

**I.O.S.**

**PUBLICATIONS AND REPORTS  
OF THE INSTITUTE OF OCEANOGRAPHIC SCIENCES  
1979 - 1982**

**EDITED BY K.D. JONES**

**REPORT NO. 170**

**1983**

**NATURAL ENVIRONMENT  
INSTITUTE OF OCEANOGRAPHIC  
SCIENCES  
RESEARCH COUNCIL**

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INSTITUTE OF OCEANOGRAPHIC SCIENCES

BIDSTON

Publications and reports  
of the Institute of Oceanographic Sciences  
1979 - 1982

Edited by K.D. Jones

I.O.S. Report No. 170  
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## INTRODUCTION

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The report lists the publications and reports of the staff of the Institute of Oceanographic Sciences from 1 January 1979 - 31 December 1982 and was compiled with the aid of the STATUS software package on the NERC Honeywell 66/DPS-300 computer at IOS Bidston.

The listing is divided into four sections, Papers, Report, Cruise Reports and Data Reports. Papers are arranged alphabetically by first author (whether or not that author is a member of IOS staff), then chronologically by year of publication. Reports, Cruise Reports and Data Reports are arranged by the report number.

Some of the authors listed were not strictly on the IOS staff at the time of publication quoted but were working at the Institute as visiting scientists or collaborating with IOS scientists.

The principal scientist of a cruise is designated the 'author' of a Cruise Report.

An index to all authors is included.

Given below are details of two earlier reports listing the publications and reports of the Institute.

IOS Report No.86, 1979. Publications and reports of the National Institute of Oceanography, Unit of Coastal Sedimentation and Institute of Coastal Oceanography & Tides (including the Liverpool Tidal Institute).

IOS Report No.122, 1981. Publications and reports of the Institute of Oceanographic Sciences 1973-1978.

## 1. PAPERS

- ALCOCK, G.A. & CARTWRIGHT, D.E. 1982  
Computation of the sea surface topography.  
pp.29-38 in, Validation of SEASAT-1 altimetry using ground truth  
in the North Sea region, (ed.J.Brennecke, D.Lelgemann, W.Torge &  
H.G.Wenzel).  
Deutsche Geodatische Kommission, Reihe B : Angewandte Geodasie,  
No.263, 113pp. & appendix.
- ALDRED, R.G., RIEMANN-ZURNECK, K., THIEL, H. & RICE, A.L. 1979  
Ecological observations on the deep-sea anemone, Actinoscyphia  
aurelia.  
Oceanologica Acta, 2, 389-395.  
IOS CONTRIBUTION NO.1471
- ALDRED, R.G. & WILD, R.A. 1979  
An improved cod-end system for midwater nets.  
Journal of Plankton Research, 1, 187-189.  
IOS CONTRIBUTION NO.1450
- ALLAN, T.D. 1979  
Monitoring the sea surface.  
pp.205-215 in, Use of data from meteorological satellites.  
(Proceedings of a technical conference, Lannion, France, 17-21  
Sept. 1979).  
Paris: European Space Agency. (SP-143).
- ALLAN, T.D. 1979  
SEASAT's short lived mission.  
Nature, 281, 431-432.
- ALLAN, T.D. 1980  
Satellite altimetry measurements of the sea surface.  
pp.113-120 in, CHARM : Proceedings of an ESA workshop on  
climatology, hydrology, atmospheric research and meteorology  
from space, Ajaccio, Corsica, 12-16 November 1979.  
Paris: European Space Agency. 220pp. (ESA SP-150).  
IOS CONTRIBUTION NO.80098
- ALLAN, T.D. & GUYMER, T.H. 1980  
SEASAT and JASIN.  
International Journal of Remote Sensing, 1, 261-267.  
IOS CONTRIBUTION NO.80106
- ALLAN, T.D. 1981  
Oceanography from space - a European contribution?  
pp.19-27 in, Oceanography from space, (ed.J.F.R. Gower).  
(Proceedings of COSPAR/SCOR/IUCRM symposium, 1980, Venice).  
New York: Plenum. 978pp.  
IOS CONTRIBUTION NO.81077
- ALLAN, T.D. & GUYMER, T.H. 1981  
A preliminary evaluation of Seasat's performance over the area  
of JASIN and its relevance to ERS -1.  
pp.119-127 in, Proceedings of EARSeL-ESA symposium on  
applications of remote sensing over the continental shelf, Voss,  
Norway, May 1981.  
Paris: European Space Agency. 290pp. (ESA SP-167).  
IOS CONTRIBUTION NO.81047

- ALLAN, T.D. 1981  
The short and long term application of satellite surveillance of the sea-surface.  
p.178 in, Matching remote sensing technologies and their applications.  
(Proceedings of 9th annual conference of the Remote Sensing Society, London, December 1981).  
Reading: Remote Sensing Society. 550pp.
- ALLAN, T.D. 1982  
The present use of satellites for sea-state observations and prediction.  
Journal of Navigation, 35, 421-431.  
IOS CONTRIBUTION NO.82074
- ALLAN, T.D. 1982  
The present use of satellites for sea state observations and prediction.  
Paper No.7.5 in, Oceanology International exhibition and conference, 2-5 March 1982, Brighton.  
Kingston-upon-Thames: Spearhead Exhibition Ltd. (Various pagination in 2 volumes).  
IOS CONTRIBUTION NO.82016
- ALLEN, C.M., SIMPSON, J.H. & CARSON, R.M. 1979  
The structure and variability of fronts in the Irish Sea as observed by an undulating CTD system. (Abstract of paper presented at the 3rd U.K. Geophysical Assembly, 2-5 April, 1979, University of Southampton).  
Geophysical Journal of the Royal Astronomical Society, 57, p.286.
- ALLEN, C.M., SIMPSON, J.H. & CARSON, R.M. 1980  
The structure and variability of shelf sea fronts as observed by an undulating CTD system.  
Oceanologica Acta, 3, 59-68.  
IOS CONTRIBUTION NO.80003
- AMIN, M. 1979  
A note on extreme tidal levels.  
International Hydrographic Review, 56(2), 133-141.  
IOS CONTRIBUTION NO.1451
- AMIN, M. & GRAFF, J. 1980  
Some notes on simplifying the HSWC method of tidal analysis.  
International Hydrographic Review, 57(2), 167-174.  
IOS CONTRIBUTION NO.80069
- AMIN, M. 1982  
On analysis and forecasting of surges on the west coast of Great Britain.  
Geophysical Journal of the Royal Astronomical Society, 68, 79-94.  
IOS CONTRIBUTION NO.82002



- AMIN, M. 1982  
 On analysis and prediction of tides on the west coast of Great Britain.  
 Geophysical Journal of the Royal Astronomical Society, 68, 57-78.  
 IOS CONTRIBUTION NO.82001
- ANGEL, M.V. 1979  
 Zoogeography of the Atlantic Ocean.  
 pp.168-190 in, Zoogeography and diversity in plankton, (ed.S.Van der Spoel & A.C.Pierrot- Bults).  
 Utrecht: Bunge Scientific Publishers.460pp.
- ANGEL, M.V. & ELLIS, C.J. 1981  
Conchoecia hystrix n.sp. a new halocyprid ostracod for the Porcupine Bight region of the northeastern Atlantic.  
 Bulletin of the British Museum (Natural History) Zoology, 40, 129-135.  
 IOS CONTRIBUTION NO.81100
- ANGEL, M.V. 1981  
Conchoecia nasotuberculata Müller and C.Kyrtophora Müller, two planktonic halocyprid ostracods that have frequently been confused.  
 Crustaceana, 41, 46-63.  
 IOS CONTRIBUTION NO.81050
- ANGEL, M.V., FASHAM, M.J.R. & RICE, A.L. 1981  
 Marine biology needed to assess the safety of a program of disposal of high-level radioactive waste in the ocean.  
 pp.297-312 in, Marine environmental pollution, 2. Dumping and mining, (ed.R.A.Geyer).  
 Amsterdam: Elsevier. 574pp.  
 IOS CONTRIBUTION NO.81030
- ANGEL, M.V., HARGREAVES, P.M., KIRKPATRICK, P.A. & DOMANSKI, P. 1982  
 Low variability in planktonic and micronektonic populations at 1,000m depth in the vicinity of 42N, 17W; evidence against diel migratory behaviour in the majority of species.  
 Biological Oceanography, 1, 287-319.  
 IOS CONTRIBUTION NO.82039
- ANGEL, M.V. & BAKER, A. DE C. 1982  
 Vertical distribution of the standing crop of plankton and micronekton at three stations in the northeast Atlantic.  
 Biological Oceanography, 2, 1-30.  
 IOS CONTRIBUTION NO.82092
- ANGEL, M.V. 1982  
 Ocean trench conservation.  
 International Union for Conservation of Nature and Natural Resources, Commission on Ecology Papers, No.1, 17pp.  
 (Reprinted from The Environmentalist, 2, 1982, Supplement No.,1).
- ANSORGE, J. et al (Includes R.B.WHITMARSH) 1982  
 Comparative interpretation of explosive seismic data.  
 Journal of Geophysics, 51, 69-84.

- ARMITAGE, M.E., RAYMONT, J.E.G. & MORRIS, R.J. 1981  
 Amino acid synthesis in Neomysis integer and Gnathophausia sp. -  
 feeding experiments using <sup>14</sup>C- labelled precursors.  
 Comparative Biochemistry and Physiology, 68B, 183-191.  
 IOS CONTRIBUTION NO.81013
- ARMITAGE, M.E. & MORRIS, R.J. 1982  
 The effect of changing environmental salinity on the free  
 amino-acid composition of an estuarine population of Neomysis  
 integer.  
 Estuarine, Coastal and Shelf Science, 14, 301-311.  
 IOS CONTRIBUTION NO.82023
- ATHERSUCH, J. & GOODAY, A.J. 1979  
 On Zabythocypris redunca Athersuch and Gooday sp. nov.  
 pp.21-26 in, Stereo-atlas of ostracod shells, vol.6, No.4,  
 (ed.R.H.Bate et al).  
 Llandudno: British Micropalaeontological Society in association  
 with Robertson Research International Ltd.
- AVEDIK, F., CAMUS, A., GINZBURG, A., MONTADERT, L., ROBERTS,  
 D.G. & WHITMARSH, R.B. 1982  
 A seismic refraction and reflexion study of the continent-ocean  
 transition beneath the north Biscay margin.  
 Philosophical Transactions of the Royal Society of London, A,  
 305, 5-25.  
 IOS CONTRIBUTION NO.82032
- BADCOCK, J.R. & BAIRD, R.C. 1980  
 Remarks on the systematics, development, and distribution of the  
 hatchetfish genus Sternoptyx (Pisces, Stomiatoidei).  
 Fishery Bulletin, 77, 803-820.
- BADCOCK, J.R. & LARCOMBE, R.A. 1980  
 The sequence of photophore development in Xenodermichthys copei  
 (Pisces : Alepocephalidae).  
 Journal of the Marine Biological Association of the U.K., 60,  
 277-294.  
 IOS CONTRIBUTION NO.80035
- BADCOCK, J.R. 1981  
 The significance of meristic variation in Benthoosema glaciale  
 (Pisces Myctophoidei) and of the species distribution off  
 northwest Africa.  
 Deep-Sea Research, 28A, 1477-1491.  
 IOS CONTRIBUTION NO.81082
- BADCOCK, J.R. 1982  
 A new species of the deep-sea fish genus Cyclothone Goode and  
 Bean (Stomiatoidei, Gonostomatidae) from the tropical Atlantic.  
 Journal of Fish Biology, 20, 197-211.  
 IOS CONTRIBUTION NO.82015
- BAKER, A. DE C. 1980  
 Near surface sampling of krill during the BIOMASS programme: a  
 suggestion for discussion.  
 BIOMASS Newsletter, 2(1), 14-15.

- BAKER, A. DE C. 1980  
Physical and chemical observations. Report of a BIOMASS Working Party.  
BIOMASS Report Series, No.17, 17pp.
- BAKER, A. DE C. 1982  
Workshop 6. Distribution of plankton : summary.  
Rapports et Procès-verbaux des Réunions, ICES, 180, p.454.
- BAKER, T.F. 1980  
Tidal gravity in Britain : tidal loading and the spatial distribution of the marine tide.  
Geophysical Journal of the Royal Astronomical Society, 62, 249-267.  
IOS CONTRIBUTION NO.80052
- BAKER, T.F. 1980  
Tidal tilt at Llanrwst, North Wales : tidal loading and earth structure.  
Geophysical Journal of the Royal Astronomical Society, 62, 269-290.  
IOS CONTRIBUTION NO.80053
- BAKER, T.F., EDGE, R.J. & JEFFRIES, G. 1981  
High precision tidal gravity. (Interim scientific report, 1 April 1980 - 31 March 1981, prepared for the Institute of Oceanographic Sciences and the European Office of Aerospace Research and Development.  
U.S. Air Force Geophysics Laboratory, Technical Report, AFGL-TR-81-0339, 24pp. (Unpublished manuscript).
- BAKER, T.F., EDGE, R.J. & JEFFRIES, G. 1982  
High precision tidal gravity. (Final report, 1 April - 31 March 1982).  
U.S. Air Force Geophysics Laboratory, Technical Report, AFGL-TR-82-0163, 18pp. (Unpublished manuscript).
- BAKER, T.F. & SCHULLER, K. 1982  
Earth tide and ocean load tide corrections in geodynamics. p.221 in, Proceedings of the general meeting of the International Association of Geodesy, Tokyo, 1982 (ed.I.Nakagawa, K.Kasahara & T.Tanaka). Abstract.  
Japan: Geodetic Society of Japan. 734pp.
- BALLANTINE, J.A., LAVIS, A. & MORRIS, R.J. 1979  
Marine sterols. VIII. The sterol compositions of two marine sponges. Occurrence of new C26 and C30 stanols in an oceanic sponge.  
Comparative Biochemistry and Physiology, 63B, 119-123.  
IOS CONTRIBUTION NO.1439
- BALLANTINE, J.A., MORRIS, R.J. & LAVIS, A. 1979  
Sterols of the phytoplankton. Effects of illumination and growth stage.  
Phytochemistry, 18, 1459-1466.  
IOS CONTRIBUTION NO.1465

- BALLANTINE, J.A., ROBERTS, J.C. & MORRIS, R.J. 1980  
 Marine sterols XII. The sterols of some pelagic marine crustaceans.  
 Journal of Experimental Marine Biology and Ecology, 47, 25-33.  
 IOS CONTRIBUTION NO.80073
- BALLANTINE, J.A., WILLIAMS, K. & MORRIS, R.J. 1980  
 Marine sterols. XIII. Evaluation of glass support-coated open tubular columns, prepared by the mercury-plug dynamic technique, for marine sterol analysis.  
 Journal of Chromatography, 198, 111-129.  
 IOS CONTRIBUTION NO.80076
- BALLANTINE, J.A., ROBERTS, J.C. & MORRIS, R.J. 1980  
 The sterols of crustaceans : Decapods (sub-order Macrura).  
 Comparative Biochemistry and Physiology, 67B, 75-79.  
 IOS CONTRIBUTION NO.80066
- BALLANTINE, J.A., LAVIS, A. & MORRIS, R.J. 1981  
 Marine sterols. XV. Sterols of some oceanic holothurians.  
 Journal of Experimental Marine Biology and Ecology, 53, 89-103.  
 IOS CONTRIBUTION NO.81024
- BALLANTINE, J.A., ROBERTS, J.C. & MORRIS, R.J. 1981  
 Sterols of the cephalopod *Spirula spirula*.  
 Journal of the Marine Biological Association of the U.K., 61, 843-850.  
 IOS CONTRIBUTION NO.81081
- BARNES, E.J. 1980  
 Development at IOS of a high capacity in-situ microprocessor controlled data recorder.  
 pp.45-52 in, Microprocessor applications in underwater technology. (Proceedings of a seminar, London, 1980).  
 London: Society for Underwater Technology. 93pp.
- BECKER, K., HERZEN, R.P. VON, FRANCIS, T.J.G., ANDERSON, R.N., HONNOREZ, J., ADAMSON, A.C., ALT, J.C., EMMERMANN, R., KEMPTON, P.D., HINOSHITA, H., LAVERNE, C., MOTTL, M.J. & NEWMARK, R.L. 1982  
 In situ electrical resistivity and bulk porosity of the oceanic crust Costa Rica Rift.  
 Nature, 300, 594-598.  
 IOS CONTRIBUTION NO.82120
- BELDERSON, R.H. & KENYON, N.H. 1980  
 The Equatorial Atlantic Mid-Ocean Canyon seen on a sonograph.  
 Marine Geology, 34, 77-81.  
 IOS CONTRIBUTION NO.80011
- BELDERSON, R.H., STRIDE, A.H. & KENYON, N.H. 1981  
 Deformation in the Ionian and Levantine Basins shown by long range side-scan sonar.  
 pp.407-413 in, Sedimentary basins of Mediterranean margins, (ed.F.C.Wezel). (Proceedings of C.N.R. international conference, Urbino, Italy, 20-22 October, 1980).  
 Bologna: Tecnoprint. 520pp.  
 IOS CONTRIBUTION NO.81083

- BELDERSON, R.H., KENYON, N.H. & STRIDE, A.H. 1982  
 Wilmington Submarine Canyon: a marine fluvial-like system :  
 comment.  
 Geology, 10, 491-492. (Reply by B.A.McGregor et al, p.492).
- BELDERSON, R.H., JOHNSON, M.A. & KENYON, N.H. 1982  
 Bedforms.  
 pp.27-57 in, Offshore tidal sands, (ed.A.H.Stride).  
 London: Chapman & Hall. 222pp.
- BENNEL, J.M., JACKSON, P.D. & SCHULTHEISS, P. 1982  
 Further development of seafloor geophysical probing.  
 Paper No.4.8 in, Oceanology International exhibition and  
 conference, 2-5 March 1982, Brighton.  
 Kingston-upon-Thames: Spearhead Exhibition Ltd. (Various  
 pagination in 2 volumes).  
 IOS CONTRIBUTION NO.82018
- BILLETT, D.S.M. & HANSEN, B. 1982  
 Abyssal aggregations of Kolga hyalina Danielssen and Koren  
 (Echinodermata : Holothurioidea) in the northeast Atlantic Ocean  
 : a preliminary report.  
 Deep-Sea Research, 29A, 799-818.  
 IOS CONTRIBUTION NO.82047
- BLACKLEY, M.W.L. & CARR, A.P. 1980  
 Beaches and supralittoral deposits.  
 pp.259-277 in, Industrialised embayments and their environmental  
 problems. A case study of Swansea Bay, (ed.M.B.Collins,  
 F.T.Banner, P.A. Tyler, S.J.Wakefield & A.E.James). (Proceedings  
 of a symposium, Swansea University, 1979).  
 Oxford: Pergamon. 614pp.  
 IOS CONTRIBUTION NO.80068
- BLACKLEY, M.W.L. 1981  
 Woolacombe beach.  
 Woolacombe and Morteheo News, 7(1), 8-9.
- BLACKLEY, M.W.L. & HEATHERSHAW, A.D. 1982  
 Wave and tidal-current sorting of sand on a wide surf-zone  
 beach.  
 Marine Geology, 49, 345-356.  
 IOS CONTRIBUTION NO.82113
- BLACKMAN, D.L., GRAFF, J. & VASSIE, J.M. 1981  
 Tidal currents in Yell Sound and the outer regions of Sullom  
 Voe.  
 Proceedings of the Royal Society of Edinburgh, B, 80, 73-90.  
 IOS CONTRIBUTION NO.81049
- BONNETT, R., HEAD, E.J. & HERRING, P.J. 1979  
 Porphyrin pigments of some deep sea medusae.  
 Journal of the Marine Biological Association of the U.K., 59,  
 565-573.  
 IOS CONTRIBUTION NO.1437

- BOXSHALL, G.A. & ROE, H.S.J. 1980  
 The life history and ecology of the aberrant bathypelagic genus  
Benthomisophria Sars, 1909 (Copepoda : Misophrioida).  
 Bulletin of the British Museum (Natural History), Zoology  
 Series, 38, 9-41.  
 IOS CONTRIBUTION NO.80022
- BROWN, R.A., CARDONE, V., GUYMER, T.H., HAWKINS, J., OVERLAND,  
 J.E., PIERSON, W.J., PETERHERYCH, S., WILKERSON, J.S.,  
 WOICESHYN, P.M. & WURTELE, M. 1982  
 Surface wind analyses for Seasat.  
 Journal of Geophysical Research, 87, 3355-3364.
- BRUCE, J.G., QUADFASEL, D. & SWALLOW, J.C. 1980  
 Somali eddy formation during the commencement of the southwest  
 monsoon, 1978.  
 Journal of Geophysical Research, 85, 6654-6660.  
 IOS CONTRIBUTION NO.80091
- BUTCHER, S.M., DILLY, P.N. & HERRING, P.J. 1982  
 The comparative morphology of the photophores of the squid  
Pyroteuthis margaritifera (Cephalopoda : Enoploteuthidae).  
 Journal of Zoology, 196, 133-150.  
 IOS CONTRIBUTION NO.82011
- CALVERT, S.E. & MCCARTNEY, M.J. 1979  
 The effect of incomplete recovery of large particles from water  
 samplers on the chemical composition of oceanic particulate  
 matter.  
 Limnology and Oceanography, 24, 532-536.  
 IOS CONTRIBUTION NO.1454
- CAMPBELL, A.K., HALLETT, M.B., DAW, R.A., RYALL, M.E.T., HART,  
 R.C. & HERRING, P.J. 1981  
 Application of the photoprotein obelin to measurement of free  
 Ca<sup>2+</sup> in small cells.  
 pp.601-608 in, Bioluminescence and chemiluminescence : basic  
 chemistry and analytical applications, (ed.M.A.DeLuca and  
 W.D.McElroy).  
 New York: Academic. 782pp.
- CARDONE, V., CARLSON, H., EWING, J.A., HASSELMANN, K., LAZANOFF,  
 S., MCLEISH, W. & ROSS, D. 1981  
 The surface wave environment in the GATE B/C scale - Phase III.  
 Journal of Physical Oceanography, 11, 1280-1293.  
 IOS CONTRIBUTION NO.81106
- CARPENTER, M.S.N., PEUCAT, J.J. & PIVETTE, B. 1982  
 Geochemical and geochronological characteristics of palaeozoic  
 volcanism in the Saint-Georges-sur-Loire synclinorium (S.  
 Armorican Massif) : evidence for pre-Hercynian tectonic evolution.  
 Bulletin du BRGM, (2), 1, 63-79.

- CARR, A.P. & BLACKLEY, M.W.L. 1980  
 Changes in historical time.  
 pp.71-84 in, Industrialised embayments and their environmental  
 problems. A case study of Swansea Bay, (ed.M.B.Collins,  
 F.T.Banner, P.A. Tyler, S.J.Wakefield & A.E.James). (Proceedings  
 of a symposium, Swansea University, 1979).  
 Oxford: Pergamon. 614pp.  
 IOS CONTRIBUTION NO.80067
- CARR, A.P. 1980  
 The significance of cartographic sources in determining coastal  
 change.  
 pp.69-78 in, Timescales in geomorphology, (ed. R.A.Cullingford,  
 D.A.Davidson & J.Lewin).  
 Chichester: John Wiley. 360pp.
- CARR, A.P. 1981  
 Chesil Beach : aspects of its structure, stability and the  
 processes acting upon it.  
 pp.9-14 in, The Fleet and Chesil Beach : structure and biology  
 of a unique coastal feature, (ed.M. Ladle for the Fleet Study  
 Group).  
 Dorchester: Dorset County Council. 74pp.
- CARR, A.P. 1981  
 Evidence for the sediment circulation along the coast of East  
 Anglia.  
 Marine Geology, 40(3), M9-M22.  
 IOS CONTRIBUTION NO.81019
- CARR, A.P., BLACKLEY, M.W.L. & KING, H.L. 1982  
 Spatial and seasonal aspects of beach stability.  
 Earth Surface Processes and Landforms, 7, 267-282.  
 IOS CONTRIBUTION NO.82036
- CARR, A.P. & GRAFF, J. 1982  
 The tidal immersion factor and shore platform development :  
 discussion.  
 Transactions of the Institute of British Geographers, N.S., 7,  
 240-245.  
 IOS CONTRIBUTION NO.82045
- CARSON, R.M. 1982  
 On the capsizing performance of a discus buoy in deep-sea  
 breakers.  
 Ocean Engineering, 9, 501-514.  
 IOS CONTRIBUTION NO.82087
- CARTER, D.J.T. 1979  
 Ocean temperature.  
 MIAS News Bulletin, No.2, 19-22.
- CARTER, D.J.T. 1980  
 Echo-sounding correction tables. (Formerly Matthews' tables).  
 (3rd edition).  
 Taunton: Ministry of Defence, Hydrographic Department. 150pp.  
 (NP139).

