WOODS HOLE OCEANOGRAPHIC INSTITUTION
Woods Hole, Massachusetts

WHOI-87-5

BIBLIOGRAPHY OF TECHNICAL REPORTS

1986

Compiled by Susan S. Putnam

April 1987

This report should be cited as: Woods Hole Oceanographic Institution
Technical Report WHOI-87-5.

Approved for distribution

A handwritten signature in dark ink, appearing to read "Derek W. Spencer", is written over a horizontal line.

Dr. Derek W. Spencer, Associate Director

The technical reports prepared by the Woods Hole Oceanographic Institution in 1986 are listed in this bibliography. Inquiries about availability of extra copies will be handled on an individual basis. Initial distribution of the reports is controlled by the funding agencies. Reports are available through the:

National Technical Information Service
Springfield, Virginia 22161

NTIS order numbers are included with each report listed or can be obtained through the Document Library.

The Document Library provides Interlibrary Loan service for all Institution reports and will assist with problems of identification.

When citing a report, it should be referenced as: Woods Hole Oceanographic Institution Technical Report WHOI-86-No.

All reports listed are UNCLASSIFIED and approved for public release unless otherwise noted.

Document Library - Smith 206
Woods Hole Oceanographic Institution
Woods Hole, MA 02543

TECHNICAL REPORTS - 1986

WHOI

- 86- 1 **Edwards, Steven F.**
An economics primer for Coastal Zone Management: Basic concepts and methods from microeconomics, public finance, and environmental and resource economics. Jan 1986. 128p. NTIS NO. PB86-184538.

WHOI

- 86- 2 **Rabushka, Anne I., editor.**
Abstracts of papers submitted in 1985 for publication. 1986. 76p. NTIS NO. PB87-129433/AS.

WHOI

- 86- 3 **Koehler, R. and R. P. Von Herzen.**
A miniature deep sea temperature data recorder: Design, construction, and use. Jan 1986. 59p. NTIS NO. PB87-162525/AS.

WHOI

- 86- 4 **Putnam, Susan S. and Lisa M. Brunette.**
Bibliography of technical reports 1985. Mar 1986. 13p. NTIS NO. PB86-214756/AS.

WHOI

- 86- 5 **Bowers, Clarke M., James F. Price, Robert A. Weller and Melbourne G. Briscoe.**
Data tabulations and analysis of diurnal sea surface temperature variability observed at LOTUS. Feb 1986. 51p. NTIS NO. AD-A165406.

WHOI

- 86- 6 **Sayles, F. L. and L. A. Ball.**
The release and migration of activation products from corrosion-resistant metal sediments. Mar 1986. 53p. NTIS NO. PB86-197878/AS.

WHOI

- 86- 7 **Doutt, James A.**
Short-term variability in nighttime scattering strength levels at one site in the Eastern Alegero-Provencal Basin. Mar 1986. 22p.

WHOI

- 86- 8 **Farrington, John W., Jia Xiaoping, C. H. Clifford, Bruce W. Tripp, Joaquim B. Livramento, Alan C. Davis, Nelson M. Frew and Carl G. Johnson.**
No. 2 fuel oil compound retention and release by Mytilus edulis: 1983 Cape Cod Canal oil spill. Mar 1986. 73p. NTIS NO. PB87-148631/AS.

- WHOI
86- 9 **Binder, Brian Jeffrey.**
The physiology of dormancy and germination in cysts of the marine dinoflagellate Scrippsiella trochoidea. Ph.D. thesis. MIT/WHOI Joint Program in Oceanography. Mar 1986. 179p. NTIS NO. PB87-142146/AS.
- WHOI
86-10 **Spivack, Arthur J.**
Boron isotope geochemistry. Ph.D. Thesis. MIT/WHOI Joint Program in Oceanography. Mar 1986. 184p. NTIS NO. PB87-142154/AS.
- WHOI
86-11 **Silva, Maynard E., Ellen M. Gately and Ingrid Desilvestre.**
A bibliographic listing of coastal and marine protected areas: A global survey. Jan 1986. 156p. NTIS NO. PB86-182383/XAB.
- WHOI
86-12 **Asper, Vernon L.**
Accelerated settling of marine particulate matter by 'marine snow' aggregates. Ph.D. Thesis. MIT/WHOI Joint Program in Oceanography. Mar 1986. 189p. NTIS NO. AD-A166868.
- WHOI
86-13 **Zani, A. Cleo and Nancy R. Galbraith.**
A technical description of an acoustic Doppler based upper ocean profiling system. Apr 1986. 68p. NTIS NO. PB87-142162/AS.
- WHOI
86-14 **Levy, Ellen and Susan A. Tarbell.**
Moored current meter and temperature-pressure recorder measurements from the Western North Atlantic (High Energy Benthic Boundary Layer and Abyssal Circulation Experiments 1983-1984). Volume XXXIX. Apr 1986. 40p. NTIS NO. AD-A176 014.
- WHOI
86-15 **Stalcup, M. C., T. M. Joyce, R. L. Barbour and J. A. Dunworth.**
Hydrographic data from R/V ENDEAVOR Cruise #90. Mar 1986. 79p. NTIS NO. N86-27862/9/XAB.
- WHOI
86-16 **Farrington, John W.**
Coastal Research Center report of the period May 1984-February 1986. Apr 1986. 60p. NTIS NO. PB87-148623/AS.
- WHOI
86-17 **Briscoe, Melbourne G.**
Status report on ocean data telemetry. Jul 1986. 78p. NTIS NO. AD-A171924.
- WHOI
86-18 **Hoyt, Joshua K.**
The Flying Fish, an untethered oceanographic sensor platform with acoustic homing capability. Ph.D. Thesis. MIT/WHOI Joint Program in Oceanography. May 1986. 199p.

