Hydrographic stations (STD profiles) in Irish coastal waters**

**TIME-PERIOD:** from June 1983 onwards

**GEOGRAPHIC-  
COVERAGE:** all Irish Coasts

**PARAMETERS:** date, time, position, station number, depth, temperature, salinity

**SUMMARY:**

Files of temperature-salinity profiles for every station sampled by the Departments's research team. Data calibrated with reversing thermometers and shore-based inductively coupled salinometer.

Set contains variable temporal and spatial resolution data for about 1000 sampling occasions. Files sorted by research cruise.

Output products: Hewlett-Packard quality output plots (T, S, sigma-t)

**STORAGE-MEDIUM:** floppy disc: MS-DOS ASCII text files

**AVAILABILITY:** data freely available on request

**COMPLETED-BY:** Dr. R. Raine

**REVISION-DATE:** 11/6/90

**DATASET-NAME: Hydrographic station index plus surface values in Irish coastal waters**

**TIME-PERIOD:** from June 1983 onwards

**GEOGRAPHIC-  
COVERAGE:** all Irish Coasts

**PARAMETERS:** station number, date, time, latitude, longitude, sounding, surface temperature, 2 meter temperature, surface salinity, surface chlorophyll, secchi depth

**SUMMARY:**

Standard list of all sampling stations, plus surface data, visited by members of the Department's research team.

**STORAGE-MEDIUM:** floppy disc: MS-DOS ASCII text files (2 discs)

**AVAILABILITY:** data freely available on request

**COMPLETED-BY:** Dr. R. Raine

**REVISION-DATE:** 11/6/90

**DATASET-NAME: Underway surface hydrography in Irish coastal waters**

**TIME-PERIOD:** from July 1987 onwards

**GEOGRAPHIC-  
COVERAGE:** all Irish Coasts, Estuaries (Shannon and Waterford)

**PARAMETERS:** date, time, position, sounding, surface temperature, surface salinity, in situ fluorescence, suspended matter

**INSTRUMENTS:** thermistor, conductivity probe, fluorometer, nephelometer, Decca Navigator

**SUMMARY:**

Data are collected for research cruises involving research team or individuals of the Department (6-8 weeks continuous coverage per annum). Calibration from reversing thermometers, inductively-coupled salinometer, standard methods for chlorophyll and suspended matter.

Temporal resolution: 30 seconds. Coverage: North Coast (X 2), East, South and West coasts (X 5).  
Output Products: Surface Plots (Hewlett Packard Quality).

**STORAGE-MEDIUM:** floppy disc: MS-DOS ASCII text files (15 discs)

**AVAILABILITY:** data freely available on request

**COMPLETED-BY:** Dr. R. Raine

**REVISION-DATE:** 11/6/90

**DATASET-NAME: Hydrographic stations (CTD and fluorimeter) in Irish waters**

**TIME-PERIOD:** from June 1990 onwards

**GEOGRAPHIC-  
COVERAGE:** Irish Sea; Southwest Ireland

**PARAMETERS:** station number, date, time, position, depth, temperature, conductivity, fluorescence (in situ)

**INSTRUMENTS:** W.S. Ocean Systems SAL-II and Sea Tech in situ fluorometer housed in cage.  
Data logging by microcomputer.

**SUMMARY:**

Data set initiated by new equipment purchased by group in 1990. A sampling frequency (host microcomputer) of approximately four measurements per metre of water column produce data list which is smoothed to a minimum spatial resolution of 1 meter depth.

Calibration effected by reversing thermometers and inductive salinometers. Hewlett-Packard quality depth plots of all parameters are standard output.

**STORAGE-MEDIUM:** floppy disc: MS-DOS ASCII files

**AVAILABILITY:** data freely available on request

**COMPLETED-BY:** Dr. R. Raine

**REVISION-DATE:** 11/6/90

**l) CENTRE-NAME: Department of Oceanography, Martin Ryan Institute**

**VISIT-ADDRESS:** Department of Oceanography,  
University College, Galway,

**COUNTRY:** Ireland

**DESCRIPTION:**

The Department of Oceanography (OCE-UCG) maintains a research program of oceanographic monitoring along the north west and south coast of Ireland. This program and data stretches back eighteen years. The data storage medium is magnetic tape, formatted floppy disk with data organised in ICES code form which enables ready transfer to other DEC, FAX and compatible computer.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Prof. Michael Orren/Mr. John J. Coyne

**POST-ADDRESS:** Department of Oceanography,  
University College, Galway,  
Ireland

**PHONE:** +353 91 67894

**FAX:** +353 91 64243

**DATASET-NAME: Hydrographic stations in Irish coastal waters**

**TIME-PERIOD:** from 1972 onwards

**GEOGRAPHIC-  
COVERAGE:** waters off the North, South and West coasts of Ireland

**PROJECT:** multiple use for research, training and consulting work

**PARAMETERS:** ship name, date, time, position, station number, depth, temperature, salinity, oxygen, P04 - P, N02-N, Si, Chl-a

**INSTRUMENTS:** temperature - salinity probes (M.C. 5 or similar), sampling bottles, oxygen probe, CTD, Clark Bumpus samplers, suspended solids, fluorometer, current meters, light meters

**SUMMARY:**

Files of temp - salinity, oxygen, sigma-t, nutrients P04P, N02-N, N03N, Si, chlorophyll, P.O.C., currents, phytoplankton, zooplankton for every station sampled. Field equipment calibrated with standard reversing thermometers and inductively coupled salinometer. Files sorted by research cruises.

**STORAGE-MEDIUM:** magnetic tape, floppy disc: MS-DOS ASCII text files

**AVAILABILITY:** On request for most data. Permission required for contract data from client.

**COMPLETED-BY:** John Coyne

**REVISION-DATE:** 12/2/90

**m) CENTRE-NAME: Department of Zoology, Martin Ryan Institute**

**VISIT-ADDRESS:** Martin Ryan Marine Sciences Institute,  
University College,  
Galway,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

none given

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Prof. Brendan Keegan

**POST-ADDRESS:** Martin Ryan Marine Sciences Institute,  
University College,  
Galway,  
Ireland

**PHONE:** +353 91 24411

**FAX:** +353 91 25005

**DATASET-NAME:** The development of an ecological model to determine the trophic capacity of mollusc rearing areas in Ireland and in Greece (1992-1993)

**TIME-PERIOD:** from 1992 to 1993

**GEOGRAPHIC-  
COVERAGE:** Carlingford Lough, Ireland (54deg 2'N, 6deg 8'W)

**PROJECT:** The development of an ecological model to determine the trophic capacity of mollusc rearing areas in Ireland and in Greece

**PARAMETERS:** Primary productivity, phytoplankton pigments - chlorophyll, fluorescence, etc., phytoplankton, benthic bacteria/micro-organisms, phytobenthos, zoobenthos, molluscs, particulate organic matter - POC, PON, current meters, surface drifters/buoys, water bottle station, bathythermograph drops, dredge, grab, core - soft bottom, oxygen, phosphates, total phosphorous, nitrates, nitrites, silicates, pH, ammonia, aquaculture, growth trials

**INSTRUMENTS:** Current meters, drogues, tidal poles, grabs, cores, water bottles, light/dark rigs, sediment profile imagery

**SUMMARY:**

The study was carried out to build a trophic model of Carlingford Lough (Ireland) and Maliakos Bay (Greece) in relation to their mariculture potential. Sampling was carried out monthly. Six scientists participated in the study.

**STORAGE-MEDIUM:** Floppy disk, maps/charts, optical disk

**AVAILABILITY:** Restricted availability

**COMPLETED-BY:** Dr. Brendan Ball

**REVISION-DATE:** 11/1/94

**n) CENTRE-NAME:** Department of Zoology, University College Dublin

**VISIT-ADDRESS:** Department of Zoology,  
University College,  
Belfield,  
Dublin 4,

**COUNTRY:** Ireland



**DESCRIPTION:**

Marine data are mainly collected during student projects and personal research. Undergraduate theses are available in the Zoology Department; PhD and MSc theses from the University Library. Faunal samples are stored for varying periods depending on their perceived value to other users. Data are exchanged or released under special arrangement.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** Director of Marine Studies

**POST-ADDRESS:** Department of Zoology,  
University College,  
Belfield,  
Dublin 4,  
Ireland

**PHONE:** +353 1 693244

**FAX:** +353 1 694409

**DATASET-NAME:** Baseline survey at Carnsore Point, Co. Wexford, Ireland (1976-1978)

**TIME-PERIOD:** from 01 March 1976 to 31 December 1978 at 12 stations

**GEOGRAPHIC-  
COVERAGE:** South east Wexford, Ireland (52deg 30'N, 6deg 15'W - 52deg 15'N, 6deg 35'W - 52deg 10'N, 6deg 55'W)

**PARAMETERS:** Zoobenthos, granulometry, coastal ecology

**SUMMARY:**

This was originally a baseline survey at Carnsore Point, Co. Wexford, south east Ireland, for the ESB Nuclear Power Station but it was extended to include collections and observations between Hook Head and Cahore Point, Co. Wexford, south east Ireland. Contact Dr. Brenda Healy for the data.

- REFERENCE:**
- 1) Healy, B. (1979). Marine fauna of Co. Wexford -1. Littoral and brackish water Oligochaeta. Irish Naturalist's Journal 19: 418-422.
  - 2) Healy, B., Bates, R. and McGrath, D. (1982). Marine fauna of Co. Wexford -5. Lady's Island Lake. Irish Naturalist's Journal 20: 510-.
  - 3) Healy, B. and McGrath, D. (1982). Marine fauna of Co. Wexford -10. The Crustacea Decapoda of intertidal and brackish water habitats. Irish Naturalist's Journal 22: 470-473.
  - 4) Healy, B. and O'Neill, M. (1984). The life cycle and population dynamics of 'Idotea granulosa' and 'I. pelagica' (Isopoda, Valvifera) in south east Ireland. Journal of the Marine Biological Association, UK 64: 21-33.
  - 5) McGrath, D. and O'Sullivan, G. (1977). The occurrence of the cumacean 'Cumopsis fagei' Basescu in Irish waters. Irish Naturalist's Journal 19: 119-120.
  - 6) McGrath, D. and King, P.A. (1991). Settlement of mussels 'Mytilus edulis' L., on wave exposed shores in Irish waters: a survey. Proceedings of the Royal Irish Academy, 91B: 49-58.
  - 7) McGrath, D. and O'Foighil, D. (1986). Population dynamics and reproduction of hermaphroditic 'Lasaea rubra' (Montagu) (Bivalvia, Galeommatacea). Ophelia 25: 209-219.
  - 8) Myers, A.A. and McGrath, D. (1993). Settlement and growth of the intertidal

gastropod 'Melaraphe neritoides', on the south coast of Ireland. Journal of the Marine Biological Association UK, 73: 313-319.

**STORAGE-MEDIUM:** Floppy disk, printed paper/tables

**AVAILABILITY:** data freely available on request

**COMPLETED-BY:** Dr. Brenda Healy

**REVISION-DATE:** 10/18/95

**o) CENTRE-NAME: Drogheda Harbour Authority**

**VISIT-ADDRESS:** Harbour Offices,  
The Mall,  
Drogheda,  
County Louth

**COUNTRY:** Ireland

**DESCRIPTION:**

Channel Surveys are taken every ten years. The information is recorded in the Harbour Office. This information is not confidential.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Capt. W.P. Hanrahan

**CONTACT-TITLE:** Harbour Master

**POST-ADDRESS:** Harbour Offices,  
The Mall,  
Drogheda,  
County Louth,  
Ireland

**PHONE:** +353 41 38378

**FAX:** +353 41 32844

**DATASET-NAME: Hydrographic surveys of Drogheda Harbour, Ireland**

**TIME-PERIOD:** not specified

**GEOGRAPHIC-  
COVERAGE:** Drogheda Harbour on East coast of Ireland

**PARAMETERS:** water depth, sea level

**SUMMARY:**

Channel survey taken every ten years. Sea level data are regularly recorded in book form.

**STORAGE-MEDIUM:** charts and hard copy reports

**AVAILABILITY:** information available on request

**COMPLETED-BY:** P. McDonnell

**REVISION-DATE:** 11/20/90

**p) CENTRE-NAME: Dublin Port and Docks Board**

**VISIT-ADDRESS:** Engineers Department,  
Dublin Port and Docks Board,

Port Centre,  
Alexandra Road,  
Dublin 1,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

Dublin Port is the major port of the Republic and as such keeps a large amount of civil, mechanical, marine and historical data. All such information is retained in the Records Department in the Engineers Department.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. Eamon McAteer

**CONTACT-TITLE:** Hydrographic Surveyor

**POST-ADDRESS:** Engineers Department,  
Dublin Port and Docks Board,  
Port Centre,  
Alexandra Road,  
Dublin 1,  
Ireland

**PHONE:** +353 1 748771

**FAX:** +353 1 741241

**DATASET-NAME: Sea level data at Dublin Port, Ireland**

**TIME-PERIOD:** from 1924 onwards

**GEOGRAPHIC-  
COVERAGE:** North Wall Lighthouse at Dublin Port, Ireland

**PARAMETERS:** sea level

**SUMMARY:**

An OTT tide level recorder is permanently maintained at North Wall Lighthouse, Dublin Port, with data on 24 hour graphs on chart paper. Records which have been maintained at this Lighthouse since 1924 are readily available and may be inspected by appointment.

**STORAGE-MEDIUM:** paper chart records

**AVAILABILITY:** chart records may be inspected by appointment

**COMPLETED-BY:** Niall D. Dardis

**REVISION-DATE:** 1/29/92

**DATASET-NAME: Environmental Study of River Liffey and Dublin Bay (Crisp Report)**

**TIME-PERIOD:** April 1971 to July 1974

**GEOGRAPHIC-  
COVERAGE:** Dublin Bay on the East coast of Ireland

**PARAMETERS:** Not specified

**SUMMARY:**

An environmental survey of Liffey Estuary and Dublin Bay was carried out and the results are presented in a 7 volume report generally referred to as the Crisp Report:

2 volumes on Hydrological Observations  
2 volumes on River Liffey Estuarine Area  
1 volume on Environmental Survey of Dublin Bay  
1 volume on water quality and other investigations in River Liffey Estuary  
1 volume on Dublin Bay freshwater

There is also a Summary Volume.

**REFERENCE:** A brief summary of the Crisp Report was written by Mr. M.C. Smyth the then Chief Engineer of Dublin Port and Docks Board and is also available

**STORAGE-MEDIUM:** hard copy report in 7 volumes

**AVAILABILITY:** The report may be inspected by appointment at the Drawing Office of the Engineers Department.

**COMPLETED-BY:** Niall D. Dardis (Tel: +353 1 748771 Ext. 328)

**REVISION-DATE:** 1/29/92

**q) CENTRE-NAME: Electronic and Geophysical Services Limited**

**VISIT-ADDRESS:** Meon House,  
East Tisted,  
Alton,  
Hants,  
GU34 3QW,

**COUNTRY:** United Kingdom

**DESCRIPTION:**

Electronic and Geophysical Services Limited was formed in 1974 to provide specialist site investigation services to the Civil Engineering industry. The Company has specialised in inshore geophysical techniques (mainly shallow seismic reflection), working predominantly in water depths of 0m to 20m.

In addition to the UK Office, there are offices in Hong Kong, Malaysia and Singapore, and Joint Venture companies covering much of the Middle and Far East.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. D. Waller

**POST-ADDRESS:** Meon House,  
East Tisted,  
Alton,  
Hants,  
GU34 3QW,

**PHONE:** +44 1420 587291

**FAX:** +44 1420 587480

**DATASET-NAME: Kilroot tidal data, Belfast Lough (1990-1991)**

**TIME-PERIOD:** from 1990 to 1991

**GEOGRAPHIC-  
COVERAGE:** Belfast Lough, Northern Ireland

**PROJECT:** Kilroot Power Station

**PARAMETERS:** 12 months inshore tidal records

**SUMMARY:**

Tidal data were collected on a commercial basis to the instructions of Allott and Lomax, Consulting Engineers for Kilroot Power Station. The data cover the period 3rd July 1990 to 30th June 1991.

**REFERENCE:** Report No. 1954

**STORAGE-MEDIUM:** Computer disc in ASCII format

**AVAILABILITY:** on request after clearance with client

**COMPLETED-BY:** D. Waller

**REVISION-DATE:** 6/30/94

**r) CENTRE-NAME: Environment Agency, Welsh Region**

**VISIT-ADDRESS:** Rivers House,  
S. Mellons Business Park,  
Cardiff,  
CF3 0LT,  
United Kingdom

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.environment-agency.gov.uk/](http://www.environment-agency.gov.uk/)

**DESCRIPTION:**

The Environment Agency (EA) (Welsh Region) has statutory duties and powers under the Water Resources, Pollution Control, Flood Defences, Fisheries, Recreation, Conservation and Navigation throughout Wales. Its Water Quality and Fisheries Responsibilities extend into coastal waters. The NRA is also the competent Authority for a number of European Community Directives.

The EA (Welsh Region) exchanges data between other EA Regions but reserves the right to charge for data that may be used commercially. Certain data may be restricted due to the regulatory nature of the EA's activities.

Further information regarding the EA can be obtained from the EA Public Relations Department.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. A.S. Gee

**POST-ADDRESS:** Rivers House,  
S. Mellons Business Park,  
Cardiff,  
CF3 0LT,  
United Kingdom

**PHONE:** +44 1222 770088

**FAX:** +44 1222 789555

**DATASET-NAME: Water quality monitoring in the Dee estuary, southern Irish Sea (September-October 1992)**

**TIME-PERIOD:** from 1 September 1992 to 20 October 1992

**GEOGRAPHIC-  
COVERAGE:** 4 sites between Mostyn Dock and Flint Point; 14 sites between Mostyn and  
Connahs Quay

**PROJECT:** Outer Dee Study

**PARAMETERS:** temperature, depth, pH, dissolved oxygen, salinity

**SUMMARY:**

The aim of the study was to collect water quality data to support the impact assessment of the major discharges to the outer Dee estuary.

At 4 sites continuous water quality monitors were deployed on sea bed frames. At the same sites two 13 hour surveys were carried out taking half hourly depth profile measurements.

The study also included 6 longitudinal estuary runs, depth profiling at 14 sites.

**STORAGE-MEDIUM:** IBM PC disc

**AVAILABILITY:** These data are not generally available outside the NRA. However requests are considered from certain users.