- CARTER, D.J.T. & CHALLENGOR, P.G. 1980  
 Return wave heights estimated from monthly maximum values.  
 pp.271-294 in, Climatologie de la mer/Sea climatology.  
 (Proceedings of an international conference organised by  
 Association de Recherche Action des Elements, Paris, 3-4 October  
 1979).  
 Paris: Editions Technip. 413pp.  
 IOS CONTRIBUTION NO.80096
- CARTER, D.J.T. & CHALLENGOR, P.G. 1981  
 Estimating return values of environmental parameters.  
 Quarterly Journal of the Royal Meteorological Society, 107,  
 259-266.  
 IOS CONTRIBUTION NO.81008
- CARTER, D.J.T. 1981  
 Estimating directional return values of wave height from the  
 NORSWAM data set.  
 pp.90-100 in, Hydrodynamics in ocean engineering, (Proceedings  
 of the international symposium, Trondheim, 24-28 August, 1981).  
 2 vols.  
 Trondheim: Norwegian Institute of Technology. 1245pp.  
 IOS CONTRIBUTION NO.81102
- CARTER, D.J.T. 1982  
 Estimating maximum design wave height.  
 MIAS News Bulletin, No.5, 6-7.
- CARTER, D.J.T. 1982  
 Prediction of wave height and period for a constant wind  
 velocity using the JONSWAP results.  
 Ocean Engineering, 9, 17-33  
 IOS CONTRIBUTION NO.82006
- CARTER, D.J.T. & CHALLENGOR, P.G. 1982  
 Predicting maximum wave height.  
 pp.101-116 in, The management of oceanic resources - the way  
 ahead, vol.II. (Proceedings of international conference, London,  
 April 1981).  
 Los Angeles: University of Southern California, Institute for  
 Marine and Coastal Studies for ECOR. 666pp. .
- CARTWRIGHT, D.E. 1979  
 Analyses of British Antarctic Survey tidal records.  
 British Antarctic Survey Bulletin, No.49, 167-179.  
 IOS CONTRIBUTION NO.1494
- CARTWRIGHT, D.E., ZETLER, B.D. & HAMON, B.V. 1979  
 Pelagic tidal constants. (Compiled by the IAPSO Advisory  
 Committee on Tides and Mean Sea Level).  
 Publication Scientifique, International Association for the  
 Physical Sciences of the Ocean, No.30, 65pp.
- CARTWRIGHT, D.E. 1979  
 Tidal theory.  
 Canada, Department of Fisheries and the Environment, Marine  
 Sciences Directorate, Manuscript Report Series, No.53, 35-38.  
 (Unpublished manuscript).



- CARTWRIGHT, D.E. 1980  
 The historic development of tidal science and the Liverpool Tidal Institute.  
 pp.240-251 in, Oceanography : the past, (ed.M. Sears & D.Merriman). (Proceedings 3rd international congress on the history of oceanography, Woods Hole, Mass., 22-26 September 1980).  
 New York: Springer-Verlag. 812pp.
- CARTWRIGHT, D.E., HUTHNANCE, J.M., SPENCER, R. & VASSIE, J.M. 1980  
 On the St.Kilda Shelf tidal regime.  
 Deep-Sea Research, 27A, 61-70.  
 IOS CONTRIBUTION NO.80009
- CARTWRIGHT, D.E., EDDEN, A.C., SPENCER, R. & VASSIE, J.M. 1980  
 The tides of the northeast Atlantic ocean.  
 Philosophical Transactions of the Royal Society of London, A, 298, 87-139.  
 IOS CONTRIBUTION NO.80074
- CARTWRIGHT, D.E. & ALCOCK, G.A. 1981  
 On the precision of sea surface elevations and slopes from SEASAT altimetry of the northeast Atlantic Ocean.  
 pp.885-895 in, Oceanography from space, (ed.J.F.R.Gower). (Proceedings of COSPAR/SCOR/IUCRM symposium, 1980, Venice).  
 New York: Plenum. 978pp.  
 IOS CONTRIBUTION NO.81078
- CARTWRIGHT, D.E. 1982  
 Processes in marine remote sensing - radar altimetry of the sea surface.  
 pp.107-111 in, Processes in marine remote sensing, (ed.F.J.Vernberg & F.P.Diemer).  
 University of South Carolina Press. 545pp.
- CARTWRIGHT, D.E. 1982  
 The tidal signal in inverted echo-sounder records.  
 Deep-Sea Research, 29A, 767-784.  
 IOS CONTRIBUTION NO.82037
- CARTWRIGHT, D.E. 1982  
 Tidal analysis - a retrospect.  
 pp.170-188 in, Time series methods in hydrosciences, (ed. A.H.El-Shaarawi & S.R.Esterby).  
 Amsterdam: Elsevier. 614pp.  
 IOS CONTRIBUTION NO.82073
- CASTON, G.F. 1979  
 Wreck marks : indicators of net sand transport.  
 Marine Geology, 33, 193-204.  
 IOS CONTRIBUTION NO.1486
- CASTON, G.F. 1981  
 Potential gain and loss of sand by some sand banks in the Southern Bight of the North Sea.  
 Marine Geology, 41, 239-250.  
 IOS CONTRIBUTION NO.81027

- CASTON, G.F. 1982  
 Sea bed sediments, Scilly sheet 49N 08W. 1:250,000 series :  
 bedforms.  
 London: Institute of Geological Sciences.
- CHALLENGER, P.G. 1982  
 A new distribution for annual extremes of environmental  
 variables.  
 Quarterly Journal of the Royal Meteorological Society, 108,  
 975-980.  
 IOS CONTRIBUTION NO.82093
- COLLAR, P.G., CLAYSON, C.H., GWILLIAM, T.J.P. & HUNTER, C.A. 1981  
 Drifting buoy observations using satellite telemetry.  
 pp.89-100 in, Proceedings of IERE conference on electronics for  
 ocean technology, Birmingham, September 1981.  
 London: Institution of Electronic and Radio Engineers. 348pp.  
 (IERE Conference Proceedings No.51).  
 IOS CONTRIBUTION NO.81059
- COLLAR, P.G., CLAYSON, C.H., GWILLIAM, T.J.P. & HUNTER, C.A. 1982  
 Drifting buoy observations using satellite telemetry.  
 Radio and Electronic Engineer, 52, 239-245.  
 IOS CONTRIBUTION NO.82043
- COLLAR, P.G. & GRIFFITHS, G. 1982  
 Towards quality assessment of near-surface currents measured in  
 continental shelf seas.  
 pp.41-46 in, Proceedings of the IEEE second working conference  
 on current measurement, 1982, South Carolina, (ed.M.Dursi &  
 W.E.Woodward).  
 New York: Institute of Electrical & Electronics Engineers.  
 211pp.  
 IOS CONTRIBUTION NO.82112
- COLLIER, A.F., BURNHAM, R.J.P. & HERRING, P.J. 1979  
 A system for the collection of comparative emission spectra  
 suitable for shipboard use.  
 Journal of the Marine Biological Association of the U.K., 59,  
 489-495.  
 IOS CONTRIBUTION NO.1460
- COLLINS, D.S. & POLLARD, R.T. 1980  
 500-600m currents during JASIN 1978.  
 JASIN News, No.16, 7-8 & figs. (Unpublished manuscript).
- CRABB, J.A. 1980  
 A review of wave measurement and analysis methods relevant to  
 the wave energy programme.  
 pp.107-111 in, Proceedings of the wave energy conference,  
 London-Heathrow, 22-23 November 1978, (ed.P.Quarrell).  
 London: Her Majesty's Stationery Office. 146pp.

- CRABB, J.A. 1980  
 Synthesis of a directional wave climate.  
 pp.41-74 in, Power from sea waves, (ed.B.M. Count). (Based on  
 the conference organised by Institute of Mathematics and its  
 Applications, Edinburgh, 26-28 June 1979).  
 London: Academic. 449pp.  
 IOS CONTRIBUTION NO.80092
- CRABB, J.A. 1982  
 Estimated directional spectra in wave power research.  
 pp.367-386 in, Directional wave spectra applications,  
 (ed.R.L.Wiegel). (Proceedings of a conference, Berkeley,  
 California, September 1981).  
 New York: American Society of Civil Engineers. 495pp.  
 IOS CONTRIBUTION NO.82064
- CREASE, J. 1982  
 New developments and data centres.  
 IMS Newsletter, No.30, p.7.
- CRISP, G.N. & SCOTT, M. 1981  
 The spatial distribution of wave power on the western UK coast.  
 pp.1-18 in, 2nd International symposium on wave and tidal  
 energy, Cambridge, 23-25 September, 1981, organised by BHRA  
 Fluid Engineering.  
 Cranfield, Bedford: BHRA Fluid Engineering. 440pp.  
 IOS CONTRIBUTION NO.81105
- CROCKER, T. 1981  
 The IOS Doppler Sonar Current Profiler.  
 pp.35-43 in, Microprocessor applications in underwater  
 technology. (Proceedings of a seminar, London, 1980).  
 London: Society for Underwater Technology. 93pp.
- CRONAN, D.S., GLASBY, G.P., MOORBY, S.A., THOMSON, J., KNEDLER,  
 K.E. & MCDUGALL, J.C. 1982  
 A submarine hydrothermal manganese deposit from the south-west  
 Pacific island arc.  
 Nature, 298, 456-458.  
 IOS CONTRIBUTION NO.82088
- CRONIN, J.R. & MORRIS, R.J. 1982  
 The occurrence of high molecular weight humic material in recent  
 organic-rich sediment from the Namibian Shelf.  
 Estuarine, Coastal & Shelf Science, 15, 17-27.  
 IOS CONTRIBUTION NO.82050
- CULKIN, F. & SMED, J. 1979  
 The history of Standard Seawater.  
 Oceanologica Acta, 2, 355-364.  
 IOS CONTRIBUTION NO.1456

- CULKIN, F. & SMITH, N.D. 1980  
 Determination of the concentration of potassium chloride solution having the same electrical conductivity, at 15C and infinite frequency, as Standard Seawater of salinity 35 parts per thousand (Chlorinity 19.37394 parts per thousand).  
 IEEE Journal of Oceanic Engineering, OE-5, 22-23.  
 IOS CONTRIBUTION NO.80037
- DAMUTH, J.E., KOLLA, V., FLOOD, R.D., KOWSMANN, R.O., GORINI, M.A., PALMA, J.J.C. & BELDERSON, R.H. 1982  
 A study of channel patterns and morphology of Amazon Deep-Sea Fan using long range side-scan sonar (GLORIA). (Abstract of paper presented at AAPG Annual Convention 1982, Alberta, Canada.)  
 American Association of Petroleum Geologists Bulletin, 66, p.561.
- DAMUTH, J.E., KOLLA, V., FLOOD, R., KOWSMANN, R., GORINI, M., PALMA, J.J.C. & BELDERSON, R.H. 1982  
 The submarine drainage pattern on the Amazon Cone : investigations with long-range side-scan sonar (GLORIA). (Abstract).  
 Sociedade Brasileira de Geologia, XXXII Congresso, Boletim, No.2, Resumos e Breves Comunicacoes, p.95, (In Portuguese).
- DAVIES, A.G. 1979  
 The potential flow over ripples on the seabed.  
 Journal of Marine Research, 37, 743-759.  
 IOS CONTRIBUTION NO.1491
- DAVIES, A.G. & WILKINSON, R.H. 1979  
 Sediment motion caused by surface water waves.  
 pp.1577-1595 in vol.2, Proceedings of the sixteenth coastal engineering conference, 1978, Hamburg, Germany. 3 vols.  
 New York: American Society of Civil Engineers. 3060pp.  
 IOS CONTRIBUTION NO.1480
- DAVIES, A.G. 1980  
 Field observations of the threshold of sand motion in a transitional wave boundary layer.  
 Coastal Engineering, 4, 23-46.  
 IOS CONTRIBUTION NO.80057
- DAVIES, A.G. 1982  
 On the interaction between surface waves and undulations on the seabed.  
 Journal of Marine Research, 40, 331-368.  
 IOS CONTRIBUTION NO.82051
- DAVIES, A.G. 1982  
 The reflection of wave energy by undulations on the seabed.  
 Dynamics of Atmospheres & Oceans, 6, 207-232.  
 IOS CONTRIBUTION NO.82057

- DAVIES, A.M. 1979  
 Comparison of computed and observed residual currents during JONSDAP '76: preliminary results.  
 International Council for the Exploration of the Sea, ICES C.M.1979/C:40, Hydrography Committee. 10pp. & figs. (Unpublished manuscript).
- DAVIES, A.M. 1979  
 Role of 2D and 3D models in JONSDAP '76.  
 pp.1085-1103 in vol.1, Proceedings of the sixteenth coastal engineering conference, 1978, Hamburg, Germany. 3 vols.  
 New York: American Society of Civil Engineers. 3060pp.  
 IOS CONTRIBUTION NO.1478
- DAVIES, A.M. & OWEN, A. 1979  
 Three-dimensional numerical sea model using the Galerkin method with a polynomial basis set.  
 Applied Mathematical Modelling, 3, 421-428.  
 IOS CONTRIBUTION NO.1493
- DAVIES, A.M. 1980  
 Application of the Galerkin method to the formulation of a three-dimensional nonlinear hydrodynamic numerical sea model.  
 Applied Mathematical Modelling, 4, 245-256.  
 IOS CONTRIBUTION NO.80065
- DAVIES, A.M. 1980  
 Application of numerical models to the computation of the wind induced circulation of the North Sea during JONSDAP '76.  
 'Meteor' Forschungsergebnisse, A, No.22, 53-68.  
 IOS CONTRIBUTION NO.80062
- DAVIES, A.M. 1980  
 On formulating a three-dimensional hydrodynamic sea model with an arbitrary variation of vertical eddy viscosity.  
 Computer Methods in Applied Mechanics and Engineering, 22, 187-211.  
 IOS CONTRIBUTION NO.80045
- DAVIES, A.M. & HEAPS, N.S. 1980  
 Hydrodynamic modelling of stratified flows. (Abstract).  
 pp.579-581 in, Proceedings of 2nd international symposium on stratified flows, Trondheim, 24-27 June 1980, (ed.T.Carstens & T.McClimans).  
 Trondheim: Tapir. 1095pp.
- DAVIES, A.M. & HEAPS, N.S. 1980  
 Influence of the Norwegian Trench on the wind-driven circulation of the North Sea.  
 Tellus, 32, 164-175.  
 IOS CONTRIBUTION NO.80034
- DAVIES, A.M. & HEAPS, N.S. 1980  
 Note on the use of field data to test and verify North Sea models.  
 International Hydrographic Review, 57(1), 119- 134.  
 IOS CONTRIBUTION NO.80007

- DAVIES, A.M. 1980  
 Numerical sea model with two-dimensional and three-dimensional regions dynamically connected.  
 Deutsche Hydrographische Zeitschrift, 33, 19-37.  
 IOS CONTRIBUTION NO.80026
- DAVIES, A.M. & FURNES, G. 1980  
 Observed and computed M2 tidal currents in the North Sea.  
 Journal of Physical Oceanography, 10, 237-257.  
 IOS CONTRIBUTION NO.80030
- DAVIES, A.M. 1981  
 Three dimensional hydrodynamic numerical models. Part 1. A homogeneous ocean-shelf model. Part 2. A stratified model of the northern North Sea.  
 pp.370-426 in vol.2, The Norwegian Coastal Current, (ed.R.Saetre & M.Mork).  
 Bergen University. 795pp.  
 IOS CONTRIBUTION NO.81051
- DAVIES, A.M. 1981  
 Three-dimensional modelling of surges.  
 pp.45-74 in, Floods due to high winds and tides, (ed.D.H.Peregrine).  
 London: Academic. 109pp.  
 IOS CONTRIBUTION NO.81090
- DAVIES, A.M. 1982  
 Formulating a three-dimensional hydrodynamic sea model using a mixed Galerkin-finite difference method.  
 pp.5-27 - 5-41 in, Finite elements in water resources, (ed.K.P.Holz, U.Meissner, W.Zielke, C.A.Brebbia, G.Pinder & W.Gray). (Proceedings of the 4th international conference, Hannover, Germany, June 1982).  
 Berlin: Springer-Verlag/Computational Mechanics Centre. 1096pp.  
 IOS CONTRIBUTION NO.82065
- DAVIES, A.M. 1982  
 Meteorologically-induced circulation on the north west European continental shelf : from a three-dimensional numerical model.  
 Oceanologica Acta, 5, 269-280.  
 IOS CONTRIBUTION NO.82055
- DAVIES, A.M. 1982  
 On computing the three-dimensional flow in a stratified sea using the Galerkin method.  
 Applied Mathematical Modelling, 6, 347-362.  
 IOS CONTRIBUTION NO.82075
- DAVIES, A.M. 1982  
 Application of a Galerkin-eigenfunction method to computing currents in homogeneous and stratified seas.  
 pp.287-301 in, Numerical methods for fluid dynamics, (ed.K.W.Morton & M.J.Baines).  
 London: Academic. 517pp.  
 IOS CONTRIBUTION NO.82105

- DEACON, G.E.R. 1979  
The Weddell gyre.  
Deep-Sea Research, 26A, 981-995.  
IOS CONTRIBUTION NO.1488
- DEACON, G.E.R. 1980  
Henry Stommel.  
pp.xxv-xxvi in, Evolution of physical oceanography,  
(ed.B.A.Warren & C.Wunsch).  
Cambridge, Mass.: MIT Press. 623pp.
- DEACON, G.E.R. & BAKER, A. DE C. 1980  
Note on the distributional range of *Euphausia superba*.  
BIOMASS Newsletter, 2(1), 16-19.
- DEACON, G.E.R. 1980  
The Woods Hole Oceanographic Institution: an expanding  
influence.  
pp.25-31 in, Oceanography : the past, (ed.M. Sears &  
D.Merriman). (Proceedings 3rd international congress on the  
history of oceanography, Woods Hole, Mass., 22-26 September  
1980).  
New York: Springer-Verlag. 812pp.
- DEACON, G.E.R. 1981  
The Antarctic Ocean.  
University of Sydney, Marine Studies Newsletter, No.7, (p.3).
- DEACON, G.E.R. 1982  
Physical and biological zonation in the Southern Ocean.  
Deep-Sea Research, 29A, 1-15.  
IOS CONTRIBUTION NO.82008
- DICKSON, R.R., GOULD, W.J., GURBUTT, P.A. & KILLWORTH, P.D. 1981  
A seasonal signal in ocean currents to abyssal depths.  
International Council for the Exploration of the Sea, ICES C.M.  
1981/C:13, Hydrography Committee, 7pp. & figs. (Unpublished  
manuscript).
- DICKSON, R.R., GOULD, W.J., GURBUTT, P.A. & KILLWORTH, P.D. 1982  
A seasonal signal in ocean currents to abyssal depths.  
Nature, 295, 193-198.  
IOS CONTRIBUTION NO.82024
- DILLY, P.N. & HERRING, P.J. 1981  
Ultrastructural features of the light organs of Histioteuthis  
macrohista (Mollusca : Cephalopoda).  
Journal of Zoology, 195, 255-266.  
IOS CONTRIBUTION NO.81073
- DOBSON, F.W., BRETHERTON, F.P., CREASE, J., KRAUS, E.B. & HAAR,  
T.H.V. 1982  
The CAGE feasibility assessment: conclusions.  
Ocean Modelling, No.44, 1-8 & figs. (Unpublished manuscript).

- DOMANSKI, P. 1981  
 BIOS : a database for marine biological data.  
 Journal of Plankton Research, 3, 475-491.  
 IOS CONTRIBUTION NO.81033
- DRAPER, L. 1979  
 A note of the wave climatology of United Kingdom waters.  
 pp.327-331 in, Ocean wave climate, proceedings of a symposium on  
 ocean wave climate, Herndon, Va. 1977, (ed.M.D.Earle &  
 A.Malahoff).  
 New York: Plenum. 368pp.  
 IOS CONTRIBUTION NO.1432
- DRAPER, L. 1979  
 A world wave data centre.  
 pp.51-58 in vol.1, Proceedings of the sixteenth coastal  
 engineering conference, 1978, Hamburg, Germany. 3 vols.  
 New York: American Society of Civil Engineers. 3060pp.  
 IOS CONTRIBUTION NO.1474
- DRAPER, L. 1980  
 The reliability of sea wave data.  
 pp.29-38 in, Power from sea waves, (ed.B.M. Count). (Based on  
 the conference organised by the Institute of Mathematics and its  
 Applications, Edinburgh, 26-28 June 1979).  
 London: Academic. 449pp.  
 IOS CONTRIBUTION NO.80100
- DRAPER, L. 1980  
 Wave climatology of the U.K. continental shelf.  
 pp.353-368 in, The north-west European shelf seas : the sea bed  
 and the sea in motion. II. Physical and chemical oceanography  
 and physical resources, (ed.F.T.Banner, M.B.Collins & K.S.  
 Massie).  
 Amsterdam: Elsevier. 638pp.  
 IOS CONTRIBUTION NO.80048
- DRAPER, L. 1981  
 Sources of measured wave data.  
 pp.372-380 in vol.1, Proceedings of the seventeenth coastal  
 engineering conference, March 23 to 28, 1980, Sidney, Australia.  
 3 vols.  
 New York: American Society of Civil Engineers. 317lpp.  
 IOS CONTRIBUTION NO.81087
- DRIVER, J.S. 1982  
 Wave measurement techniques.  
 Paper 2.6.82 in, North Sea weather and environment :  
 technological developments for the offshore  
 industry.(Proceedings of a conference, London, June 1982).  
 London: Oyez International Business Publications.
- DUING, W., MOLINARI, R.L. & SWALLOW, J.C. 1980  
 Somali Current : evolution of surface current flow.  
 Science, 209, 588-590.  
 IOS CONTRIBUTION NO.80088



- DYER, K.R. 1979  
Current trends in estuarine research.  
pp.188-194 in, Tidal power and estuary management,  
(ed.R.T.Severn, D.Dineley & L.E. Hawker).  
Bristol: Scientifica. 296pp. (Colston Papers No.30).
- DYER, K.R. (Ed.) 1979  
Estuarine hydrography and sedimentation : a handbook.  
Cambridge University Press. 230pp. (Estuarine and Brackish-water  
Sciences Association Handbook).
- DYER, K.R. 1980  
Estuarine oceanography.  
pp.139-144 in, McGraw-Hill encyclopedia of ocean and atmospheric  
sciences, (ed.S.P.Parker).  
New York: McGraw-Hill. 580pp.
- DYER, K.R. 1980  
The estuary of the Exe in its context. In, 'Essays on the Exe  
Estuary', ed. G.T. Boalch.  
Devonshire Association Special Volume, 2, 1-21.  
IOS CONTRIBUTION NO.80081
- DYER, K.R. 1980  
The mixing processes in a partially mixed estuary : Southampton  
water.  
pp.934-943 in, Proceedings of 2nd IAHR International symposium  
on stratified flows, Trondheim, 24-27 June 1980, (ed.T.Carstens  
& T.McClimans).  
Trondheim: Tapir. 1095pp.
- DYER, K.R. 1980  
The physics of the oceanic environment.  
pp.1-30 in, Plankton and productivity in the oceans, 2nd edition  
vol.1, Phytoplankton, (ed. J.E.G. Raymont).  
Oxford: Pergamon. 489pp.
- DYER, K.R. 1980  
Sedimentation and sediment transport.  
pp.20-24 in, The Solent estuarine system : an assessment of  
present knowledge, (ed.J.D.Burton).  
Natural Environment Research Council Publications Series, C22,  
100pp.
- DYER, K.R. 1980  
The sedimentation regime of the Solent area.  
Bulletin of the Estuarine and Brackish-Water Sciences  
Association, No.26, p.9. Abstract.
- DYER, K.R. 1980  
Velocity profiles over a ripple bed and the threshold of  
movement of sand.  
Estuarine and Coastal Marine Science, 10, 181- 199.  
IOS CONTRIBUTION NO.80013

- DYER, K.R. 1981  
The measurement of fluxes and flushing times in estuaries.  
pp.67-76 in, River inputs to ocean systems. (Proceedings of a  
Review Workshop, Rome, March 1979).  
New York: United Nations Press. 384pp.
- DYER, K.R. 1981  
The mobility of seabed sands.  
pp.67-81 in, Scour prevention techniques around offshore  
structures. (Proceedings of a seminar, London, 1980).  
London: Society for Underwater Technology. 81pp.
- DYER, K.R. 1982  
Sediment movement on the U.K. continental shelf.  
MIAS News Bulletin, No.5, 9-12.
- DYER, K.R. 1982  
Mixing caused by lateral internal seiching within a partially  
mixed estuary.  
Estuarine, Coastal & Shelf Science, 15, 443-457.
- DYER, K.R. 1982  
The initiation of sedimentary furrows by standing internal  
waves.  
Sedimentology, 29, 885-889.  
IOS CONTRIBUTION NO.82098
- DYER, K.R. 1982  
Localized mixing of low salinity patches in a partially mixed  
estuary.  
pp.21-36 in, Estuarine comparisons, (ed.V.S.Kennedy).  
(Proceedings of 6th International Estuarine Research Conference,  
Gleneden Beach, Oregon, November 1981).  
New York: Academic. 709pp.
- EDGE, R.J., BAKER, T.F. & JEFFRIES, G. 1979  
Earth tides : tilt in the English Lake District.  
pp.261-268 in, Terrestrial and space techniques in earthquake  
prediction research, vol.1, (ed.A.Vogel). (Proceedings of the  
international workshop on monitoring crustal dynamics in  
earthquake zones, Strasbourg, 1978).  
Braunschweig/Wiesbaden: F.Vieweg & Sohn. 712pp.  
IOS CONTRIBUTION NO.1457
- EDGE, R.J., BAKER, T.F. & JEFFRIES, G. 1981  
Borehole tilt measurements : aperiodic crustal tilt in an  
aseismic area.  
Tectonophysics, 71, 97-109.  
IOS CONTRIBUTION NO.81005
- EDGE, R.J., BAKER, T.F. & JEFFRIES, G. 1982  
Towards an understanding of tilt measurements. (Abstract of  
paper presented at the 6th U.K. Geophysical Assembly, 5-7 April  
1982, University College Cardiff).  
Geophysical Journal of the Royal Astronomical Society, 69,  
p.296.