WHOI

86-19

Brownawell, Bruce J.

The role of colloidal organic matter in the marine geochemistry of PCBs. Ph.D. Thesis. MIT/WHOI Joint Program in Oceanography. Jun 1986. 318p.

WHOI

86-20

Biesiot, Patricia Marie.

Changes in midgut gland morphology and digestive enzyme activities associated with development in early stages of the American lobster Homarus americanus. Ph.D. Thesis. MIT/WHOI Joint Program in Oceanography. Jun 1986. 237p.

WHOI

86-21

Naiman, Robert J., Roderick Morin, Hal Caswell, W. Linn Montgomery, Eileen Klopfer and Todd Kana.

The Atlantic salmon (Salmo salar) population of the Matamek River, Quebec: 1976-1984 data report. Jul 1986. 119p. NTIS NO. PB87-103370/XAB.

WHOI

86-22

Agnon, Yehuda.

Nonlinear diffraction of ocean gravity waves. Ph.D. Thesis. MIT/WHOI Joint Program in Oceanography. Jun 1986. 177p.

WHOI

86-23

Bruno, Michael S.

A coupled hydrodynamic and ice floe movement model. Sc.D. Thesis. MIT/WHOI Joint Program in Oceanography. Jun 1986. 157p.

WHOI

86-24

McKee, Theresa K.

A summary of historical SOFAR float data in the Western North Atlantic 1972-81. Jul 1986. 722p.

WHOI

86-25

Feder, Meir and Ehud Weinstein.

Optimal multiple source location via the EM algorithm. Jul 1986. 29p.

WHOI

86-26

Weinstein, Ehud and Meir Feder.

Multiple source location estimation using the EM algorithm. Jul 1986. 27p.

WHOI

86-27

McNichol, Ann P.

A study of the remineralization of organic carbon in nearshore sediments using carbon isotopes. Ph.D. Thesis. MIT/WHOI Joint Program in Oceanography. Jul 1986. 225p.

- WHOI
86-28 **Aubrey, David G.**
King's Bay/Cumberland Sound, Georgia part I: Experiments report
June-July 1985. Aug 1986. 96p.
- WHOI
86-29 **Bryden, Harry L. and Thomas H. Kinder.**
Gibraltar Experiment. A plan for dynamic and kinematic
investigations of strait mixing, exchange and turbulence. Aug
1986. 82p. NTIS NO. AD-A172 500.
- WHOI
86-30 **Mellinger, E. C., K. E. Prada, R. L. Koehler and K. W. Doherty.**
Instrument Bus, an electronic system architecture for
oceanographic instrumentation. Aug 1986. 86p.
- WHOI
86-31 **Price, James F., Theresa K. McKee, James R. Valdes, Philip L.
Richardson and Laurence Armi.**
SOFAR Float Mediterranean Outflow Experiment data from the first
year, 1984-1985. Jul 1986. 195p.
- WHOI
86-32 **Buesseler, Ken O.**
Plutonium isotopes in the North Atlantic. Ph.D. Thesis.
MIT/WHOI Joint Program in Oceanography. Sep 1986. 220p.
- WHOI
86-33 **Montgomery, Ellyn T.**
Dynamic presentation of Long Term Upper Ocean Study (LOTUS) data
using videotape. Sep 1986. 32p. NTIS NO. AD-A175 535.
- WHOI
86-34 **Bailey, Conner, Craig Harris, Clayton Heaton and Rosamund Ladner.**
Proceedings of the Workshop on Fisheries Sociology April 26-27,
1985. Woods Hole Oceanographic Institution. Sep 1986. 130p.
NTIS NO. PB87-119384/XAB.
- WHOI
86-35 **Pennington, Nancy J. and Robert A. Weller.**
FASINEX Frontal Air-Sea Interaction Experiment (January-June
1986) summaries for FASINEX mooring cruises. Phase one: R/V
KNORR Cruise 119. Phase three: R/V KNORR cruise 123. Dec 1986.
239p. NTIS NO. AD-A177835.
- WHOI
86-36 **Pennington, Nancy J. and Robert A. Weller.**
FASINEX Frontal Air-Sea Interaction Experiment (January-June
1986) cruise summaries for FASINEX Phase two: R/V OCEANUS Cruise
175, R/V ENDEAVOR Cruise 141. Sep 1986. 174p. NTIS NO. AD-A177
776.