**COMPLETED-BY:** T. Dawkins

**REVISION-DATE:** 12/20/92

**s) CENTRE-NAME:** Environmental Protection Agency, Wexford

**VISIT-ADDRESS:** Ardcavan,  
Co. Wexford,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

none given

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. Larry Stapleton

**POST-ADDRESS:** Ardcavan,  
Co. Wexford,  
Ireland

**PHONE:** +353 53 47120

**FAX:** +353 53 47119

**DATASET-NAME:** Quality conditions in the intertidal zone of Dublin Bay, Ireland, with particular reference to macroalgal accumulations (1989-1990)

**TIME-PERIOD:** from 01 May 1989 to 31 December 1990 at 11 stations

**GEOGRAPHIC-  
COVERAGE:** Dublin Bay, Ireland (53deg 21'N, 6deg 15'W)

**PARAMETERS:** Primary productivity, phytobenthos, zoobenthos, molluscs, crustaceans, bathythermograph drops, oxygen, total phosphorous, nitrates, total nitrogen, ammonia, trace metals, bottom deposits, coastal ecology, contaminants in sediments

**INSTRUMENTS:** Various field samples/meters, spectral scanning, Moniteq Programmable Multispectral Imager (PMI)

**SUMMARY:**

This study was carried out to investigate the quality conditions in the intertidal zone of Dublin Bay with particular reference to macroalgal accumulations. It included eleven participating scientists.

**REFERENCE:** Dublin Bay Water Quality Management Plan. Technical Report No. 7 Algal growths and foreshore quality, ERU, 1992.

**STORAGE-MEDIUM:** Printed paper/tables

**AVAILABILITY:** Freely available

**COMPLETED-BY:** Dr. D. W. Jeffrey

**REVISION-DATE:** 6/1/95

**DATASET-NAME:** Water quality data for 14 selected locations around the coast of Ireland (1992-1993)

**TIME-PERIOD:** from 06 October 1992 to 23 November 1993 at 260 stations

**GEOGRAPHIC-  
COVERAGE:** 14 separate locations around the coast of Ireland

**PARAMETERS:** Biochemical - lipids, amino acids, bathythermograph drops, transparency, oxygen, phosphates, nitrates, nitrites, pH, ammonia, bottom deposits, temperature, salinity, chlorophyll, contaminants in sediments

**INSTRUMENTS:** Dissolved oxygen/temperature meters, salinity meters, secchi disc, GPS position fixing system, sounding line

**SUMMARY:**

This study was carried out to collect and assemble data on water quality, particularly in relation to the implementation of both the Urban Waste Water and the Nitrates Directives. The study was carried out at 14 locations around Ireland, and data were collected at 260 stations.

**REFERENCE:** Interim Reports on estuarine and coastal water quality - 1992-1993.

**STORAGE-MEDIUM:** Maps/charts, printed paper/tables

**AVAILABILITY:** Freely available

**COMPLETED-BY:** Mr. M. Mansfield

**REVISION-DATE:** 11/1/94

**DATASET-NAME:** Field studies of currents and dispersion, Dublin Bay, Ireland (1988-1990)

**TIME-PERIOD:** from 22 November 1988 to 16 July 1990 at 100 stations

**GEOGRAPHIC-  
COVERAGE:** Dublin Bay, Ireland (53deg 21'N, 6deg 15'W)

**PARAMETERS:** Current meters, neutrally buoyant floats, sea level measurements, bathythermograph drops, temperature

**INSTRUMENTS:** Inter Ocean Systems Inc. S4 electromagnetic current meter, Aanderaa instruments, water level sensor, direct reading current meter, salinity meter, spectrometer, etc.

**SUMMARY:**

The work comprised field studies of currents and dispersion. The aim of the study was to determine currents and dispersion in Dublin Bay, particularly those affecting dispersal and fate of discharge from the main sewage outfall at Ringsend. The time series sampling frequency used was 10 minutes or more. Four scientists participated in the work.

**REFERENCE:** Dublin Bay Water Quality Management Plan. Technical Report No. 3. Field studies of currents and dispersion, ERU, 1992.

**STORAGE-MEDIUM:** Floppy disk, maps/charts, printed paper/tables

**AVAILABILITY:** Freely available

**COMPLETED-BY:** Mr. M. Mansfield

**REVISION-DATE:** 11/1/94

**t) CENTRE-NAME: Environmental Research Unit**

**VISIT-ADDRESS:** Environmental Research Unit,  
St. Martin's House,  
Waterloo Road,  
Dublin 4,

**COUNTRY:** Ireland

**DESCRIPTION:**

The Environmental Research Unit was established in 1988 as a statutory body for the provision of the environmental research and related services which are necessary to support the major infrastructural programmes for which the Minister for the Environment and the local authorities are responsible. This work also involves research, analytical, monitoring, advisory and other services which are needed in relation to the environment. ERU is a successor organisation to An Foras Forbartha - the National Institute for Physical Planning and Construction.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. Larry Stapleton

**POST-ADDRESS:** Environmental Research Unit,  
St. Martin's House,  
Waterloo Road,  
Dublin 4,  
Ireland

**PHONE:** +353 1 602511

**FAX:** +353 1 680009

**DATASET-NAME: Information gathered for the development of water quality management plans and other studies of Irish Bays and Estuaries**

**TIME-PERIOD:** from 1974 onwards

**GEOGRAPHIC-  
COVERAGE:** several Irish Bays and Estuaries

**PARAMETERS:** water quality, sediment quality, oceanographic measurements, beneficial uses, waste discharges, currents, dispersion, modelling

**SUMMARY:**

The data set comprises the results of a large number of commissioned studies undertaken by the Environmental Research Unit and its predecessor organisation, An Foras Forbartha, mainly on behalf of Local Authorities. Where the work involved developing water quality management plans, the data



sets include: beneficial uses, quality standards, waste inputs, quality results, hydrographic and oceanographic data, and mathematical model output. Plans have been completed for the Shannon Estuary, Suir-Barrow-Bore Estuary and the Slaney Estuary including Wexford Harbour. Special studies of bacteriological quality were undertaken in Cork Harbour. Currents and dispersion patterns have been studied in Galway Bay, Dungarvan Harbour and other areas. A major study on Dublin Bay is in progress.

**REFERENCE:** Commissioned studies of Bays and Estuaries by the Environmental Research Unit (and previously by An Foras Forbartha).

**STORAGE-MEDIUM:** mostly in the form of reports commissioned by Local Authorities

**AVAILABILITY:** by permission of Local Authorities/ERU

**COMPLETED-BY:** L. Stapleton

**REVISION-DATE:** 11/23/90

**u) CENTRE-NAME: Fisheries Research Centre (Aquaculture/Environmental Monitoring)**

**VISIT-ADDRESS:** Fisheries Research Centre,  
Department of the Marine,  
Abbotstown,  
Dublin 15,

**COUNTRY:** Ireland

**DESCRIPTION:**

The Fisheries Research Centre is the research arm of the Department of the Environment, Ireland, and has programmes in three main areas - Fish Stock Assessment, Aquaculture and Environmental Monitoring. Data are held or published in various formats and may be exchanged with other bodies.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Ms. Jacqueline Doyle (or as specified on individual data sets)

**POST-ADDRESS:** Fisheries Research Centre,  
Department of the Marine,  
Abbotstown,  
Dublin 15,  
Ireland

**PHONE:** +353 1 210111

**FAX:** +353 1 205078

**DATASET-NAME: Surface nutrients in Irish coastal waters**

**TIME-PERIOD:** from 1990 onwards

**GEOGRAPHIC-  
COVERAGE:** Irish Sea and east coast estuaries

**PROJECT:** FRC nutrient monitoring and NORSAP

**PARAMETERS:** nitrate, phosphate, silicate and salinity

**SUMMARY:**

In this program, surface water nutrient levels are determined during the winter period. Coastal water samples are collected and, in estuaries, samples along the salinity gradient are measured.

Samples are collected, filtered and analysed on board within 30 mins by Autoanalyser for nutrients.

Salinity samples are stored for subsequent determination by bench salinometer.

**STORAGE-MEDIUM:** hard copy

**AVAILABILITY:** data available by special arrangement - contact Eugene Nixon, FRC

**COMPLETED-BY:** Eugene Nixon

**REVISION-DATE:** 4/29/91

**DATASET-NAME: Water nutrient levels in the Irish Sea (1989-1991)**

**TIME-PERIOD:** from 02 December 1989 to 13 December 1991 at 31 stations

**GEOGRAPHIC-  
COVERAGE:** Irish Sea and east coast estuaries

**PARAMETERS:** Phytoplankton pigments - chlorophyll, fluorescence, etc., water bottle station, CTD, total phosphorous, nitrates, silicates

**SUMMARY:**

Water nutrient levels in the Irish Sea have been measured with a view to detecting long term trends. A time series is being developed with sampling every 2-13 December from 1989. 31 stations were sampled in 1991.

**REFERENCE:** FRC Internal reports

**STORAGE-MEDIUM:** Floppy disk, maps/charts, printed paper/tables

**AVAILABILITY:** Restricted availability

**COMPLETED-BY:** Dr. Eugene Nixon

**REVISION-DATE:** 11/1/94

**v) CENTRE-NAME: Fisheries Research Centre (Fish Stock Assessment)**

**VISIT-ADDRESS:** Fisheries Research Centre,  
Department of the Marine,  
Abbotstown, Dublin 15,

**COUNTRY:** Ireland

**DESCRIPTION:**

The Fisheries Research Centre is the research arm of the Department of the Environment and has programmes in three main areas – Fish Stock Assessment, Aquaculture and Environmental Monitoring. Data are held or published in various formats and may be exchanged with other bodies. Most of the databases in the Fish Stock Assessment Section form the basis on which national statistics for fish landings are compiled for assessment by various yearly ICES working groups. Copies are lodged in the library of the Fisheries Research Centre.

Other data bases are being established but, as yet, there are no real time series of data. A data base containing open and closed seasons for salmon fisheries broken down by region, district, river and fishing method, is being developed. A large environmental database is also being set up containing information on many important salmon rivers including flow, temperature, height, physical parameters, number of fish caught by rod, trap, net etc. -long time-series data from the Meteorological Office and the various fisheries around the country will enable the environmental effects on salmon returns to be studied.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** John Brown (or as specified on individual data sets)

**POST-ADDRESS:** Fisheries Research Centre,  
Department of the Marine,  
Abbotstown, Dublin 15,  
Ireland

**PHONE:** +353 1 210111

**FAX:** +353 1 205078

**DATASET-NAME:** Growth and mortality of Nephrops in the Irish Sea (1989-1990)

**TIME-PERIOD:** from 01 June 1989 to 30 June 1990 at 53 stations

**GEOGRAPHIC-  
COVERAGE:** Irish Sea

**PARAMETERS:** Crustaceans, CTD, surface temperature/salinity underway, grab

**INSTRUMENTS:** Standard small mesh Nephrops trawl used to obtain catch per unit effort, length frequencies at each station, sex ratios, size at maturity of females; CTD at some stations; grab sampling at all stations; sediment grain size profile for each station

**SUMMARY:**

The biological characteristics of Nephrops in the Irish Sea were studied. Variation in biological characteristics (growth, mortality, size at maturity, abundance) of Nephrops, in relation to sediment type, bottom temperature regimes and fishing effort, were defined. Also, the spatial scales of autocorrelation in length frequency data were defined. Annual sampling was carried out.

- REFERENCE:**
- 1) Hillis, J.P. and Tully, O. (1993). Possible advances with the ageing of female Nephrops by separation of normal curves in length frequency distributions. ICES C.M./K: 64.
  - 2) Hillis, J. P. and Tully O. (1993). Growth rate, mortality and small mean size in Irish Sea Nephrops. ICES C.M./K: 65.
  - 3) Tully, O. and Hillis, J.P. (1994). Causes and spatial scales of variability in population structure of 'Nephrops norvegicus' L. in the Irish Sea, Fisheries Research (in press).
  - 4) Tully, O., Hillis, J.P. and McMullan, D. (1989). Fitting normal curves to polymodal length frequencies to assess growth in Nephrops. ICES C.M./K: 32, 9pp.
  - 5) Tully, O. and Hillis, J.P. (1990). Spatial patterns of growth and mortality in Irish Sea Nephrops. ICES C.M./K: 21.

**STORAGE-MEDIUM:** Floppy disk, maps/charts, printed paper/tables

**AVAILABILITY:** Restricted availability

**COMPLETED-BY:** Dr. Oliver Tully

**REVISION-DATE:** 10/18/95

**w) CENTRE-NAME:** Fisheries Research Services, Marine Laboratory, Aberdeen

**VISIT-ADDRESS:** Fisheries Research Services,  
Marine Laboratory,

PO Box 101,  
Victoria Road,  
Aberdeen,  
AB11 9DB,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.marlab.ac.uk/](http://www.marlab.ac.uk/)

**DESCRIPTION:**

The Marine Laboratory, Aberdeen is one of two constituent part of Fisheries Research Services (FRS) which is an executive agency of the Scottish Office (SO). The programme of the Laboratory is authorised by a committee chaired by the SO Fisheries Secretary. Research on freshwater and migratory species (principally Atlantic salmon and sea trout) is carried out by the other constituent part of FRS, the Freshwater Fisheries Laboratory, Faskally, Perthshire.

Within the United Kingdom, fisheries research and development are integrated by a Customer Group, composed of representatives of FRS, the Centre for Environment, Fisheries and Aquaculture (CEFAS) and the Department of Agriculture Northern Ireland (DANI). A UK Coordinator of Fisheries Research and Development ensures that liaison is maintained between FRS, CEFAS and DANI.

The main thrust of the Laboratory's scientific programme is in support of the fisheries management responsibilities of the Scottish Office Agriculture, Environment and Fisheries Department (SOAEFD). The objective is to monitor the state of the main fish and shellfish stocks, and effort is aimed at conserving and managing the fish and shellfish resources to support an efficient, market-orientated fishing industry. Thus, the largest part of the research programme is directed at investigation of the main fish stocks exploited by Scottish fishermen. Attention is also paid to investigating the various technical measures adopted to promote the conservation of fish stocks. The Laboratory maintains a strong interest in the events and processes taking place in the oceanic and coastal waters around Scotland, ranging from broad interactions between water movements and fisheries to the more local effects on fish nursery grounds. The Laboratory supports The Scottish Office in its environmental interests, conducting research aimed at monitoring and protecting the quality of the seas around Scotland and their fisheries from the adverse effects of environmental change. There is a need for information and advice on the circulation of waters around Scotland and the consequent dispersion of particular contaminants arising from man's activities. The Laboratory also has an interest in the field of fish farming. Here, some of the important roles are the statutory inspection of fish and shellfish farms and the prevention of the spread of fish diseases within the environment.

**Data Contact(s) within Data Holding**

**CONTACT-TITLE:** Director

**POST-ADDRESS:** Fisheries Research Services,  
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Victoria Road,  
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AB11 9DB,  
United Kingdom

**PHONE:** +44 1224 876544

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**DATASET-NAME:** **MLA CTD Data (1985-)**

**TIME-PERIOD:** from 1985 onwards

**GEOGRAPHIC-  
COVERAGE:** Scottish coastal waters, central and northern North Sea, Rockall, north east Atlantic

**PROJECT:** Various internal projects, national and international programmes

**PARAMETERS:** Pressure, temperature, conductivity, salinity

**INSTRUMENTS:** NBA model TDS-7M; Chelsea Instruments 'Aqualog'; SeaBird model SBE-9; SeaBird model SBE-19; SeaBird model SBE-25; Applied Microsystems model STD-12; NBIS model 'Smart' CTD

**SUMMARY:**

This data set of CTD and/or STD profiles has been collected on many cruises under many different projects and programmes in which the Laboratory has been involved.

Over the years, the instrumentation has changed (see above list) and different groups of workers within the Laboratory favour different instruments. In general, the data are logged as either pressure, temperature and conductivity or as depth, temperature and salinity. The individual sub-sets of CTD/STD profiles are grouped in files relating to the particular cruise on which they were collected. Each file has a header block defining the instrument used, sounding at the sampling location, date and time of sampling and the number of observations at that location.

The stored data have been screened for spikes and other erroneous values which have been removed. During the course of a cruise, frequent salinity samples for calibration purposes are collected. These are analyzed back at the Laboratory on a Guildline 'Autosal' salinometer and the calibration of the CTD/STD checked.

The data set currently comprises some 4400 CTD/STD profiles. All data were collected by research vessels operated by or on behalf of the Marine Laboratory, Aberdeen.

**REFERENCE:** There is no general reference to this data set. The use of such data is described in papers by the data originators which appear in the scientific literature.

**DATA-WEBSITE:** [www.marlab.ac.uk/](http://www.marlab.ac.uk/)

**STORAGE-MEDIUM:** Optical disk, floppy disk

**AVAILABILITY:** These data form part of the Laboratory's submission to ICES through the ICES Oceanographic Secretary.

**COMPLETED-BY:** G. Slessor, FRS, Marine Laboratory, Aberdeen (Tel: +44 1224 876544 Ext. 5430)

**REVISION-DATE:** 2/17/98

**DATASET-NAME: MLA Moored Self-Recording Instrument Data (1967-)**

**TIME-PERIOD:** from 1967 onwards

**GEOGRAPHIC-COVERAGE:** Scottish coastal waters, central and northern North Sea, Rockall, north east Atlantic

**PROJECT:** Various internal projects, national and international programmes

**PARAMETERS:** Current speed and direction, temperature, conductivity (salinity), pressure

**INSTRUMENTS:** NBA model DNC2M; Aanderaa Instruments models RCM-4, RCM-4S & RCM-7 current meters; Aanderaa Instruments models WLR-5 and WLR-7 water level recorders; Plessey model MO-601 current meter; Aanderaa Instruments models TR-1 and TR-7 thermistor chains

**SUMMARY:**

The bulk of this data set comprises current speed and direction data recorded by the above named instruments. Because of the similarities in the data themselves, and in the processing applied to the data, it was decided that data from water level recorders, thermistor chains and additional data from other sensors (e.g. temperature, conductivity, pressure and light transmission) be included in what was originally the MLA Current Meter Data Set.

The data are fully and carefully quality controlled. Spikes and other erroneous data values are isolated using a combination of screen editing and hard-copy graphics. Time series analysis is used to check the residual and tidal components of the signal.

Within the data set, individual records range in length from 1 day to 13 months. In general, data were recorded at either 5, 10, 15, 20, 30, or 60 minute intervals depending on the planned length of the deployment or the planned uses for the data. Each record is described by a header block comprising mooring position, instrument depth, sounding at the mooring location, start date and time, number of observations per hour, number of hourly means and instrument type. Prior to 1976, all data have been archived as hourly means only. To date, some 1026 instruments have been deployed on 568 moorings with a return of some 1,142,000 hours of valid data.

These moored self-recording instrument records have all been collected on many cruises under many different projects and programmes in which the Laboratory has been involved. No other data collected by any other organisation, national or international, are included in this data set.

These data form part of the UK National Databank of Moored Current Meter Data.

**REFERENCE:** BODC provide a floppy disk based index and Users' Guide to the Inventory of Moored Current Meter Data. In addition, the index to the inventory forms part of the UKDMA package which is also produced by BODC at POL.