- ELLIOTT, A.J. 1982  
Wind-driven flow in a shallow estuary.  
Oceanologica Acta, 5, 7-10.
- EVANS, J.J. 1982  
Tides in the Bristol Channel. (Abstract of paper presented at the 6th U.K. Geophysical Assembly, 5-7 April 1982, University College Cardiff).  
Geophysical Journal of the Royal Astronomical Society, 69, p. 296.
- EVANS, J.J. & PUGH, D.T. 1982  
Analysing clipped sea-level records for harmonic tidal constituents.  
International Hydrographic Review, 59(2), 115-122.  
IOS CONTRIBUTION NO.82070
- EWING, J.A., WEARE, T.J. & WORTHINGTON, B.A. 1979  
A hindcast study of extreme wave conditions in the North Sea.  
Journal of Geophysical Research, 84, 5739-5747.  
IOS CONTRIBUTION NO.1484
- EWING, J.A. 1980  
Numerical wave models and their use in hindcasting wave climate and extreme value wave heights.  
pp.159-182 in, Climatologie de la mer/Sea climatology.  
(Proceedings of an international conference organised by Association de Recherche Action des Elements, Paris, 3-4 October 1979).  
Paris: Editions Technip. 413pp.  
IOS CONTRIBUTION NO.80094
- EWING, J.A. 1980  
Observations of wind-waves and swell at an exposed coastal location.  
Estuarine & Coastal Marine Science, 10, 543- 554.  
IOS CONTRIBUTION NO.80039
- EWING, J.A. 1982  
Wave hindcasting and forecasting.  
8th International Ship Structures Congress, Report of Committee, I.1 (Environmental conditions), pp.I.1-25 - 1-30.
- EWING, J.A. & PITT, E.G. 1982  
Measurements of the directional wave spectrum off South Uist.  
pp.47-65 in, Wave and wind directionality : applications to the design of structures.  
Paris: Editions Technip. 573pp.  
IOS CONTRIBUTION NO.82117
- FASHAM, M.J.R. & FOXTON, P. 1979  
Zonal distribution of pelagic decapoda (Crustacea) in the eastern north Atlantic, and its relation to the physical oceanography.  
Journal of Experimental Marine Biology and Ecology, 37, 225-253.  
IOS CONTRIBUTION NO.1433

- FASHAM, M.J.R., PUGH, P.R., GRIFFITHS, D. & WHEATON, J.E.G. 1981  
 'SubAquatracka' : a submersible fluorimeter for the detection of  
 chlorophyll.  
 pp.49-58 in, Proceedings of IERE conference on electronics for  
 ocean technology, Birmingham, September 1981.  
 London: Institution of Electronic and Radio Engineers. 348pp.  
 (IERE Conference Proceedings No.51).  
 IOS CONTRIBUTION NO.81057
- FLATHER, R.A. 1979  
 Recent results from a storm surge prediction scheme for the  
 North Sea.  
 pp.385-409 in, Marine forecasting, (ed.J.C.J. Nihoul).  
 (Proceedings of the 10th international Liege colloquium on ocean  
 hydrodynamics, 1978).  
 Amsterdam: Elsevier. 493pp.  
 IOS CONTRIBUTION NO.1434
- FLATHER, R.A. 1981  
 Practical surge prediction using numerical models.  
 pp.21-43 in, Floods due to high winds and tides,  
 (ed.D.H.Peregrine).  
 London: Academic. 109pp.  
 IOS CONTRIBUTION NO.81089
- FLATHER, R.A. 1981  
 Results from a model of the north east Atlantic relating to the  
 Norwegian Coastal Current.  
 pp.427-458 in vol.2, The Norwegian Coastal Current, (ed.R.Saetre  
 & M.Mork).  
 Bergen University. 795pp.  
 IOS CONTRIBUTION NO.81052
- FLATHER, R.A. 1981  
 Storm-surge prediction using numerical models.  
 pp.659-687 in, Monsoon dynamics, (ed.M.J. Lighthill & R.Pearce).  
 Cambridge University Press. 735pp.
- FLEMMING, N.C. 1979  
 Archaeological evidence for tectonic activity in the region of  
 the Haifa-Qishon Graben, Israel. (Abstract only).  
 Tectonophysics, 52, 177-178.  
 IOS CONTRIBUTION NO.1435
- FLEMMING, N.C. 1979  
 Quaternary land sea bridges.  
 Litoralia, Newsletter of the Commission on Quaternary  
 Shorelines, INQUA, No.11-7, pp.6-8.
- FLEMMING, N.C. 1980  
 Oceanographic information and data.  
 pp.91-101 in, 2nd National offshore information conference  
 papers, London, 26 September 1980, (ed.A.Myers).  
 Edinburgh: Heriot-Watt University, Institute of Offshore  
 Engineering. 110pp.  
 IOS CONTRIBUTION NO.80093

- FLEMMING, N.C. 1980  
 Safety procedures and training for the scientific diver,  
 pp.137-176 in, Technical and human aspects of diving and safety,  
 vol.1. (Proceedings of International Symposium, Luxembourg,  
 9-10 October 1980.  
 Luxembourg: Commission of the European Communities. (Document  
 No.3000/80E).
- FLEMMING, N.C. 1980  
 Contributions to, KENT,P. 1980. Minerals from the marine  
 environment.  
 London: Edward Arnold. 88pp.
- FLEMMING, N.C. 1980  
 Mediterraneo : il mare della civiltà.  
 pp.134-144 in, Enciclopedia de Scienza e di Avventura: Pianeta  
 Mare, No.9, edited by R.W.Fairbridge.  
 Milan: Cousteau Society Inc. & Gruppo Editoriale Fabbri.
- FLEMMING, N.C. & PIRAZZOLI, P. 1981  
 Archéologie des côtes de la Crete.  
 Histoire et Archéologie, No.50, 66-81.
- FLEMMING, N.C. 1982  
 Banking and processing oceanographic data and information for  
 commercial applications.  
 Paper No.7.3 in, Oceanology International exhibition and  
 conference, 2-5 March 1982, Brighton.  
 Kingston-upon-Thames: Spearhead Exhibition Ltd. (Various  
 pagination in 2 volumes).  
 IOS CONTRIBUTION NO.82017
- FLEMMING, N.C. 1982  
 Multiple regression analysis of earth movements and eustatic  
 sea-level change in the United Kingdom in the past 9000 years.  
 Proceedings of the Geologists' Association, 93(1), 113-125.  
 IOS CONTRIBUTION NO.82009
- FRANCIS, T.J.G. 1979  
 Large scale resistivity measurements at Hole 459B, DSDP leg 60.  
 (Abstract of paper presented at the 3rd U.K. Geophysical  
 Assembly, 2-5 April, 1979, University of Southampton).  
 Geophysical Journal of the Royal Astronomical Society, 57,  
 p.262.
- FRANCIS, T.J.G. 1981  
 Serpentinization faults and their role in the tectonics of  
 slow-spreading ridges.  
 Journal of Geophysical Research, 86, 11616-11622.  
 IOS CONTRIBUTION NO.81098
- FRANCIS, T.J.G. 1981  
 Effect of drill string movement on shape of the hole and on the  
 cored rocks at Hole 459B.  
 Initial Reports of the Deep Sea Drilling Project, 60, 835-840.  
 IOS CONTRIBUTION NO.81108

- FRANCIS, T.J.G. 1981  
 Large-scale resistivity experiment at Deep Sea Drilling Project Hole 459B.  
 Initial Reports of the Deep Sea Drilling Project, 60, 841-852.  
 IOS CONTRIBUTION NO.81109
- FRANCIS, T.J.G. 1982  
 News and views : ocean floor conductivity measured.  
 Nature, 295, p.550.
- FRANCIS, T.J.G. 1982  
 Thermal expansion effects in deep-sea sediments.  
 Nature, 299, 334-336.  
 IOS CONTRIBUTION NO.82086
- GARRISON, L.E., KENYON, N.H. & BOUMA, A.H. 1982  
 Channel systems and lobe construction in the Mississippi Fan.  
 Geo-Marine Letters, 2, 31-39.  
 IOS CONTRIBUTION NO.82119
- GOODAY, A.J. & BECKER, G. 1979  
 Ostracods in Devonian biostratigraphy.  
 pp.193-197 in, The Devonian system.  
 London: Palaeontological Association. (Special Papers in Palaeontology, 23).
- GOODAY, A.J. 1981  
 The Conchoecia skogsbergi species complex (Ostracoda, Halocyprididae) in the Atlantic Ocean.  
 Bulletin of the British Museum (Natural History), Zoology, 40, 137-209.  
 IOS CONTRIBUTION NO.81054
- GOODAY, A.J. & NOTT, J.A. 1982  
 Intracellular barite crystals in two xenophyophores, Aschemonella ramuliformis and Galatheammina sp. (Protozoa : Rhizopoda) with comments on the taxonomy of A. ramuliformis.  
 Journal of the Marine Biological Association of the U.K., 62, 595-605.  
 IOS CONTRIBUTION NO.82059
- GOULD, W.J. 1980  
 Space and time scales of ocean circulation.  
 pp.105-110 in, CHARM : Proceedings of an ESA workshop on climatology, hydrology, atmospheric research and meteorology from space, Ajaccio, Corsica, 12-16 November 1979.  
 Paris: European Space Agency. 220pp. (ESA SP-150).
- GOULD, W.J., HENDRY, R.M. & HUPPERT, H.E. 1981  
 An abyssal topographic experiment.  
 Deep-Sea Research, 28A, 409-440.  
 IOS CONTRIBUTION NO.81022
- GOULD, W.J. 1981  
 A front southwest of the Azores.  
 International Council for the Exploration of the Sea, ICES C.M 1981/C:16, Hydrography Committee, 7pp. & figs. (Unpublished manuscript).

- GOULD, W.J. 1982  
 Currents on the continental slope : the U.K. Continental Slope Experiment (CONSLEX).  
 MIAS News Bulletin, No.5, 2-5.
- GOULD, W.J. 1982  
 News and views : new measurements near the Gulf Stream.  
 Nature, 295, 364-365.
- GRACIANSKY, P.C. de, POAG, W., CUNNINGHAM, R., LOUBERE, P., MASSON, D.G., MAZZULLO, J., MONTADERT, L., MULLER, C., OTSUKA, K., REYNOLDS, L., SIGAL, J., SNYDER, S., VAOS, T.S. & WAPLES, D. 1982  
 La croisiere 80 du vaisseau de recherches 'Glomar Challenger' au pied de la marge celtique (Atlantique Nord).  
 Comptes rendus, Academie des Sciences, Paris, Serie II, 294, 793-798.
- GRAFF, J. & BLACKMAN, D.L. 1979  
 Analysis of maximum sea levels in southern England.  
 pp.931-948 in vol.1, Proceedings of the sixteenth coastal engineering conference, 1978, Hamburg, Germany. 3 vols.  
 New York: American Society of Civil Engineers. 3060pp.  
 IOS CONTRIBUTION NO.1477
- GRAFF, J. 1979  
 Concerning the recurrence of abnormal sea levels.  
 Coastal Engineering, 2, 177-187.  
 IOS CONTRIBUTION NO.1412.
- GRAFF, J. & KARUNARATNE, D.A. 1980  
 Accurate reduction of sea level records.  
 International Hydrographic Review, 57(2), 151- 166.  
 IOS CONTRIBUTION NO.80070
- GRAFF, J. & OVADIA, D.C. 1980  
 Towards improving our understanding of the occurrence of high seas at Liverpool.  
 Hydrographic Journal, No.19, 19-29.  
 IOS CONTRIBUTION NO.80105
- GRAFF, J. 1981  
 An investigation of the frequency distribution of annual sea level maxima at ports around Great Britain.  
 Estuarine, Coastal and Shelf Science, 12, 389-449.  
 IOS CONTRIBUTION NO.81017
- GRAFF, J. 1981  
 Long term statistics of extreme sea levels. Abstract.  
 p.107 in, Floods due to high winds and tides,  
 (ed.D.H.Peregrine).  
 London: Academic. 109p.
- GRIFFITHS, D.K., PINGREE, R.D. & SINCLAIR, M. 1981  
 Summer tidal fronts in the near-arctic regions of Foxe Basin and Hudson Bay.  
 Deep-Sea Research, 28A, 865-873.

- GRIFFITHS, G. & COLLAR, P.G. 1980  
 Some comparative studies on electromagnetic sensor heads in  
 laminar and near-turbulent flows in a towing tank.  
 pp.323-329 in, Oceans '80.  
 New York: Institute of Electrical & Electronics Engineers.  
 553pp.  
 IOS CONTRIBUTION NO.80082
- GRIMAUD, S., BOILLOT, G., COLLETTE, B.J., MAUFFRET, A., MILES,  
 P.R. & ROBERTS, D.G. 1982  
 Western extension of the Iberian-European plate boundary during  
 the early Cenozoic (Pyrenean) convergence : a new model.  
 Marine Geology, 45, 63-77.  
 IOS CONTRIBUTION NO.82005
- GUNTHER, H., ROSENTHAL, W., WEARE, T.J., WORTHINGTON, B.A.,  
 HASSELMANN, K. & EWING, J.A. 1979  
 A hybrid parametrical wave prediction model.  
 Journal of Geophysical Research, 84, 5727-5738.  
 IOS CONTRIBUTION NO.1473
- GUYMER, T.H., BUSINGER, J.A., JONES, W.L. & STEWART, R.H. 1981  
 Anomalous wind estimates from the Seasat scatterometer.  
 Nature, 294, 735-737.  
 IOS CONTRIBUTION NO.81094
- GUYMER, T.H. 1981  
 Meteorological workshop, 1-4 September 1980.  
 JASIN News, No.22, 9-11. (Unpublished manuscript).
- GUYMER, T.H. 1982  
 Determination of the wind stress curl at the ocean surface using  
 microwave remote sensing techniques.  
 p.273 in, Remote sensing and the atmosphere. (Proceedings of  
 annual technical conference, Liverpool, December 1982).  
 Reading: Remote Sensing Society. 317pp.
- GWILLIAM, T.J.P. & LAWFORD, V.A. 1981  
 A deep water particle sampler.  
 pp.59-74 in, Proceedings of IERE conference on electronics for  
 ocean technology, Birmingham, September 1981.  
 London: Institution of Electronic and Radio Engineers. 348pp.  
 (IERE Conference Proceedings No.51).  
 IOS CONTRIBUTION NO.81058
- HALLWOOD, E.A. & REES, A.I. 1982  
 Magnetic properties of sediments from Hole 503A.  
 Initial Reports of the Deep Sea Drilling Project, 68, 441-442.  
 IOS CONTRIBUTION NO.82085
- HAINE, R.A. 1980  
 A second generation shipborne wave recorder.  
 Transducer Technology, 2(2), 25-28.  
 IOS CONTRIBUTION NO.80021



- HAINES, R.A. 1981  
 Microprocessor-based logger for ship and shore data acquisition.  
 pp.27-33 in, Microprocessor applications in underwater  
 technology. (Proceedings of a seminar, London, 1980).  
 London: Society for Underwater Technology. 93pp.
- HAINES, R.A. 1982  
 A one-bit microprocessor controlled data acquisition system.  
 pp.1/1 - 1/5 in, Microprocessors in the marine industry.  
 (Proceedings of IEE colloquium, London, April 1982).  
 London: Institution of Electrical Engineers.
- HAMMOND, F.D.C. 1979  
 Grain-by-grain computer simulation of sand ripple formation.  
 Marine Geology, 31, M53-M60.  
 IOS CONTRIBUTION NO.1496
- HAMMOND, F.D.C. & HEATHERSHAW, A.D. 1981  
 A wave theory for sandwaves in shelf-seas.  
 Nature, 293, 208-210.  
 IOS CONTRIBUTION NO.81066
- HARRISON, A.J. 1981  
 A sea-bed instrument for measurement of current and pressure.  
 pp.175-180 in, Proceedings of IERE conference on electronics for  
 ocean technology, Birmingham, September 1981.  
 London: Institution of Electronic and Radio Engineers. 348pp.  
 (IERE Conference Proceedings No.51).  
 IOS CONTRIBUTION NO.81060
- HASSELMANN, D.E., DUNCKEL, M. & EWING, J.A. 1980  
 Directional wave spectra observed during JONSWAP 1973.  
 Journal of Physical Oceanography, 10, 1264-1280.  
 IOS CONTRIBUTION NO.80083
- HEAPS, N.S. 1979  
 Computer models for sea level prediction.  
 MIAS News Bulletin, No.2, 10-13.
- HEAPS, N.S. 1979  
 Interaction between tide and surge in the Irish Sea. (Abstract  
 of paper presented at the 3rd U.K. Geophysical Assembly, 2-5  
 April, 1979, University of Southampton).  
 Geophysical Journal of the Royal Astronomical Society, 57,  
 p.286.
- HEAPS, N.S. 1979  
 Three-dimensional modelling of the Irish Sea.  
 pp.2671-2686 in vol.3, Proceedings of the sixteenth coastal  
 engineering conference, 1978, Hamburg, Germany. 3 vols.  
 New York: American Society of Civil Engineers. 3060pp.  
 IOS CONTRIBUTION NO.1481

- HEAPS, N.S. & JONES, J.E. 1979  
Recent storm surges in the Irish Sea.  
pp.285-319 in, Marine forecasting, (ed.J.C.J. Nihoul).  
(Proceedings of the 10th international Liege colloquium on ocean hydrodynamics, 1978).  
Amsterdam: Elsevier. 493pp.  
IOS CONTRIBUTION NO.1436
- HEAPS, N.S. 1980  
Density currents in a two-layered coastal system, with application to the Norwegian Coastal Current.  
Geophysical Journal of the Royal Astronomical Society, 63, 289-310.  
IOS CONTRIBUTION NO.80079
- HEAPS, N.S. 1980  
A mechanism for local upwelling along the European continental slope.  
Oceanologica Acta, 3, 449-454.  
IOS CONTRIBUTION NO.80077
- HEAPS, N.S. 1980  
Spectral methods for the numerical solution of the three-dimensional hydrodynamic equations for tides and surges.  
pp.75-90 in, Mathematical modelling of estuarine physics, (ed.J.Sundermann & K.P.Holz). (Proceedings of an international symposium, Hamburg, 24-27 August 1978).  
Berlin: Springer-Verlag. 265pp. (Lecture Notes on Coastal and Estuarine Studies, 1, ).
- HEAPS, N.S. 1981  
Development of a three-layer spectral model for the motion of a stratified sea. (Abstract of paper presented at the 1981 fall meeting, December 7-11, San Francisco).  
EOS, Transactions of the American Geophysical Union, 62, p.928.
- HEAPS, N.S. 1981  
Layered spectral models. Abstract.  
Ocean Management, 6, p.243.
- HEAPS, N.S. 1981  
Three-dimensional model for tides and surges with vertical eddy viscosity prescribed in two layers - I. Mathematical formulation.  
Geophysical Journal of the Royal Astronomical Society, 64, 291-302.  
IOS CONTRIBUTION NO.81003
- HEAPS, N.S. & JONES, J.E. 1981  
Three-dimensional model for tides and surges with vertical eddy viscosity prescribed in two layers. - II. Irish Sea with bed friction layer.  
Geophysical Journal of the Royal Astronomical Society, 64, 303-320.  
IOS CONTRIBUTION NO.81004

- HEAPS, N.S. 1982  
 Prediction of tidal elevations : model studies for the Severn barrage.  
 pp.51-58 in, Severn barrage. (Proceedings of a symposium organised by the Institution of Civil Engineers, London, 8-9 October, 1981).  
 London: Thomas Telford. 240pp.  
 IOS CONTRIBUTION NO.82012
- HEAPS, N.S., MORTIMER, C.H. & FEE, E.J. 1982  
 Numerical models and observations of water motion in Green Bay, Lake Michigan.  
 Philosophical Transactions of the Royal Society of London, A, 306, 371-398.  
 IOS CONTRIBUTION NO.82066
- HEAPS, N.S. 1982  
 Storm-surge forecasting for the east and west coasts of the British Isles : scientific development and practical method.  
 pp.219-234 in, First international conference on meteorology and air-sea interaction of the coastal zone, sponsored by the Royal Netherlands Meteorological Institute and the American Meteorological Society, The Hague, 1982. PREPRINTS.  
 Massachusetts: American Meteorological Society. 404pp.
- HEATHERSHAW, A.D. 1979  
 The turbulent structure of the bottom boundary layer in a tidal current.  
 Geophysical Journal of the Royal Astronomical Society, 58, 395-430.  
 IOS CONTRIBUTION NO.1458
- HEATHERSHAW, A.D. & HAMMOND, F.D.C. 1979  
 Secondary circulation and sand banks. (Abstract of paper presented at the 3rd U.K. Geophysical Assembly, 2-5 April, 1979, University of Southampton).  
 Geophysical Journal of the Royal Astronomical Assembly, 57, p.284.
- HEATHERSHAW, A.D. 1980  
 Predicting sediment transport rates in tidal currents.  
 Résumés/Abstracts, 26e Congrès Géologique International, Paris, 7-17 July 1980, p.482.
- HEATHERSHAW, A.D. & HAMMOND, F.D.C. 1980  
 Secondary circulations near sand banks and in coastal embayments.  
 Deutsche Hydrographische Zeitschrift, 33, 135- 151.  
 IOS CONTRIBUTION NO.80090

- HEATHERSHAW, A.D. & HAMMOND, F.D.C. 1980  
 Tidal currents and residual circulation in the Swansea Bay area of the Bristol Channel.  
 pp.123-156 in, Industrialised embayments and their environmental problems. A case study of Swansea Bay, (ed.M.B. Collins, F.T.Banner, P.A. Tyler, S.J.Wakefield & A.E.James). (Proceedings of a symposium, Swansea University, 1979).  
 Oxford: Pergamon. 614pp.  
 IOS CONTRIBUTION NO.80054
- HEATHERSHAW, A.D. & HAMMOND, F.D.C. 1980  
 Transport and deposition of non-cohesive sediments in Swansea Bay.  
 pp.215-248 in, Industrialised embayments and their environmental problems. A case study of Swansea Bay, (ed.M.B. Collins, F.T.Banner, P.A. Tyler, S.J.Wakefield & A.E.James). (Proceedings of a symposium, Swansea University, 1979).  
 Oxford: Pergamon. 614pp.  
 IOS CONTRIBUTION NO.80056
- HEATHERSHAW, A.D., BLACKLEY, M.W.L. & HARDCASTLE, P.J. 1980  
 Wave direction estimates in coastal waters using radar.  
 Coastal Engineering, 3, 249-267.  
 IOS CONTRIBUTION NO.80027
- HEATHERSHAW, A.D. 1981  
 Comparisons of measured and predicted sediment transport rates in tidal currents.  
 Marine Geology, 42(1/4), 75-104. Also pp.75-194 in, Sedimentary dynamics of continental shelves, (ed.C.A.Nittrouer).  
 Amsterdam: Elsevier.  
 IOS CONTRIBUTION NO.81036
- HEATHERSHAW, A.D. 1981  
 Resonant wave reflection from sandbars.  
 U.S. Army, Corps of Engineers, Coastal Engineering Research Center, Quarterly CERCUlar Information Bulletin, 6(4), 1-2.
- HEATHERSHAW, A.D., CARR, A.P., BLACKLEY, M.W.L. & WOOLDRIDGE, C.F. 1981  
 Tidal variations in the compaction of beach sediments.  
 Marine Geology, 41, 223-238.  
 IOS CONTRIBUTION NO.81026
- HEATHERSHAW, A.D. 1982  
 Seabed-wave resonance and sand bar growth.  
 Nature, 296, 343-345.  
 IOS CONTRIBUTION NO.82029
- HEATHERSHAW, A.D. 1982  
 Some observations of currents in shallow water during a storm surge.  
 Estuarine, Coastal and Shelf Science, 14, 635-648.  
 IOS CONTRIBUTION NO.82044

- HEMPEL, I., HEMPEL, G. & BAKER, A. DE C. 1979  
Early life history stages of krill (*Euphausia superba*) in  
Bransfield Strait and Weddell Sea.  
Meeresforschung, 27, 267-281.  
IOS CONTRIBUTION NO.1498
- HERRING, P.J. 1979  
Marine ecology and natural products.  
Pure and Applied Chemistry, 51, 1901-1911.  
IOS CONTRIBUTION NO.1459
- HERRING, P.J. 1979  
Some features of bioluminescence of the radiolarian  
Thalassicolla sp.  
Marine Biology, 53, 213-216.  
IOS CONTRIBUTION NO.1461
- HERRING, P.J. 1981  
The comparative morphology of hepatic photophores in decapod  
crustacea.  
Journal of the Marine Biological Association of the U.K., 61,  
723-737.  
IOS CONTRIBUTION NO.81043
- HERRING, P.J. 1981  
Life in the deep sea.  
pp.269-271 in, The commanding sea, by Clare Francis & Warren  
Tute.  
London: BBC and Pelham Books.
- HERRING, P.J., CLARKE, M.R., BOLETZKY, S. VON & RYAN, K.P. 1981  
The light organs of Sepiolo atlantica and Spirula spirula  
(Mollusca : cephalopoda) bacterial and intrinsic system in the  
order Sepioidea.  
Journal of the Marine Biological Association of the U.K., 61,  
901-916.  
IOS CONTRIBUTION NO.81080
- HERRING, P.J. 1981  
Red fluorescence of fish and cephalopod photophores.  
pp.527-530 in, Bioluminescence and chemiluminescence : basic  
chemistry and analytical applications, (ed.M.A.DeLuca &  
W.D.McElroy).  
New York: Academic. 782pp.
- HERRING, P.J. 1981  
Studies on bioluminescent marine amphipods.  
Journal of the Marine Biological Association of the U.K., 61,  
161-176.  
IOS CONTRIBUTION NO.81012
- HERRING, P.J. 1982  
Aspects of the bioluminescence of fishes.  
pp.415-470 in, Oceanography and marine biology: an annual  
review, vol.20, (ed.M.Barnes).  
Aberdeen University Press. 777pp.  
IOS CONTRIBUTION NO.82110