**DATA-WEBSITE:** [www.bodc.ac.uk/services/current\\_meter\\_search/current\\_meter\\_search.html](http://www.bodc.ac.uk/services/current_meter_search/current_meter_search.html)

**STORAGE-MEDIUM:** Optical disk, floppy disk, manuscript

**AVAILABILITY:** These data are submitted to BODC as part of the Laboratory's contribution to the UK Moored Current Meter Database. Any enquiries about this data set should be directed to BODC. It should be noted that there is a ten year confidentiality barrier on the dissemination of these data.

**COMPLETED-BY:** G. Slessor, FRS, Marine Laboratory, Aberdeen (Tel: +44 1224 876544 Ext. 5430)

**REVISION-DATE:** 2/17/98

**DATASET-NAME: MLA Hydrographic Data (1893-)**

**TIME-PERIOD:** from 1893 onwards

**GEOGRAPHIC-  
COVERAGE:** Scottish coastal waters, central and northern North Sea, Rockall, north east Atlantic

**PROJECT:** Various internal projects, national and international programmes

**PARAMETERS:** Pressure (depth), temperature, salinity, (sigma-t), oxygen, phosphate, nitrate, silicate, ammonia, chlorophyll-a, phaeopigments, particulate organic carbon and particulate organic nitrogen

**INSTRUMENTS:** PN water bottles, NIO and Knudsen reversing water bottles, Go-Flo water bottles and other large volume water samplers; various deep sea reversing thermometers

**SUMMARY:**

This data set has been compiled from data collected by many different groups within the Laboratory, from a variety of platforms, over the last century.

The data set can best be described as three component parts:

a) Data from 1960 to the end of 1999: these data are stored on optical disk and in manuscript form. The data have been fully checked and verified and comprise some 23,400 stations.

b) Data from the Faroe-Shetland Channel from 1893 to 1959: these data are stored on optical disk and in manuscript form. The data have been verified. There are approximately 2000 stations.

c) All other data prior to 1960: These data are stored in manuscript form in the original station books and other record sheets. During 1997 these data have been recovered from the station books into computer files and are yet to be formatted to the MLA format. There are some 19,000 stations.

Each station is described by station number, its position (latitude and longitude), date and time of sampling, sounding, research vessel code, cruise number and sampled depths.

In the main, the data from each station comprises depth, temperature and salinity. Depending on the area worked, and the requirements of the particular cruise, some or all of the additional parameters may have been measured. All the data in this data set have been collected under many different projects and programmes in which the Laboratory has been involved with the exception of approximately 600 stations from the Faroe-Shetland Channel. These data were obtained through the ICES Oceanography Secretary and originate from Denmark, Norway and the former USSR.

**REFERENCE:** Turrell, W.R. and Slessor, G. (1992) Annual Cycles of Physical, Chemical, and Biological Parameters in Scottish Waters. Scottish Fisheries Working Paper No. 5/92.

**DATA-WEBSITE:** [www.marlab.ac.uk/](http://www.marlab.ac.uk/)

**ORIGINATOR:** FRS, Marine Laboratory, Aberdeen

**STORAGE-MEDIUM:** Optical disk, floppy disk, manuscript

**AVAILABILITY:** These data are submitted to ICES on an annual basis and may be obtained from there.

**CONTACT:** ICES Hydrographer, Copenhagen, Denmark; <http://www.ices.dk/>

**COMPLETED-BY:** G. Slessor, FRS, Marine Laboratory, Aberdeen (Tel: +44 1224 876544 Ext. 5430)

**REVISION-DATE:** 2/17/98

**x) CENTRE-NAME: Forbairt Ocean Services Department**

**VISIT-ADDRESS:** Glasnevin,  
Dublin 9

**COUNTRY:** Ireland

**DESCRIPTION:**

Forbairt (formerly EOLAS) Ocean Services Department is an Irish Semi State organisation which contributes to industrial and economic growth through the development, application and promotion of Science and Technology. The Ocean Services Department is responsible for offshore certification, consultancy in offshore and coastal engineering, and maximisation of Irish involvement in its offshore industry. It retains a comprehensive set of environmental data for the Irish Sphere - waves, winds and

currents - measured, analytically derived and observed.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Gerard Keane

**POST-ADDRESS:** Glasnevin,  
Dublin 9

**PHONE:** +353 1 370101

**FAX:** +353 1 379620

**DATASET-NAME: Compilation of wave data in the Irish sector of the Irish Sea**

**TIME-PERIOD:** various periods between October 1964 and May 1985

**GEOGRAPHIC-  
COVERAGE:** Irish sector of the Irish Sea

**PARAMETERS:** wave height and wave period

**SUMMARY:**

In support of offshore operations in the Irish sector of the Irish Sea this data set has been compiled by Forbairt (formerly EOLAS) from a variety of sources.

A: Wavestaff measurements of wave height and period collected by the Commissioners of Irish Lights at the following light vessels:

A1: Kish Light Vessel from 6 October 1964 to 9 November 1965

A2: Codling Light Vessel from 10 March 1971 to 31 March 1973

A3: Arklow Light Vessel from 21 May 1973 to 7 August 1974

B: Computer model derivations of wave height, wave period, wind speed, wind direction and swell using UK Met. Office Fine Mesh Wave Model for the months March, April, May over the years 1978 to 1985.

**STORAGE-MEDIUM:** computer disk

**AVAILABILITY:** Restricted availability of data from Forbairt (formerly EOLAS). Note that the wavestaff data from Kish, Codling and Arklow Light Vessels is available directly from the British Oceanographic Data Centre.

**COMPLETED-BY:** Gerard Keane

**REVISION-DATE:** 4/1/91

**DATASET-NAME: Computer wave refraction/diffraction study at 'Roadstone' Jetty, Arklow, Ireland (1993)**

**TIME-PERIOD:** 1993

**GEOGRAPHIC-  
COVERAGE:** Roadstone Jetty, Arklow, east coast of Ireland (52deg 47'N, 6deg 9'W)

**PARAMETERS:** Sea level measurements, wave measurements, bathythermograph drops

**INSTRUMENTS:** Data sources, digitiser, Admiralty charts, nearshore bathymetry (Waterloopkundig Laboratorium, July '53)

**SUMMARY:**

A computer wave refraction/diffraction study was carried out at 'Roadstone' Jetty, Arklow, on the east coast of Ireland.



**REFERENCE:** Confidential report to J.P. Byrne and Partners, Arklow.

**STORAGE-MEDIUM:** Floppy disk, magnetic tape, printed paper/tables

**AVAILABILITY:** Unavailable

**COMPLETED-BY:** Mr. Brendan Dollard

**REVISION-DATE:** 11/1/94

**DATASET-NAME: Current measurement in the Irish Sea (1991-1992)**

**TIME-PERIOD:** from 13 October 1991 to 28 February 1992 at 6 stations

**GEOGRAPHIC-  
COVERAGE:** Off Loughshinny, Co. Dublin (Irish Sea)

**PARAMETERS:** Current meters

**SUMMARY:**

Current meter measurements were made to provide design criteria for a gas pipeline. These were as follows:

Sampling station 1, time series of every 10 minutes, 21m water depth, 5m ASB, 30 January 1992 - 26 February 1992; 53deg 53.23'N: 5deg 14.86'W.

Sampling station 2, time series of every 10 minutes, 55m water depth, 5m ASB, 31 January 1992 - 26 February 1992; 53deg 34.01'N: 5deg 50.90'W.

Sampling station 3, time series of every 10 minutes, 70m water depth, 5m ASB, 20 October 1991 - 21 November 1991; 53deg 33.50'N: 6deg 02.38'W.

Sampling station 4, time series of every 10 minutes, 30m water depth, 5m ASB, 31 January 1992 - 28 February 1992; 54deg 22.09'N: 4deg 45.73'W.

Sampling station 5, time series of every 10 minutes, 33m water depth, 5m ASB, 13 October 1991 - 25 November 1991; 54deg 28.65'N: 4deg 35.39'W.

Sampling station 6, time series of every 10 minutes, 10m water depth, 3m ASB, 13 October 1991 - 13 November 1991; 54deg 46.16'N: 4deg 08.17'W.

**REFERENCE:** Confidential report for Gas Interconnector Project Office, C/O Bord Gais.

**STORAGE-MEDIUM:** Magnetic tape, maps/charts, printed paper/tables

**AVAILABILITY:** Restricted availability

**COMPLETED-BY:** Mr. Gerard Keane (Email: IN%"KeaneG@Venus.Eolas.ie")

**REVISION-DATE:** 10/18/95

**y) CENTRE-NAME: Hadley Centre for Climate Prediction and Research**

**VISIT-ADDRESS:** Meteorological Office,  
London Rd,  
Bracknell,  
Berkshire,  
RG12 2SY,  
United Kingdom

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.meto.gov.uk/sec5/CR\\_div/cr\\_info.html](http://www.meto.gov.uk/sec5/CR_div/cr_info.html)

**DESCRIPTION:**

The Hadley Centre for Climate Prediction and Research is jointly funded by the Department of the Environment and the Meteorological Office. The main objective of the Centre is to provide for the Government an authoritative, up-to-date assessment of both natural and man-made climate change. The main aspects of the research programme are:

1. to simulate the present climate and understand its natural variability;
2. to understand the factors controlling climate change and to predict global and regional climate change up to the end of the 21st century;
3. to develop and use global climate models to support the above tasks;
4. to provide a focus for both national research programmes relevant to climate change prediction and for interaction with international programmes;
5. to facilitate the incorporation of results from these programmes into the prediction models.

The Hadley Centre is situated at Bracknell, close to the Meteorological Office Headquarters. It was opened in the spring of 1990 and there are now approximately 100 scientists and support staff working at the Centre. There are also facilities for a number of visiting scientists to work on problems of mutual interest.

Climate data and other proprietary information available in the Hadley Centre may be supplied for bona fide research purposes. Commercial or business use is not permitted without the written authority of the UK Meteorological Office.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. David A. Bennetts

**POST-ADDRESS:** Meteorological Office,  
London Rd,  
Bracknell,  
Berkshire,  
RG12 2SY,  
United Kingdom

**PHONE:** +44 1344 856653

**FAX:** +44 1344 854898

**EMAIL:** [dabennetts@email.meto.govt.uk](mailto:dabennetts@email.meto.govt.uk)

**DATASET-NAME:** Regional (European) atmosphere only limited area model

**TIME-PERIOD:** model run 10 years

**GEOGRAPHIC-  
COVERAGE:** model centred on Central Europe

**PARAMETERS:** meteorological parameter (see summary below)

**SUMMARY:**

The data set comprises output from a regional (European) atmosphere only model, nested within the mixed-layer ocean and atmosphere equilibrium model for the control and anomaly runs. Atmosphere only model run for 10 years with 1 x carbon dioxide in the control run and 2 x carbon dioxide in the anomaly run, using sea surface temperatures, sea ice and lateral boundary conditions from the driving

model. The model has a 0.44 x 0.44 degrees latitude/longitude grid and contains 153 x 102 points centred on Central Europe. The model has 11 vertical levels:

Level	Sigma	Approximate Pressure (mb)	Approximate Height
1	0.99	990	100m
2	0.94	940	600m
3	0.84	840	1.5km
4	0.72	720	3km
5	0.58	580	4.5km
6	0.44	440	7km
7	0.32	320	9km
8	0.23	230	10.5km
9	0.16	160	13km
10	0.09	90	17km
11	0.02	20	25km

Stored variables include monthly and seasonal means from the second five years as follows:

surface geopotential height, 00Z surface temperature, soil moisture content, snow depth, large scale rain, snow, convective rain, evaporation, sensible heat flux, boundary layer height, lowest level wind speed, sublimation, snow melt, run-off, convective cloud base, convective cloud top, outgoing clear-sky solar flux, downward clear-sky solar flux, upward clear-sky, solar flux, outgoing clear-sky infrared flux, downward clear-sky surface, infrared flux, incoming solar flux, outgoing solar flux, outgoing infrared flux, surface solar flux (down), surface solar flux (up), surface infrared flux (down), surface infrared flux (up), cloud amount on model levels, convective cloud base (weighted), convective cloud top (weighted), convective cloud amount, total cloud amount, CD (drag coefficient), CD (bulk heat transfer coefficient), quick run-off, soil temperature in layer 2, soil temperature in layer 3, soil temperature in layer 4, mean and box albedo, total cloud water, content (liquid + ice) on model levels, high cloud water path, medium cloud water path, low cloud water path, maximum surface temperature, minimum surface temperature, mean surface temperature, wind mixing energy, x component of stress, y component of stress, liquid cloud water content on model levels, surface soil heat flux, surface pressure, x component of wind on model levels, y component of wind on model levels, temperature on model levels, specific humidity on model levels, mean sea level pressure, 500mb height, 200mb height x component of wind at 850mb, x component of wind at 250mb, y component of wind at 850mb, y component of wind at 250mb, temperature at 850mb, temperature at 700mb, temperature at 500mb ocean: equivalent ice depth, ocean: precipitation-evaporation, ocean: slab temperature.

**DATA-WEBSITE:** [www.meto.gov.uk/sec5/CR\\_div/cr\\_info.html](http://www.meto.gov.uk/sec5/CR_div/cr_info.html)

**STORAGE-MEDIUM:** UK Meteorological Office Cartridge

**AVAILABILITY:** Contact David Bennetts at the Hadley Centre for further details of availability.

**COMPLETED-BY:** D.A. Bennetts (dabennetts@email.meto.govt.uk) and Ian Troth ([itroth@email.meto.govt.uk](mailto:itroth@email.meto.govt.uk))

**REVISION-DATE:** 11/13/94

**z) CENTRE-NAME:** Hamilton Oil Co Limited

**VISIT-ADDRESS:** St Magnus House,  
Guild Street,  
Aberdeen,  
AB1 2NF

**COUNTRY:** United Kingdom

**DESCRIPTION:**

For information relating to Hamilton Oil Co Limited contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** St Magnus House,  
Guild Street,  
Aberdeen,  
AB1 2NF,  
United Kingdom

**PHONE:** +44 1224 211000

**FAX:** +44 1224 210387

**DATASET-NAME:** Wave data from eight sites around the UK (1962-1993)

**TIME-PERIOD:** from 1962 to 1993

**GEOGRAPHIC-  
COVERAGE:** around the British Isles

**PARAMETERS:** wave parameters, directional information as co- and auto-spectra (Cromer and Flamborough Head), omni-directional spectra recorded hourly (Douglas Field)

**SUMMARY:**

Wave data have been collected for a variety of projects. These are detailed below:

Site	Latitude (deg min)	Longitude (deg min)	Water Depth (m)	Start Date	End Date
Douglas Field	53 31.6N	003 33.45W	30	30 Jul 1992	26 Jun 1993
Eddystone	50 10N	004 15W		01 Jan 1976	31 Dec 1981
Cromer	53 04N	001 31E	31	07 Dec 1985	30 Jun 1987
Flamborough Head	54 13.7N	000 01.7W	51	06 Jan 1985	13 May 1985
Seven Stones	50 03.8N	006 04.4W	60	31 Jan 1962	31 Dec 1985
Lightvessel					
St Gowan	51 30N	004 59.8W	49	01 Aug 1975	31 Dec 1983
Lightvessel					
South Uist (offshore site)	57 18.2N	007 38.3W	45	28 Feb 1976	30 Nov 1982

In addition, short term data sets were collected during 1976-1977, 1982, 1985-1986 and 1987 at Christchurch Bay Tower (50 42'N 001 36'W). Further details are given in Offshore Technology Report OTO 93 001.

**REFERENCE:** Offshore Technology Report OTO 93 001

**STORAGE-MEDIUM:** mostly digital, some analogue records

**AVAILABILITY:** Contact Metocean for further details

**COMPLETED-BY:** M. Osborne, Metocean/L.J. Rickards, BODC

**REVISION-DATE:** 1/28/94

**aa) CENTRE-NAME: HR Wallingford Group Ltd.**

**VISIT-ADDRESS:** HR Wallingford Ltd.,  
Howbery Park,  
Oxon,  
OX10 8BA,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.hrwallingford.co.uk/](http://www.hrwallingford.co.uk/)

**DESCRIPTION:**

HR Wallingford Group Ltd. is an independent private company limited by guarantee, with the status of Research Association. The Group specialises in civil engineering and environmental hydraulics and problems of water management. Based at Wallingford in South Oxfordshire, UK, the Group employs over 260 engineers, scientists, mathematicians, technicians and support staff. The main work is predictive physical and computational modelling, desk studies and field data collection. Our expertise includes ports and harbours, inshore waters and coast protection, offshore structures, water resources and hydrology, among others. The Group has offices in Belgium, France, Hong Kong, Italy and Malaysia.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. Christopher B. George

**CONTACT-TITLE:** Director of Business Development

**POST-ADDRESS:** HR Wallingford Ltd.,  
Howbery Park,  
Oxon,  
OX10 8BA,  
United Kingdom

**PHONE:** +44 1491 835 381

**FAX:** +44 1491 832 233

**EMAIL:** [chrisg@hrwallingford.co.uk](mailto:chrisg@hrwallingford.co.uk)

**DATASET-NAME: Instrumentally recorded wave data, mostly around the UK (1959- 90)**

**TIME-PERIOD:** About one year duration at each site, between March 1959 and May 1990

**GEOGRAPHIC-  
COVERAGE:** Mostly around UK; about 60 locations

**PROJECT:** Commercially contracted wave recording

**PARAMETERS:** Wave height, wave period, frequency spectrum, usually three- hourly, recently with direction

**INSTRUMENTS:****SUMMARY:**

HR Wallingford undertakes commissioned wave recording for commercial clients. Locations and reporting formats depend on clients' requirements. Each deployment is typically of one year's duration. Reports include standard plots of wave height, period, direction where available, and extremes. Very little is available in the open literature, but original clients are sometimes willing to release data to a third party.

**REFERENCE:** 'Wave data around the coast of England and Wales: A review of instrumentally

recorded information', available from HR Wallingford at 40, cataloguing HR and other recorded wave data sets

**STORAGE-MEDIUM:** Various - reports, tape archive, hard disk

**AVAILABILITY:** Most is confidential but will be released with permission of original client for a handling charge, typically 400

**COMPLETED-BY:** P.J. Hawkes

**REVISION-DATE:** 11/27/95

**DATASET-NAME:** Numerically generated site-specific wave data from sites mostly around the UK

**TIME-PERIOD:** Typically based on 15 years' wave hindcast data

**GEOGRAPHIC-COVERAGE:** Several hundred locations, mostly around UK

**PROJECT:** Commercially contracted wave prediction work

**PARAMETERS:** Wave height, wave period, wave direction; sometimes wave spectrum, storm persistence, correlation with water level

**SUMMARY:**

HR Wallingford undertakes commissioned wave prediction for many commercial clients at hundreds of locations. Positions and reporting formats depend on clients' requirements. Typically, predictions involve validation of a numerical wave hindcast model against one year of measured wave data, followed by a production run of the validated model using 15 years of sequential wind data. Reports include standard plots of wave height, period, direction and extremes. Very little is available in the open literature. However, original clients are sometimes willing to release data to a third party, or existing wave models can sometimes be re-used for new locations nearby.

**REFERENCE:** 'A catalogue of synthetic wave data around the coast of England and Wales', available from HR Wallingford at 40, cataloguing HR and other synthetic wave data sets

**STORAGE-MEDIUM:** Various - reports, tape archive, hard disk

**AVAILABILITY:** Most is confidential but some can be released or re-used with permission from the original client at modest cost

**COMPLETED-BY:** P.J. Hawkes

**REVISION-DATE:** 11/27/95

**DATASET-NAME:** UK Meteorological Office European Wave Model Archive (1986-95)

**TIME-PERIOD:** from 16 October 1986 to 31 December 1995

**GEOGRAPHIC-COVERAGE:** European waters on a 25-30km grid

**PROJECT:** Commercial exploitation of an existing data set

**PARAMETERS:** Three-hourly hindcasts of wind and wave conditions

**SUMMARY:**

The UK Meteorological Office Global and European Wave Models are known as 'second generation' wave models because of the way the non-linear interactions in the wave spectrum are parameterised.

The significant wave height, mean wave period and direction at each grid point and each time step can be integrated out from a directional spectrum which has 16 direction and 13 frequency components. The model calculations are carried out on a polar stereographic grid, whose exact spacing therefore varies from one latitude to another. The European Wave Model (grid spacing 25-30km) is nested within the Global Model (grid spacing about 150km) from which it takes its boundary wave conditions.

The models are run twice daily, driven by wind fields extracted from operational global weather forecasting models. They produce wave forecasts from 12 hours prior to the datum time (T) up to 36 hours ahead, at 3 hourly intervals. As well as noting the time, date, latitude and longitude, each forecast gives the wind speed and direction, and significant wave height, mean wave period and direction for the separate wind-sea and swell components and overall. The data from T-12 hours to T+0 hours is permanently stored in an archive, whilst the data from T+0 hours to T+36 hours is immediately disseminated for forecasting purposes. Sea state observations from fixed buoys, oil platforms, Ocean Weather Ships and, more recently, satellite measurements, are used for real-time 'calibration' of the models, and also for periodic validation exercises.

The European Model has been run in its present configuration since October 1986. The archive contains records at 6 hourly intervals from October 1986 to July 1988, and at 3 hourly intervals thereafter. The volume, resolution and consistency of results available in these archived hindcasts provides a good database of wave and over-water information for use in engineering studies. However, the spatial resolution and model physics mean that the data can only be considered representative of deep water conditions at least 20km offshore. HR Wallingford holds a copy of the archive for all grid points within 60km of European coastlines, all grid points in the Irish Sea, English Channel and southern North Sea, and for representative grid points elsewhere further offshore (1732 grid points in all). As an 'Authorised Data User' HR Wallingford is licensed by the Meteorological Office to prepare and supply wind and wave data analyses. Several standard analyses have been developed, e.g. for wave (or wind) climates, wave (or wind) roses, extremes, swell, persistence, and particular storms. Results can be smoothed over an area, and can be presented separately for different years, different seasons and/or different direction sectors.

**REFERENCE:** Publicity sheet 'UK Meteorological Office Wave Model' available free from HR Wallingford

**STORAGE-MEDIUM:** Hard disk drive

**AVAILABILITY:** Analyses of the data can be purchased from HR Wallingford; minimum cost 300 + VAT for data from one point/area. The time series data cannot be sent off-site.

**COMPLETED-BY:** P.J. Hawkes

**REVISION-DATE:** 11/27/95

**ab) CENTRE-NAME:** ICES Secretariat, International Council for the Exploration of the Sea

**VISIT-ADDRESS:** Palaegade 2-4,  
1261 Copenhagen K

**COUNTRY:** Denmark

**CENTRE-WEBSITE:** [www.ices.dk](http://www.ices.dk)

**DESCRIPTION:**

ICES is the oldest international marine science organization. It was formed in 1902 to promote the scientific understanding of the mechanisms inducing variability in North Atlantic commercial fish stocks, including their ecological interactions. Its member countries, of which there are currently 19, are located around the North Atlantic and its adjacent seas, particularly the North Sea and the Baltic Sea. Although its original remit concerned the scientific aspects of fisheries, the current remit of ICES has matured into providing member countries and various North Atlantic Regulatory Commissions with scientific and management advice concerning fisheries and environmental quality. To meet this end ICES addresses a wide range of issues from fundamental marine science questions to technical questions relating to



fish capture via approximately 100 Working and Study groups, who provide the basic material for consideration by its advisory committees.

To support its advisory role, ICES has sought to promote and support marine science programmes by means of stimulating member governments to participate in collaborative programmes. In particular the main thrust of the activities of the ICES Secretariat is to provide professional support and publication facilities for use by scientists working to meet ICES' objectives. In former days, ICES concerned itself with the publication of raw scientific data as well as the prominent research findings of the day, and this has evolved into the scientific management of a number of data banks concerned with fish catches, fisheries biological data, oceanographic data, and data on marine contaminants. ICES promotes the collection of data of the highest accuracy by means of, for example, coordinating intercalibration exercises, and providing advice on quality assurance procedures.

The oceanographic data activities of the Secretariat are concerned primarily with oceanographic profile data. These data are provided by member countries. ICES endeavours to work closely with existing National Data Centres, and provides advice and products to fisheries scientists on the use of oceanographic data. Data are not necessarily freely available. Details of restrictions will be provided on request. ICES also maintains a computerised inventory of cruise summary reports, which also doubles as a catalogue of its data holdings. Currently this inventory contains detailed information about 13,000 marine scientific cruises and programmes that have been conducted since 1967 when this inventory system was introduced.

ICES member countries are Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Latvia, Netherlands, Norway, Russia, Spain, Sweden, Poland, Portugal, UK, USA.

#### **Data Contact(s) within Data Holding Centre**

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**DATASET-NAME:** Oceanographic profile data from the North Atlantic and adjacent seas  
(1896 onwards)

**TIME-PERIOD:** from 1896 onwards

**GEOGRAPHIC-  
COVERAGE:** Global, but primarily North Atlantic and adjacent seas

**PARAMETERS:** Temperature, salinity, oxygen, phosphate, total phosphate, silicate, nitrate, nitrite, ammonia, total nitrogen, hydrogen sulphide, pH, alkalinity, chlorophyll-a

#### **SUMMARY:**

From 1902 to 1967, the data set is approximately compatible with that held by the World Data Centres, so far as the ICES Member Countries are concerned. In this period most serial station data were published in ICES publications such as the Bulletin Hydrographique. The 1991 US data archaeology project served to identify and fill gaps in this data series.

Consequently it is fairly safe to say that the vast majority of (civilian) serial stations worked during this period by the European member countries of ICES are included. Following the introduction of National Data Centres in the 1960s, ICES no longer was required to obtain data direct from national institutes, that being the new responsibility of these centres. However such an arrangement did not stand the test



of time, and now 95% of station data is obtained by ICES direct from institutes/individuals. As it has responsibilities as national data centre for Denmark and Iceland, data from these countries are passed onto the World Data Centres.

ICES now acquires about 20,000 stations annually and this is added to the 400,000 stations currently in its data bank. All received data is carefully screened and quality controlled, and, if relevant, compared with data collected by other countries/institutes if collected near the same place and time. This ensures that undue reliance does not have to be placed on comparisons with climatological mean data which only serves to isolate data of the poorest quality. All suspect data is discussed with the originator, partly as a service to the originator, and partly to acquire the best possible alternative to the suspect data.

All quality control procedures are available as PC software as well as PC data entry schemes.

**REFERENCE:** Information sheet available from ICES

**DATA-WEBSITE:** [www.ices.dk/ocean](http://www.ices.dk/ocean)

**STORAGE-MEDIUM:** Computer (ascii)

**AVAILABILITY:** For the period 1902 to 1989, and the area 35N to 75N, 20W to 30E, the data are available for download from the web site. Data subsequent to 1989 can be made available subject to the permission of the data originators. All of the pre-1990 data are included on the World Ocean Atlas 98.

**COMPLETED-BY:** H.D. Dooley

**REVISION-DATE:** 11/6/00

**ac) CENTRE-NAME: Industrial Research and Technology Unit (IRTU), Industrial Science Centre, Lisburn**

**VISIT-ADDRESS:** Industrial Science Centre (ISC),  
17 Antrim Road,  
Lisburn,  
BT28 3AL,  
Co. Antrim,  
Northern Ireland,  
United Kingdom

**COUNTRY:** United Kingdom

**DESCRIPTION:**

The Industrial Science Centre (ISC) is an integral part of IRTU- DED's Industrial Research and Technology Unit. IRTU's role is to improve the competitiveness of industry and strengthen the economy of Northern Ireland by encouraging industrially relevant research and development and technology transfer. A broad range of essential technical services is available to industry and government.

Within the ISC the Aquatic Sciences section provides scientific, survey and monitoring services in the disciplines of both freshwater and marine science. The major client is the Department of the Environment (NI), Environmental Service, although private individuals may avail themselves of the services. Data collected are available by permission of the relevant client.

Marine surveys include data on sludge disposal sites, estuarine water quality, bathing water quality, hydrographic models, fish farm impacts, etc. A large number of pre-1985 reports are awaiting cataloguing for inclusion in EDMED.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. J.P. Breen

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BT28 3AL,  
Co. Antrim,  
Northern Ireland,  
United Kingdom

**PHONE:** +44 1846 665161

**FAX:** +44 1846 676054

**DATASET-NAME:** Drogue float measurements around the coast of Northern Ireland for computer model validation (1987-1989)

**TIME-PERIOD:** from 1987 to 1989

**GEOGRAPHIC-  
COVERAGE:** various coastal regions around Northern Ireland

**PROJECT:** Hydrodynamic investigations

**PARAMETERS:** current speed and direction at various depths

**SUMMARY:**

In 1986 the Department of the Environment adopted a policy that all new marine outfalls would be designed to conform to the standards required under the EC Bathing Water Directive. As a consequence the WRC were awarded a contract to undertake a modelling exercise of various outfall locations around the province. WRC commissioned the hydrodynamic models and the validation of the models was executed by staff at the then Industrial Science Division. The data consisted of depth averaged information collected from a survey vessel tracking various sets of drogue floats which were released at various points. The floats were designed to be acted upon by currents at certain depths from the surface down to four metres.

Once collected the data would be collated and processed by the site's computer and the model's accuracy was duly validated or not depending upon the relative agreement between the real float data and 'imaginary' float data.

The output from the hydrodynamic model was interfaced with a dispersion-type model which simulated the dispersion of bacteria from domestic sewage discharged from any single or multiple point source into the waterway. The model could then run any number of times with the possibility of changing a number of important parameters such as bacterial T90 values or sunlight and temperature conditions.

**STORAGE-MEDIUM:** Box and computer data files, archived data

**AVAILABILITY:** By customer permission

**COMPLETED-BY:** Noel Ferris

**REVISION-DATE:** 2/3/93

**DATASET-NAME:** Estuarine water quality monitoring around the estuaries and sea loughs of Northern Ireland and offshore sites (1990-)

**TIME-PERIOD:** from 1990 onwards

**GEOGRAPHIC-  
COVERAGE:** estuaries, sea loughs and offshore sites around Northern Ireland

**PROJECT:** Water quality monitoring

**PARAMETERS:** salinity, temperature, dissolved oxygen, transparency, pH, nutrients (TON, SRP, silicates), chlorophyll, total and faecal coliforms

**INSTRUMENTS:** Cassella samplers, WTW oximeters, Valeport CTDS meters, Secchi disks, Orion pH meter, autoanalysers, microbiological techniques

**SUMMARY:**

The Marine Pollution Monitoring Management Group (MPMMG) created the National Monitoring Plan (NMP) to extend the North Sea Task Force (NSTF) efforts and achieve a unified coastal water monitoring programme for all waters around the United Kingdom. In 1989, it was recognised that Estuarine Classification in Northern Ireland was inadequate and the EPD (Environment Protection Division (DOE(NI))) decided that the best way to build up a databank of consistent monitoring information which could be used for classification was to support the integrated approach and extend the NMP in the Province's estuaries and sea loughs. This approach is now called the Estuarine and Coastal Waters Monitoring Programme (ECWMP). The ECWMP incorporates a comprehensive plan to cover four recorded coastal (MPMMG) sites around the Province. The NMP records three of these as offshore sites whilst the fourth is defined as an intermediate site (outside Belfast Lough). There are 29 more sites spread over Northern Ireland's seven major estuaries and sea loughs. Thus the ECWMP is a programme which facilitates the establishment of a database which will permit the scientifically justifiable classification of all of the Province's saline waters.

The basic concept in the execution of the ECWMP incorporates the objectives of covering all of the above parameters on a bi-monthly basis although the adverse weather conditions prevailing around the winter months usually precluded these objectives at that time. Spatial and temporal trends can then be established.

Other determinands are measured at the four MPMMG sites such as trace organics, pesticides and metals; this is on an annual basis.

**STORAGE-MEDIUM:** box and computer files

**AVAILABILITY:** By customer permission

**COMPLETED-BY:** Noel Ferris

**REVISION-DATE:** 2/3/93

**DATASET-NAME:** Hydrographic data from the tidal River Lagan, Belfast Lough, Northern Ireland (1977-)

**TIME-PERIOD:** from 1977 onwards

**GEOGRAPHIC-COVERAGE:** tidal river Lagan and Belfast Lough

**PROJECT:** Hydraulic behaviour

**PARAMETERS:** salinity, dissolved oxygen, temperature profiling (1992 including longitudinal water quality)

**SUMMARY:**

The McConnell Weir was completed around 1937 in the River Lagan in Belfast. Before the Weir was erected there existed exceedingly unsightly mud-flats upon the banks of the river which were visible from the inner city of Belfast especially at low water. The Weir was founded basically to serve an aesthetic purpose and the environmental consequences were not adequately considered. As a result the Weir has added to a serious pollution problem within the River. Since the building of the Weir, the degree of industrial, agricultural and domestic outputs to Belfast Lough via the River Lagan has increased dramatically. The Weir has not only aided and abetted in the trapping of organic and other forms of pollution, but has compounded a stratification problem within what has become the semi-tidal impounded reach enclosed by the Weir.

The hydraulic behaviour of the impounded reach results in the formation of an 'intermediate salt wedge' which forms a partition between a fresher upper layer of water and an older trapped layer of high salinity water at the bottom. The organically enriched sediments exhibit a naturally high Sediment Oxygen Demand (SOD) and soon strip the isolated bottom layers of water of oxygen; once anoxic then nitrogen compounds are utilised anaerobically, eventually sulphur compounds are utilised. The ramifications are that the impounded reach of the Lagan gives off the obnoxious smell of hydrogen sulphide especially during the summer months when low flows and high temperatures predominate.

The salinity and dissolved oxygen structure of the River has attracted rather intense interest of late and will continue to do so for the foreseeable future, particularly in the light of a new weir which is being built further downstream as part of a campaign to solve some of the problems.

**STORAGE-MEDIUM:** box and computer data files

**AVAILABILITY:** By customer permission

**COMPLETED-BY:** Noel Ferris

**REVISION-DATE:** 2/3/93

**ad) CENTRE-NAME: Irish Hydrodata Limited**

**VISIT-ADDRESS:** Rathmacullig West,  
Ballygarvan,  
Co. Cork,

**COUNTRY:** Ireland

**DESCRIPTION:**

A small private metocean survey company established in 1979 to provide expertise within Ireland in the collection, analysis and reporting of metocean data in offshore, coastal, lakes and river environments. Studies would be conducted for government departments, local authorities, consulting engineers or private clients. Brochures available from 'Contact Point'.

Data sets cover physical, chemical and biological oceanography, marine/coastal meteorology, hydrography, and marine geology and geophysics. Data collection is subject to full QA/QC procedures and data analyses are fully quality controlled, usually to appropriate guidelines issued by UKOOA/MIAS/IOS etc. All data, whether original magnetic tapes from recording instrumentation or hard copy field logs are archived in the data centre together with subsequent analysed data and plots.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** Data Centre Manager

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Ballygarvan,  
Co. Cork,  
Ireland.

**PHONE:** +353 21 311255

**FAX:** +353 21 968604

**DATASET-NAME: Sea level data in coastal and offshore waters around Ireland**

**TIME-PERIOD:** from 1979 onwards

**GEOGRAPHIC-  
COVERAGE:** Irish Sea, Celtic Sea, Atlantic Ocean, Porcupine Bank, Irish Coastal, Estuarine  
and River Sites

**PARAMETERS:** sea level

**SUMMARY:**

Sea Level data are included from approx. 20 coastal sites being instrumented with conventional stilling wells type gauges with electronic recorders and ten offshore sites with bottom pressure recorders. The data are fully quality controlled. Checks were made for gaps, constant values, spikes and spurious data. Data were tidally analysed to produce harmonic coefficients, and check residuals and tidal periodicities. The time series of the residuals often compared with associated meteorological records (wind & pressure).

The data sets are stored as a raw time series at each site with 10 minute values of sea surface elevation recorded to the nearest centimetre. Benchmark information accompanies coastal sites. The data set comprises over 500,000 values with the usual length of a time series being one month. At some locations only 1 to 2 days of data are available while several years of data are at one site (Cork Harbour).

**REFERENCE:** reports (confidential) issued on data sets to clients

**STORAGE-MEDIUM:** 9-track magnetic tapes, magnetic tapes & cartridges, floppy discs, analogue records and printed reports

**AVAILABILITY:** data confidential to clients

**COMPLETED-BY:** Nick Emerson

**REVISION-DATE:** 11/9/90

**DATASET-NAME:** Current meter data in coastal and offshore waters around Ireland

**TIME-PERIOD:** from 1979 onwards

**GEOGRAPHIC-COVERAGE:** Irish Sea, Celtic Sea, Atlantic Ocean, Porcupine Bank, Irish Coastal, Estuarine and River Sites

**PARAMETERS:** tidal currents

**SUMMARY:**

Tidal currents are included from approx. 25 coastal sites and ten offshore sites. Instrumentation used varies from standard Aanderaa RCM4, through VACM meters such as InterOcean S4, to RD Instruments ADCP. The data are fully quality controlled. Checks were made for gaps, constant values, spikes and spurious data. Data were tidally analysed to produce harmonic coefficients, check residuals and compare these with associated meteorological/tidal records.

The data sets are stored as a raw time series at each site with (in general) 5 minute values of speed and direction. The data set comprises over 4 million values with times series varying from a few days to several years.

**REFERENCE:** reports (confidential) issued on data sets to clients

**STORAGE-MEDIUM:** 9-track magnetic tapes, magnetic tapes & cartridges, floppy discs, analogue records and printed reports

**AVAILABILITY:** data confidential to clients

**COMPLETED-BY:** Nick Emerson

**REVISION-DATE:** 11/9/90

**DATASET-NAME:** Lagrangian water movements in Irish coastal waters

**TIME-PERIOD:** from 1979 onwards

**GEOGRAPHIC-COVERAGE:** Irish coastal, estuarine and river sites

**PARAMETERS:** tidal currents

**INSTRUMENTS:** free floating drogues and fluorescent dye with associated electronic positioning

**SUMMARY:**

The data set comprises tidal excursions measured by tracking free floating drogues/fluorescent dye usually for 12.5 hour periods. The drogues would be set at various depths to at least define surface, middle and bottom water movements. Information is included from approx. 40 sites.