- HOWARTH, M.J. & PUGH, D.T. 1979  
Sea level and current variations in the Celtic Sea. (Abstract of paper presented at the 3rd U.K. Geophysical Assembly, 2-5 April, 1979, University of Southampton).  
Geophysical Journal of the Royal Astronomical Assembly, 57, p.285.
- HOWARTH, M.J. & JONES, J.E. 1981  
A comparison of numerical model and observed currents during a storm surge period.  
Estuarine, Coastal and Shelf Science, 12, 655- 663.  
IOS CONTRIBUTION NO.81028
- HOWARTH, M.J. 1981  
Intercomparison of AMF VACM and Aanderaa current meters moored in fast tidal currents.  
Deep-Sea Research, 28A, 601-607.  
IOS CONTRIBUTION NO.81039
- HOWARTH, M.J. 1981  
An intercomparison of AMF VACMs and Aanderaa RCM4s in a tidally dominated continental shelf sea.  
International Council for the Exploration of the Sea, ICES C.M. 1981/C:31, Hydrography Committee, 6pp. & figs. (Unpublished manuscript).
- HOWARTH, M.J. & EVANS, J.J. 1982  
Calibration of telephone cable flow measurements by recording current meters. (Abstract of paper presented at the 6th U.K. Geophysical Assembly, 5-7 April 1982, University College Cardiff).  
Geophysical Journal of the Royal Astronomical Society, 69, p.296.
- HOWARTH, M.J. 1982  
Non-tidal flow in the North Channel of the Irish Sea.  
pp.205-242 in, Hydrodynamics of semi-enclosed seas, (ed.J.C.J.Nihoul). (Proceedings of 13th international Liege colloquium on ocean hydrodynamics).  
Amsterdam: Elsevier. 555pp. (Elsevier Oceanography Series, 34).  
IOS CONTRIBUTION NO.82028
- HOWARTH, M.J. 1982  
Tidal currents of the continental shelf.  
pp.10-26 in, Offshore tidal sands, (ed.A.H.Stride).  
London: Chapman & Hall. 222pp.
- HUNTLEY, D.A. 1980  
Tides on the north-west European continental shelf.  
pp.301-351 in, The north-west European shelf seas : the sea bed and the sea in motion. II. Physical and chemical oceanography and physical resources, (ed.F.T.Banner, M.B.Collins & K.S. Massie).  
Amsterdam: Elsevier. 638pp.  
IOS CONTRIBUTION NO.80044

- HUREAU, J.C. & RICE, A.L. 1980  
Instruction manual for the collection, preservation and curation  
of a marine reference collection.  
Paris: Unesco. 48pp. (SC-80/WS/10).
- HUTHNANCE, J.M. 1980  
Mean currents generated by tides. (Abstract of paper presented  
at the 4th U.K. Geophysical Assembly, Birmingham University,  
14-17 April, 1980).  
Geophysical Journal of the Royal Astronomical Society, 61,  
p.224.
- HUTHNANCE, J.M. 1980  
On natural oscillations of connected ocean basins.  
Geophysical Journal of the Royal Astronomical Society, 61,  
337-354.  
IOS CONTRIBUTION NO.80023
- HUTHNANCE, J.M. 1980  
On shelf-sea 'resonance' with application to Brazilian M3 tides.  
Deep-Sea Research, 27A, 347-366.  
IOS CONTRIBUTION NO.80042
- HUTHNANCE, J.M. 1981  
Large tidal currents near Bear Island and related tidal energy  
losses from the North Atlantic.  
Deep-Sea Research, 28A, 51-70.  
IOS CONTRIBUTION NO.81006
- HUTHNANCE, J.M. 1981  
A note on baroclinic Rossby wave reflection at sea-floor scarps.  
Deep-Sea Research, 28A, 83-91.  
IOS CONTRIBUTION NO.81007
- HUTHNANCE, J.M. 1981  
On mass transports generated by tides and long waves.  
Journal of Fluid Mechanics, 102, 367-387.  
IOS CONTRIBUTION NO.81010
- HUTHNANCE, J.M. 1981  
Waves and currents near the continental shelf edge.  
Progress in Oceanography, 10, 193-226.  
IOS CONTRIBUTION NO.81035
- HUTHNANCE, J.M. & BAINES, P.G. 1982  
Tidal currents in the northwest African upwelling region.  
Deep-Sea Research, 29A, 285-306.  
IOS CONTRIBUTION NO.82026
- HUTHNANCE, J.M. 1982  
On one mechanism forming linear sand banks.  
Estuarine, Coastal and Shelf Science, 14, 79-99.  
IOS CONTRIBUTION NO.82004
- HUTHNANCE, J.M. 1982  
On the formation of sand banks of finite extent.  
Estuarine, Coastal and Shelf Science, 15, 277-299.  
IOS CONTRIBUTION NO.82072

- JAMES, I.D. 1979  
 Thermocline formation in the Celtic Sea 1978. (Abstract of paper presented at the 3rd U.K. Geophysical Assembly, 2-5 April, 1979, University of Southampton).  
 Geophysical Journal of the Royal Astronomical Society, 57, p.286.
- JAMES, I.D. 1980  
 Thermocline formation in the Celtic Sea.  
 Estuarine & Coastal Marine Science, 10, 597-607.  
 IOS CONTRIBUTION NO.80046
- JAMES, I.D. 1981  
 Fronts and shelf-circulation models.  
 Philosophical Transactions of the Royal Society of London, A, 302, 597-604.  
 IOS CONTRIBUTION NO.81069
- JAMES, I.D. 1982  
 Tidal currents at two deep-sea moorings near the shelf edge.  
 Deep-Sea Research, 29A, 1099-1111.  
 IOS CONTRIBUTION NO.82082
- JOHNSON, C.S. & MORRIS, R.J. 1980  
 Oily water discharges; regulatory, technical and scientific considerations, (ed. C.S. Johnson & R.J. Morris). (Based on proceedings of seminar, Edinburgh, June 1978).  
 London: Applied Science. 225pp.
- JOHNSON, M.A., STRIDE, A.H., BELDERSON, R.H. & KENYON, N.H. 1981  
 Predicted sand wave formation and decay on a large offshore tidal-current and sand-sheet.  
 pp.247-256 in, Holocene marine sedimentation in the North Sea Basin, (ed.S.D.Nio et al). (Proceedings of a meeting, Texel, The Netherlands, September 1979).  
 Oxford: Blackwell Scientific Publications. (Special Publications of the International Association of Sedimentologists, No.5).  
 IOS CONTRIBUTION NO.81096
- JOHNSON, M.A., KENYON, N.H., BELDERSON, R.H. & STRIDE, A.H. 1982  
 Sand transport.  
 pp.58-94 in, Offshore tidal sands, (ed.A.H.Stride).  
 London: Chapman & Hall. 222pp.
- JOINT, I.R. & MORRIS, R.J. 1982  
 The role of bacteria in the turnover of organic matter in the sea.  
 pp.65-118 in, Oceanography and marine biology: an annual review, vol.20, (ed.M.Barnes).  
 Aberdeen University Press. 777pp.  
 IOS CONTRIBUTION NO.82109
- JONES, M.T. 1979  
 The International Oceanographic Data Exchange System.  
 MIAS News Bulletin, No.2, 4-9.



- JONES, M.T. 1979  
 NORSWAM (North Sea Wave Model) output data set.  
 MIAS News Bulletin, No.2, 16-18.
- JONES, M.T. 1980  
 The IOC general magnetic tape format for the international exchange of oceanographic data. Part 1: technical specification (first edition).  
 Intergovernmental Oceanographic Commission, Manuals & Guides, No.9, Annex 1 GF-3, Part 1, 64pp.
- JONES, M.T. 1980  
 The MIAS current meter inventory.  
 MIAS News Bulletin, No.3, 4-5.
- JONES, M.T. & SANKEY, T. 1980  
 The MIAS oceanographic database - an integrated database / data dictionary system.  
 pp.69-95 in, Database achievements, (ed. G.J. Baker).  
 London: A.P. Publications Ltd. & British Computer Society.  
 128pp.  
 IOS CONTRIBUTION NO.80024
- JONES, M.T. 1980  
 The MIAS oceanographic data base -the development of a general purpose data structure for serial data.  
 International Council for the Exploration of the Sea, ICES C.M. 1980/D:13. 29pp. (Unpublished manuscript).
- JONES, M.T. 1980  
 Report of the Working Group on Marine Data Management.  
 International Council for the Exploration of the Sea, ICES C.M. 1980/C:43, 5pp. (Unpublished manuscript).
- JONES, M.T. 1981  
 Guidelines for the submission of oceanographic data to MIAS for banking.  
 MIAS News Bulletin, No.4, p.18.
- JONES, M.T. 1981  
 Historical sea surface temperature data project.  
 MIAS News Bulletin, No.4, 17-18.
- JONES, M.T. 1981  
 The National Oceanographic Data Bank. Time series data available from MIAS.  
 MIAS News Bulletin, No.4, 10-14.
- JONES, M.T. 1981  
 Report of the Working Group on Marine Data Management.  
 International Council for the Exploration of the Sea, ICES C.M. 1981/C:44, Hydrography Committee, 11pp. & figs. (Unpublished manuscript).

- JONES, M.T. 1982  
 The IOC general magnetic tape format for the international exchange of oceanographic data - Part 2: code tables. Intergovernmental Oceanographic Commission, Manuals & Guides, No.9, Annex 1 GF-3, Part 2, 41pp.
- JONES, M.T. 1982  
 Report of the Working Group on Marine Data Management. International Council for the Exploration of the Sea, ICES C.M.1982/C:23, Hydrography Committee, 22pp (Unpublished manuscript).
- JONES, W.L., BOGGS, D.H., BRACALENTE, E.M., BROWN, R.A., GUYMER, T.H., SHELTON, D. 1981  
 Evaluation of the Seasat wind scatterometer. Nature, 294, 704-707.  
 IOS CONTRIBUTION NO.81085
- KARUNARATNE, D.A. 1980  
 An improved method for smoothing and interpolating hourly sea level data. International Hydrographic Review, 57(1), 135-148.  
 IOS CONTRIBUTION NO.80006
- KATSAROS, K.B., TAYLOR, P.K., ALISHOUSE, J.C. & LIPES, R.G. 1981  
 Quality of Seasat SMMR (Scanning Multi-Channel Microwave Radiometer) atmospheric water determinations. pp.691-706 in, Oceanography from space, (ed.J.F. R.Gower). (Proceedings of COSPAR/SCOR/IUCRM symposium, 1980, Venice). New York: Plenum. 978pp.  
 IOS CONTRIBUTION NO.81053
- KATZ, E.J., MOLINARI, R.L., CARTWRIGHT, D.E., HISARD, P., LASS, H.U. & MESQUITA, A. 1981  
 The seasonal transport of the Equatorial Undercurrent in the western Atlantic during the Global Weather Experiment. Oceanologica Acta, 4, 445-450.  
 IOS CONTRIBUTION NO.81070
- KENT, P., LAUGHTON, A.S., ROBERTS, D.G. & JONES, E.J.W.(Eds.) 1980  
 The evolution of passive continental margins in the light of recent deep drilling results. A discussion. Philosophical Transactions of the Royal Society of London, A, 294, 1-208.
- KENYON, N.H. 1980  
 Bedforms of shelf seas viewed with Seasat synthetic aperture radar. pp.67-74 in, Advances in hydrographic surveying. (Proceedings of a one-day seminar organised jointly by the Hydrographic Society and the Society for Underwater Technology). London: Society for Underwater Technology. 76pp.  
 IOS CONTRIBUTION NO.80103

- KENYON, N.H., BELDERSON, R.H., STRIDE, A.H. & JOHNSON, M.A. 1981  
Offshore tidal sand banks as indicators of net sand transport  
and as potential deposits.  
pp.257-268 in, Holocene marine sedimentation in the North Sea  
Basin, (ed.S.D.Nio et al). (Proceedings of a meeting, Texel, The  
Netherlands, September 1979).  
Oxford: Blackwell Scientific Publications. (Special Publications  
of the International Association of Sedimentologists, No.5).  
IOS CONTRIBUTION NO.81097
- KENYON, N.H., BELDERSON, R.H. & STRIDE, A.H. 1982  
Detailed tectonic trends on the central part of the Hellenic  
Outer Ridge and in the Hellenic Trench System.  
pp.335-343 in, Trench-forearc geology, (ed.J.K.Leggett).  
Oxford: Blackwell Scientific Publications. (Geological  
Society Special Publication, No.10).
- KENYON, N.H. 1982  
A GLORIA survey of the northwest European continental slope.  
Dock and Harbour Authority, 63, 207-208.
- KIDD, R.B. & ARMANNON, H. 1979  
Manganese and iron micromodules from a volcanic seamount in the  
Tyrrhenian Sea.  
Journal of the Geological Society of London, 136, 71-76.
- KIDD, R.B. & HUGGETT, Q.J. 1981  
Rock debris on abyssal plains in the northeast Atlantic : a  
comparison of epibenthic sledge hauls and photographic surveys.  
Oceanologica Acta, 4, 99-104.  
IOS CONTRIBUTION NO.81001
- KIDD, R.B., SEARLE, R.C., RAMSAY, A.T.S., PRICHARD, H. & MITCHELL,  
J. 1982  
The geology and formation of King's Trough, northeast Atlantic  
Ocean.  
Marine Geology, 48, 1-30.  
IOS CONTRIBUTION NO.82049
- KIDD, R.B. 1982  
Long-range side-scan sonar of sediment slides and the effects of  
slope mass sediment movement on abyssal plain sedimentation.  
pp.289-303 in, Marine slides and other mass movements,  
(ed.S.Saxov & J.K.Nieuwmeuis.) (Proceedings of a NATO Workshop,  
Algarve, Portugal, December 1980).  
New York: Plenum. 353pp.  
(NATO Conference Series IV : Marine Sciences Vol.6).  
IOS CONTRIBUTION NO.82056
- KIDD, R.B. & ROBERTS, D.G. 1982  
Long-range sidescan sonar studies of large-scale sedimentary  
features in the North Atlantic.  
Bulletin de l'Institut de Geologie du Bassin d'Aquitaine,  
No.31-32, 11-29.  
IOS CONTRIBUTION NO.82103

- KING, R.F. & REES, A.I. 1979  
 Comment on a paper "An objective method for smoothing palaeomagnetic data", by R.M.Clark and R.Thompson. (Geophysical Journal of the Royal Astronomical Society, 52, 205-213, 1978.)  
 Geophysical Journal of the Royal Astronomical Society, 56, 481-482.  
 IOS CONTRIBUTION NO.1425
- KIRBY, R., PARKER, W.R. & OOSTRUM, W.H. VAN 1980  
 Definition of the sea bed in navigation routes through mud areas.  
 International Hydrographic Review, 57(1), 107-117.  
 IOS CONTRIBUTION NO.80008
- KIRBY, R. & PARKER, W.R. 1980  
 Sediment dynamics in the Severn Estuary.  
 pp.47-62 in, An environmental appraisal of tidal power stations: with reference to the Severn Barrage, (ed.T.L.Shaw).  
 London: Pitman. 220pp.
- KIRBY, R. & PARKER, W.R. 1982  
 A suspended sediment front in the Severn Estuary.  
 Nature, 295, 396-399.  
 IOS CONTRIBUTION NO.82108
- KIRKEGAARD, J.B. & BILLET, D.S.M. 1980  
Eunoe laetmogonensis, a new species of polynoid worm commensal with the bathyal holothurian Laetmogone violacae, in the north-east Atlantic.  
 Steenstrupia, 69(9), 101-109.  
 IOS CONTRIBUTION NO.80032
- KIRK, R.E., WHITMARSH, R.B. & LANGFORD, J.J. 1982  
 A three-component ocean bottom seismograph for controlled source and earthquake seismology.  
 Marine Geophysical Researches, 5, 327-341.  
 IOS CONTRIBUTION NO.82071
- KOLLA, V. & KIDD, R.B. 1982  
 Sedimentation and sedimentary processes in the Indian Ocean.  
 pp.1-50 in, The ocean basins and margins, volume 6, The Indian Ocean, (ed.A.E.M.Nairn & F.G.Stehli).  
 New York: Plenum. 776pp.
- LAMPITT, R.S. & GAMBLE, J.C. 1982  
 Diet and respiration of the small planktonic marine copepod Oithona nana.  
 Marine Biology, 66, 185-190.
- LANGHORNE, D.N. 1981  
 An evaluation of Bagnold's dimensionless coefficient of proportionality using measurements of sandwave movement.  
 Marine Geology, 43, 49-64.  
 IOS CONTRIBUTION NO.81063

- LANGHORNE, D.N. 1981  
 The stability of the top metre of the seabed; its importance to engineering and navigational projects.  
 pp.62-71 in, Proceedings of the 20th Annual Canadian Hydrographic Conference, Burlington, Ontario, April 1981. Burlington, Ontario: Canadian Hydrographers' Association. (Lighthouse, special edition).
- LANGHORNE, D.N. 1982  
 The stability of the top metre of the sea bed : its importance to engineering and navigational projects.  
 International Hydrographic Review, 59(2), 79-94.  
 IOS CONTRIBUTION NO.82114
- LANGHORNE, D.N. 1982  
 A study of the dynamics of a marine sandwave.  
 Sedimentology, 29, 571-594.  
 IOS CONTRIBUTION NO.82067
- LAUGHTON, A.S., SEARLE, R.C. & ROBERTS, D.G. 1979  
 The Reykjanes Ridge crest and the transition between its rifted and non-rifted regions.  
 Tectonophysics, 55, 173-177.  
 IOS CONTRIBUTION NO.1438
- LAUGHTON, A.S. & SEARLE, R.C. 1979  
 Tectonic processes on slow spreading ridges.  
 pp.15-32 in, Deep drilling results in the Atlantic Ocean : ocean crust, (ed.M.Talwani, C.G.Harrison & D.E.Hayes). Washington, D.C.: American Geophysical Union. 431pp. (Maurice Ewing Series 2).  
 IOS CONTRIBUTION NO.1497
- LAUGHTON, A.S. 1980  
 Can the oceans provide acceptable disposal sites for high-level radioactive waste?  
 pp.221-234 in, Energy in the balance.  
 Guildford: IPC Science & Technology Press. 234pp.  
 IOS CONTRIBUTION NO.80097
- LAUGHTON, A.S. 1981  
 The first decade of GLORIA.  
 Journal of Geophysical Research, 86, 11511-11534. (Modified version of paper published in : Institute of Oceanographic Sciences, Annual Report, 1980, 60-85, 1981).  
 IOS CONTRIBUTION NO.81099
- (LAUGHTON, A.S.) 1981  
 Deep Sea Mining Special Standing Committee. Deep Sea Mining (Temporary provisions) Bill [Lords]. 1st Sitting, May 19, 1981 : examination of witnesses. (Memorandum submitted by Dr.A.S.Laughton : Deep ocean mining and the environment. Cols 37-39 et seq.)  
 House of Commons Parliamentary Debates (Session 1980-1981), Standing Committee Debates, Cols 1-54.  
 London: Her Majesty's Stationery Office.

- LAUGHTON, A.S., ROBERTS, D.G. & HUNTER, P.M. 1982  
Admiralty Chart No.C6566. Bathymetry of the northeast Atlantic : sheet 1. Reykjanes Ridge and Rockall Plateau.  
Taunton: Ministry of Defence, Hydrographic Department.  
[Scale 1:2,400,000 at 41N].
- LEES, B.J. 1979  
A new technique for injecting fluorescent sand tracer in sediment transport experiments in a shallow water marine environment.  
Marine Geology, 33, M95-M98.  
IOS CONTRIBUTION NO.1485
- LEES, B.J. 1981  
Sediment transport measurements in the Sizewell- Dunwich Banks area, East Anglia, U.K.  
pp.269-281 in, Holocene marine sedimentation in the North Sea Basin, (ed.S.D.Nio et al). (Proceedings of a meeting, Texel, The Netherlands, September 1979).  
Oxford: Blackwell Scientific Publications. (Special Publications of the International Association of Sedimentologists, No.5).  
IOS CONTRIBUTION NO.81095
- LEES, B.J. 1981  
Relationship between eddy viscosity of seawater and eddy diffusivity of suspended particles.  
Geo-Marine Letters, 1, 249-254.  
IOS CONTRIBUTION NO.81107
- LEES, B.J. 1982  
Sediment movement.  
Natural Science in Schools, 20, 23-26.
- LEES, B.J. 1982  
Quaternary sedimentation in the Sizewell-Dunwich Banks area, Suffolk.  
Bulletin of the Geological Society of Norfolk, 32, 1-35.  
IOS CONTRIBUTION NO.82118
- LEETMA, A., ROSSBY, H.T., SAUNDERS, P.M. & WILSON, P. 1980  
Subsurface circulation in the Somali Current.  
Science, 209, 590-592.  
IOS CONTRIBUTION NO.80088
- LILWALL, R.C. 1980  
Fault mechanisms and sub crustal seismic velocities on the Mid-Atlantic Ridge.  
Geophysical Journal of the Royal Astronomical Society, 60, 245-262.  
IOS CONTRIBUTION NO.80001
- LILWALL, R.C., FRANCIS, T.J.G. & PORTER, I.T. 1980  
Some ocean-bottom seismograph observations on the Reykjanes Ridge at 59N.  
Geophysical Journal of the Royal Astronomical Society, 62, 321-327.  
IOS CONTRIBUTION NO.80051

- LILWALL, R.C., FRANCIS, T.J.G. & PORTER, I.T. 1981  
 A microearthquake survey at the junction of the East Pacific Rise and the Wilkes (95) fracture zone.  
 Quarterly Journal of the Royal Astronomical Society, 66, 407-416.  
 IOS CONTRIBUTION NO.81038
- LILWALL, R.C. 1982  
 Seismicity of the oceanic rifts.  
 pp.63-80 in, Continental and oceanic rifts, (ed.G.Palmason).  
 Washington, D.C.: American Geophysical Union. 309pp.  
 (Geodynamics Series, Vol.8).  
 IOS CONTRIBUTION NO.82069
- LONGUET-HIGGINS, M.S. 1979  
 The almost-highest wave : a simple approximation.  
 Journal of Fluid Mechanics, 94, 269-273.  
 IOS CONTRIBUTION NO.1464
- LONGUET-HIGGINS, M.S. 1979  
 Appendix: the orbital motion in steep water waves. (Discussion of the paper by J.H. Nath, 'Drift speed of buoys in waves').  
 pp.874-877 in vol.1, Proceedings of the sixteenth coastal engineering conference, 1978, Hamburg, Germany. 3 vols.  
 New York: American Society of Civil Engineers. 3060pp.  
 IOS CONTRIBUTION NO.1475
- LONGUET-HIGGINS, M.S. & PARRY, C.F. 1979  
 Inversive properties of the plane  $\mu$  line. II. An infinite six-fold chain of circle theorems.  
 Journal of the London Mathematical Society, 19, 541-560.
- LONGUET-HIGGINS, M.S. 1979  
 Summaries of lectures on steep and breaking waves. (Second series).  
 Gainesville, Fl.: University of Florida, Department of Engineering Sciences, College of Engineering. 272pp.  
 (Unpublished manuscript).
- LONGUET-HIGGINS, M.S. 1979  
 The trajectories of particles in steep, symmetric gravity waves.  
 Journal of Fluid Mechanics, 94, 497-518.  
 IOS CONTRIBUTION NO.1463
- LONGUET-HIGGINS, M.S. 1979  
 Why is a water wave like a grandfather clock?  
 Physics of Fluids, 22, 1828-1829.  
 IOS CONTRIBUTION NO.1462
- LONGUET-HIGGINS, M.S. 1980  
 On the distribution of the heights of sea waves : some effects of nonlinearity and finite band width.  
 Journal of Geophysical Research, 85, 1519-1523.  
 IOS CONTRIBUTION NO.80029

- LONGUET-HIGGINS, M.S. 1980  
 On the forming of sharp corners at a free surface.  
 Proceedings of the Royal Society of London, A, 371, 453-478.  
 IOS CONTRIBUTION NO.80059
- LONGUET-HIGGINS, M.S. 1980  
 Modulation of the amplitude of steep wind waves.  
 Journal of Fluid Mechanics, 99, 705-713.  
 IOS CONTRIBUTION NO.80071
- LONGUET-HIGGINS, M.S. 1980  
 Spin and angular momentum in gravity waves.  
 Journal of Fluid Mechanics, 97, 1-25.  
 IOS CONTRIBUTION NO.80012
- LONGUET-HIGGINS, M.S. 1980  
 A technique for time-dependent free-surface flows.  
 Proceedings of the Royal Society of London, A, 371, 441-451.  
 IOS CONTRIBUTION NO.80058
- LONGUET-HIGGINS, M.S. 1981  
 On the overturning of gravity waves.  
 Proceedings of the Royal Society of London, A, 376, 377-400.  
 IOS CONTRIBUTION NO.81023
- LONGUET-HIGGINS, M.S. 1981  
 Oscillating flow over steep sand ripples.  
 Journal of Fluid Mechanics, 107, 1-35.  
 IOS CONTRIBUTION NO.81029
- LONGUET-HIGGINS, M.S. 1981  
 Polygon transformations in fluid mechanics.  
 pp.12-30 in, Proceedings of 7th international conference on  
 numerical methods in fluid dynamics, Stanford, California, June  
 1980.  
 Berlin: Springer-Verlag. 485pp. (Lecture Notes in Physics,  
 vol.141).
- LONGUET-HIGGINS, M.S. 1981  
 Summaries of lectures on steep and breaking waves. (Series 3).  
 Gainesville: University of Florida, Department of Engineering  
 Sciences. 315pp.
- LONGUET-HIGGINS, M.S. 1981  
 Trajectories of particles at the surface of steep solitary  
 waves.  
 Journal of Fluid Mechanics, 110, 239-247.
- LONGUET-HIGGINS, M.S. 1981  
 The unsolved problem of breaking waves. (Invited lecture).  
 pp.1-28 in vol.1, Proceedings of the seventeenth coastal  
 engineering conference, March 23 to 28, 1980, Sidney, Australia.  
 3 vols.  
 New York: American Society of Civil Engineers. 3171pp.  
 IOS CONTRIBUTION NO.81088



- LONGUET-HIGGINS, M.S. 1981  
 A parametric flow for breaking waves.  
 pp.121-135 in, Hydrodynamics in ocean engineering, (Proceedings  
 of the international symposium, Trondheim, 24-28 August, 1981).  
 2 vols.  
 Trondheim: Norwegian Institute of Technology. 1245pp.  
 IOS CONTRIBUTION NO.81103
- LONGUET-HIGGINS, M.S. 1982  
 Parametric solutions for breaking waves.  
 Journal of Fluid Mechanics, 121, 403-424.  
 IOS CONTRIBUTION NO.82063
- LONGUET-HIGGINS, M.S. 1982  
 On the skewness of sea-surface slopes.  
 Journal of Physical Oceanography, 12, 1283-1291.  
 IOS CONTRIBUTION NO.82091
- LONGUET-HIGGINS, M.S. 1982  
 On triangular tomography.  
 Dynamics of Atmospheres and Oceans, 7, 33-46.  
 IOS CONTRIBUTION NO.82104
- MADDOCK, L. & PINGREE, R.D. 1982  
 Mean heat and salt budgets for the eastern English Channel and  
 Southern Bight of the North Sea.  
 Journal of the Marine Biological Association of the U.K., 62,  
 559-575.  
 IOS CONTRIBUTION NO.82060
- MARDELL, G.T. & PINGREE, R.D. 1981  
 Half-wave rectification of tidal vorticity near headlands as  
 determined from current meter measurements.  
 Oceanologica Acta, 4, 63-68.  
 IOS CONTRIBUTION NO.81002
- MARKLE, D.F. & MERRETT, N.R. 1980  
 The abyssal alepocephalid, Rinoctes nasutus (Pisces :  
 Salmoniformes), a redescription and an evaluation of its  
 systematic position.  
 Journal of Zoology, 190, 225-239.  
 IOS CONTRIBUTION NO.80016
- MARKS, A.J., WHELLOCK, J.L. & SALKIELD, A.P. 1981  
 A monitor for measuring the movement of marine bedforms.  
 pp.19-26 in, Proceedings of IERE conference on electronics for  
 ocean technology, Birmingham, September 1981.  
 London: Institution of Electronic & Radio Engineers. 348pp.  
 (IERE Conference Proceedings, No.51).  
 IOS CONTRIBUTION NO.81055
- MASSON, D.G. & ROBERTS, D.G. 1981  
 Late Jurassic-early Cretaceous reef trends on the continental  
 margin SW of the British Isles.  
 Journal of the Geological Society, 138, 437-443.  
 IOS CONTRIBUTION NO.81041

- MASSON, D.G., KIDD, R.B. & ROBERTS, D.G. 1982  
Late Cretaceous sediment sample from the Amirante Passage,  
western Indian Ocean.  
Geology, 10, 264-266.
- MCCAFFREY, R.J. & THOMSON, J. 1980  
A record of the accumulation of sediment and trace metals in a  
Connecticut salt marsh.  
Advances in Geophysics, 22, 165-236.
- MCCARTNEY, B.S. 1981  
Underwater acoustic positioning systems : state of the art and  
applications in deep water.  
International Hydrographic Review, 58(1), 91-113.  
IOS CONTRIBUTION NO.81011
- MCCARTNEY, B.S. 1982  
Report of Workshop One : data collection and analysis.  
pp.225-243 in, The management of oceanic resources - the way  
ahead, vol.II. (Proceedings of international conference, London,  
April 1981).  
Los Angeles: University of Southern California, Institute for  
Marine and Coastal Studies for ECOR. 666pp.
- MCCAIVE, I.N. & LANGHORNE, D.N. 1982  
Sand waves and sediment transport around the end of a tidal sand  
bank.  
Sedimentology, 29, 95-110.  
IOS CONTRIBUTION NO.82025
- MCINTYRE, R. 1979  
Analytic models for west coast storm surges, with application to  
events of January 1976.  
Applied Mathematical Modelling, 3, 89-98.  
IOS CONTRIBUTION NO.1416
- MERRETT, N.R. 1980  
Bathytyphlops sewelli (Pisces : Chlorophthalmidae) a senior  
synonym of B. azorensis from the eastern North Atlantic with  
notes on its biology.  
Zoological Journal of the Linnean Society, 68, 99-109.  
IOS CONTRIBUTION NO.80010
- MERRETT, N.R. 1980  
A new species of the deep-sea fish genus Coelorinchus Giorna  
(Macrouridae) from the eastern North Atlantic, with notes on its  
ecology.  
Journal of Fish Biology, 17, 553-564.  
IOS CONTRIBUTION NO.80087
- MERRETT, N.R. & MARSHALL, N.B. 1980  
Observations on the ecology of deep-sea bottom-living fishes  
collected off northwest Africa (08-27N).  
Progress in Oceanography, 9(4), 185-244.  
IOS CONTRIBUTION NO.81018

- MERRETT, N.R. 1981  
 First record of a notacanth leptocephalus; a benthopelagic capture in the slope waters off Ireland.  
 Journal of Fish Biology, 18, 53-57.  
 IOS CONTRIBUTION NO.81015
- MILES, P.R. & ROBERTS, D.G. 1981  
 The magnetisation of Rosemary Bank seamount, Rockall Trough, northeast Atlantic.  
 Earth and Planetary Science Letters, 54, 442- 448.  
 IOS CONTRIBUTION NO.81062
- MILES, P.R. 1982  
 Gravity models of the Amirante Arc, western Indian Ocean.  
 Earth & Planetary Science Letters, 61, 127-135.  
 IOS CONTRIBUTION NO.82094
- MOLINARI, R.L., SWALLOW, J.C., QUADFASEL, D., SCHOTT, F. & BRUCE, J.G. 1981  
 The onset of the Somali Current during 1979: hydrographic observations.  
 pp.405-413 in, Recent progress in equatorial oceanography, (ed.J.P. McCreary et al.)  
 (Final Report of SCOR Working Group 47).  
 Dania, Fa.: Nova University/N.Y.I.T. Press.
- MONTADERT, L. & ROBERTS, D.G. 1979  
 Initial reports of the Deep Sea Drilling Project, vol.48, by L.Montadert and others.  
 Washington, D.C.: U.S. Government Printing Office. 1183pp.
- MORRIS, R.J. 1980  
 Floating plastic debris in the Mediterranean.  
 Marine Pollution Bulletin, 11, p.125.  
 IOS CONTRIBUTION NO.80063
- MORRIS, R.J. 1980  
 Plastic debris in the surface waters of the South Atlantic.  
 Marine Pollution Bulletin, 11, 164-166.  
 IOS CONTRIBUTION NO.80040
- MORRIS, R.J., ARMITAGE, M.E., LAVIS, A. & BALLANTINE, J.A. 1981  
 The sterols of Neomysis integer. I. The effect of sex, maturity and season.  
 Journal of Experimental Marine Biology & Ecology, 53, 105-114.  
 IOS CONTRIBUTION NO.81045
- MORRIS, R.J., DAWSON, M.E. & LOCKWOOD, A.P.M. 1982  
 The identification of some lipophilic contaminants in the gill neutral lipids of Gammarus duebeni.  
 Marine Pollution Bulletin, 13, 13-18.  
 IOS CONTRIBUTION NO.82003

- MORRIS, R.J., MCCARTNEY, M.J. & BONE, Q. 1982  
 The distribution of sterols and stanols in the tunicate Ciona intestinalis.  
 Journal of the Marine Biological Association of the U.K., 62, 117-123.  
 IOS CONTRIBUTION NO.82022
- MORRIS, R.J., BARNES, H., LAVIS, A. & BALLANTINE, J.A. 1982  
 The sterols of Balanus Balanoides (L) : the effect of controlled diets.  
 Journal of Experimental Marine Biology and Ecology, 61, 205-211.  
 IOS CONTRIBUTION NO.82030
- MORRIS, R.J., ARMITAGE, M.E., BALLANTINE, J.A. & LAVIS, A. 1982  
 The sterols of Neomysis integer Leach : effect of changes in environmental salinity.  
 Journal of Experimental Marine Biology and Ecology, 61, 271-277.  
 IOS CONTRIBUTION NO.82031
- MORRIS, R.J., LOCKWOOD, A.P.M. & DAWSON, M.E. 1982  
 An effect of acclimation salinity on the fatty acid composition of the gill phospholipids and water flux of the amphipod crustacean Gammarus duebeni.  
 Comparative Biochemistry and Physiology, 72A, 497-503.  
 IOS CONTRIBUTION NO.82048
- MORRIS, R.J., ARMITAGE, M.E., BALLANTINE, J.A. & LAVIS, A. 1982  
 The sterols of Neomysis integer : effect of controlled diets.  
 Comparative Biochemistry and Physiology, 72A, 627-629.  
 IOS CONTRIBUTION NO.82054
- MORRIS, R.J., CULKIN, F., LOCKWOOD, A.P.M. & JENSON, A.C. 1982  
 Effect of chlorine on unsaturated lipids.  
 Marine Pollution Bulletin, 13, 390-391.  
 IOS CONTRIBUTION NO.82083
- MORRIS, R.J., BALLANTINE, J.A., ROBERTS, J.C. & LAVIS, A. 1982  
 The sterols of some marine teleosts.  
 Comparative Biochemistry & Physiology, 73B, 481-484.  
 IOS CONTRIBUTION NO.82090
- MORRIS, R.J., LOCKWOOD, A.P.M. & DAWSON, M.E. 1982  
 Changes in the fatty acid composition of the gill phospholipids in Gammarus duebeni with degree of gill contamination.  
 Marine Pollution Bulletin, 13, 345-348.  
 IOS CONTRIBUTION NO.82080
- NOEL, M.J. 1982  
 The geothermal detection of caves. A suggested technique. (Abstract of paper presented at the 6th U.K. Geophysical Assembly, 5-7 April 1982, University College Cardiff.)  
 Geophysical Journal of the Royal Astronomical Society, 69, p.301.

- NOEL, M.J. 1982  
 Palaeomagnetic studies of cave sediments from Britain and Sarawak. (Abstract of paper presented at the 6th U.K. Geophysical Assembly, 5-7 April 1982, University College Cardiff).  
 Geophysical Journal of the Royal Astronomical Society, 69, p.293.
- NOEL, M.J. 1982  
 Recent Atlantic heat flow measurements and the evidence for pore water movement. (Abstract of paper presented at the 6th U.K. Geophysical Assembly, 5-7 April 1982, University College Cardiff).  
 Geophysical Journal of the Royal Astronomical Society, 69, p.295.
- O'HORA, N.P.J. & BAKER, T.F. 1979  
 Tidal perturbations in astronomical observations.  
 pp.67-72 in, Time and the Earth's rotation, (ed. D.D.McCarthy & J.D.Pilkington). (Proceedings of the 82nd International Astronomical Union Symposium, San Fernando, Spain, 1978).  
 Dordrecht, Holland: Reidel. 332pp.
- OOSTRUM, W.H. VAN, PARKER, W.R. & KIRBY, R. 1980  
 Maintenance dredging in fluid mud areas.  
 Terra et Aqua, 19, 20-29.
- OOSTRUM, W.H. VAN, KIRBY, R. & PARKER, W.R. 1980  
 Maintenance dredging in fluid mud areas.  
 pp.163-176 in, Proceedings 3rd international symposium on dredging technology, Bordeaux, March 1980, (ed.H.S.Stephens).  
 Cranfield: BHRA Fluid Engineering. 446pp.
- OWEN, A. 1979  
 Effect on the M2 tide of permeable tidal barrages in the Bristol Channel.  
 Proceedings of the Institution of Civil Engineers, Part 2, Research & Theory, 67, 907-928.  
 IOS CONTRIBUTION NO.1492
- OWEN, A. 1979  
 Effects of tidal barrages in the Bristol Channel on tides and storm surges. (Abstract of paper presented at the 3rd U.K. Geophysical Assembly, 2-5 April, 1979, University of Southampton).  
 Geophysical Journal of the Royal Astronomical Society, 57, p.287.
- OWEN, A. & HEAPS, N.S. 1979  
 Some recent model results for tidal barrages in the Bristol Channel.  
 pp.85-92 in, Tidal power and estuary management, (ed.R.T.Severn, D.Dineley & L.E.Hawker).  
 Bristol: Scientifica. 296pp. (Colston Papers No.30).  
 IOS CONTRIBUTION NO.1420

- OWEN, A. 1980  
A three-dimensional model of the Bristol Channel.  
Journal of Physical Oceanography, 10, 1290-1302.  
IOS CONTRIBUTION NO.80084
- OWEN, A. 1980  
The tidal regime of the Bristol Channel : a numerical modelling approach.  
Geophysical Journal of the Royal Astronomical Society, 62, 59-75.  
IOS CONTRIBUTION NO.80043
- PACKWOOD, A.R. & PEREGRINE, D.H. 1981  
Surf and run-up on beaches : models or viscous effects.  
University of Bristol, School of Mathematics, Report No.AM-81-07, 34pp. (Unpublished manuscript).
- PARKER, W.R., SMITH, T.J. & KIRBY, R. 1980  
Observation of density stratification due to suspended sediment. pp.955-966 in, Proceedings of 2nd IAHR International symposium on stratified flows, Trondheim, 24-27 June 1980, (ed.T.Carstens & T.McClimans).  
Trondheim: Tapir. 1095pp.
- PARKER, W.R. & LEE, K. 1981  
The behaviour of fine sediment relevant to the dispersal of pollutants, in, Sediment and pollution interchange in tidal seas, (ed.H.Postma).  
Rapports et Procès-Verbaux des Réunions, ICES, 181, 28-34.  
IOS CONTRIBUTION NO.81075
- PARKER, W.R. & KIRBY, R. 1982  
Sources and patterns of sediments in the inner Bristol Channel and Severn Estuary.  
pp.181-194 in, Severn barrage. (Proceedings of a symposium organised by the Institution of Civil Engineers, London, 8-9 October 1981).  
London: Thomas Telford. 240pp.  
IOS CONTRIBUTION NO.82013
- PARKER, W.R. & KIRBY, R. 1982  
Time dependent properties of cohesive sediment relevant to sedimentation management : European experience.  
pp.573-589 in, Estuarine comparisons, (ed. V.S.Kennedy). (Proceedings of 6th International Estuarine Research Conference, Gleneden Beach, Oregon, November 1981).  
New York: Academic. 709ppp.
- PARSON, L.M. 1982  
The Precambrian and Caledonian geology of the ground near Fort Augustus, Invernesshire.  
University of Liverpool, Ph.D. thesis, 227pp.
- PINGREE, R.D. 1979  
Baroclinic eddies bordering the Celtic Sea in late summer.  
Journal of the Marine Biological Association of the U.K., 59, 689-698.  
IOS CONTRIBUTION NO.1468

- PINGREE, R.D. & MADDOCK, L. 1979  
Tidal flow around an island with a regularly sloping bottom topography.  
Journal of the Marine Biological Association of the U.K., 59, 699-710.  
IOS CONTRIBUTION NO.1466
- PINGREE, R.D. & MADDOCK, L. 1979  
The tidal physics of headland flows and offshore tidal bank formation.  
Marine Geology, 32, 269-289.  
IOS CONTRIBUTION NO.1469
- PINGREE, R.D., HOLLIGAN, P.M. & MARDELL, G.T. 1979  
Phytoplankton growth and cyclonic eddies.  
Nature, 278, 245-247.  
IOS CONTRIBUTION NO.1422
- PINGREE, R.D. & GRIFFITHS, D.K. 1979  
Sand transport paths around the British Isles resulting from M2 and M4 tidal interactions.  
Journal of the Marine Biological Association of the U.K., 59, 497-513.  
IOS CONTRIBUTION NO.1467
- PINGREE, R.D. & GRIFFITHS, D.K. 1980  
Currents driven by a steady uniform wind stress on the shelf seas around the British Isles.  
Oceanologica Acta, 3, 227-236,  
IOS CONTRIBUTION NO.80018
- PINGREE, R.D. & MADDOCK, L. 1980  
The effects of bottom friction and Earth's rotation on an island's wake.  
Journal of the Marine Biological Association of the U.K., 60, 499-508.  
IOS CONTRIBUTION NO.80036
- PINGREE, R.D. & GRIFFITHS, D.K. 1980  
A numerical model of the M2 tide in the Gulf of St. Lawrence.  
Oceanologica Acta, 3, 221-225.  
IOS CONTRIBUTION NO.80017
- PINGREE, R.D. 1980  
Physical oceanography of the Celtic Sea and English Channel. pp.415-465 in, The north-west European shelf seas : the sea bed and the sea in motion. II. Physical and chemical oceanography and physical resources, (ed.F.T.Banner, M.B.Collins & K.S.Massie).  
Amsterdam: Elsevier. 638pp. (Elsevier Oceanography Series No.24B).
- PINGREE, R.D. & MADDOCK, L. 1980  
Tidally induced residual flows around an island due to both frictional and rotational effects.  
Geophysical Journal of the Royal Astronomical Society, 63, 533-546.  
IOS CONTRIBUTION NO.80078

- PINGREE, R.D. & GRIFFITHS, D.K. 1981  
 The N2 tide and semidiurnal amphidromes around the British Isles.  
 Journal of the Marine Biological Association of the U.K., 61, 617-625.  
 IOS CONTRIBUTION NO.81042
- PINGREE, R.D. & GRIFFITHS, D.K. 1981  
 S2 tidal simulations on the north-west European shelf.  
 Journal of the Marine Biological Association of the U.K., 61, 609-616.  
 IOS CONTRIBUTION NO.81044
- PINGREE, R.D. & MARDELL, G.T. 1981  
 Slope turbulence, internal waves and phytoplankton growth at the Celtic Sea shelf-break.  
 Philosophical Transactions of the Royal Society of London, A, 302, 663-682.  
 IOS CONTRIBUTION NO.81072
- PINGREE, R.D. & GRIFFITHS, D.K. 1982  
 Tidal friction and the diurnal tides on the north-west European shelf.  
 Journal of the Marine Biological Association of the U.K., 62, 577-593.  
 IOS CONTRIBUTION NO.82061
- PINGREE, R.D., MARDELL, G.T., HOLLIGAN, P.M., GRIFFITHS, D.K. & SMITHERS, J. 1982  
 Celtic Sea and Armorican current structure and the vertical distributions of temperature and chlorophyll.  
 Continental Shelf Research, 1, 99-116.  
 IOS CONTRIBUTION NO.82058
- PINGREE, R.D., HOLLIGAN, P.M., MARDELL, G.T. & HARRIS, R.P. 1982  
 Vertical distribution of plankton in the Skagerrak in relation to doming of the seasonal thermocline.  
 Continental Shelf Research, 1, 209-219.  
 IOS CONTRIBUTION NO.82101
- PITT, E.G. 1980  
 The measurement of ocean waves and currents.  
 Journal of the Society for Underwater Technology, 6(4), 4-12.
- PITT, E.G. & FORTNUM, B.C.H. 1980  
 Progress in wave climate studies at the Institute of Oceanographic Sciences.  
 pp.191-205 in, Climatologie de la mer/Sea climatology. (Proceedings of an international conference organised by Association de Recherche Action des Elements, Paris, 3-4 October 1979).  
 Paris: Editions Technip. 413pp.  
 IOS CONTRIBUTION NO.80095
- PITT, E.G. 1982  
 Long-term wave climate studies.  
 MIAS News Bulletin, No.5, p.7.



- POLLARD, R.T. (Ed.) 1980  
Air-sea interaction project: summary of the 1978 field experiment.  
London: Royal Society. 139pp.
- POLLARD, R.T. 1980  
JASIN 1978 - a study of atmospheric and oceanic variability.  
Annalen der Meteorologie, New Series, No.15, p.113. (Abstract).
- POLLARD, R.T. 1980  
Modelling of mixing processes in the surface layers of the ocean.  
pp.191-195 in, Fjord oceanography, (ed.H.J. Freeland, D.M.Farmer & C.D.Levings).  
New York: Plenum. 715pp.  
IOS CONTRIBUTION NO.80060
- POLLARD, R.T. 1980  
Properties of near-surface inertial oscillations.  
Journal of Physical Oceanography, 10, 385-398.  
IOS CONTRIBUTION NO.80038
- PRANDLE, D. 1979  
Anomalous results for tidal flow through the Pentland Firth.  
Nature, 278, 541-542.  
IOS CONTRIBUTION NO.1440
- PRANDLE, D. 1979  
Hydrodynamic modelling of the southern North Sea.  
pp.1122-1141 in vol.1, Proceedings of the sixteenth coastal engineering conference, 1978, Hamburg, Germany. 3 vols.  
New York: American Society of Civil Engineers. 3060pp.  
IOS CONTRIBUTION NO.1479
- PRANDLE, D. 1980  
Co-tidal charts for the southern North Sea.  
Deutsche Hydrographische Zeitschrift, 33, 68-81.  
IOS CONTRIBUTION NO.80072
- PRANDLE, D. 1980  
Modelling of tidal barrier schemes: an analysis of the open-boundary problem by reference to AC circuit theory.  
Estuarine & Coastal Marine Science, 11, 53-71.  
IOS CONTRIBUTION NO.80050
- PRANDLE, D. 1980  
Recordings of flow through the Pentland Firth using submarine telephone cables.  
'Meteor' Forschungsergebnisse, A, No.22, 33-42.  
IOS CONTRIBUTION NO.80061
- PRANDLE, D. & RAHMAN, M. 1980  
Tidal response in estuaries.  
Journal of Physical Oceanography, 10, 1552-1573.  
IOS CONTRIBUTION NO.80101

- PRANDLE, D. 1981  
Salinity intrusion in estuaries.  
Journal of Physical Oceanography, 11, 1311-1324.  
IOS CONTRIBUTION NO.81101
- PRANDLE, D. 1981  
Tidal power schemes in the Bay of Fundy and Bristol Channel.  
pp.397-408 in, 2nd International symposium on wave and tidal  
energy, Cambridge, 23-25 September, 1981, organised by BHRA  
Fluid Engineering.  
Cranfield, Bedford: BHRA Fluid Engineering. 440pp.  
IOS CONTRIBUTION NO.81068
- PRANDLE, D., FUNKE, E.R., CROOKSHANK, N.L. & RENNER, R. 1981  
The use of array processors for numerical modelling of tidal  
estuary dynamics.  
pp.2413-2432 in vol.3, Proceedings of the seventeenth coastal  
engineering conference, March 23 to 28, 1980, Sidney, Australia.  
3 vols.  
New York: American Society of Civil Engineers. 317lpp.  
IOS CONTRIBUTION NO.81086
- PRANDLE, D. 1982  
The vertical structure of tidal currents.  
Geophysical & Astrophysical Fluid Dynamics, 22, 29-49.  
IOS CONTRIBUTION NO.82097
- PRANDLE, D. 198  
The vertical structure of tidal currents and other oscillatory  
flows.  
Continental Shelf Research, 1, 191-207.  
IOS CONTRIBUTION NO.82110
- PROCTOR, R. 1979  
Residual circulation in the Irish Sea. (Abstract of paper  
presented at the 3rd U.K. Geophysical Assembly, 2-5 April, 1979,  
University of Southampton).  
Geophysical Journal of the Royal Astronomical Society, 57,  
p.284.
- PROCTOR, R. 1981  
Mathematic modelling of tidal power schemes in the Bristol  
Channel.  
pp.33-51 in, 2nd International symposium on wave and tidal  
energy, Cambridge, 23-25 September, 1981, organised by BHRA  
Fluid Engineering.  
Cranfield, Bedford: BHRA Fluid Engineering. 440pp.  
IOS CONTRIBUTION NO.81067
- PUCHELT, H. & FLEMMING, N.C. 1980  
Orogenesis plate tectonics and early vulcanicity of the Aegean :  
discussion, edited by H.Puchelt & N.C.Flemming.  
pp.263-276 in, Thera and the Aegean world, vol. II,  
(ed.C.Doumas). (Proceedings of 2nd International Scientific  
Congress, Santorini, Greece, August 1980).  
London: Thera and the Aegean World. 427pp.