**REFERENCE:** reports (confidential) issued on data sets to clients

**STORAGE-MEDIUM:** analogue records, magnetic tapes, floppy discs and printed reports

**AVAILABILITY:** data confidential to clients

**COMPLETED-BY:** Nick Emerson

**REVISION-DATE:** 11/9/90

**DATASET-NAME: Chemical data from Irish coastal waters**

**TIME-PERIOD:** from 1979 onwards

**GEOGRAPHIC-COVERAGE:** Irish coastal, estuarine and lake sites

**PARAMETERS:** sea/river water chemistry

**SUMMARY:**

The data set includes chemical parameters measured at approx. 50 sites. (insitu measurements at surface, 0.1, 0.3, 0.5, 0.7, & 0.9 of depth) usually consist of temperature, salinity, conductivity, suspended solids, transparency, dissolved oxygen, pH half-hourly over a 12.5 hour tidal cycle (usually combined with current speed and direction measurements and over a neap and spring tide).

Water samples are usually analysed for bacteriological parameters, (coliforms, streptococci etc.) standard chemical parameters (BOD, nitrates, phosphate etc.) and sometimes for metals, pesticides, hydrocarbons etc.

The data are stored as analogue records together with field log books.

**REFERENCE:** reports (confidential) issued on data sets to clients

**STORAGE-MEDIUM:** analogue records, floppy discs and printed reports

**AVAILABILITY:** data confidential to clients

**COMPLETED-BY:** Nick Emerson

**REVISION-DATE:** 11/9/90

**DATASET-NAME: Dispersion data from dye releases in Irish coastal waters**

**TIME-PERIOD:** from 1979 onwards

**GEOGRAPHIC-** Irish coastal, estuarine and river sites

**COVERAGE:**

**PARAMETERS:** horizontal and vertical diffusion coefficients

**INSTRUMENTS:** fluorescent dye, fluorometer and associated electronic positioning

**SUMMARY:**

The data set includes dispersion data measured at approx. 40 sites both from tracking discrete releases of a fluorescent dye. The expanding size of the dye patch (in x,y, & z directions) enables standard deviation of patch length and width to be calculated enabling subsequent determination of longitudinal transverse and vertical diffusivity to be calculated.

The data are stored as analogue records together with the associated electronic positioning information. Specific data sets exist measuring the dispersion of dye released from fish farm cages in order to better predict contaminant dispersal from these sites.

**REFERENCE:** reports (confidential) issued on data sets to clients

**STORAGE-MEDIUM:** analogue records, magnetic tapes, floppy discs and printed reports

**AVAILABILITY:** data confidential to clients

**COMPLETED-BY:** Nick Emerson

**REVISION-DATE:** 11/9/90

**DATASET-NAME:** Hydrodynamic flow and dispersion model output for sites around the Irish coast

**TIME-PERIOD:** from 1979 onwards

**GEOGRAPHIC-COVERAGE:** Irish coastal, estuarine and river sites

**PARAMETERS:** hydrodynamic flow and dispersion

**SUMMARY:**

The data set includes hydrodynamic flow and dispersion modelling results at approx. 35 sites ranging from simple gaussian patch spreading models to more complex 3-D (sigma co-ordinate) hydrodynamic flow and particle tracking dispersion models. The data are quality controlled by reference to field measurements and the methodology and results are often subject to independent scrutiny and comments by 'experts' in this field (usually UK based).

The data are stored as 'calibrated' models and outputs on floppy discs, 200 megabytes.

**REFERENCE:** reports (confidential) issued on data sets to clients

**STORAGE-MEDIUM:** floppy discs and printed reports

**AVAILABILITY:** data confidential to clients

**COMPLETED-BY:** Nick Emerson

**REVISION-DATE:** 11/9/90

**ae) CENTRE-NAME:** Irish Marine Data Centre (ISMARE)

**VISIT-ADDRESS:** Marine Institute,  
80 Harcourt Street,  
Dublin 2,

**COUNTRY:** Ireland

**DESCRIPTION:**

The Irish Marine Data Centre was established under the EU STRIDE operational programme for Ireland. The function of the centre is to gather existing information on the marine environment and to evaluate, organise and make available that information for dissemination. The data centre is also concerned with the long-term preservation of data. In accordance with the Intergovernmental Oceanographic Commission (IOC) guideline for National Oceanographic Data Centres (NODCs), this centre acts as a national focal point for the access and dissemination of oceanographic data and information. The data centre offers its services to the general scientific community, to government and to industrial users.

Also in accordance with the IOC guidelines the data centre makes its services available for assisting in international data exchange. It is recommended by the IOC and the data centre that data users, with a requirement for international data, should first approach the national oceanographic/marine data centre.

The data centre does not currently handle all oceanographic/marine data types. The decision to compile a national oceanographic data set of one type must be recommended by the centre's management and approved by a steering committee.

Once established, a national data set will be maintained by the centre on an ongoing basis. As a national data set of one type becomes established, additional sets are considered. In addition to compiling national data sets, which generally comprise all the available data of one type for Irish territorial waters, the data centre also works on project specific data sets. A project specific data set may involve several data types and one or more regional geographic areas. The data centre manages data/information from a number of EU projects in non-Irish waters.

In addition to providing data management services, the data centre is available to advise on the technical aspects of data management and data exchange. The centre may, in some situations, provide specific data management tools which will allow organisations better management of their own data. The data centre is also actively involved in the compilation of national and international guidelines for oceanographic data management. The centre is represented on a number of international committees concerned with marine data management and exchange.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Manager

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Dublin 2,  
Ireland

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**FAX:** +353 1 4757100

**EMAIL:** data.centre@marine.ie

**DATASET-NAME:** Irish ocean temperature data set

**TIME-PERIOD:** not specified

**GEOGRAPHIC-  
COVERAGE:** Irish waters

**PARAMETERS:** Water bottle station, bathythermograph drops

**INSTRUMENTS:** Station data - Nansen casts (SD2), low-resolution conductivity/salinity-temperature depth data (STD), mechanical bathythermograph data (MBT), expendable bathythermograph (XBT), selected-level bathythermograph data (SBT), IGOSS radio message bathythermograph data (IBT)



**SUMMARY:**

An Irish Ocean Temperature Data Set is currently being compiled with a product expected in late 1997. Over 50,000 profiles have been obtained from sources including the US NODC (CD-ROMs NODC-02 and NODC-03) and the UK Royal Navy Hydrographic Office (Royal Navy Bathythermograph Data CD-ROM, 1947-1990). These data are available in ASCII format only. Other sources of data will include RV Lough Beltra cruise data and small surveys performed by researchers and government agencies.

**STORAGE-MEDIUM:** Floppy disk, optical disk

**AVAILABILITY:** Freely available

**COMPLETED-BY:** Orla Ni Cheileachair

**REVISION-DATE:** 11/29/95

**DATASET-NAME:** Surface underway data from Irish coastal waters between Carlingford Lough and Killibegs (1994)

**TIME-PERIOD:** from 19 January to 18 November 1994

**GEOGRAPHIC-  
COVERAGE:** Carlingford Lough to Killibegs - coastal waters around Ireland

**PARAMETERS:** Transparency, optics, surface temperature/salinity underway, single beam echo, RoxAnn seabed surface visualisation system

**INSTRUMENTS:** Thermosalinograph SBE 21, Steptech fluorometer, Turner design turbidity meter, Furuno depth sounder, RoxAnn seabed system

**SUMMARY:**

The data set comprises continuous underway measurements of temperature, salinity, bathymetry, turbidity, fluorescence and data from the RoxAnn seabed surface visualisation system. Data were collected in Irish coastal waters between Carlingford Lough and Killibegs.

**REFERENCE:** Data to be published on CD-ROM early 1996

**STORAGE-MEDIUM:** Floppy disk, optical disk

**AVAILABILITY:** Restricted availability

**COMPLETED-BY:** Bronwyn Cahill

**REVISION-DATE:** 11/29/95

**DATASET-NAME:** Surface underway data from Irish coastal waters between Carlingford Lough and Killibegs (1995)

**TIME-PERIOD:** from 16 January to 25 November 1995

**GEOGRAPHIC-  
COVERAGE:** Carlingford Lough to Killibegs - coastal waters around Ireland

**PARAMETERS:** Transparency, optics, surface temperature/salinity underway, single beam echo, RoxAnn seabed surface visualisation system

**INSTRUMENTS:** Thermosalinograph SBE 21, Steptech fluorometer, Turner design turbidity meter, Furuno depth sounder, RoxAnn seabed system

**SUMMARY:**

The data set comprises continuous underway measurements of temperature, salinity, bathymetry,

turbidity, fluorescence and data from the RoxAnn seabed surface visualisation system. Data were collected in Irish coastal waters between Carlingford Lough and Killibegs.

**REFERENCE:** Data to be published on CD-ROM

**STORAGE-MEDIUM:** Floppy disk, optical disk

**AVAILABILITY:** Restricted availability

**COMPLETED-BY:** Bronwyn Cahill

**REVISION-DATE:** 11/29/95

**af) CENTRE-NAME: Joint Research Centre (JRC)**

**CENTRE-HOST:** Centro Comune di Ricerca (CCR)

**VISIT-ADDRESS:** JRC Ispra  
Space Application Institute  
Marine Environment  
TP 272  
I - 21020 ISPRA (VA) - Italy

**COUNTRY:** Italy

**CENTRE-WEBSITE:** [www.jrc.it](http://www.jrc.it)

**DESCRIPTION:**

Key facts

The primary mission of Space Application Institute (SAI) is to develop and promote the use of space derived data in the service of EU policies, especially those relating to agriculture, fisheries, transport and anti-fraud. SAI also seeks to make the best use of information from space systems, to maximize the return from European investments in space and to help the Union reinforce its role in international action on the environment and sustainable development. Combining the unique information available from space with modelling techniques, data management tools and the ever increasing possibilities for rapid dissemination of information offer SAI's activities a large range of applications.

**Data Contact(s) within Data Holding Centre**

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**EMAIL:** [vittorio.barale@jrc.it](mailto:vittorio.barale@jrc.it)

**DATASET-NAME: SeaWiFS European Archive (1997-)**

**TIME-PERIOD:** 1 September 1997 - 31 July 2000

**GEOGRAPHIC-  
COVERAGE:** European Seas, including NE Atlantic, NW Africa,  
North Sea and Baltic Sea, Mediterranean Sea and Black Sea,  
Caspian Sea and Aral Sea, Red Sea and N Indian Ocean

**PROJECT:** JRC Institutional Project 'Coastal Monitoring and Management'  
EC FP IV Programme Environment and Climate  
EC FP IV Programme Marine Science and Technology  
JRC Third Party Work Projects

**PARAMETERS:** water-leaving radiance (various wavelengths)  
chlorophyll-like pigment concentration  
total suspended matter  
diffuse attenuation coefficient

**INSTRUMENTS:** SeaWiFS  
satellite sensors

**SUMMARY:**

The Sea-viewing Wide-Field-of-view Sensor (SeaWiFS) European Archive was developed to support a number of activities, among which the JRC Institutional Project 'Coastal Monitoring and Management' (COAST), the EC FP IV Programme Environment and Climate (EC-ENV, and in particular the projects CleanSeas, ISOLE), the EC FP IV Programme Marine Science and Technology (EC-MAST 3, and in particular the project COLORS), and various JRC Third Party Work Projects (among which PRISMA, MAT). The Archive contains virtually every image (1 per day, in general) with acceptable cloud cover collected by the SeaWiFS over the European Seas and adjacent ocean basins, since the sensor started operations in September 1997. The Archive includes images at level 1 (original top-of-the-atmosphere radiances), at level 2 (surface reflectances and derived geophysical parameters) and at level 3 (remapped, composited statistical products).

A dedicated set of processing algorithms was developed by the Marine Environment Unit, SAI, JRC EC, for processing SeaWiFS data from the NASA-provided level 1A to level 2 and 3. The data received by the main European HRPT receiving stations are received from the NASA/GSFC DAAC and are processed to level 2 with a combined land-sea algorithm. Standard products such as water-leaving radiance (6 wavelengths), aerosol radiance and optical thickness at 865 nm, chlorophyll-a and total suspended matter concentrations, diffuse attenuation coefficient, are retrieved over marine surfaces. A separate Northern Adriatic Sea (NAS) time series is also being processed as a reference product for calibration and validation purposes (in situ optical and bio-optical data are being collected continuously on an offshore platform in the NAS, in the framework of a parallel activity). Products for terrestrial applications result from an Optimized Vegetation Index algorithm developed at the Global Vegetation Monitoring Unit, SAI JRC EC.

Each individual scene is re-mapped onto a standard 2 km pixel geographical grid for a number of marine basins (NE Atlantic, NW Africa, North Sea & Baltic Sea, Mediterranean Sea, Black Sea, Caspian Sea and Aral Sea, Red Sea and N Indian Ocean) for each available day. The daily images are then averaged on a pixel by pixel basis, to generate monthly and annual composites. It is intended to continue the processing of SeaWiFS high-resolution LAC data (as well as of low-resolution GAC data, in the near future) for the whole duration of the mission.

**REFERENCE:** Bulgarelli B. and F. Melin (2000). SeaWiFS data processing code REMBRANDT version 1.0. Code Elements. COAST Annual Report, 2000.

Gobron N., B. Pinty, M. Verstraete and F. Melin (1999). Development of a vegetation index optimized for the SeaWiFS instrument. Algorithm Theoretical Basis Document. JRC Publication, No. EUR 18976 EN.

Melin, F., B. Bulgarelli, N. Gobron, B. Pinty, and R. Tacchi (2000). An integrated tool for SeaWiFS operational processing. JRC Publication, No. EUR 19576 EN.

**DATA-WEBSITE:** [www.me.sai.jrc.it](http://www.me.sai.jrc.it)

**ORIGINATOR:** JRC  
Space Applications Institute  
Marine Environment Unit  
I-21020 Ispra (VA)

**STORAGE-MEDIUM:** magnetic disks, 40 Gb

**AVAILABILITY:** complete image set accessible via INTERNET (see DATA-WEBSITE)  
Digital (binary) data available upon request and JRC agreement

**SUPPLY-DETAILS:** The SeaWiFS European Archive can be accessed and explored via INTERNET using the tools made available together with the imagery on the same www site ([www.me.sai.jrc.it](http://www.me.sai.jrc.it)). Acknowledgement of source is required, in case COAST project-derived data products are used for presentations or publications. The original digital (binary) data from the CZCS European Archive can also be made available for individual users, upon request, following a specific agreement (usually involving some form of scientific co-operation) with the Marine Environment Unit, Space Application Institute, Joint Research Centre.

**CONTACT:** Vittorio Barale  
Space Applications Institute  
Marine Environment Unit  
I-21020 Ispra (VA)

**COMPLETED-BY:** Vittorio Barale  
Space Applications Institute  
Marine Environment Unit  
I-21020 Ispra (VA)

**REVISION-DATE:** 8/1/00

**DATASET-NAME:** Coastal Zone Color Scanner (CZCS) European Archive (1979-1985)

**TIME-PERIOD:** 1 January 1979 - 31 December 1985

**GEOGRAPHIC-COVERAGE:** European Seas, including NE Atlantic, NW Africa, North Sea and Baltic Sea, Mediterranean Sea and Black Sea

**PROJECT:** Ocean Colour European Archive Network

**PARAMETERS:** water surface reflectances (various wavelengths) chlorophyll-like pigment concentration

**INSTRUMENTS:** CZCS  
satellite sensors

**SUMMARY:**

The Coastal Zone Color Scanner (CZCS) European Archive was generated by the Ocean Colour European Archive Network (OCEAN) Project, which performed a complete reappraisal of all of the CZCS ocean colour data available for the European Seas, for the period between 1979 and 1985. The OCEAN Project processed about 15,000 CZCS images at level 1 (original top-of-the-atmosphere radiances, archived in standard format), 7,000 images at level 2 (surface reflectances and derived geophysical parameters) and 3,500 images at level 3 (remapped, composited statistical products) of the main European basins.

The original data were corrected for atmospheric contamination on the basis of a reflectance-model-based algorithm. A Rayleigh correction was applied consistently for all water pixels, using a multiple scattering approach, and introducing atmospheric pressure and ozone concentration data in the computation. A marine aerosol correction used a pixel by pixel iterative procedure, which allowed successive estimates of both the marine reflectance in the red spectral region (670 nm) and the Angstrom exponent, which links simple wavelength ratios to reflectance ratios. For case 1 waters - the optical properties of which are essentially dominated by planktonic pigments - the inter-relations between marine reflectances and reflectance ratios at various wavelengths were derived from modelled calculations. For identified case 2 waters, - where water constituents other than planktonic pigments (i.e. dissolved organics and suspended sediments) dominate the water optical properties - the evaluation of marine reflectances was approximated by means of interpolated Angstrom exponent values computed over case 1 water pixels and of empirical relationships derived from in situ measurements. The computation of water constituents concentration was performed with algorithms based on blue/green (443/550 nm) reflectance ratios, for lower pigment concentration, or on green/green (520/550 nm) reflectance ratios, for higher pigment concentration. As for the case of atmospheric corrections, the inter-relations between pigment concentration and reflectance ratios were model-derived for case 1 waters, and empirically determined for case 2 waters.

Individual images of pigment concentration were remapped on a standard 1 km pixel grid for a number of European basins (NE Atlantic, NW Africa, North Sea & Baltic Sea, Mediterranean Sea, Black Sea), for each available day. The daily images were then averaged on a pixel by pixel basis, to generate monthly, seasonal, and annual composites.

**REFERENCE:** Barale, V., D. Larkin, L. Fusco, J.M. Melinotte, and G. Pittella (1999) 'OCEAN' PROJECT: THE EUROPEAN ARCHIVE OF CZCS HISTORICAL DATA, International Journal of Remote Sensing, vol. 20, no. 7, p. 1201-1218.

Sturm, B., V. Barale, D.J. Larkin, J.H. Andersen, and M. Turner (1999) OCEANcode: THE COMPLETE SET OF ALGORITHMS AND MODELS FOR THE LEVEL-2 PROCESSING OF EUROPEAN CZCS HISTORICAL DATA, International Journal of Remote Sensing, vol. 20, no. 7, p. 1219-1248.