- PUGH, D.T. & VASSIE, J.M. 1979  
 Extreme sea levels from tide and surge probability.  
 pp.911-930 in vol.1, Proceedings of the sixteenth coastal  
 engineering conference, 1978, Hamburg, Germany. 3 vols.  
 New York: American Society of Civil Engineers. 3060pp.  
 IOS CONTRIBUTION NO.1476
- PUGH, D.T. 1979  
 Sea levels at Aldabra Atoll, Mombasa and Mahé, western  
 equatorial Indian Ocean, related to tides, meteorology and ocean  
 circulation.  
 Deep-Sea Research, 26A, 237-258.  
 IOS CONTRIBUTION NO.1441
- PUGH, D.T. & VASSIE, J.M. 1980  
 Applications of the joint probability method for extreme sea  
 level computations.  
 Proceedings of the Institution of Civil Engineers, Part 2, 69,  
 959-975. Discussion: Ibid, 71, 1981, 971-976.  
 IOS CONTRIBUTION NO.80086
- PUGH, D.T. 1981  
 Tidal amphidrome movement and energy dissipation in the Irish  
 Sea.  
 Geophysical Journal of the Royal Astronomical Society, 67,  
 515-527.  
 IOS CONTRIBUTION NO.81064
- PUGH, D.T. & RAYNER, R. 1981  
 The tidal regimes of three Indian Ocean atolls and some  
 ecological implications.  
 Estuarine, Coastal and Shelf Science, 13, 389- 407.  
 IOS CONTRIBUTION NO.81071
- PUGH, D.T. 1982  
 Estimating extreme currents by combining tidal and surge  
 probabilities.  
 Ocean Engineering, 9, 361-372.  
 IOS CONTRIBUTION NO.82052
- PUGH, D.T. 1982  
 Permanent Service for Mean Sea Level : annual report of  
 activities - 1981.  
 IUGG Chronicle, No.154, 69-71.
- PUGH, D.T. 1982  
 A comparison of recent and historical tides and mean sea-levels  
 off Ireland.  
 Geophysical Journal of the Royal Astronomical Society, 71,  
 809-815.  
 IOS CONTRIBUTION NO.82095
- QUADFASEL, D. & SCHOTT, F. 1979  
 Comparison of different methods of current measurements.  
 Deutsche Hydrographische Zeitschrift, 32, 27-38.  
 IOS CONTRIBUTION NO.1442

- RAE, J.B. 1980  
Offshore tide gauges.  
pp.51-65 in, Advances in hydrographic surveying. (Proceedings of  
a one-day seminar organised jointly by the Hydrographic Society  
and the Society for Underwater Technology.)  
London: Society for Underwater Technology. 76pp.  
IOS CONTRIBUTION NO.80104
- REES, A.I. 1979  
The orientation of grains in a sheared dispersion.  
Tectonophysics, 55, 275-287.  
IOS CONTRIBUTION NO.1444
- REES, A.I., BROWN, C.M., HAILWOOD, E.A. & RIDDY, P.J. 1982  
Magnetic fabric of bioturbated sediment from the northern  
Rockall Trough : comparison with modern currents.  
Marine Geology, 46, 161-173.  
IOS CONTRIBUTION NO.82027
- RICE, A.L. 1979  
A plea for improved standards in description of crab zoea.  
Crustaceana, 37, 214-218.  
IOS CONTRIBUTION NO.1489
- RICE, A.L., ALDRED, R.G., BILLETT, D.S.M. & THURSTON, M.H. 1979  
The combined use of an epibenthic sledge and a deep-sea camera  
to give quantitative relevance to macro-benthos samples.  
Ambio, Special Report, No.6, pp.59-72.  
IOS CONTRIBUTION NO.1472
- RICE, A.L. 1979  
A remarkable benthic catch of portunid crab zoeae. (Decapoda,  
Brachyura).  
Crustaceana, Suppl.5, 17-21.  
IOS CONTRIBUTION NO.1445
- RICE, A.L. 1980  
The beginnings of French oceanography : the cruise of the  
'Travailleur', July 1880.  
Oceanologica Acta, 3, 265-266.
- RICE, A.L. & WILSON, J.B. 1980  
The British Association 'Dredging Committee': a brief history.  
pp.373-385 in, Oceanography : the past, (ed.M. Sears &  
D.Merriman). (Proceedings 3rd international congress on the  
history of oceanography, Woods Hole, Mass., 22-26 September  
1980).  
New York: Springer-Verlag. 812pp.
- RICE, A.L. 1980  
Crab zoeal morphology and its bearing on the classification of  
the Brachyura.  
Transactions of the Zoological Society of London, 35, 271-424.  
IOS CONTRIBUTION NO.80025

- RICE, A.L. & COLLINS, E.P. 1980  
The face of the deep sea.  
British Journal of Photography, 127, 449-451.  
IOS CONTRIBUTION NO.80033
- RICE, A.L. 1980  
The first zoeal stage of Ebalia nux A. Milne Edwards 1883, with  
a discussion of the zoeal characters of the Leucosiidae  
(Crustacea, Decapoda, Brachyura).  
Journal of Natural History, 14, 331-337.  
IOS CONTRIBUTION NO.80047
- RICE, A.L. 1981  
The abdominal locking mechanism in the deep-sea shrimp genus  
Glyphocrangon (Decapoda, Glyphocrangonidae).  
Crustaceana, 40, 316-319.  
IOS CONTRIBUTION NO.81025
- RICE, A.L. 1981  
The megalopa stage in brachyuran crabs. The Podotremata Guinot.  
Journal of Natural History, 15, 1003-1011.  
IOS CONTRIBUTION NO.81084
- RICE, A.L. 1981  
The status of Glyphocrangon rimapes Bate, 1888 (Crustacea,  
Decapoda, Glyphocrangonidea).  
Bulletin of the British Museum (Natural History), Zoology, 40,  
275-285.  
IOS CONTRIBUTION NO.81031
- RICE, A.L. 1981  
Crab zoeae and brachyuran classification : a re-appraisal.  
Bulletin of the British Museum (Natural History), Zoology, 40,  
287-296.  
IOS CONTRIBUTION NO.81032
- RICE, A.L. 1981  
The zoea of Acanthodromia erinacea A.Milne Edwards; the first  
description of a dynomenid larva (Decapoda, Dromioidea).  
Journal of Crustacean Biology, 1, 174-176.  
IOS CONTRIBUTION NO.81061
- RICE, A.L., ALDRED, R.G., DARLINGTON, E. & WILD, R.A. 1982  
The quantitative estimation of the deep-sea megabenthos; a new  
approach to an old problem.  
Oceanologica Acta, 5, 63-72.  
IOS CONTRIBUTION NO.82034
- RICE, A.L. & KRISTENSEN, I. 1982  
Surface swarms of swimming crab megalopae at Curaçao, (Decapoda,  
Brachyura).  
Crustaceana, 42, 233-240.  
IOS CONTRIBUTION NO.82042

- RICE, A.L. 1982  
 The megalopa stage of Latreillia elegans Roux (Decapoda, Brachyura, Homoloidea).  
 Crustaceana, 43, 205-210.  
 IOS CONTRIBUTION NO.82077
- RICHARDS, K.J. 1982  
 The effect of friction on the dynamics of the ocean.  
 Ocean Modelling, No.42, 4-6. (Unpublished manuscript).
- RICHARDS, K.J. 1982  
 Modelling the benthic boundary layer.  
 Journal of Physical Oceanography, 12, 428-439.  
 IOS CONTRIBUTION NO.82062
- RICHARDS, K.J. 1982  
 The effect of a bottom boundary layer on the stability of a baroclinic zonal current.  
 Journal of Physical Oceanography, 12, 1493-1505.  
 IOS CONTRIBUTION NO.82116
- ROBERTS, D.G. & KIDD, R.B. 1979  
 Abyssal sediment wave fields on Feni Ridge, Rockall Trough : long-range sonar studies.  
 Marine Geology, 33, 175-191.  
 IOS CONTRIBUTION NO.1487
- ROBERTS, D.G., HUNTER, P.M. & LAUGHTON, A.S. 1979  
 Bathymetry of the northeast Atlantic : continental margin around the British Isles.  
 Deep-Sea Research, 26A, 417-428 & Admiralty chart No.C6567.  
 IOS CONTRIBUTION NO.1446
- ROBERTS, D.G. et al 1979  
 Introduction and explanatory notes, Leg 48, IPOD Phase of the Deep Sea Drilling Project.  
 Initial Reports of the Deep Sea Drilling Project, 48, 9-31.
- ROBERTS, D.G. & MONTADERT, L. 1979  
 Evolution of passive rifted margins perspective and retrospective of Deep Sea Drilling Project Leg 48.  
 Initial Reports of the Deep Sea Drilling Project, 48, 1143-1153.
- ROBERTS, D.G. & MONTADERT, L. 1979  
 Objectives of passive margin drilling.  
 Initial Reports of the Deep Sea Drilling Project, 48, 5-8.
- ROBERTS, D.G. & MONTADERT, L. 1979  
 Margin palaeoenvironments of the north east Atlantic.  
 Initial Reports of the Deep Sea Drilling Project, 48, 1099-1118.
- ROBERTS, D.G. et al 1979  
 Rifting and subsidence of the northern continental margin of the Bay of Biscay.  
 Initial Reports of the Deep Sea Drilling Project, 48, 1025-1060.

- ROBERTS, D.G., MONTADERT, L. & SEARLE, R.C. 1979  
 The western Rockall Plateau : stratigraphy and structural evolution.  
 Initial Reports of the Deep Sea Drilling Project, 48, 1061-1088.  
 IOS CONTRIBUTION NO.1499
- ROBERTS, D.G. & MONTADERT, L. 1980  
 Contrasts in the structure of the passive margins of the Bay of Biscay and Rockall Plateau.  
 Philosophical Transactions of the Royal Society of London, A, 294, 97-103.  
 IOS CONTRIBUTION NO.80004
- ROBERTS, D.G. et al 1980  
 Geological setting and principal results of drilling on the margins of the Bay of Biscay and Rockall Plateau during Leg 48.  
 Philosophical Transactions of the Royal Society of London, A, 294, 65-75.  
 IOS CONTRIBUTION NO.80002
- ROBERTS, D.G., MASSON, D.G. & MILES, P.R. 1981  
 Age and structure of the southern Rockall Trough : new evidence.  
 Earth and Planetary Science Letters, 52, 115- 128.  
 IOS CONTRIBUTION NO.81009
- ROBERTS, D.G., MASSON, D.G., MONTADERT, L. & CHARPAL, O. DE 1981  
 Continental margin from the Porcupine Seabight to the Armorican marginal basin.  
 pp.455-473 in, Petroleum geology of the continental shelf of north-west Europe, (ed.L.V. Illing and G.D.Hobson). (Proceedings of the 2nd conference, London 4-6 March 1980).  
 London: Heyden & Son Ltd., for the Institute of Petroleum.  
 521pp.  
 IOS CONTRIBUTION NO.81016
- ROBERTS, D.G. 1981  
 News and views: continental margin processes : report on the Hedberg Conference.  
 Nature, 290, 733-734.
- ROBINSON, I.S. 1979  
 The tidal dynamics of the Irish and Celtic Seas.  
 Geophysical Journal of the Royal Astronomical Society, 56, 159-197.  
 IOS CONTRIBUTION NO.1426
- ROE, H.S.J. & SHALE, D.M. 1979  
 A new multiple rectangular midwater trawl (RMT 1 + 8M) and some modifications to the Institute of Oceanographic Sciences' RMT 1 + 8.  
 Marine Biology, 50, 283-288.  
 IOS CONTRIBUTION NO.1427

- ROE, H.S.J., BAKER, A. DE C., CARSON, R.M., WILD, R.A. & SHALE, D.M. 1980  
The behaviour of the Institute of Oceanographic Sciences' rectangular midwater trawls : theoretical aspects and experimental observations.  
Marine Biology, 56, 247-259.  
IOS CONTRIBUTION NO.80049
- ROE, H.S.J. & HARRIS, M.J. 1980  
A new acoustically telemetering deep-sea photometer with some observations on underwater light in the northeast Atlantic.  
Deep-Sea Research, 27A, 181-195.  
IOS CONTRIBUTION NO.80014
- ROE, H.S.J. 1982  
New deep-sea photometer and its biological applications.  
pp.127-136 in, Light measurement '81. (Proceedings of SIRA seminar, Guildford, Surrey, 8-9 September 1981).  
Bellingham, Wash.: Society of Photo-Optical and Instrumentation Engineers. (SPIE Vol.262).  
IOS CONTRIBUTION NO.82035
- RUSBY, J.S.M. & WAITES, S.P. 1980  
The deployment and operational performance of the DB1 data buoy system in the South West Approaches to the British Isles.  
pp.548-553 in, Oceans '80.  
New York: Institute of Electrical and Electronics Engineers.  
553pp.  
IOS CONTRIBUTION NO.80085
- RUSBY, J.S.M. 1982  
The anchoring of oceanographic instruments and data buoys.  
pp.37-46 in, Anchoring systems. (Proceedings of a seminar, Aberdeen, 17 February, 1982.)  
London: Society for Underwater Technology.
- SALDANHA, L. & MERRETT, N.R. 1982  
A new species of the deep-sea eel genus *Ilyophis* Gilbert (Synphobranchidae) from the eastern north Atlantic, with comments on its ecology and intrafamilial relationships.  
Journal of Fish Biology, 21, 623-636.  
IOS CONTRIBUTION NO.82096
- SALKIELD, A.P., LEGOOD, G.P. & SOULSBY, R.L. 1981  
An impact sensor for measuring suspended sand concentration.  
pp. 37-47 in, Proceedings of IERE conference on electronics for ocean technology, Birmingham, September 1981.  
London: Institution of Electronic and Radio Engineers. 348pp.  
(IERE Conference Proceedings No.51).  
IOS CONTRIBUTION NO.81056



- SALKIELD, A.P., HARDCASTLE, P.J. & HUMPHERY, J.D. 1982  
 IOS experience with and developments in routine wave recording techniques.  
 pp.92-100 in, The management of oceanic resources - the way ahead, Vol.II. (Proceedings of international conference, London, April 1981).  
 Los Angeles: University of Southern California, Institute for Marine and Coastal Studies for ECOR. 666pp.
- SAUNDERS, P.M. 1980  
 Overspeeding of a Savonius rotor.  
 Deep-Sea Research, 27A, 755-759.  
 IOS CONTRIBUTION NO.80080
- SAUNDERS, P.M. 1981  
 Practical conversion of pressure to depth.  
 Journal of Physical Oceanography, 11, 573-574.  
 IOS CONTRIBUTION NO.81040
- SAUNDERS, P.M. 1982  
 Circulation in the eastern north Atlantic.  
 Journal of Marine Research, 40, Supplement, 641-657.  
 IOS CONTRIBUTION NO.82106
- SCHOTT, F. & QUADFASEL, D. 1979  
 Lagrangian and Eulerian measurements of horizontal mixing in the Baltic.  
 Tellus, 31, 138-144.  
 IOS CONTRIBUTION NO.1443
- SCHOTT, F. & QUADFASEL, D. 1980  
 Development of the subsurface currents of the northern Somali Current gyres from March to July 1979.  
 Science, 209, 593-595.  
 IOS CONTRIBUTION NO.80088
- SCHULTHEISS, P.J. 1981  
 Simultaneous measurement of P and S wave velocities during conventional laboratory soil testing procedures.  
 Marine Geotechnology, 4, 343-367.
- SCHULTHEISS, P.J. 1982  
 The influence of packing structure on seismic wave velocities in sediments.  
 University of Wales, Ph.D. thesis, 186pp.
- SEARLE, R.C. 1979  
 The median transverse ridge of Charlie-Gibbs Fracture Zone.  
 (Abstract of paper presented at 3rd U.K. Geophysical Assembly, 2-5 April, 1979, University of Southampton).  
 Geophysical Journal of the Royal Astronomical Society, 57, p.261.
- SEARLE, R.C. 1979  
 Side-scan sonar studies of North Atlantic fracture zones.  
 Journal of the Geological Society, 136, 283-292.  
 IOS CONTRIBUTION NO.1447

- SEARLE, R.C. 1980  
Tectonic pattern on the Azores spreading centre and triple junction.  
Earth and Planetary Science Letters, 51, 415- 434.  
IOS CONTRIBUTION NO.80089
- SEARLE, R.C. 1981  
The active part of Charlie-Gibbs fracture zone : a study using sonar and other geophysical techniques.  
Journal of Geophysical Research, 86, 243-262.  
IOS CONTRIBUTION NO.81020
- SEARLE, R.C. & LAUGHTON, A.S. 1981  
Fine-scale sonar study of tectonics and volcanism on the Rejkjanes Ridge.  
Colloque. 26e Congrès Géologique International, Paris, 1980, No.C4, 5-13. (Oceanologica Acta, vol.4, Supplement).  
IOS CONTRIBUTION NO.81048
- SEARLE, R.C., FRANCIS, T.J.G., HILDE, T.W.C., SOMERS, M.L., REVIE, J., JACOBS, C.L., SAUNDERS, M.R., BARROW, B.J. & BICKNELL, S.V. 1981  
'GLORIA' side-scan sonar in the east Pacific.  
EOS, Transactions of the American Geophysical Union, 62, 121-122.  
IOS CONTRIBUTION NO.81021
- SEARLE, R.C. 1982  
GLORIA survey over Costa Rica Rift sites 501, 504 and 505.  
Initial Reports of the Deep Sea Drilling Project, 69, 217-222.  
IOS CONTRIBUTION NO.82121
- SEARLE, R.C., MONAHAN, D. & JOHNSON, G.L. 1982  
General Bathymetric Chart of the Oceans (GEBCO), 5th edition : Chart No.5.08. (Bathymetry of the southern northern Atlantic).  
Ottawa: Canadian Hydrographic Service. (Scale 1:10,000,000 at the Equator).
- SHEARME, S. 1982  
The geochemistry of sediments from the Atlantic and Pacific Oceans.  
University of London, Ph.D. thesis, 409pp.
- SIMPSON, W.R. 1981  
A critical review of Cadmium in the marine environment.  
Progress in Oceanography, 10, 1-70.
- SIMPSON, W.R. 1982  
Particulate matter in the oceans - sampling methods, concentration, size distribution and particle dynamics.  
pp.119-172 in, Oceanography and marine biology: an annual review, vol.20, (ed.M.Barnes).  
Aberdeen University Press. 777pp.  
IOS CONTRIBUTION NO.82111

- SMITH, D.J., EGLINTON, G., MORRIS, R.J. & POUTANEN, E.L. 1982  
Aspects of the steroid geochemistry of a recent diatomaceous  
sediment from the Namibian Shelf.  
Oceanologica Acta, 5, 365-378.  
IOS CONTRIBUTION NO.82053
- SMITH, T.J. & DYER, K.R. 1979  
Mathematical modelling of circulation and mixing in estuaries.  
pp.301-341 in, Mathematical modelling of turbulent diffusion in  
the environment, (ed.C.J.Harris).  
London: Academic. 500pp.
- SMITH, T.J. 1979  
Modelling the vertical structure of the flow in partially mixed  
estuaries. (Abstract of paper presented at the 3rd U.K.  
Geophysical Assembly, 2-5 April, 1979, University of  
Southampton).  
Geophysical Journal of the Royal Astronomical Society, 57,  
p.283.
- SMITH, T.J. & TAKHAR, H.S. 1979  
On the calculation of the width averaged flow due to long waves  
in an open channel.  
Journal of Hydraulic Research, 17, 329-340.
- SMITH, T.J. & TAKHAR, H.S. 1980  
The effect of stratification on the turbulent transport of mass  
momentum.  
pp.79-86 in vol.2, Proceedings 18th congress of the IAHR,  
Cagliari, 10-15 September 1979.  
Delft: IAHR.  
IOS CONTRIBUTION NO.80064
- SMITH, T.J. & TAKHAR, H.S. 1981  
A mathematical model for partially mixed estuaries using the  
turbulent energy equation.  
Estuarine, Coastal & Shelf Science, 13, 27-45.  
IOS CONTRIBUTION NO.81034
- SMITH, T.J. 1982  
On the representation of Reynolds stress in estuaries and  
shallow coastal seas.  
Journal of Physical Oceanography, 12, 914-921.  
IOS CONTRIBUTION NO.82081
- SOULSBY, R.L. 1980  
Measurements of the Reynolds stress components close to a marine  
sand bank.  
Résumés/Abstracts, 26e Congrès Géologique International, Paris,  
7-17 July 1980, p.544.
- SOULSBY, R.L. 1980  
Selecting record length and digitization rate for near-bed  
turbulence measurements.  
Journal of Physical Oceanography, 10, 208-219.  
IOS CONTRIBUTION NO.80028

- SOULSBY, R.L. & DYER, K.R. 1981  
 The form of the near-bed velocity profile in a tidally accelerating flow.  
 Journal of Geophysical Research, 86, 8067-8074.  
 IOS CONTRIBUTION NO.81074
- SOULSBY, R.L. 1981  
 Measurements of the Reynolds stress components close to a marine sandbank.  
 Marine Geology, 42, 35-47. Also pp.35-47 in, Sedimentary dynamics of continental shelves, (ed.C.A.Nittrouer).  
 Amsterdam: Elsevier.  
 IOS CONTRIBUTION NO.81037
- SROKOSZ, M.A. 1979  
 The submerged sphere as an absorber of wave power.  
 Journal of Fluid Mechanics, 95, 717-741.
- SROKOSZ, M.A. 1980  
 Some relations for bodies in a canal, with an application to wave-power absorption.  
 Journal of Fluid Mechanics, 99, 145-162.
- SROKOSZ, M.A. 1981  
 A note on arrays of oscillating water column wave-energy devices.  
 IMA Journal of Applied Mathematics, 27, 291-297.
- SROKOSZ, M.A. 1981  
 A note on particle trajectories in the highest wave.  
 Journal of Fluid Mechanics, 111, 491-495.  
 IOS CONTRIBUTION NO.81079
- SROKOSZ, M. 1981  
 Breaking effects in standing and reflected waves.  
 pp.183-215 in, Hydrodynamics in ocean engineering, (Proceedings of the international symposium, Trondheim, 24-28 August, 1981).  
 2 vols.  
 Trondheim: Norwegian Institute of Technology. 1245pp.  
 IOS CONTRIBUTION NO.81104
- STRIDE, A.H. 1982  
 Geotechnical importance of GLORIA survey of the European continental slope.  
 Paper No.2.5 in, Oceanology International exhibition and conference, 2-5 March 1982, Brighton.  
 Kingston-upon-Thames: Spearhead Exhibition Ltd. (Various pagination in 2 volumes).  
 IOS CONTRIBUTION NO.82019
- STRIDE, A.H., BELDERSON, R.H. & KENYON, N.H. 1982  
 Structural grain, mud volcanoes and other features on the Barbados Ridge complex revealed by GLORIA long-range side-scan sonar.  
 Marine Geology, 49, 187-196.  
 IOS CONTRIBUTION NO.82068

- STRIDE, A.H., BELDERSON, R.H., KENYON, N.H. & JOHNSON, M.A. 1982  
Offshore tidal deposits: sand sheet and sand bank facies.  
pp.95-125 in, Offshore tidal sands, (ed.A.H.Stride).  
London: Chapman & Hall. 222pp.
- STRIDE, A.H. (Ed.) 1982  
Offshore tidal sands: processes and deposits.  
London: Chapman & Hall. 222pp.
- STRIDE, A.H. 1982  
Background and outline.  
pp.1-9 in, Offshore tidal sands, (ed.A.H.Stride).  
London: Chapman & Hall. 222pp.
- SWALLOW, J.C. 1980  
The Indian Ocean Experiment: introduction.  
Science, 209, p.588.  
IOS CONTRIBUTION NO.80088
- SWALLOW, J.C., CURRIE, R.I., GILL, A.E. & SIMPSON, J.H. (Eds) 1981  
Circulation and fronts in continental shelf seas : a discussion.  
Philosophical Transactions of the Royal Society of London, A,  
302, 511-689.
- SWALLOW, J.C. 1981  
Observations of the Somali Current and its relationship to the  
monsoon winds.  
pp.445-452 in, Monsoon dynamics, (ed.M.J. Lighthill & R.Pearce).  
Cambridge University Press. 735pp.
- SWALLOW, J.C. 1981  
Evolution of near-surface features in the Somali Current.  
pp.381-306 in, Recent progress in equatorial oceanography,  
(ed.J.P. McCreary et al.)  
(Final Report of SCOR Working Group 47).  
Dania, Fa.: Nova University/N.Y.I.T. Press.
- SWALLOW, J.C. & FIEUX, M. 1981  
The Somali Current in May and June as seen in historical data.  
pp.439-451 in, Recent progress in equatorial oceanography,  
(ed.J.P. McCreary et al.)  
(Final Report of SCOR Working Group 47).  
Dania, Fa.: Nova University/N.Y.I.T. Press.
- SWALLOW, J.C. & FIEUX, M. 1982  
Historical evidence for two gyres in the Somali Current.  
Journal of Marine Research, 40, Supplement, 747-755.  
IOS CONTRIBUTION NO.82107
- TAYLOR, P.K. 1979  
Observations of fronts over the ocean. (Abstract of paper  
presented at 3rd U.K. Geophysical Assembly, 2-5 April, 1979,  
University of Southampton).  
Geophysical Journal of the Royal Astronomical Society, 57,  
p.292.

- TAYLOR, P.K., KATSAROS, K.B. & LIPES, R.G. 1981  
 Determinations by Seasat of atmospheric water and synoptic fronts.  
 Nature, 294, 737-739.  
 IOS CONTRIBUTION NO.81093
- TAYLOR, P.K. 1982  
 Remote sensing of atmospheric water content and sea surface latent heat flux.  
 pp.265-272 in, Remote sensing and the atmosphere. (Proceedings of annual technical conference, Liverpool, December 1982).  
 Reading: Remote Sensing Society. 317pp.
- TENDAL, O.S. & GOODAY, A.J. 1981  
 Xenophyophoria (Rhizopoda, Protozoa) in bottom photographs from the bathyal and abyssal NE Atlantic.  
 Oceanologica Acta, 4, 415-422.
- THOMPSON, K.R. 1979  
 Regression models for monthly mean sea level.  
 Marine Geodesy, 2, 269-290.  
 IOS CONTRIBUTION NO.1448
- THOMPSON, K.R. 1980  
 An analysis of British monthly mean sea level.  
 Geophysical Journal of the Royal Astronomical Society, 63, 57-73.  
 IOS CONTRIBUTION NO.80075
- THOMPSON, K.R. 1981  
 Monthly changes of coastal sea level and the circulation of the North Atlantic.  
 International Council for the Exploration of the Sea, ICES C.M. 1981/C:11, Hydrography Committee, 17pp. & figs. (Unpublished manuscript).
- THOMPSON, K.R. 1981  
 Monthly changes of coastal sea level and the circulation of the North Atlantic.  
 Ocean Modelling, No.41, 6-9 & figs. (Unpublished manuscript).
- THOMPSON, K.R. 1981  
 The response of southern North Sea elevations to oceanographical and meteorological forcing.  
 Estuarine, Coastal and Shelf Science, 13, 287- 301.  
 IOS CONTRIBUTION NO.81065
- THOMPSON, K.R. 1982  
 The influence of local winds and the southern North Sea on the level of the River Thames.  
 Estuarine, Coastal & Shelf Science, 15, 605-610.  
 IOS CONTRIBUTION NO.82102
- THOMSON, J. & WILSON, T.R.S. 1980  
 Burrow-like structures at depth in a Cape Basin red clay core.  
 Deep-Sea Research, 27A, 197-202.  
 IOS CONTRIBUTION NO.80015

- THOMSON, J. 1982  
 Holocene sedimentation rates on the Hellenic Outer Ridge : a comparison of  $^{14}\text{C}$  and  $^{230}\text{Th}$  excess methods.  
 Sedimentary Geology, 32, 99-110.  
 IOS CONTRIBUTION NO.82038
- THOMSON, J. 1982  
 A total dissolution method for determination of the  $\alpha$ -emitting isotopes of uranium and the thorium in deep-sea sediments.  
 Analytica Chimica Acta, 142, 259-268.  
 IOS CONTRIBUTION NO.82089
- THORPE, S.A. 1979  
 Instability and waves.  
 Weather, 34, 102-105.
- THORPE, S.A. & STUBBS, A.R. 1979  
 Bubbles in a freshwater lake.  
 Nature, 279, 403-405.  
 IOS CONTRIBUTION NO.1449
- THORPE, S.A. & HUMPHRIES, P.N. 1980  
 Bubbles and breaking waves.  
 Nature, 283, 463-465.  
 IOS CONTRIBUTION NO.80005
- THORPE, S.A. & HALL, A.J. 1980  
 The mixing layer of Loch Ness.  
 Journal of Fluid Mechanics, 101, 687-703.  
 IOS CONTRIBUTION NO.80098
- THORPE, S.A. 1981  
 An experimental study of critical layers.  
 Journal of Fluid Mechanics, 103, 321-344.  
 IOS CONTRIBUTION NO.81014
- THORPE, S.A. & HALL, A.J. 1981  
 Observations of the thermal anatomy of wind rows. (Abstract of paper presented at the 8th EGS general assembly, August 24-28 1981, University of Uppsala, Sweden).  
 EOS, Transactions of the American Geophysical Union, 62, p.795.
- THORPE, S.A. 1982  
 On the clouds of bubbles formed by breaking wind-waves in deep water, and their role in air-sea gas transfer.  
 Philosophical Transactions of the Royal Society of London, A, 304, 155-210.  
 IOS CONTRIBUTION NO.82014
- THORPE, S.A. & HALL, A.J. 1982  
 Observations of the thermal structure of Langmuir circulation.  
 Journal of Fluid Mechanics, 114, 237-250.  
 IOS CONTRIBUTION NO.82010
- THORPE, S.A., STUBBS, A.R., HALL, A.J. & TURNER, R.J. 1982  
 Wave-produced bubbles observed by side-scan sonar.  
 Nature, 296, 636-638.  
 IOS CONTRIBUTION NO.82033

- THORPE, S.A. 1982  
 On the layers produced by rapidly oscillating a vertical grid in a uniformly stratified fluid.  
 Journal of Fluid Mechanics, 124, 391-409.  
 IOS CONTRIBUTION NO.82099
- THURSTON, M.H. 1979  
 Scavenging abyssal amphipods from the northeast Atlantic Ocean.  
 Marine Biology, 51-68.  
 IOS CONTRIBUTION NO.1428
- THURSTON, M.H. 1980  
 Abyssal benthic Amphipoda (Crustacea) from the East Iceland Basin. 1. The genus Rhachotropis.  
 Bulletin of the British Museum (Natural History), Zoology Series, 38, 43-67.  
 IOS CONTRIBUTION NO.80019
- THURSTON, M.H. 1980  
 Abyssal benthic Amphipoda (Crustacea) from the East Iceland Basin. 2. Lepechinella and an allied new genus.  
 Bulletin of the British Museum (Natural History), Zoology Series, 38, 69-87.
- THURSTON, M.H. 1982  
 Ornithological observations in the South Atlantic Ocean and Weddell Sea, 1959-64.  
 British Antarctic Survey Bulletin, No.55, 77-103 & appendix.
- THURSTON, M.H. 1982  
Cheus Annae, new genus, new species (Cheidae, new family), a fossorial amphipod from the Falkland Islands.  
 Journal of Crustacean Biology, 2, 410-419.  
 IOS CONTRIBUTION NO.82078
- THURSTON, M.H. 1982  
 Ross's Gull in the northeastern Atlantic Ocean.  
 Sea Swallow, 31, 53-55.
- TUCKER, M.J. 1981  
 The importance of oceanography to the offshore oil industry. pp.487-512 in, Petromar '80. (Proceedings of the international conference on petroleum and the marine environment, Monaco, 27-30 May 1980).  
 London: Graham and Trotman. 788pp.  
 IOS CONTRIBUTION NO.81092
- TUCKER, M.J. 1982  
 The heave response of a spar buoy.  
 Ocean Engineering, 9, 259-270.  
 IOS CONTRIBUTION NO.82046



- TUCKER, M.J. & FORTNUM, B.C.H. 1982  
 The significance of the N-year design wave height.  
 pp.207-224 in, The management of oceanic resources - the way  
 ahead, vol.II. (Proceedings of international conference, London,  
 April 1981).  
 Los Angeles: University of Southern California, Institute for  
 Marine and Coastal Studies for ECOR. 666pp.
- TWICHELL, D.C. & ROBERTS, D.G. 1982  
 Morphology, distribution and development of submarine canyons  
 on the United States Atlantic continental slope between Hudson  
 and Baltimore Canyons.  
 Geology, 10, 408-412.
- VASSIE, J.M. 1982  
 Tides and low frequency variations in the Equatorial Atlantic.  
 Oceanologica Acta, 5, 3-6.  
 IOS CONTRIBUTION NO.82007
- WEAVER, P.P.E. 1981  
 The distribution of Ostracoda in the British Cenomanian.  
 pp.156-162 in, Microfossils from recent and fossil shelf seas,  
 (ed.J.W.Neale & M.D.Brasier).  
 Chichester: Ellis Horwood Ltd. (British Micropaleontological  
 Society Series).
- WEAVER, P.P.E. 1981  
 Ostracoda from the British Lower Chalk and Plenus Marls.  
 Palaeontographic Society Monograph, 135(562), 1-127 & pls. 1-20.  
 (Publication No.562).
- WEBB, D.J. 1979  
 A comparison of wave heights measured from the Seasat-1 radar  
 altimeter and C.Clayson's pitch-roll buoy during JASIN '78.  
 JASIN News, No.14, 2-3 & figs. (Unpublished manuscript).
- WEBB, D.J. 1980  
 Tides and tidal friction in a hemispherical ocean centred at the  
 equator.  
 Geophysical Journal of the Royal Astronomical Society, 61,  
 573-600.  
 IOS CONTRIBUTION NO.80041
- WEBB, D.J. 1981  
 A comparison of SEASAT 1 altimeter measurements of wave height  
 with measurements made by a pitch-roll buoy.  
 Journal of Geophysical Research, 86, 6394-6398.  
 IOS CONTRIBUTION NO.81046
- WEBB, D.J. 1981  
 News and views: remote sensing of the oceans.  
 Nature, 289, 120-121.
- WEBB, D.J. 1981  
 The effect of polar wander on the tides of a hemispherical  
 ocean.  
 Ocean Modelling, No.36, 8-9, & figs. (Unpublished manuscript).

- WEBB, D.J. 1981  
A numerical model of the tides in the Gulf of Carpentaria and the Arafura Sea.  
Australian Journal of Marine and Freshwater Research, 32, 31-44.
- WEBB, D.J. 1981  
Tides and the evolution of the earth-moon system.  
Ocean Modelling, No.39, 5-6 & figs. (Unpublished manuscript).
- WEBB, D.J. 1982  
The effect of polar wander on the tides of a hemispherical ocean.  
Geophysical Journal of the Royal Astronomical Society, 68, 689-707.  
IOS CONTRIBUTION NO.82021
- WEBB, D.J. 1982  
Tides and the evolution of the Earth-Moon system.  
Geophysical Journal of the Royal Astronomical Society, 70, 261-271.  
IOS CONTRIBUTION NO.82040
- WEBB, D.J. 1982  
Tides and tidal energy.  
Contemporary Physics, 23, 419-442.  
IOS CONTRIBUTION NO.82076
- WHITMARSH, R.B. 1979  
The Owen Basin off the south-east margin of Arabia and the evolution of the Owen Fracture Zone.  
Geophysical Journal of the Royal Astronomical Society, 58, 441-470.  
IOS CONTRIBUTION NO.1470
- WHITMARSH, R.B. 1980  
News and views: towards the ideal seismic experiment.  
Nature, 284, 307-308.
- WHITMARSH, R.B. 1981  
News and views: geophysical controversy in the Gulf of Aden.  
Nature, 291, 375-376.
- WHITMARSH, R.B. & LILWALL, R.C. 1982  
The determination of in situ shear-wave velocity in deep-sea sediments using dropped weights. (Abstract of paper presented at the 6th U.K. Geophysical Assembly, 5-7 April 1982, University College Cardiff).  
Geophysical Journal of the Royal Astronomical Society, 69, p. 295.
- WHITMARSH, R.B., DONEGAN, M., LILWALL, R.C. & KEEN, C.E. 1982  
Evidence for P-wave anisotropy deep in the oceanic lithosphere of the western North Atlantic. (Abstract of paper presented at the 6th U.K. Geophysical Assembly, 5-7 April 1982, University College Cardiff).  
Geophysical Journal of the Royal Astronomical Society, 69, p.286.

- WHITMARSH, R.B., GINZBURG, A. & SEARLE, R.C. 1982  
The structure and origin of the Azores-Biscay Rise, north-east Atlantic Ocean.  
Geophysical Journal of the Royal Astronomical Society, 70, 79-107.  
IOS CONTRIBUTION NO.82041
- WHITMARSH, R.B. & LILWALL, R.C. 1982  
A new method for the determination of in-situ shear-wave velocity in deep-sea sediments.  
Paper No.4.2 in, Oceanology International exhibition and conference, 2-5 March 1982, Brighton.  
Kingston-upon-Thames: Spearhead Exhibition Ltd. (Various pagination in 2 volumes.)  
IOS CONTRIBUTION NO.82020
- WHITMARSH, R.B. 1982  
Along-strike amplitude variations of oceanic magnetic stripes : are they related to low-temperature hydrothermal circulation?  
Geology, 10, 461-465.  
IOS CONTRIBUTION NO.82079
- WILKINSON, R.H. 1980  
Waves, currents and littoral drift.  
pp.157-171 in, Industrialised embayments and their environmental problems. A case study of Swansea Bay, (ed.M.B.Collins, F.T.Banner, P.A. Tyler, S.J.Wakefield & A.E.James). (Proceedings of a symposium, Swansea University, 1979).  
Oxford: Pergamon. 614pp.  
IOS CONTRIBUTION NO.80055
- WILSON, J.B. 1979  
Biogenic carbonate sediments on the Scottish continental shelf and on Rockall Bank.  
Marine Geology, 33, M85-M93.  
IOS CONTRIBUTION NO.1482
- WILSON, J.B. 1979  
The first recorded specimens of the deep-water coral Lophelia pertusa (Linnaeus 1758) from British waters.  
Bulletin of the British Museum (Natural History), Zoology Series, 36, 209-215.  
IOS CONTRIBUTION NO.1483
- WILSON, J.B. 1979  
'Patch' development of the deep-water coral Lophelia Pertusa (L.) on Rockall Bank.  
Journal of the Marine Biological Association of the U.K., 59, 165-177.  
IOS CONTRIBUTION NO.1431
- WILSON, J.B. 1979  
The distribution of the coral Lophelia Pertusa (L.) (L. prolifera (Pallas)) in the northeast Atlantic.  
Journal of the Marine Biological Association of the U.K., 59, 149-164.  
IOS CONTRIBUTION NO.1430

- WILSON, J.B. 1981  
Biogenic carbonate sediments on the Scottish continental shelf and on Rockall Bank. (Abstract of paper presented at Geological Society of London Marine Studies Group on Carbonate Sediments in Cool Waters, 16 May 1980).  
Journal of the Geological Society of London, 138, p.500.
- WILSON, J.B. 1982  
Shelly faunas associated with temperate offshore tidal deposits. pp.126-171 in, Offshore tidal sands, (ed.A.H.Stride).  
London: Chapman & Hall. 222pp.
- WILSON, T.R.S. 1981  
Conductometry.  
pp.145-185 in, Marine electrochemistry, (ed.M.Whitfield & D.Jagner).  
Chichester: John Wiley. 529pp.
- WOLF, J. 1980  
Estimation of shearing stresses in a tidal current with application to the Irish sea.  
pp.319-344 in, Marine turbulence, (ed.J.C.J. Nihoul). (Proceedings of the 11th Liège colloquium on ocean hydrodynamics, 7-11 May 1979).  
Amsterdam: Elsevier. 378pp.  
IOS CONTRIBUTION NO.80031
- WOLF, J. 1981  
Effects of turbulent wind fluctuations on wind-driven currents. (Abstract of paper presented at the 5th U.K. Geophysical Assembly, 6-9 April, 1981, University of Cambridge).  
Geophysical Journal of the Royal Astronomical Society, 65, p.282.
- WOLF, J. 1981  
Surge-tide interaction in the North Sea and River Thames. pp.75-94 in, Floods due to high winds and tides, (ed.D.H.Peregrine).  
London: Academic. 109pp.  
IOS CONTRIBUTION NO.81091
- ZETLER, B.D., CARTWRIGHT, D.E. & BERKMAN, S. 1979  
Some comparisons of response and harmonic tide predictions. Canada, Department of Fisheries and the Environment, Marine Sciences Directorate, Manuscript Report Series, No.53, 23-26. (Unpublished manuscript).
- ZETLER, B.D., CARTWRIGHT, D.E. & BERKMAN, S. 1979  
Some comparisons of response and harmonic tide predictions. International Hydrographic Review, 56(2), 105-115.

## 2. REPORTS

- R65 FORTNUM, B.C.H. & HARDCASTLE, P.J. 1979  
Waves recorded at Aldeburgh, Dunwich and Southwold on the east coast of England. Data for June 1975 - May 1977 at positions between 52,9N and 52,20N, and between 1,37E and 1,42E. Summary analysis and interpretation report.  
Institute of Oceanographic Sciences, Report No.65, 9pp. & figs.
- R68 GRIFFITHS, G. 1979  
The effect of turbulence on the calibration of electromagnetic current sensors and an approximation of their spatial response.  
Institute of Oceanographic Sciences, Report No.68, 14pp. & figs.
- R69 CARTER, D.J.T. & DRAPER, L. 1979  
Waves at Ocean Weather Station Alpha.  
Institute of Oceanographic Sciences, Report No.69, 13pp. & figs.
- R71 FORTNUM, B.C.H., HUMPHERY, J.D. & PITT, E.G. 1979  
Contoured wave data off South Uist.  
Institute of Oceanographic Sciences, Report No.71, 114pp. & figs.
- R75 LAWFORD, V.A. & GAUNT, D.I. 1979  
Report on the feasibility of using an existing 28 inch diameter aluminium alloy forged sphere (IOS Design 4994) to a depth of 6000 metres.  
Institute of Oceanographic Sciences, Report No.75, 6pp. & appendices.
- R78 FORTNUM, B.C.H. & HARDCASTLE, P.J. 1979  
Waves recorded at Port Talbot on the south Wales coast.  
Institute of Oceanographic Sciences, Report No.78, 8pp. & figs.
- R79 FORTNUM, B.C.H. & HARDCASTLE, P.J. 1979  
Waves recorded at Scarweather Bank in the Bristol Channel.  
Institute of Oceanographic Sciences, Report No.79, 7pp. & figs.
- R80 AMIN, M. 1979  
Regression technique for forecasting surges at Liverpool.  
Institute of Oceanographic Sciences, Report No.80, 13pp. & figs.
- R81 HUTHNANCE, J.M. 1979  
An outline review of medium frequency waves.  
Institute of Oceanographic Sciences, Report No.81, 18pp. & figs.
- R82 CHALLENGER, P.G. 1979  
Confidence limits for extreme value statistics.  
Institute of Oceanographic Sciences, Report No.82, 7pp. & figs.
- R83 PRANDLE, D. 1979  
Recordings of potential difference across the Port Patrick-Donaghadee submarine cable (1977/78).  
Institute of Oceanographic Sciences, Report No.83, 9pp. & figs.

- R84 BURT, R.G. 1979  
 Handling oceanographic equipment. Notes and sketches from a netman's log.  
 Institute of Oceanographic Sciences, Report No.84, 62pp.
- R85 WEBB, D.J. 1979  
 A comparison of satellite and sea surface measurements of significant wave height.  
 Institute of Oceanographic Sciences, Report No.85, 8pp. & figs.
- R86 JONES, K.D. 1979  
 Publications and reports of the former National Institute of Oceanography, Unit of Coastal Sedimentation and Institute of Coastal Oceanography & Tides (including the Liverpool Tidal Institute).  
 Institute of Oceanographic Sciences, Report No.86, 217pp.
- R87 COKELET, E.D. 1979  
 User's manual for steep and breaking wave computer programs.  
 Institute of Oceanographic Sciences, Report No.87, 119pp.
- R88 LEES, B.J. 1980  
 Sizewell-Dunwich Banks field study topic report:1.  
 a)Introduction, b)Geological background.  
 Institute of Oceanographic Sciences, Report No.88, 24pp. & figs.
- R89 CARR, A.P. 1979  
 Sizewell-Dunwich banks field study topic report:2. Long-term changes in the coastline and offshore banks.  
 Institute of Oceanographic Sciences, Report No.89, 25pp.
- R90 BLACKLEY, M.W.L. 1979  
 Sizewell-Dunwich banks field study topic report:3. Beach changes between Aldeburgh and Southwold March 1978 to May 1979.  
 Institute of Oceanographic Sciences, Report No.90, 19pp. & figs.
- R91 SEARLE, R.C. 1979  
 Guidelines for the selection of sites for disposal of radioactive waste on or beneath the ocean floor.  
 Institute of Oceanographic Sciences, Report No.91, 37pp. & figs.
- R92 HEATHERSHAW, A.D. & HAMMOND, F.D.C. 1979  
 Swansea Bay (SKER) project, topic report:4. Tidal currents : observed tidal and residual circulations and their response to meteorological conditions.  
 Institute of Oceanographic Sciences, Report No.92, 154pp.
- R93 HEATHERSHAW, A.D. & HAMMOND, F.D.C. 1980  
 Swansea Bay (SKER) project, topic report:6. Offshore sediment movement and its relation to observed tidal current and wave data.  
 Institute of Oceanographic Sciences, Report No.93, 119pp.

- R94 HOWARTH, M.J. 1980  
Intercomparison of current meters in fast tidal currents.  
Institute of Oceanographic Sciences, Report No.94, 26pp. &  
figs.
- R95 KENYON, N.H. & PELTON, C.D. 1980  
Seabed conditions west of the Outer Hebrides.  
Institute of Oceanographic Sciences, Report No.95, 8pp. & figs.
- R96 PHILLIPS, G.R.J. 1980  
The IOS acoustic command and monitoring system. Part 1.  
Operating principles and practice.  
Institute of Oceanographic Sciences, Report No.96, 9pp.
- R96/2 PHILLIPS, G.R.J 1980  
The IOS acoustic command and monitoring system. Part 2. The  
Shipborne System Mark III.  
Institute of Oceanographic Sciences, Report No.96/2, 11pp. &  
figs.
- R96/3 PHILLIPS, G.R.J. 1981  
The IOS acoustic command and monitoring system. Part 3.  
Releases, beacons and transponders.  
Institute of Oceanographic Sciences, Report No.96/3, 30pp.
- R97 HUTHNANCE, J.M. 1980  
Waves and currents near the continental shelf edge.  
Institute of Oceanographic Sciences, Report No.97, 56p. & figs.
- R98 WILKINSON, R.H. 1980  
Swansea Bay (SKER) project, topic report:7. Foreshore sediment  
movement and its relation to observed tidal currents and wave  
climate.  
Institute of Oceanographic Sciences, Report No.98, 38pp. &  
figs.
- R99 HEATHERSHAW, A.D., CARR, A.P. & KING, H.L. 1980  
Swansea Bay (SKER) project, topic report:5. Wave data : observed  
and computed wave climates.  
Institute of Oceanographic Sciences, Report No.99, 72pp.
- R100 LANGHORNE, D.N. 1980  
A preliminary study of the Haisborough Sand sandwave field and  
its relation to submarine pipelines.  
Institute of Oceanographic Sciences, Report No.100, 33pp.
- R101 JONES, J.E. 1980  
Computed distributions of elevation and current for the major  
Irish Sea storm surges of November 1977.  
Institute of Oceanographic Sciences, Report No.101, 145pp.
- R102 OVADIA, D.C. 1980  
A regression model for the statistical prediction of extreme sea  
levels at Liverpool.  
Institute of Oceanographic Sciences, Report No.102, 20pp. &  
figs.

- R103 DRIVER, J.S. & DRAPER, L. 1980  
A guide to sea wave recording.  
Institute of Oceanographic Sciences, Report No.103, 53pp.  
& appendix. (Appendix: Wave recording instruments for  
civil engineering use, by L.Draper & J.S.Driver).
- R104 HEATHERSHAW, A.D. & LEES, B.J. 1980  
Sizewell-Dunwich banks field study topic report:4. Tidal  
currents : observed tidal and residual circulations.  
Institute of Oceanographic Sciences, Report No.104, 92pp.
- R105 BLACKLEY, M.W.L. 1980  
Swansea Bay (SKER) project, topic report 7A. Beach fluorescent  
tracer experiments.  
Institute of Oceanographic Sciences, Report No.105, 44pp.
- R106 PETERS, R.D., TIMMINS, N.T., CALVERT, S.E. & MORRIS, R.J. 1980  
The IOS box corer : its design, development, operation and  
sampling.  
Institute of Oceanographic Sciences, Report No.106, 7pp. &  
figs.
- R107 KIRBY, R. & PARKER, W.R. 1980  
Settled mud deposits in Bridgewater Bay, Bristol Channel.  
Institute of Oceanographic Sciences, Report No.107, 65pp.
- R108 DAVIES, A.G. 1980  
Some interactions between surface water waves and ripples and  
dunes on the seabed.  
Institute of Oceanographic Sciences, Report No.108, 134pp.
- R109 SAUNDERS, M.R., LEARY, C.C. & MILES, P.R. 1980  
Geophysical data acquisition processing and display.  
Institute of Oceanographic Sciences, Report No.109, 21pp.
- R110 SMITH, T.J., PARKER, W.R. & KIRBY, R. 1980  
Sedimentation studies relevant to low-level radioactive effluent  
dispersal in the Irish Sea. Part 1. Radionuclides in marine  
sediments.  
Institute of Oceanographic Sciences, Report No.110, 87pp.
- R111 ANLE, Y. 1980  
On the tidal spectral analysis of 30 day records.  
Institute of Oceanographic Sciences, Report No.111, 20pp.
- R112 ALCOCK, G.A. & PUGH, D.T. 1980  
Observations of tides in the Severn Estuary and Bristol  
Channel.  
Institute of Oceanographic Sciences, Report No.112, 57pp. &  
figs.
- R113 DRAPER, L. & CARTER, D.J.T. 1982  
Waves at Morecambe Bay Light Vessel in 1957 : summary analysis  
and interpretation report.  
Institute of Oceanographic Sciences, Report No.113, 34pp.
- R115 FORTNUM, B.C.H. 1981  
Waves recorded off South Uist in the Hebrides. Data from March  
1976 to February 1978 at position 57,18N, 07,38W. Summary  
analysis and interpretation report.  
Institute of Oceanographic Sciences, Report No.115, 6pp.,  
appendices & figs.



- R116 CARTER, D.J.T. & CHALLENGOR, P.G. 1981  
 Estimating return values of wave height.  
 Institute of Oceanographic Sciences, Report No.116, 111pp.
- R117 PARKER, W.R. & KIRBY, R. 1981  
 The behaviour of cohesive sediment in the inner Bristol Channel  
 and Severn Estuary in relation to construction of the Severn  
 Barrage.  
 Institute of Oceanographic Sciences, Report No.117, 54pp.
- R118 HEATHERSHAW, A.D., CARR, A.P. & BLACKLEY, M.W.L. 1981  
 Swansea Bay (SKER) project, topic report : 8. Final report:  
 coastal erosion and nearshore sedimentation processes.  
 Institute of Oceanographic Sciences, Report No.118, 67pp.
- R119 PUGH, D.T. 1981  
 Comparative tests of sea level data from the Newlyn tide well  
 and an Aanderaa pneumatic system.  
 Institute of Oceanographic Sciences, Report No.119, 16pp. &  
 figs.
- R120 WILLIAMS, S.J., KIRBY, R., SMITH, I.J. & PARKER, W.R. 1981  
 Sedimentation studies relevant to low level radioactive effluent  
 dispersal in the Irish Sea. Part II. Sea bed morphology,  
 sediments and shallow sub-bottom stratigraphy of the eastern  
 Irish Sea.  
 Institute of Oceanographic Sciences, Report No.120, 50pp.
- R121 RIDOUT, P.S. 1981  
 A shipboard system for extracting interstitial water from deep  
 ocean sediments.  
 Institute of Oceanographic Sciences, Report No.121, 11pp. &  
 figs.
- R122 JONES, K.D. 1981  
 Publications and reports of the Institute of Oceanographic  
 Sciences 1973-1978.  
 Institute of Oceanographic Sciences, Report No.122, 149pp.
- R123 LEES, B.J. & HEATHERSHAW, A.D. 1981  
 Sizewell-Dunwich banks field study topic report:5. Offshore  
 sediment movement and its relation to observed tidal current and  
 wave data.  
 Institute of Oceanographic Sciences, Report No.123, 113pp.
- R124 MORRIS, R.J. & PETERS, R.D. 1981  
 The IOS multi-purpose gravity corer.  
 Institute of Oceanographic Sciences, Report No.124, 7pp. &  
 figs.
- R125 FORTNUM, B.C.H. 1981  
 Waves recorded at St.Gowan light vessel. Data for August 1975 to  
 July 1976 and January 1977 to December 1978 at position 51,31N,  
 005,00W. Summary analysis and interpretation report.  
 Institute of Oceanographic Sciences, Report No.125, 6pp. &  
 appendices.