**DATA-WEBSITE:** [www.me.sai.jrc.it](http://www.me.sai.jrc.it)

**ORIGINATOR:** JRC  
Space Applications Institute  
Marine Environment Unit  
I-21020 Ispra (VA)

**STORAGE-MEDIUM:** magnetic disks  
180 GB worth of level 1 data products  
160 GB of level 2 data products  
60 GB of level 3 data product

**AVAILABILITY:** complete image set accessible via INTERNET (see DATA-WEBSITE)  
Digital (binary) data available upon request and JRC agreement

**SUPPLY-DETAILS:** The CZCS European Archive can be accessed and explored via INTERNET using the tools made available together with the imagery on the same www site ([www.me.sai.jrc.it](http://www.me.sai.jrc.it)). Acknowledgement of source is required, in case OCEAN project-derived data products are used for presentations or

publications. The original digital (binary) data from the CZCS European Archive can also be made available for individual users, upon request, following a specific agreement (usually involving some form of scientific co-operation) with the Marine Environment Unit, Space Application Institute, Joint Research Centre.

**CONTACT:** Vittorio Barale  
Space Applications Institute  
Marine Environment Unit  
I-21020 Ispra (VA)

**COMPLETED-BY:** Vittorio Barale  
Space Applications Institute  
Marine Environment Unit  
I-21020 Ispra (VA)

**REVISION-DATE:** 8/1/00

**ag) CENTRE-NAME: MARENCO Environmental Consultants**

**VISIT-ADDRESS:** Elmwood House,  
74 Boucher Road,  
Belfast  
BT12 6RZ,  
Northern Ireland,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.marenco.co.uk](http://www.marenco.co.uk)

**DESCRIPTION:**

MARENCO is Northern Ireland's foremost independent science- based environmental consultancy. Founded in 1987, the company has a nucleus of experienced scientists offering a professional, multi-disciplinary service on environmental issues.

MARENCO operates on the 'team principle' where qualified scientists from different fields work closely together, pooling their considerable knowledge and experience. Recent clients have included industry, local authorities, government agencies and water companies. MARENCO staff have a wide experience of fieldwork throughout the world, often under difficult or hazardous conditions.

As well as environmental impact assessment for proposed developments, contracts undertaken have covered issues as diverse as fish farming, dye and bacterial tracing, estuarine pollution, water quality analysis, littoral and sublittoral surveys, multivariate data analysis and conservation management plans for designated areas, leading to a number of comprehensive databases.

A detailed brochure outlining MARENCO's comprehensive capabilities is available from the General Manager.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Mr. Paul McArdle

**CONTACT-TITLE:** General Manager

**POST-ADDRESS:** Elmwood House,  
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BT12 6RZ,  
Northern Ireland,  
United Kingdom

**PHONE:** +44 2890 682275  
**FAX:** +44 2890 664939  
**EMAIL:** info@marengo.co.uk

**CONTACT-NAME:** Dr Beverley Kelso  
**CONTACT-TITLE:** Marine Consultant  
**POST-ADDRESS:** Elmwood House,  
74 Boucher Road,  
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Northern Ireland,  
United Kingdom

**PHONE:** +44 2890 682275  
**FAX:** +44 2890 664939  
**EMAIL:** info@marengo.co.uk

**DATASET-NAME:** Dye tracing studies at four sites on the coast of Northern Ireland (1991 and 1992)

**TIME-PERIOD:** Surveys in 1991 and 1992

**GEOGRAPHIC-  
COVERAGE:** coastal sites around Northern Ireland (Ballycastle, Larne, Buncrana, Carlingford Lough)

**PARAMETERS:** current speed and direction, water quality parameters

**SUMMARY:**

Dye tracing studies 1992: a number of dye tracing surveys have been undertaken in Ballycastle (Co. Antrim), Larne (Co. Antrim) and Buncrana (Co. Donegal). Surveys investigated tidal movements permitting validation and calibration of computerised hydrodynamic and water quality models.

Carlingford Lough, Northern Ireland, 1991: current meter and water quality survey and rhodamine B dye release experiments (discrete and continuous) in connection with the siting of sewage outfalls.

Carlingford Lough, Ireland 1992: continuous rhodamine B dye release, to validate a computer model, in connection with the siting of a sewage outfall.

**STORAGE-MEDIUM:** Hard copy and computer disks

**AVAILABILITY:** Information is confidential to individual clients

**COMPLETED-BY:** General Manager, MARENCO

**REVISION-DATE:** 1/29/93

**ah) CENTRE-NAME:** Marine Computation Services (MCS) International

**VISIT-ADDRESS:** 3 Buttermilk Walk,  
Galway,  
Ireland

**COUNTRY:** Ireland

**DESCRIPTION:**

Marine Computation Services (MCS) International are involved in Environmental Impact Assessments

of coastal and inland waters, which involves mathematical modelling and sometimes in-situ measurements; also involved in the design of offshore structures.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Anthony Cawley  
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Ireland  
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**DATASET-NAME: River Tolka, Dublin, Ireland, culvert crossing model study (1992)**

**TIME-PERIOD:** from 13 to 15 May 1992 at 5 stations  
**GEOGRAPHIC-  
COVERAGE:** River Tolka, Dublin, Ireland (53deg 21'N, 6deg 15'W)  
**PARAMETERS:** Current meters

**SUMMARY:**

The River Tolka (Dublin) culvert crossing model study was undertaken to determine the effects of a proposed culvert crossing on the circulation patterns of the Tolka estuary using computer modelling techniques. As part of this study, current measurements and water elevation measurements were carried out. Sampling was hourly.

**REFERENCE:** 'River Tolka culvert crossing model study' - report prepared for Ewbank Preece O'h Eocha, consulting engineers, October 1992.

**STORAGE-MEDIUM:** Printed paper/tables  
**AVAILABILITY:** Restricted availability  
**COMPLETED-BY:** Mr. Tony Cawley  
**REVISION-DATE:** 11/1/94

**DATASET-NAME: Dundalk Main Drainage and Waste Water Disposal Scheme Dye Dispersion Study, Co. Louth, Ireland (1992)**

**TIME-PERIOD:** from 30 July to 15 October 1992 at 6 stations  
**GEOGRAPHIC-  
COVERAGE:** Dundalk Bay, Co. Louth, Ireland (54deg N, 6deg 23'W)  
**PARAMETERS:** Geochemical tracers  
**INSTRUMENTS:** Turner designs fluorometer; microwave ranging position fixing system

**SUMMARY:**

Dundalk Main Drainage and Waste Water Disposal Scheme Dye Dispersion Study: a series of dye dispersion surveys were carried out to determine dispersion coefficients in the Outer Bay and close to Soldier's Point in Dundalk Bay, Co. Louth, east coast of Ireland. A Turner designs fluorometer was used to measure the dye fluorescence concentrations and a microwave ranging position fixing system was used to measure location.

**REFERENCE:** 'Dundalk Main Drainage and Waste Water Disposal Scheme Dye Dispersion



Study' - report prepared for Dundalk U.D.C., November 1992.

**STORAGE-MEDIUM:** Printed paper/tables

**AVAILABILITY:** Restricted availability

**COMPLETED-BY:** Ms. Dympna Kennan

**REVISION-DATE:** 11/1/94

**ai) CENTRE-NAME:** Marine Consultancy Service, Meteorological Office

**VISIT-ADDRESS:** Johnson House,  
London Road,  
Bracknell,  
Berkshire,  
RG12 2SY,  
United Kingdom

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.met-office.gov.uk/marine/](http://www.met-office.gov.uk/marine/)

**DESCRIPTION:**

The UK Meteorological Office collects and archives global weather reports made by the international meteorological community. Additionally, certain products from the operational numerical weather and sea-state models are archived for future use.

The Marine Advisory Service provides data analysis and consultancy services on any aspect of marine meteorology. A wide range of retrieval and analysis software is used to summarize data for planning, design and research purposes.

**Data Contact(s) within Data Holding Centre**

**POST-ADDRESS:** Marine Advisory Service,  
Johnson House,  
London Road,  
Bracknell,  
Berkshire,  
RG12 2SY,  
United Kingdom

**PHONE:** +44 1344 854974 or 854979

**FAX:** +44 1344 854906

**DATASET-NAME:** U.K. Meteorological Office European Waters Wave Model Archive (1986-)

**TIME-PERIOD:** from 1986 onwards

**GEOGRAPHIC-  
COVERAGE:** European waters to 14deg W, between 66deg N and 31deg N, Mediterranean and Baltic Seas included

**PARAMETERS:** wind speed and direction; significant wind wave height, period, direction; swell wave height, period, direction; resultant wave height, period, direction

**SUMMARY:**

Nested within the Global Wave Model (q.v.) is a European Waters Wave Model, which is a depth-dependent second-generation model operating on a latitude/longitude grid with spacing 0.25 degrees latitude by 0.4 degrees longitude. The present version of the model has been in operation since October 1986, but earlier versions operated on slightly different grids (and with different wave physics)

from 1976. Wind and wave hindcast values were archived initially at 6-hour intervals and subsequently (from June 1988) at 3-hour intervals.

Data can be made available at specified grid points as time series; normally integrated wave variables derived from the wave spectrum are provided. Data can be presented in map form for specified dates/times. Format description available from the Marine Advisory Service.

**REFERENCE:** Francis, P.E. 1985. Met. Mag. Vol. 114, pp 234-241.

**STORAGE-MEDIUM:** magnetic cartridge

**AVAILABILITY:** by arrangement

**COMPLETED-BY:** J.S. Hopkins, Marine Advisory Service

**REVISION-DATE:** 1/19/93

**aj) CENTRE-NAME: New University of Lisbon, Department of Environmental Sciences and Engineering (IMAR network)**

**VISIT-ADDRESS:** Faculdade de Ciências e Tecnologia  
Monte de Caparica  
2825-114 Caparica  
Telephone: +351 212948300  
Fax: +351 212954461

**COUNTRY:** Portugal

**CENTRE-WEBSITE:** [www.fct.unl.pt](http://www.fct.unl.pt)

**DESCRIPTION:**

The Department of Environmental Sciences and Engineering is a member of the Portuguese IMAR (Institute of Marine Research) network. It is an interdisciplinary department which focuses on many aspects of environmental research, including coastal management and pollution research, simulation and systems analysis, toxicology and fundamental ecology.

An undergraduate course in Environmental Engineering is taught, as well as MSc. courses in Sanitary Engineering, Land Planning and (starting September 1993) Marine Science.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Prof. J. Gomes Ferreira/Prof. M.H. Costa

**POST-ADDRESS:** DCEA,  
Faculdade de Ciências e Tecnologia,  
Quinta da Torre,  
2825 Monte de Caparica,  
Portugal

**PHONE:** +351 1 29554464

**FAX:** +351 1 2954461

**DATASET-NAME: Development of ecological model for mollusc rearing areas in Ireland and Greece**

**TIME-PERIOD:** unspecified

**GEOGRAPHIC-  
COVERAGE:** Carlingford Lough, Ireland and Maliakos Bay, Greece

**PROJECT:** EEC - FAR programme from 1992 to 1993

**PARAMETERS:** comprehensive list of physical, chemical and biological parameters, with a focus on benthic secondary production

**SUMMARY:**  
Ecological model to simulate and study the trophic capacity of the mollusc-rearing areas indicated.

**STORAGE-MEDIUM:** Magnetic media

**AVAILABILITY:** Presently under development

**COMPLETED-BY:** J.G. Ferreira

**REVISION-DATE:** 12/15/92

**ak) CENTRE-NAME: Nuclear Electric Plc**

**VISIT-ADDRESS:** Loc 106,  
Barnett Way,  
Barnwood,  
Gloucester,  
GL4 7RS,

**COUNTRY:** United Kingdom

**DESCRIPTION:**

For information relating to Nuclear Electric Plc contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Loc 106,  
Barnett Way,  
Barnwood,  
Gloucester,  
GL4 7RS,  
United Kingdom

**PHONE:** +44 1452 652222

**FAX:** +44 1452 652776

**DATASET-NAME: Current meter data from the North Channel (1992-1993)**

**TIME-PERIOD:** from August to October 1992, from February to March 1993

**GEOGRAPHIC-  
COVERAGE:** North Channel, Irish Sea

**PARAMETERS:** current speed and direction

**SUMMARY:**

The data set comprises current meter data from the North Channel gathered by Gardline Surveys in 1992 and 1993. These are detailed below:

Latitude (deg min)	Longitude (deg min)	Water Depth (m)	Start Date	End Date
54 52.58N	005 11.1W	30	09 Aug 1992	14 Sep 1992
54 51.17N	005 43.36W	26	16 Sep 1992	17 Oct 1992
54 46.36N	005 40.2W	26	16 Sep 1992	17 Oct 1992
54 59.03N	005 11.17W	16	17 Feb 1993	25 Mar 1993
54 29.21N	005 12.08W	25	17 Feb 1993	24 Mar 1993
54 51.58N	005 44.47W	46	17 Feb 1993	21 Mar 1993

**STORAGE-MEDIUM:** digital

**AVAILABILITY:** Contact Metocean for further details

**COMPLETED-BY:** M. Osborne, Metocean/L.J. Rickards, BODC

**REVISION-DATE:** 1/28/94

**DATASET-NAME:** Current, water level and wind data collected near five UK power stations (1975-1988)

**TIME-PERIOD:** 1975, 1978-1979, 1983, 1985, 1988

**GEOGRAPHIC-  
COVERAGE:** UK coast

**PROJECT:** current speed and direction, water level, wind parameters, wave parameters

**PARAMETERS:** current speed and direction, water level, wind and wave parameters

**SUMMARY:**

The data set comprises surveys carried out near to five power stations, and usually consisted of measurements of currents, water levels and winds. These are summarised below.

1. Heysham 1/2 (54deg 02'N, 002deg 55'W). The survey was carried out 1978/79.
2. Sizewell A/B (52deg 12.7'N, 001deg 37.3'E). The survey was carried out by Wimpey in 1988. Current and wind data were also collected on an earlier survey in 1975 carried out by Soil Mechanics Ltd.
3. Hinckley Point A/B (50deg 12.5'N, 003deg 07.6'W). The survey was carried out by Wimpol in 1983.
4. Wylfa (53deg 20.58'N, 004deg 20.3'W). The survey was carried out by Wimpey in 1985.
5. Dungeness A/B (50deg 54.9'N, 000deg 58.8'E). The survey was carried out by Hunting Surveys Ltd. in 1988. In addition, wave data were gathered by Hydraulics Research Ltd. between 1987 and 1988.

**STORAGE-MEDIUM:** digital

**AVAILABILITY:** Contact Metocean for further details

**COMPLETED-BY:** M. Osborne, Metocean/L.J. Rickards, BODC

**REVISION-DATE:** 1/28/94

**al) CENTRE-NAME:** Plymouth Marine Laboratory (PML)

**VISIT-ADDRESS:** Plymouth Marine Laboratory,  
Prospect Place,  
The Hoe,  
Plymouth,

PL1 3DH,  
Devon,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www1.npm.ac.uk/](http://www1.npm.ac.uk/)

**DESCRIPTION:**

The Plymouth Marine Laboratory (PML) was formed in 1988 through the merger of the former Institute for Marine Environmental Research and the Marine Biological Association. Research interests include the role of the oceans in the global carbon cycle; physical, chemical and biological processes in seas and estuaries; plant and animal communities; cell biology and response of marine organisms to pollutants. Facilities include a major library.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Plymouth Marine Laboratory,  
Prospect Place,  
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Plymouth,  
PL1 3DH,  
Devon,  
United Kingdom

**PHONE:** +44 1752 222772

**FAX:** +44 1752 670637

**DATASET-NAME:** PML Irish Sea Project Data Set (1987-1991)

**TIME-PERIOD:** from 1987 to 1991

**GEOGRAPHIC-  
COVERAGE:** Irish Sea

**PARAMETERS:** phytoplankton, zooplankton, fish larvae, fish eggs, primary production, particle characterisation, salinity, temperature, chlorophyll

**INSTRUMENTS:** CTD, fluorometer, plankton nets, Undulating Oceanographic Recorder, Longhurst Hardy Plankton Recorder, Coulter counter, CHN analyser

**SUMMARY:**

The project was initiated in March 1987, as a collaborative study between the Fisheries Laboratory, Lowestoft and the NERC Institute for Marine Environmental Research (which became the Plymouth Marine Laboratory in 1988). The scientific problem studied concerned the differences that occur in fish yields per unit area between the Irish and North Seas; the Irish Sea has consistently yielded a lower catch per unit area than the North Sea. The aim was to study the productivity of both phytoplankton and zooplankton, in relation to the survival of fish larvae, and to investigate how differences in ecosystem structure might influence the availability of food and successful recruitment of fish, and to determine if these were critical factors which might explain the differences between these two seas.

**REFERENCE:** Coombes, S.H. et al. J mar.biol.Assoc.UK, 72: 821-834

**STORAGE-MEDIUM:** 1 optical disk

**AVAILABILITY:** by special arrangement

**COMPLETED-BY:** Dr. Ian Joint, PML

**REVISION-DATE:** 5/16/01

**am) CENTRE-NAME: Port Erin Marine Laboratory (PEML), University of Liverpool**

**VISIT-ADDRESS:** Port Erin Marine Laboratory,  
Port Erin,  
Isle of Man,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.liv.ac.uk/peml/](http://www.liv.ac.uk/peml/)

**DESCRIPTION:**

The Port Erin Marine Laboratory, established in 1892, provides facilities for Liverpool University staff, students and researchers, as well as visiting workers. It is part of the University of Liverpool's School of Biological Sciences.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** Dr. J.R. Allen

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Port Erin,  
Isle of Man,  
United Kingdom

**PHONE:** +44 1624 832027

**FAX:** +44 1624 835788

**DATASET-NAME: Port Erin temperature and salinity data set (1904-)**

**TIME-PERIOD:** from 1904 onwards

**GEOGRAPHIC-  
COVERAGE:** Port Erin, Isle of Man, Irish Sea

**PARAMETERS:** temperature, salinity

**SUMMARY:**

Temperature and salinity data have been collected by Port Erin Marine Laboratory (part of the University of Liverpool) in Port Erin Bay, Isle of Man. Temperature is recorded twice daily (1000h and 1600h) and salinity daily at 1600h. Temperatures are recorded using a thermometer. Salinity has been determined on a daily basis only since 1966, first by Autolab salinometer and finally by using a Plessey salinometer. These data continue to be collected.

**STORAGE-MEDIUM:** 4 floppy disks (high density), 5.6 Mbytes

**AVAILABILITY:** Available by special arrangement in IBM or Apple MacIntosh compatible formats

**COMPLETED-BY:** Janette Allen (Tel: +44 1624 832027)

**REVISION-DATE:** 2/4/93

**DATASET-NAME: Irish Sea nutrient and hydrography data set (1954-)**

**TIME-PERIOD:** from 1954 onwards

**GEOGRAPHIC-  
COVERAGE:** Irish Sea

**PARAMETERS:** temperature, salinity, oxygen, nutrients, chlorophyll-a

**INSTRUMENTS:** reversing thermometers, bench salinometer, Alpkem autoanalyser, Sea-bird CTD with SeaTech fluorometer

**SUMMARY:**

Nutrient and hydrographic data are collected in two areas. Firstly at station about 5km west of Port Erin (54deg 5.5'N, 4deg 50'W) known as 'Cypris' station, and secondly at 9 stations approximately 10 nautical miles apart along the 54deg N parallel from the Irish to the English coast. Temperature, salinity, dissolved oxygen and orthophosphate have been collected at the 'Cypris' station since 1954 with a minimum frequency of once a month and at a minimum of two depths (surface and bottom). Silicate, nitrate, nitrite, ammonia and chlorophyll-a were added at later dates. Nutrient analysis was initially carried out using standard colorimetric methods, initially manually, but since 1991 using an autoanalyser.

Sampling cruises along 54deg N were carried out in 1958-1959, 1965-1969 and 1988. Summer and winter data are available. The work is ongoing with one summer and one winter sampling trip each year since 1992. Temperature, salinity and nutrient samples are taken by IOS sampling bottles at 20m depth intervals. Surface and bottom samples only are taken for oxygen (Winkler) and chlorophyll-a determination. A Sea-bird CTD has been used since 1992 to obtain salinity, temperature and fluorescence profiles.

Measurements at both the 'Cypris' station and along 54deg N continue to be taken, funded at present by the Manx Government.

**REFERENCE:** Slinn, J. 1974 Estuarine and Coastal Marine Science, Vol 2: pp 1- 25. Slinn, J. and Eastham 1984 Annals Biologiques, vol 38: pp 42-44.

**STORAGE-MEDIUM:** 2 high density floppy disks, total 2 Mbytes

**AVAILABILITY:** Available by special arrangement in IBM or Apple MacIntosh compatible formats

**COMPLETED-BY:** Janette Allen (Tel: +44 1624 832027)

**REVISION-DATE:** 2/4/93

**an) CENTRE-NAME:** PowerGen Plc

**VISIT-ADDRESS:** New Plant Options,  
Haslucks Green Road,  
Shirley,  
Solihull,  
West Midlands,  
B90 4PD,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.pgen.com/](http://www.pgen.com/)

**DESCRIPTION:**

For information relating to PowerGen Plc contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'. The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** New Plant Options,  
Haslucks Green Road,  
Shirley,  
Solihull,  
West Midlands,  
B90 4PD,  
United Kingdom

**PHONE:** +44 121 701 2000

**DATASET-NAME:** Current, water level and wind data from surveys of UK estuaries and coastal sites around the UK (1975-1988)

**TIME-PERIOD:** various periods between 1975 and 1988

**GEOGRAPHIC-  
COVERAGE:** coastal sites around the UK

**PARAMETERS:** current speed and direction, water level, wind and sometimes other meteorological parameters, wave parameters

**INSTRUMENTS:** Simrad UCM-30, Aanderaa RCM4, InterOcean S4, Braystoke 001 impellor, Braystoke BFM-108 DRCM, Braystoke series 600 CSTD, Plessey M021, Aanderaa RCM4/5, NBA 348, Braystoke BFM 008, DNC-2B, Braystoke SRCM, Datawell series 6000, Datawell waverider; NBA DNW5, Sutton Harbour tide gauge, NBA DNW5 & Munro 1861, 'Munro 11', Van Essen pneumatic tide gauge, NBA DNT8, Aanderaa WLR-5; Didcot instruments weather station, Aanderaa automatic weather station, Tannoy Marine masthead anemometer, Self recording met station model RMS-2

**SUMMARY:**

The data set comprises the results of about 20 surveys of UK estuaries and sites near power stations. The data have been collected on behalf of PowerGen by a variety of survey companies and authorities. Usually current, water level and wind data have been collected. In addition, other meteorological parameters have been measured on some surveys and wave data have been collected as part of two of the surveys.

Surveys have been carried out at the following sites: Severn Estuary (1983), Medway Estuary (1984, 1987), Dee Estuary (1991), Weymouth to Worbarrow Tout/Winfrith (1984), Plymouth (1976, 1990), Sizewell (1975, 1988), Druridge Bay (1979), Hinkley Point (1983), Southampton Water (1987), Tremadog Bay (1986), Marchwood (1987), Dungeness (1983-1985), Wylfa, Anglesey (1985-86), Blyth (1984-1985) and Garrison Point Sheerness (1984).

**STORAGE-MEDIUM:** digital

**AVAILABILITY:** Contact Metocean for details

**COMPLETED-BY:** M. Osborne, Metocean/L.J. Rickards, BODC

**REVISION-DATE:** 1/28/94

**ao) CENTRE-NAME:** Proudman Oceanographic Laboratory (POL)

**VISIT-ADDRESS:** Proudman Oceanographic Laboratory,  
Bidston Observatory,  
Birkenhead,  
Merseyside  
L43 7RA,  
United Kingdom



**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.pol.ac.uk/](http://www.pol.ac.uk/)

**DESCRIPTION:**

The Laboratory is a component body of the Natural Environment Research Council. Research is carried out on the dynamics of the seas over the continental shelf and its margins, and on sea levels, ocean topography and tides, worldwide. The British Oceanographic Data Centre (BODC) and the Permanent Service for Mean Sea Level (PSMSL) are housed at the Laboratory.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Proudman Oceanographic Laboratory,  
Bidston Observatory,  
Birkenhead,  
Merseyside  
L43 7RA,  
United Kingdom

**PHONE:** +44 151 653 8633

**FAX:** +44 151 653 6269

**DATASET-NAME: POL Moored Current Meter Databank (1968-)**

**TIME-PERIOD:** from 1968 onwards

**GEOGRAPHIC-  
COVERAGE:** Continental shelf and slope areas around the British Isles (e.g. North Sea, Irish Sea, Celtic Sea, continental slope off north west Scotland)

**PARAMETERS:** current speed, current direction, also temperature and pressure

**SUMMARY:**

The data set comprises time series measurements of ocean currents from moored instruments, mainly collected in the continental shelf seas around the British Isles (for example, the North Sea, Irish Sea, Celtic Sea) or the continental slope. Data holdings are approximately 660 data series. Data records contain current speed and direction. In addition, temperature is often measured and pressure and conductivity are occasionally measured. Sampling intervals vary between 5 and 60 minutes, but are usually 10 minutes. Current meter deployments are typically 2-8 weeks duration in shelf areas but up to 6-12 months on the shelf edge.

Some of the data have been collected as contributions to larger national or international experiments, for example, BISOP 71, OVERFLOW 73, JONSDAP 73, JONSDAP 76, CONSLEX, North Sea Project.

**DATA-WEBSITE:** [www.bodc.ac.uk/](http://www.bodc.ac.uk/)

**STORAGE-MEDIUM:** Magnetic tape/disk

**AVAILABILITY:** Data are available on magnetic tape or floppy disk from BODC; restrictions may apply to recently collected data.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 8/4/94

**DATASET-NAME: POL Databank of CTD/STD profiles (1974-)**

**TIME-PERIOD:** from 1974 to present

**GEOGRAPHIC-  
COVERAGE:** Continental shelf areas around the British Isles (e.g. North Sea, Irish Sea, Celtic Sea)

**PARAMETERS:** conductivity/salinity, temperature, depth/pressure, occasionally oxygen, transmittance

**INSTRUMENTS:** electronic conductivity/salinity-temperature-depth (CTD/STD) recorder

**SUMMARY:**

The CTD databank comprises approximately 1300 profiles of conductivity-temperature-depth data, collected from 1974 onwards. These data have been collected on about 30 research cruises. About half of the profiles are from the North Sea, with the remainder split fairly evenly between the Irish Sea/North Channel and the Celtic Sea. Data from the NERC North Sea Project are not included in this data set.

**STORAGE-MEDIUM:** Magnetic tape/disk

**AVAILABILITY:** Data are available from BODC on magnetic tape or floppy disk. Some restrictions exist on recently collected data.

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 8/4/94

**DATASET-NAME:** The POL Operational Storm Surge Model Data Archive (1982-)

**TIME-PERIOD:** from 1982 onwards

**GEOGRAPHIC-  
COVERAGE:** North West European shelf (48-63deg N, 12deg W-13deg E)

**PARAMETERS:** model output of tidal elevation, horizontal components of residual currents

**SUMMARY:**

A storm surge forecast scheme, based on a model developed and maintained by POL for the Ministry of Agriculture, Fisheries and Food (MAFF), has been in routine use at the Meteorological Office since the autumn of 1978. The present scheme makes use of meteorological data from the Limited Area Model (LAM) which runs operationally at the UK Meteorological Office for weather forecasting.

The present version of the storm surge model was implemented in 1991 and runs on the Met. Office's CRAY YMP. The previous surge model, which ran from 1982 to 1991, had a resolution of 35km and was developed to make optimum use of the Met. Office's CYBER 205E. The installation of a CRAY YMP at the Met. Office allowed the implementation of a new model which had three times the resolution of the previous one. The present storm surge model runs operationally at the Met. Office, twice a day, every day, throughout the storm surge season. It runs shortly after the main atmospheric model runs (00:00h and 12:00h GMT). This model is of higher resolution (approximately 12km) than the atmospheric model (approximately 50km) and its coverage extends from 48deg N to 63deg N and from 12deg W to 13deg E. The model computes the tide and surge motion and produces surge forecasts which are used by the Storm Tide Warning Service at Bracknell for flood warning purposes.

The operational surge model archive contains model arrays of elevation and horizontal components of hourly residual current covering the entire model domain. The operational surge model will run a twelve hour hindcast and thirty six hour forecast. The data from the hindcast part of the run are archived since they provide the most reliable model information. These data describe the meteorologically driven components of sea surface elevation and depth mean current which are of use for a number of scientific and other applications. The operational surge model runs from late August to early May – producing data for eight whole months and two partial months. Typically, one season's data (in compressed archive format) occupies approximately 600 Mbytes of storage).

**REFERENCE:** Smith, J.A. 1994. The Operational Storm Surge Model Data Archive. Proudman Oceanographic Laboratory, Report No. 34, 34pp.

**STORAGE-MEDIUM:** ANSI standard re-writable optical disk, POL mass storage system, DAT tapes, 3480 cartridge tapes

**AVAILABILITY:** Contact POL Information and Applications Group for details of accessing data from the archive

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 8/4/94

**DATASET-NAME:** The depth-averaged residual circulation on the North West European Shelf, August 1988 - October 1989

**TIME-PERIOD:** from August 1988 to October 1989

**GEOGRAPHIC-  
COVERAGE:** North West European Shelf, in particular the southern North Sea

**PROJECT:** NERC North Sea Project

**PARAMETERS:** model output: depth-averaged residual circulation

**SUMMARY:**

This numerical model data set represents the first results of a study relating to the depth-averaged circulation of the north west European shelf during the NERC North Sea Project survey period (August 1988 – October 1989). The data originate from two separate but identical models. Most of the meteorologically induced currents and elevations (surge data) were obtained from the operational storm surge model which runs operationally at the UK Meteorological Office, and are archived at POL. Gaps in this data set have been filled by running an identical model at POL using meteorological data obtained from the Meteorological Office. The same model was used to reproduce the tides over the 15 month period.

Hourly values of tide and surge (elevation and horizontal components of current) have been combined to produce the residual circulation of the North Sea and the seasonal flow around the north west European continental shelf. The data for the 15 month North Sea survey period were sorted and stored separately as monthly files of tide and surge, giving 30 files (15 files containing hourly values of tide and 15 files containing the hourly values of meteorologically induced surge).

A sub-grid of the model area was chosen to encompass the southern North Sea, from 51deg N to 57deg N and from 3deg W to 9deg E. This sub-grid comprises 18 rows and 24 columns - a total of 432 grid boxes. A grid box measures 1/2 deg longitude by 1/3 deg latitude. Each data value is associated with the centre of the grid box it represents. In this area daily (25 hour) means and variances of the horizontal components of total (tide plus surge) current were calculated and subsequently stored as a digital atlas. Daily mean residual current data covering the period 01 August 1988 to 31 October 1989 fit on two 1.44 Mbyte floppy disks.

**REFERENCE:** Proctor, R. and Smith, J.A. 1991. The depth-averaged residual circulation on the North West European Shelf, August 1988 - October 1989. Proudman Oceanographic Laboratory Report No. 20, 255pp.

**STORAGE-MEDIUM:** North Sea Project CD-ROM, 2 1.44Mbyte floppy disks, POL Report

**AVAILABILITY:** Data set is available on NERC North Sea Project CD-ROM; contact BODC for further details

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 8/4/94

**DATASET-NAME: HF Radar along the Cumbrian coast (October-December 1989)**

**TIME-PERIOD:** from October to December 1989

**GEOGRAPHIC-  
COVERAGE:** Cumbrian coastal waters, Irish Sea

**PARAMETERS:** harmonic constants derived from surface current measurements

**SUMMARY:**

A three phase deployment of the new Ocean Surface Current Radar system (OSCR-2) was made along the Cumbrian coast between Walney Island and Silloth. The deployments were:

Phase 1: 29 September 1989 to 17 October 1989 St. Bees/Skelda

Phase 2: 20 October 1989 to 03 November 1989 Walney Island/Kirkbank

Phase 3: 28 November 1989 to 19 December 1989 Maryport/Silloth

The system used a beam forming receiver aerial composed of 16 elements equally spaced over 85 metres. The bin size is 1km. The system uses digital beam forming techniques which allowed all the data to be collected over the survey area in 2 consecutive 5 minute periods.

Tidal analysis of radial current time series for each data point was made separately. The tidal analysis was based on the 'Harmonic method'. All three surveys collected data over periods exceeding 15 days, thus allowing 15 day analyses to be completed where possible (allowing 16 constituents to be determined).

**REFERENCE:** POL Internal Report No. 18, 1990

**STORAGE-MEDIUM:** Computer disk files

**AVAILABILITY:** Contact Mrs R. Player, POL, for details of availability

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 2/11/93

**DATASET-NAME: Current profile and river bed pressure and temperature records, River Mersey (July 1992)**

**TIME-PERIOD:** from 03 to 31 July 1992

**GEOGRAPHIC-  
COVERAGE:** mouth of the River Mersey, north west England (Liverpool to Wallasey transect), 53deg 25'N, 3deg 1'W

**PARAMETERS:** current speed and direction, pressure, temperature, transmittance

**INSTRUMENTS:** POL moored acoustic doppler current meters (ADCP), InterOcean S4 current meters, Aanderaa water level recorders, transmissometers, shipborne RDI ADCP

**SUMMARY:**

The data set comprises records for six moorings situated along a transect across the River Mersey at 53deg 25'N, 3deg 1'W and includes data from three POL acoustic doppler current profiles, three InterOcean S4 recording current meters and an Aanderaa WLR measuring temperature and pressure. Further details are given below:

Moorings No.	Meter No.	Deployment	Recovery	Meter Height(m)	Data length
M9201	S41196	03-Jul-1992	31-Jul-1992	0.6	27.9 days
M9201	WR1038	03-Jul-1992	31-Jul-1992	0.4	27.9 days

M922A	DP0010	07-Jul-1992	28-Jul-1992	0.5	21.2 days
M922B	S41831	07-Jul-1992	28-Jul-1992	0.5	21.0 days
M9203	DP0001	08-Jul-1992	28-Jul-1992	0.5	19.9 days
M924A	DP0004	08-Jul-1992	28-Jul-1992	0.5	19.9 days
M924B	S41832	08-Jul-1992	28-Jul-1992	0.6	19.9 days

These data were collected as part of an experiment conducted by the National Rivers Authority and POL to measure currents and sediment transport in the River Mersey. Supplementary meteorological data, recorded at Bidston Observatory (4-5km from the transect), also form part of the data sets. Observations include wind speed and direction, rainfall, air temperature, sunshine and atmospheric pressure.

**REFERENCE:** Knight, P.J., Harrison, A.J., Lane, A. Wilkinson, M. and Collen, D.G. 1993. Current Profile and River Bed Pressure and Temperature Records, July 1992 River Mersey, Liverpool - Wallasey Transect. Proudman Oceanographic Laboratory No. 27, 115pp.

**STORAGE-MEDIUM:** computer disk files

**AVAILABILITY:** Contact P. Knight, POL, for details of availability of the data

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 8/4/94

**DATASET-NAME:** HF Radar measurements of surface currents in the eastern Irish Sea (1985-1989)

**TIME-PERIOD:** from 1985 to 1989

**GEOGRAPHIC-COVERAGE:** eastern Irish Sea

**PARAMETERS:** surface currents

**SUMMARY:**

Between 1985 and 1989, the OSCR HF Radar system was used on 13 surveys to measure surface currents in the eastern Irish Sea. These surveys were commissioned by the North West Water Authority (NWWA) in connection with their sea disposal programme. Tidal analyses of these observations were completed by the Proudman Oceanographic Laboratory (POL). The 13 surveys included 3 from Cumbria in 1985, 7 from the Fylde coast (Liverpool to Morecambe Bay) between 1986 and 1988 followed by 3 using the Mark II system in Cumbria in 1989.

**REFERENCE:** Prandle, D. 1992. HF Radar measurements of surface currents in the Eastern Irish Sea. POL Internal Report No. 31

**STORAGE-MEDIUM:** computer disk files

**AVAILABILITY:** available through BODC

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 8/4/94

**DATASET-NAME:** POL relative tidal gravity and tilt observations (1970-1983)

**TIME-PERIOD:** between 1970 and 1983

**GEOGRAPHIC-** Boston, Mass., USA and seven locations around the UK (Bassenthwaite,

**COVERAGE:** Bidston, Llanrwst, London, Redruth, Newlyn and Taunton)

**PARAMETERS:** pendulum tilt, relative tidal gravity; one site also has environmental parameters

**INSTRUMENTS:** La Coste and Romberg earth tide gravimeters, Hughes tiltmeter and Askania tiltmeter

**SUMMARY:**

The data set comprises unprocessed raw chart data for all 15 deployments. Details of these are given below:

Location	Start and End Dates	Instrument Used
Relative tidal gravity measurements:		
Bidston	08 Sep 1970 - 19 Apr 1971	La Coste and Romberg ET13
Bidston	06 Jul 1971 - 09 Feb 1972	La Coste and Romberg ET13
Llanrwst	24 Mar 1972 - 14 Mar 1973	La Coste and Romberg ET13
London	26 May 1972 - 03 Jul 1972	La Coste and Romberg ET15
Taunton	07 Jul 1972 - 30 Sep 1972	La Coste and Romberg ET15
Newlyn	28 Oct 1972 - 05 Mar 1973	La Coste and Romberg ET15
Redruth	08 Mar 1973 - 23 Jul 1973	La Coste and Romberg ET15
Newlyn	01 Aug 1973 - 05 Dec 1973	La Coste and Romberg ET15
Boston, Mass.,	29 Aug 1982 - 08 Dec 1982	La Coste and Romberg ET10
Bidston	06 Aug 1982 - 06 Feb 1983	La Coste and Romberg ET13
Bidston	11 Sep 1982 - 13 May 1983	La Coste and Romberg ET15

Tilt measurements:

Bassenthwaite	31 Aug 1977 - 08 Aug 1978	Askania tiltmeter* +
Bassenthwaite	16 Aug 1978 - 03 Dec 1978	Askania tiltmeter*
Bassenthwaite	16 May 1979 - 18 Sep 1981	Askania tiltmeter
Bassenthwaite	09 Dec 1979 - 05 Oct 1980	Hughes tiltmeter*

\* = processed data also held

+ = environmental parameters also held (e.g. water table, temperature, atmospheric pressure)

**STORAGE-MEDIUM:** optical disk files/magnetic tape

**AVAILABILITY:** Contact POL Earth Tides Research Group for details of availability.

**COMPLETED-BY:** J. Hughes, BODC

**REVISION-DATE:** 10/12/94

**ap) CENTRE-NAME: Severn Tidal Power Group**

**VISIT-ADDRESS:** Balfour Beatty Projects and Engineering Limited,  
Marlowe House,  
Station Road,  
Sidcup,  
Kent,  
DA15 7AU,  
United Kingdom

**COUNTRY:** United Kingdom

**DESCRIPTION:**

For information relating to Severn Tidal Power Group contact the address above.