- R126 FORTNUM, B.C.H. 1981  
Waves recorded at Dowsing light vessel between 1970 and 1979. Data for May 1970 to April 1971, November 1975 to October 1976 and August 1977 to July 1979 at position 53,34.0N, 000,50.2E. Summary analysis and interpretation report. Institute of Oceanographic Sciences, Report No.126, 6pp. & appendices.
- R127 EWING, J.A., EPHRAUMS, J.J., GOLDING, B.W. & WORTHINGTON, B.A. Comparisons of the Meteorological Office and Norswam wave models with measured wave data collected during March 1980. Institute of Oceanographic Sciences, Report No.127, 22pp. & figs.
- R128 CARR, A.P., KING, H.L., HEATHERSHAW, A.D. & LEES, B.J. 1981 Sizewell-Dunwich Banks field study topic report:6. Wave data : observed and computed wave climates. Institute of Oceanographic Sciences, Report No.128, 97pp.
- R129 EVANS, J.J. & PUGH, D.T. 1981 An analysis of a year of sea-level data at Flat Holm, Severn Estuary. Institute of Oceanographic Sciences, Report No.129, 7pp. & figs.
- R131 HAMMOND, F.D.C 1982 Physical processes concerning the movement of fluvial gravels and its relevance to marine gravels : a literature survey. Institute of Oceanographic Sciences, Report No.131, 71pp.
- R132 FORTNUM, B.C.H. 1982 Waves recorded off the Eddystone Lighthouse. Data for September 1978 to August 1981 at position 50,10N, 004,15W. Summary analysis and interpretation report. Institute of Oceanographic Sciences, Report No.132, 113pp.
- R133 HUMPHERY, J.D. 1982 The calibration of Waverider systems by the Institute of Oceanographic Sciences, Taunton. Institute of Oceanographic Sciences, Report No.133, 12pp.
- R134 SCHULTHEISS, P.J. 1982 Geotechnical properties of deep sea sediments : a critical review of measurement techniques. Institute of Oceanographic Sciences, Report No.134, 73pp.
- R135 CARTER, D.J.T 1982 Estimation of wave spectra from wave height and period. Institute of Oceanographic Sciences, Report No.135, 20pp.
- R136 LILWALL, R.C. 1982 Intraplate seismicity and seismic risk in the Atlantic Ocean based on teleseismically observed earthquakes. Institute of Oceanographic Sciences, Report No.136, 43pp.
- R137 SMITH, T.J. 1982 The response of electro-optical turbidity meters to cohesive sediments. Institute of Oceanographic Sciences, Report No.137, 22pp.

- R138 SAUVEL, J. 1982  
The tidal dynamics of the western North Sea.  
Institute of Oceanographic Sciences, Report No.138, 94pp.
- R140 LANGHORNE, D.N., HEATHERSHAW, A.D. & READ, A.A. 1982  
The mobility of seabed gravel in the west Solent : a report on  
site selection, seabed morphology and sediment characteristics.  
Institute of Oceanographic Sciences, Report No.140, 65pp.
- R141 PACKWOOD, A.R. 1982  
Design and model testing for an autonomous deep ocean current  
sensing device.  
Institute of Oceanographic Sciences, Report No.141, 33pp.
- R142 CHALLENGER, P.G. 1982  
A new method for the analysis of extremes applicable to one  
year's data.  
Institute of Oceanographic Sciences, Report No.142, 24pp.
- R145 HUMPHERY, J.D. 1982  
Operational experiences with Waverider buoys and their moorings.  
Institute of Oceanographic Sciences, Report No.145, 33pp.
- R147 COLLINS, D.S. 1982  
CTD data collected in the Rockall Trough RRS 'Shackleton' cruise  
5c/78 during JASIN 1978.  
Institute of Oceanographic Sciences, Report No.147, 149pp.
- R150 FLATHER, R.A. & PROCTOR, R. 1982  
The west coast surge prediction experiment 1981-82.  
Institute of Oceanographic Sciences, Report No.150, 83pp.
- R151 HYDES, D.J. 1982  
Animal burrows in deep-sea sediments.  
Institute of Oceanographic Sciences, Report No.151, 36pp.
- R13 SIMPSON, P. (Ed) 1983  
Serial holdings of the Institute of Oceanographic Sciences.  
Institute of Oceanographic Sciences, Report No.13, 80pp.  
(Replaces 1978 edition).

### 3. CRUISE REPORTS

- C73 MILES, P.R. 1979  
MV 'Criscilla' charter cruise 1978, 30 November- 16 December 1978. Geophysical studies off the Faeroes Shelf.  
Institute of Oceanographic Sciences, Cruise Report No.73, 10pp.
- C75 POLLARD, R.T. 1979  
RRS 'Discovery' cruise 98, 27 December 1978 - 10 January 1979.  
Recife to Cape Town section.  
Institute of Oceanographic Sciences, Cruise Report No.75, 10pp. & figs.
- C76 GUYMER, T.H. 1979  
RRS 'John Murray' cruise 8/78, 12 July-1 September 1978.  
Meteorological observations during JASIN 1978.  
Institute of Oceanographic Sciences, Cruise Report No.76, 26pp. & figs.
- C77 CARTWRIGHT, D.E. 1979  
RRS 'Discovery' cruises 95 and 97, 25 October - 17 November and 6-21 December 1978. Tide recording in the Tropical Atlantic and equatorial hydrology at 27.5 and 32.5 West Meridians.  
Institute of Oceanographic Sciences, Cruise Report No.77, 34pp. & fig.
- C78 CALVERT, S.E. 1979  
RRS 'Discovery' cruise 99, 16-27 January 1979. Geochemical sampling in the Cape Basin.  
Institute of Oceanographic Sciences, Cruise Report No.78, 7pp. & figs.
- C79 BELDERSON, R.H. 1979  
RRS 'Discovery' cruise 96, 21 November - 4 December 1978.  
Geological investigations in the Equatorial Atlantic.  
Institute of Oceanographic Sciences, Cruise Report No.79, 7pp. & fig.
- C80 WHITMARSH, R.B. & ROBERTS, D.G. 1979  
RRS 'Shackleton' cruise 6/79. July 7th - July 31st 1979.  
Seismic studies of the continent-ocean transition in North Biscay.  
Institute of Oceanographic Sciences, Cruise Report No.80, 21pp. tables & figs.
- C81 FASHAM, M.J.R. 1979  
RRS 'Challenger' cruise 79/5, 10 April - 23 April 1979.  
Physical and biological sampling on the Nympe Bank, Celtic Sea and in the vicinity of the Goban Spur using a batfish and continuous surface water sampling.  
Institute of Oceanographic Sciences, Cruise Report No.81, 19pp. & figs.
- C82 HERRING, P.J. 1979  
RRS 'Discovery' cruise 105, 29 August - 23 October 1979.  
Midwater and benthic sampling in the regions of the Rockall Trough, Porcupine Sea bight and north-west African coast, with associated physiological investigations.  
Institute of Oceanographic Sciences, Cruise Report No.82, 42pp. & figs.

- C83 SWALLOW, J.C. 1979  
RRS 'Discovery' cruise 102, 10 May - 6 July 1979. Physical oceanography studies in the western Equatorial Indian Ocean : a contribution to the FGGE oceanographic programme. Institute of Oceanographic Sciences, Cruise Report No.83, 24pp. & figs.
- C84 JAMES, I.D. 1979  
RRS 'John Murray' cruise 13/79, 20 August - 6 September 1979. VFS 'Gauss' recovery of moorings, 15 October - 24 October 1979. Contribution to the Marsen experiment. Institute of Oceanographic Sciences, Cruise Report No.84, 14pp. & figs.
- C85 STRIDE, A.H. 1980  
RRS 'Discovery' cruise 85 (Colossus), 1-30 August 1977. Geological studies in the eastern Mediterranean. Institute of Oceanographic Sciences, Cruise Report No.85, 6pp. & fig.
- C88 SEARLE, R.C. 1980  
RRS 'Discovery' cruise 103, 9-25 July 1979. Geology and geophysics in the Gulf of Aden and Red Sea. Institute of Oceanographic Sciences, Cruise Report No.88, 19pp. & figs.
- C89 RICE, A.L. 1980  
RRS 'Challenger' cruise 9/79, 29 June - 11 July 1979. Benthic and mid-water biology of the Porcupine Sea-Bight and the Rockall Trough. Institute of Oceanographic Sciences, Cruise Report No.89, 24pp. & fig.
- C90 KIDD, R.B. 1980  
RRS 'Discovery' cruise 106, 5 December - 22 December 1979. Trans-Atlantic passage with equipment trials and high-resolution seismic profiling. Institute of Oceanographic Sciences, Cruise Report No.90, 16pp. & figs.
- C92 KIRBY, R. 1980  
RV 'Edward Forbes' cruise 5/77, 18 April - 3 May 1977. Investigation of turbidity structures in the Severn Estuary and inner Bristol Channel. Institute of Oceanographic Sciences, Cruise Report No.92, 5pp.
- C94 ROBERTS, D.G. 1980  
RRS 'Discovery' cruise 101, 10 April - 6 May 1979. Geophysical investigations in the SW Indian Ocean and around the northern Mascarene Plateau. Institute of Oceanographic Sciences, Cruise Report No.94, 20pp. & figs.

- C97 HOWARTH, M.J. & HARRISON, A.J. 1980  
 RRS 'Shackleton' cruise 7/79, 3-15 August 1979, RRS 'Challenger'  
 cruise 14/79, 21 September - 2 October 1979. North Channel/Malin  
 Shelf Sea.  
 Institute of Oceanographic Sciences, Cruise Report No.97, 45pp.  
 & figs.
- C98 STRIDE, A.H. 1980  
 RRS 'Discovery' cruise 109, 10 March - 19 April 1980. Geological  
 and geophysical studies of the Antilles region.  
 Institute of Oceanographic Sciences, Cruise Report No.98, 10pp.  
 & figs.
- C99 CULKIN, F. 1980  
 RRS 'Discovery' cruise 108, 18 February - 3 March 1980.  
 Geochemical sampling on the Nares Abyssal Plain.  
 Institute of Oceanographic Sciences, Cruise Report No.99, 7pp. &  
 figs.
- C100 WHITMARSH, R.B. 1980  
 RRS 'Discovery' cruise 107, 28 December 1979 (362) - 9 February  
 1980 (040). Lesser Antilles Deep Lithosphere Experiment (LADLE).  
 Institute of Oceanographic Sciences, Cruise Report No.100, 25pp.  
 & figs.
- C101 I.O.S. 1980  
 Cruises undertaken by the Institute of Oceanographic Sciences,  
 Taunton 1977-1979.  
 Institute of Oceanographic Sciences, Cruise Report No.101, 52pp.
- C102 SEARLE, R.C. 1980  
 RRS 'Discovery' cruise 110, 22 April - 18 June 1980. Geophysics  
 and geochemistry in the East Pacific Ocean.  
 Institute of Oceanographic Sciences, Cruise Report No.102, 30pp.  
 & figs.
- C103 KIDD, R.B. 1980  
 RRS 'Discovery' cruise 111, Leg 1, 21 June - 3 July 1980. GLORIA  
 survey of the Blake-Bahama Outer Ridges.  
 Institute of Oceanographic Sciences, Cruise Report No.103, 8pp.  
 & figs.
- C104 ROBERTS, D.G. 1980  
 RRS 'Discovery' cruise 111, leg 2, 8 July - 30 July 1980.  
 Geophysical studies of the continental margin around the Grand  
 Banks.  
 Institute of Oceanographic Sciences, Cruise Report No.104, 16pp.  
 & figs.
- C105 KENYON, N.H. 1980  
 RRS 'Discovery' cruise 104, 27 July - 19 August 1979. Geological  
 studies in the Mediterranean.  
 Institute of Oceanographic Sciences, Cruise Report No.105, 7pp.  
 & figs.

- C106 RUSBY, J.S.M. 1980  
RRS 'Discovery' cruise 113, 6-13 October 1980. Instrument and equipment trials.  
Institute of Oceanographic Sciences, Cruise Report No.106, 6pp. & fig.
- C107 RICE, A.L. 1981  
RRS 'Challenger' cruise 17/80 (IOS cruise 509), 4 November 1980 - 16 November 1980. Benthic biology of the Porcupine Seabight.  
Institute of Oceanographic Sciences, Cruise Report No.107, 15pp. & fig.
- C108 ANGEL, M.V. 1981  
RRS 'Discovery' cruise 114, 16 October - 30 November 1980. Biological and physical investigations into the front between the western and eastern Atlantic water south west of the Azores.  
Institute of Oceanographic Sciences, Cruise Report No.108, 46pp. & figs.
- C109 MCCARTNEY, B.S. 1981  
RRS 'Discovery' cruise 116, 6-16th January 1981. Winch and instrumentation trials with CTD section.  
Institute of Oceanographic Sciences, Cruise Report No.109, 18pp. & figs.
- C110 FRANCIS, T.J.G. 1981  
RRS 'Shackleton' cruise 8/79, 31 August - 30 September 1979. Geology and geophysics in the northeast Atlantic and on the mid-Atlantic Ridge.  
Institute of Oceanographic Sciences, Cruise Report No.110, 9pp. & figs.
- C111 SAUNDERS, P.M. 1981  
RRS 'Discovery' cruise 117, 19 January - 12 February, 1981. Currents and mixing near the sea floor in the Madeira Basin.  
Institute of Oceanographic Sciences, Cruise Report No.111, 21pp.
- C112 CARTWRIGHT, D.E. 1981  
RRS 'Discovery' cruises 112 and 115, 3-18 August and 4-17 December 1980. Tide recording between Grand Banks of Newfoundland and West Biscay.  
Institute of Oceanographic Sciences, Cruise Report No.112, 16pp. & figs.
- C113 COLLAR, P.G. 1981  
RRS 'Challenger' cruise 9A/80, 8th - 17th June 1980. Near surface current and wave intercomparisons near the UK Data Buoy position (48,43N, 08,58W).  
Institute of Oceanographic Sciences, Cruise Report No.113, 6pp. & figs.
- C114 HOWARTH, M.J. & HEAPS, N.S. 1981  
RRS 'John Murray' cruise 9/80, 27 August - 9 September 1980, RRS 'Challenger' cruise 16/80, 17-30 October 1980. Celtic Sea.  
Institute of Oceanographic Sciences, Cruise Report No.114, 45pp. & figs.

- C115 ANGEL, M.V. 1981  
 RRS 'Discovery' cruise 121, 5 - 26 June 1981. Biological investigations of the oceanic front to the south west of the Azores.  
 Institute of Oceanographic Sciences, Cruise Report No.115, 35pp. & figs.
- C116 I.O.S. 1981  
 Cruises undertaken by the Institute of Oceanographic Sciences, Taunton 1980.  
 Institute of Oceanographic Sciences, Cruise Report No.116, 33pp.
- C117 FRANCIS, T.J.G. 1981  
 RRS 'Discovery' cruise 118, 11 February - 30 March 1981. Geophysics and sediment sampling in the north east Atlantic.  
 Institute of Oceanographic Sciences, Cruise Report No.117, 33pp. & figs.
- C118 GOULD, W.J. 1981  
 RRS 'Discovery' cruise 122, 30 June - 27 July 1981. Physical oceanography of the N.E. Atlantic Ocean.  
 Institute of Oceanographic Sciences, Cruise Report No.118, 28pp. & figs.
- C119 RICE, A.L. 1981  
 RRS 'Challenger' cruise 8/81, 18 May - 1 June 1981. Benthic biology of the Porcupine Seabight.  
 Institute of Oceanographic Sciences, Cruise Report No.119, 16pp. & figs.
- C120 CHERRIMAN, J.W. 1981  
 RRS 'Challenger' cruise 16/81, 25 October - 8 November 1981. Recovery of moorings I1,I2,I3,I4. Relaying of moorings I2,I4. Deployment of new moorings, E2,E3.  
 Institute of Oceanographic Sciences, Cruise Report No.120, 5pp.
- C121 STUBBS, A.R. 1982  
 RRS 'Frederick Russell' cruise 19, 7th - 11th December 1981. Noise trials.  
 Institute of Oceanographic Sciences, Cruise Report No.121, 8pp. & fig.
- C122 SEARLE, R.C. 1982  
 MT 'Farnella' cruise 3/81, 7th November - 26th November 1981. Gloria studies of lower continental rise and abyssal plain sedimentation in the Canary Basin.  
 Institute of Oceanographic Sciences, Cruise Report No.122, 14pp. & figs.  
 (DOE Report No.DOE/RW/82.053).
- C123 SEARLE, R.C. 1982  
 MT 'Farnella' cruise 4/81, 28th November - 19th December 1981. Tide-gauge deployments and Gloria studies of mid-Atlantic Ridge fracture zones between the Azores and northern South America.  
 Institute of Oceanographic Sciences, Cruise Report No.123, 15pp. & figs.



- C124 FASHAM, M.J.R. 1981  
 RRS 'Discovery' cruise 120, 9 May - 1 June 1981. Biological and physical investigations of the oceanic front to the south-west of the Azores.  
 Institute of Oceanographic Sciences, Cruise Report No.124, 25pp. & figs.
- C125 THOMSON, J. 1982  
 RRS 'Discovery' cruise 125, 30 January - 25 February 1982. Geochemical sampling over the Madeira/Cape Verde abyssal plains.  
 Institute of Oceanographic Sciences, Cruise Report No.125, 14pp. & figs.
- C126 SOMERS, M.L. & REVIE, J. 1982  
 RV 'Farnella' cruises 1 and 2, 19 September - 5 November 1981. Geophysical studies of the continental margin on the eastern edge of the Grand Banks.  
 Institute of Oceanographic Sciences, Cruise Report No.126, 19pp.
- C127 CHERRIMAN, J.W. & GOULD, W.J. 1982  
 RRS 'Frederick Russell' cruise 82/2, March 16 - March 29 1982. Current measurements and hydrography in the Rockall Trough and Faroe-Shetland Channel.  
 Institute of Oceanographic Sciences, Cruise Report No.127, 7pp. & fig.
- C128 PUGH, D.T. & HARRISON, A.J. 1982  
 RRS 'John Murray' cruise 5/81, 1-23 May 1981; cruise 7/81, 13-24 June 1981. North Sea.  
 Institute of Oceanographic Sciences, Cruise Report No.128, 78pp.
- C129 RUSBY, J.S.M. 1982  
 RRS 'Discovery' cruise 124, 9th - 18th January 1982. Trials cruise following conversion work.  
 Institute of Oceanographic Sciences, Cruise Report No.129, 12pp.
- C130 GOULD, W.J. 1982  
 RRS 'Discovery' cruise 119, 7th April - 5th May 1981. Physical oceanography of a frontal region SW of the Azores.  
 Institute of Oceanographic Sciences, Cruise Report No.130, 18pp. & figs.
- C131 WILSON, J.B. 1982  
 RRS 'Discovery' cruise 123, 5th August - 10th September 1981. Geological investigations on the continental slope to the west of the British Isles and Norway.  
 Institute of Oceanographic Sciences, Cruise Report No.131, 10pp. & figs.
- C132 WILSON, J.B. 1982  
 RRS 'Challenger' cruise 9/81, 16 June - 1 July 1981. Sediment and faunal investigations on the continental shelf to the west and north of Scotland.  
 Institute of Oceanographic Sciences, Cruise Report No.132, 22pp.

- C133 I.O.S. 1982  
Cruises undertaken by the Institute of Oceanographic Sciences,  
Taunton.  
Institute of Oceanographic Sciences, Cruise Report No.133, 76pp.
- C134 MORRIS, R.J. 1982  
RRS 'Discovery' cruise 128, 2 May - 26 May 1982. Geochemical and  
biological studies in the Guinea Basin.  
Institute of Oceanographic Sciences, Cruise Report No.134, 26pp.
- C135 RICE, A.L. 1982  
RRS 'Challenger' cruise 14/81 (IOS cruise 512), 14 September  
1981 - 1 October 1981. Benthic biology and physiology in the  
Porcupine Seabight.  
Institute of Oceanographic Sciences, Cruise Report No.135, 20pp.
- C136 GOULD, W.J. & SAUNDERS, P.M. 1982  
RRS 'Discovery' cruise 130, 25 June - 5 August 1982. Sound  
ranging trials and a study of Discovery Gap.  
Institute of Oceanographic Sciences, Cruise Report No.136, 30pp.
- C137 WHITMARSH, R.B. 1982  
RRS 'Discovery' cruise 131, 12 August (224) - 23 September (266)  
1982. Geology and geophysics of the Charlie-Gibbs Fracture Zone,  
north Atlantic Ocean.  
Institute of Oceanographic Sciences, Cruise Report No.137, 33pp.
- C138 WILSON, T.R.S. 1982  
RRS 'Discovery' cruise 129, 22 May - 22 June 1982. Geochemical  
sampling in the tropical and subtropical eastern Atlantic.  
Institute of Oceanographic Sciences, Cruise Report No.138, 14pp.
- C139 GOULD, W.J. 1982  
RRS 'Challenger' cruise 14/82, 24 September - 13 October 1982.  
Mooring and CTD work in the Faeroe-Shetland Channel.  
Institute of Oceanographic Sciences, Cruise Report No.139, 12pp.
- C140 THURSTON, M.H. 1982  
RRS 'Challenger' cruise 5/82 (IOS cruise 514), 23 March - 5  
April 1982. Benthic biology of the Porcupine Seabight.  
Institute of Oceanographic Sciences, Cruise Report No.140, 20pp.

#### 4. DATA REPORTS

- D16 MILES, P.R. & SAUNDERS, P.M. 1980  
RRS 'Discovery' cruise 74, leg 2, 15 September - 26 September 1975 and RRS 'Shackleton' cruise 6/76, 27 October - 18 November 1976. Geophysical studies of south west Biscay and the continental margin of the southwest approaches (North Biscay). Institute of Oceanographic Sciences, Data Report No.16, 10pp. & figs.
- D17 SAUNDERS, P.M. 1980  
CTD data obtained during RRS 'Discovery' cruise 81. (Including data processing procedures). Institute of Oceanographic Sciences, Data Report No.17, 16pp. figs & tables.
- D18 HOWARTH, M.J. & EVANS, J.J. 1980  
Moored current meter records, Celtic Sea March - May, 1978. IOS Bidston moorings 142-154. Institute of Oceanographic Sciences, Data Report No.18, 147pp.
- D19 QUADFASEL, D. 1980  
A compilation of current and temperature data from moored instruments during INDEX 1979, RRS 'Discovery'. Institute of Oceanographic Sciences, Data Report No.19, 17pp.
- D20 QUADFASEL, D. 1980  
Measurements of current and temperature profiles during INDEX 1979, RRS 'Discovery'. Institute of Oceanographic Sciences, Data Report No.20, 83pp.
- D21 MILES, P.R. & SAUNDERS, M.R. 1980  
'Gloria' and geophysical studies of the Charlie Gibbs Fracture Zone, the Reykjanes Ridge and Kings Trough. RRS 'Discovery' cruise 84, 15 June - 28 July 1977. Institute of Oceanographic Sciences, Data Report No.21, 50pp. & appendices.
- D22 ALCOCK, G.A., MACDONALD, D.C.C. & VASSIE, J.M. 1980  
Offshore bottom pressure records from the Celtic Sea and south-west approaches to the U.K., 1978. Institute of Oceanographic Sciences, Data Report No.22, 40pp. & figs.
- D23 SAUNDERS, P.M. 1980  
CTD data from the western Equatorial Indian Ocean, 10 May - 6 July 1979. 'Discovery' cruise 102. Institute of Oceanographic Sciences, Data Report No.23, 14pp., figs & tables.
- D24 SAUNDERS, M.R. 1981  
RRS 'Discovery' cruises 90 and 91, 20 January - 28 March 1978. Geophysical studies of the European - North African continental margin, the Azores Triple Junction and the Azores Biscay Rise. Institute of Oceanographic Sciences, Data Report No.24, 71pp. & figs.

- D25 COLLAR, P.G. & PERRETT, J.R. 1981  
Surface drifting floats serial numbers 327-352 March 1976:  
tables of times and positions. Diagrams showing trajectories and  
components of displacement.  
Institute of Oceanographic Sciences, Data Report No.25, 55pp.
- D26 SAUNDERS, P.M. 1981  
CTD data from the North Madeira Basin, 19 January - 12 February  
1981. RRS 'Discovery' cruise 117.  
Institute of Oceanographic Sciences, Data Report No.26, 18pp. &  
figs.
- D27 ALCOCK, G.A. 1982  
Offshore bottom pressure records. North Channel of Irish Sea  
1979, Malin Shelf 1979, Rockall Trough 1979.  
Institute of Oceanographic Sciences, Data Report No.27, 28pp. &  
figs.
- D28 ALCOCK, G.A. 1982  
Off shore bottom pressure records Celtic Sea 1980.  
Institute of Oceanographic Sciences, Data Report No.28, 28pp.
- D29 COLLINS, D.S. & POLLARD, R.T. 1982  
Daily plots of current vectors obtained during JASIN 1978.  
Institute of Oceanographic Sciences, Data Report No.29, 144pp.

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