Metocean plc has been commissioned by the UK Health and Safety Executive (HSE) to update the Offshore Technology Report (OTH 86 227) 'Energy industry metocean data around the UK'.

The information included in this update has been used to extract the relevant details of data owned by companies with an interest in the energy industry and form the basis of this entry. For further details contact Metocean plc, Hamilton House, Kings Road, Haslemere, Surrey, GU27 2QA, United Kingdom (Tel: +44 1428 656925; Fax: +44 1428 661530).

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** Balfour Beatty Projects and Engineering Limited,  
Marlowe House,  
Station Road,  
Sidcup,  
Kent,  
DA15 7AU,  
United Kingdom

**PHONE:** +44 181 300 3355

**FAX:** +44 181 300 5735

**DATASET-NAME:** Water level data from the Duddon Estuary (1992) and surface current data from the Severn Estuary (1988)

**TIME-PERIOD:** from April to May 1988; September 1992

**GEOGRAPHIC-  
COVERAGE:** Duddon Estuary (eastern Irish Sea), Severn estuary (Bristol Channel)

**PARAMETERS:** surface current speed and direction, water level

**SUMMARY:**

The data set comprises two data series: firstly, water level data from the Duddon estuary, eastern Irish Sea (54deg 10.78'N, 003deg 15.72'W, water depth 5m), collected between 14 and 19 September 1992, gathered by Sir Robert McAlpine Limited and, secondly, surface current vector data for 36 radar intersects, collected in the Severn Estuary (51deg 15'N, 003deg 12'W) between 15 April and 15 May 1988 by Marex (now Paras).

**STORAGE-MEDIUM:** digital

**AVAILABILITY:** Contact Metocean for further details

**COMPLETED-BY:** M. Osborne, Metocean/L.J. Rickards, BODC

**REVISION-DATE:** 1/28/94

**aq) CENTRE-NAME:** Storm Tide Forecasting Service (STFS), Meteorological Office

**VISIT-ADDRESS:** Meteorological Office,  
London Road,  
Bracknell,  
Berkshire,  
RG12 2SZ,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.met-office.gov.uk](http://www.met-office.gov.uk)

**DESCRIPTION:**

The Storm Tide Forecasting Service (STFS) is operated by the Meteorological Office on behalf of the Ministry of Agriculture Fisheries and Food. STFS monitors tidal levels around the coasts of Britain. Established in 1953 to provide warning of coastal flooding, the service expanded in September 1973 to also warn of negative surges in the Southern North Sea that might present a navigation hazard. Further



expansion to cover coastal flooding on the West Coast took place in 1978 followed by arrangements to cover the South Coast in 1983.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** STFS Manager  
**POST-ADDRESS:** Meteorological Office,  
London Road,  
Bracknell,  
Berkshire,  
RG12 2SZ,  
United Kingdom  
**PHONE:** +44 1344 854914  
**FAX:** +44 1344 456663

**DATASET-NAME: Storm surges greater than 0.6m (1956-)**

**TIME-PERIOD:** from 1956 (East Coast); from 1970 (negative surges); from 1990 (West Coast);  
from 1991 (South Coast)

**GEOGRAPHIC-  
COVERAGE:** UK coast

**PARAMETERS:** tidal levels and surge residual elevations

**SUMMARY:**

Records of events where surge residual elevations exceed 0.6m are kept. (Average number of East Coast surges is 19 per year with a slightly smaller number of negative surges being recorded).

Hourly observed surge residual elevations are held, together with a record of the meteorological situation prevailing at the time.

**REFERENCE:** Pratt, I.T. 1995. Weather Vol. 50, pp. 42-48.

**STORAGE-MEDIUM:** paper/fiche

**AVAILABILITY:** by arrangement

**COMPLETED-BY:** D.G. Smith

**REVISION-DATE:** 10/24/00

**ar) CENTRE-NAME: United Kingdom Hydrographic Office, Taunton**

**VISIT-ADDRESS:** UK Hydrographic Office,  
Taunton,  
Somerset,  
TA1 2DN,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.ukho.gov.uk/](http://www.ukho.gov.uk/)

**DESCRIPTION:**

The UK Hydrographic Office is a Defence Support Agency operating as a Trading Fund whose mission is to meet national, defence and civil customer's needs for charts and other hydrographic information in support of safe navigation. It is now providing this information increasingly in digital form. The UKHO has a world wide series of charts and publications which it markets through a network of distributors to its commercial customers.



The UK Hydrographic Office also maintains the national hydrographic archive by supporting the national hydrographic survey programme, promoting international exchange and co-operation in the supply of data and acquiring hydrographic material from all sources available.

**Data Contact(s) within Data Holding Centre**

**CONTACT-NAME:** John Pepper  
**CONTACT-TITLE:** Senior Products Manager  
**POST-ADDRESS:** Marketing Branch  
Hydrographic Office,  
Taunton,  
Somerset,  
TA1 2DN,  
United Kingdom  
**PHONE:** +44 1823 337900  
**FAX:** +44 1823 284077  
**EMAIL:** john.pepper@ukho.gov.uk

**DATASET-NAME:** UK Admiralty Co-tidal and Co-Range Charts around the British Isles (1985-1988)

**TIME-PERIOD:** from 1985 to 1988 and from 1994 to 1996 (publication dates)

**GEOGRAPHIC-  
COVERAGE:** British Isles

**PARAMETERS:** tides

**SUMMARY:**

Co-tidal and co-range charts show lines of equal range and equal times of tides, or data of harmonic constants, for certain areas around the United Kingdom. Two charts cover the area from Dungeness to Hoek van Holland and the southern North Sea. A third covers the British Isles and adjacent waters.

The charts are drawn using all the available tidal data, and a knowledge of tidal theory to assist in the necessary interpolation. The reliability of these charts depends on the accuracy and number of tidal observations taken in the area concerned. Since offshore sites for tide-gauges, such as islands, rocks or oil rigs, are seldom suitably placed, offshore data will often depend more on interpolation than that for inshore stations.

**REFERENCE:** The Catalogue of Admiralty Charts and other Hydrographic Publications (NP131) gives details of these charts

**DATA-WEBSITE:** [www.ukho.gov.uk/](http://www.ukho.gov.uk/)

**STORAGE-MEDIUM:** 3 paper sheets approximately 900x600mm

**AVAILABILITY:** Available from a worldwide network of Admiralty Chart Agents

**COMPLETED-BY:** John Page

**REVISION-DATE:** 11/25/92

**DATASET-NAME:** UK Admiralty Tidal Stream Atlases around the British Isles

**TIME-PERIOD:** from 1973 to 1995 (publication dates)

**GEOGRAPHIC-  
COVERAGE:** British Isles

**PARAMETERS:** tidal streams

**SUMMARY:**

Sixteen atlases show diagrammatically, with the use of arrows, the tidal streams in parts of north-west Europe at hourly intervals. Each diagram is referred to the time of high water at a selected standard port, and a method is included for interpolating or extrapolating the rate of the stream according to the range of the tide at the standard port. The atlases are drawn using all the available tidal stream data. They refer only to the upper ten metres of the water column, and are thus intended to show the likely effect of the tidal streams on a typical sea-going vessel. The data are the same as the tidal stream data given on large-scale Admiralty charts, but the diagrammatic display shows the general movement of the water more effectively.

**REFERENCE:** The Catalogue of Admiralty Charts (NP131) gives further details of the areas covered by the atlases.

**DATA-WEBSITE:** [www.ukho.gov.uk/](http://www.ukho.gov.uk/)

**STORAGE-MEDIUM:** Seventeen atlases, A4 in size

**AVAILABILITY:** Available from a worldwide network of Admiralty Chart Agents

**COMPLETED-BY:** John Page

**REVISION-DATE:** 5/15/01

**as) CENTRE-NAME: University Marine Biological Station (UMBS), Millport**

**VISIT-ADDRESS:** University Marine Biological Station,  
Millport,  
Isle of Cumbrae,  
KA28 0EG,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.gla.ac.uk/Acad/Marine/](http://www.gla.ac.uk/Acad/Marine/)

**DESCRIPTION:**

The University Marine Biological Station is a national field teaching facility with four full time academic staff plus several contract researchers. Activities include benthic surveys, study of shell fisheries, antifouling, aquaculture and a variety of ecological and physiological studies of marine organisms. Marine microbiology has a high profile. Two research vessels, diving facilities and support staff are available.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Director

**POST-ADDRESS:** University Marine Biological Station,  
Millport,  
Isle of Cumbrae,  
KA28 0EG,  
United Kingdom

**PHONE:** +44 1475 530581

**FAX:** +44 1475 530601

**DATASET-NAME: Sea surface temperature at Keppel Pier, Clyde Estuary (1949-)**

**TIME-PERIOD:** from 1949 onwards

**GEOGRAPHIC-  
COVERAGE:** Clyde Estuary

**PARAMETERS:** sea surface temperature

**SUMMARY:**

The data set comprises sea surface temperature measurements taken daily at approximately 0900h GMT. The readings are accurate to 0.1deg C. and are made with a dipstick thermometer in a bucket. Data are available from October 1952 onwards on floppy disk; data also exist back to 1949 in manuscript form.

**STORAGE-MEDIUM:** Magnetic disk

**AVAILABILITY:** Contact the Director of the University Marine Biological Station for access to this data set.

**CONTACT:** Rupert Ormond, email [rupert.ormond@millport.gla.ac.uk](mailto:rupert.ormond@millport.gla.ac.uk)

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 2/23/01

**at) CENTRE-NAME:** University of Wales, Bangor, School of Ocean Sciences

**VISIT-ADDRESS:** School of Ocean Sciences,  
University College of North Wales,  
Marine Sciences Laboratories,  
Menai Bridge,  
Gwynedd,  
LL59 5EH,

**COUNTRY:** United Kingdom

**CENTRE-WEBSITE:** [www.sos.bangor.ac.uk/](http://www.sos.bangor.ac.uk/)

**DESCRIPTION:**

The School of Ocean Sciences (SOS) is part of the University of Wales Bangor. It is one of the two United Kingdom universities specialising in oceanography. The SOS is one of the largest marine science academic departments in Europe. Its research interests are multi-disciplinary (i.e. biological, chemical, geological and hydrodynamical) and relate not only to the water mass and what is contained within it, but also the sediments lying below it.

The SOS is participating in several Natural Environment Research Council (NERC) Community Research Projects (CRPs), including the North Sea Project, the Biogeochemical Ocean Flux Study (BOFS), and the Land Ocean Interaction Study (LOIS). It acted as host laboratory to the NERC Community Research Project Plankton Reactivity in the Marine Environment (PRIME). In addition, the School is taking part in a number of CEC MAST projects, including PROFILE, MORENA, European Coastal Transition Zone project and Mapping of Sea Bottom Topography in a Multi-Sensor Approach.

Further details of the Department are available from the Departmental Secretary.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** Head of Department

**POST-ADDRESS:** School of Ocean Sciences,  
University College of North Wales,  
Marine Sciences Laboratories,  
Menai Bridge,  
Gwynedd,  
LL59 5EH,

United Kingdom

**PHONE:** +44 1248 351151  
**FAX:** +44 1248 716367  
**EMAIL:** enquiries@sos.bangor.ac.uk

**DATASET-NAME: Regions of Freshwater Influence (ROFI) Data Set (1990-1993)**

**TIME-PERIOD:** from 1990 to 1993

**GEOGRAPHIC-  
COVERAGE:** Rhine Outflow, English Channel; Clyde Outflow, Irish Sea

**PROJECT:** Regions of Freshwater Influence (ROFI); CEC MAST PROFILE

**PARAMETERS:** temperature, salinity, transmittance, chlorophyll, suspended sediments, current speed and direction

**INSTRUMENTS:** moored current meters, CTD, transmissometer, fluorimeter, rosette sampler

**SUMMARY:**

The objectives of the Regions of Freshwater Influence (ROFI) project at the School of Ocean Sciences are as follows:

1. to make measurements of turbulent dissipation through the water column in contrasting shelf sea regimes;
2. to observe variations in the vertical distribution, size and fall velocity spectra of suspended particles and relate to changes in the turbulent dissipation;

To meet these objectives long term moorings have been deployed in the Irish Sea and the Clyde Sea measuring currents, transmittance, fluorescence and temperature and salinity, CTD profiles together with fluorescence and transmittance measurements have been made, and shipborne ADCP data have been collected. In addition, profiles of turbulent dissipation, grab samples, suspended matter samples and settling velocity measurements have been taken.

**STORAGE-MEDIUM:** computer disk files; also on magnetic tape and optical disk

**AVAILABILITY:** some data are available through BODC

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 5/24/00

**DATASET-NAME: CTD and moored current meter data in the Irish Sea (1979-)**

**TIME-PERIOD:** from 1979 onwards

**GEOGRAPHIC-  
COVERAGE:** Irish Sea

**PARAMETERS:** temperature, salinity, current speed and direction

**SUMMARY:**

The data set comprises over 1300 CTD profiles collected in the Irish Sea from 1977 onwards on over 40 cruises. Some of these are on a grid in Liverpool Bay, while the remainder are from the western Irish Sea.

In addition, moored current meter and thermistor chain data have been collected. One mooring was maintained in Liverpool Bay between April 1978 and 1979. Measurements were also collected at three

sites between Anglesey, North Wales and Dublin, Ireland. One site was occupied by two meters for 30 days in 1979; a second site was occupied over the summer months in 1979 and 1981 and for approximately one month in 1982; the third site was occupied for approximately 30 days in the spring/summer of 1979, 1981, 1982 and 1987.

**STORAGE-MEDIUM:** computer disk files; also on magnetic tape and optical disk

**AVAILABILITY:** most of the data are available through BODC

**COMPLETED-BY:** L.J. Rickards, BODC

**REVISION-DATE:** 5/24/00

**au) CENTRE-NAME: Wexford County Council**

**VISIT-ADDRESS:** Wexford County Council,  
County Hall,  
Wexford,

**COUNTRY:** Ireland

**DESCRIPTION:**

The County Council has been responsible for carrying out (or commissioning) a variety of environmental quality monitoring measurements along the coast of County Wexford. It has a policy of making this information available, free of charge, upon request from any person, under the following conditions:

a) the person receiving the information acknowledges that the information is from the Council and does not claim ownership of same;

b) the person quoting from the Council's statistics does not quote selectively from these statistics.

**Data Contact(s) within Data Holding Centre**

**ADDRESS:** County Engineer's Department  
Wexford County Council,  
County Hall,  
Wexford,  
Ireland

**PHONE:** +353 53 22211

**DATASET-NAME: Water quality on the shores of County Wexford, Ireland**

**TIME-PERIOD:** 1980 onwards

**GEOGRAPHIC-  
COVERAGE:** the coast of County Wexford, Ireland

**PARAMETERS:** dye dispersion studies and water quality measurements

**SUMMARY:**

Various data sets including:

1) In 1980 a survey of Wexford Harbour was carried out for the Council by An Foras Forbartha (predecessor of the Irish Environment Research Unit - ERU) comprising a dye survey plus water sampling at various locations in the harbour with measurements of BOD, chlorophyll, ammonia, ortho phosphates etc. Information available from ERU. Every second year since then the survey has been updated by measurements made and held by the Kilkenny Regional Laboratory (part owned by the Council).

2) The Council commissioned a survey of Wexford Harbour by Dr. Jim Wilson of Trinity College Dublin involving the sampling of the mud in various locations of the harbour - information available from Dr. Wilson.

3) A dye survey was carried out in Wexford Harbour in 1990 by Eolas on behalf of two commercial interests in Wexford, namely Cow and Gate (Ireland) Ltd. and Wexford Creamery (Ireland) Ltd. Data are probably restricted.

4) The Council carries out regular analyses of waters under the EC Drinking Water Directive at four locations, namely, Duncannon, Rosslare Strand, Curracloe Beach and Courtown Harbour. The information is sent at the end of each season to the Department of the Environment.

**STORAGE-MEDIUM:** hard copy

**AVAILABILITY:** data freely available subject to certain conditions

**COMPLETED-BY:** Mr. Creedon, County Secretary

**REVISION-DATE:** 11/26/90

**av) CENTRE-NAME: Wicklow Harbour Commissioners**

**VISIT-ADDRESS:** Wicklow Harbour Commissioners,  
North Quay,  
Wicklow,  
County Wicklow,

**COUNTRY:** Ireland

**DESCRIPTION:**

Wicklow is a commercial port but also caters for leisure activities. Paper, timber, steel, lead, machinery, stone, coal, woodchips and bark are the usual types of cargo handled. The harbour is situated two miles north of Wicklow Head. The river Leitrim flows through the harbour. The outer harbour is formed by two piers. Main commercial activity takes place in the inner harbour where berths for vessels are situated on both banks of the river. Information concerning depths and port facilities are available on request.

**Data Contact(s) within Data Holding Centre**

**CONTACT-TITLE:** The Secretary

**POST-ADDRESS:** Wicklow Harbour Commissioners,  
North Quay,  
Wicklow,  
County Wicklow,  
Ireland

**PHONE:** +353 404 67455

**DATASET-NAME: Hydrographic surveys of Wicklow Harbour, Ireland**

**TIME-PERIOD:** not specified

**GEOGRAPHIC-  
COVERAGE:** Wicklow Harbour on East coast of Ireland

**PARAMETERS:** water depth, sea level

**SUMMARY:**

Depths and other measurements are taken from time to time using standard surveying equipment. Variation in tidal levels is 1.9m at neap tides and 2.5m at spring tides. Strong southerly winds can raise the tide level 0.3m above normal and northerly and easterly winds can lower the average water level.

Maximum length of vessel that can use the harbour is about 90m. Deep draft vessels must dock and sail at high water and will be aground on a mud and sand bottom at low water.

**STORAGE-MEDIUM:** 40 maps, 8 boxes of records, files and ledgers

**AVAILABILITY:** access available on request to the Secretary

**COMPLETED-BY:** Capt. R.F. Flood, Secretary and Harbour Master

**REVISION-DATE:** 1/23/92