- WHOI
86-37 **Shen, Glen T.**
Lead and cadmium geochemistry of corals: Reconstruction of historic perturbations in the upper ocean. Ph.D. Thesis. MIT/WHOI Joint Program in Oceanography. Sep 1986. 233p.
- WHOI
86-38 **Polcari, John J.**
Acoustic mode coherence in the Arctic Ocean. Sc.D. Thesis. MIT/WHOI Joint Program in Oceanography. Sep 1986. 297p.
- WHOI
86-39 **Moro, Boris.**
Analysis of certain inviscid flows on the Beta Plane. Ph.D. Thesis. MIT/WHOI Joint Program in Oceanography. Jan 1986. 178p.
- WHOI
86-40 **Lazarus, David.**
MEASURE: A program for morphometric measurements. Oct 1986. 55p. NTIS NO. PB87-143046/AS.
- WHOI
86-41 **Pierce, Stephen D.**
Gulf Stream velocity structure through combined inversion of hydrographic and acoustic Doppler data. Dec 1986. 64p. NTIS NO. PB87-143228/AS.
- WHOI
86-42 **Clay, P. R. and S. P. Longworth.**
A performance update of the InterOcean S4 electromagnetic current meter. Oct 1986. 26p. NTIS NO. AD-A174425/9/XAB.
- WHOI
86-43 **Martin, Ann.**
CHART a computer plotting package for the display of position-dependent marine data. Dec 1986. 57p. NTIS NO. PB87-148607/AS.
- WHOI
86-44 **Broda, J. E. and P. J. Andrew.**
Description of W.H.O.I. rock dredge samples, volume II. Sep 1986. 380p.
- WHOI
86-45 **Stern, Melvin E.**
Summer Study Program in Geophysical Fluid Dynamics, the Woods Hole Oceanographic Institution. Order and disorder in turbulent shear flow. Dec 1986. 277p.

DEPARTMENT INDEX

ADMINISTRATION

86-2, 86-4

BIOLOGY

86-9, 86-20, 86-21

CHEMISTRY

86-6, 86-8, 86-10, 86-16, 86-32,
86-37

COASTAL RESEARCH CENTER

86-19, 86-27

GEOLOGY AND GEOPHYSICS

86-3, 86-12, 86-28, 86-40, 86-43,
86-44

GEOPHYSICAL FLUID DYNAMICS

86-45

MARINE POLICY AND OCEAN MANAGEMENT

86-1, 86-11, 86-34

OCEAN ENGINEERING

86-7, 86-18, 86-22, 86-23, 86-25, 86-26,
86-30, 86-38, 86-42

PHYSICAL OCEANOGRAPHY

86-5, 86-13, 86-14, 86-15, 86-17, 86-24,
86-29, 86-31, 86-33, 86-35, 86-36, 86-39,
86-41

AUTHOR INDEX

Agnon, Yehuda
86-22

Andrew, P. J.
86-44

Armi, Laurence
86-31

Asper, Vernon L.
86-12

Aubrey, David G.
86-28

Bailey, Conner
86-34

Ball, L. A.
86-6

Barbour, R. L.
86-15

Biesiot, Patricia Marie
86-20

Binder, Brian Jeffrey
86-9

Bowers, Clarke M.
86-5

Briscoe, Melbourne G.
86-5, 86-17

Broda, J. E.
86-44

Brownawell, Bruce J.
86-19

Brunette, Lisa M.
86-4

Bruno, Michael S.
86-23

Bryden, Harry L.
86-29

Buessler, Ken O.
86-32

Caswell, Hal
86-21

Clay, P. R.
86-42

Clifford, C. H.
86-8

Davis, Alan C.
86-8

Desilvestre, Ingrid
86-11

Doherty, K. W.
86-30

Doutt, James A.
86-7

Dunworth, J. A.
86-15

Edwards, Steven F.
86-1

Farrington, John W.
86-8, 86-16

Feder, Meir
86-25, 86-26

Frew, Nelson M.
86-8

Galbraith, Nancy R.
86-13

Gately, Ellen M.
86-11

Harris, Craig
86-34

Heaton, Clayton
86-34

Hoyt, Joshua K.
86-18

Johnson, Carl G.
86-8

Joyce, T. M.
86-15

Kana, Todd
86-21

Kinder, Thomas A.
86-29

Klopfer, Eileen
86-21

Koehler, R. L.
86-3, 86-30

Ladner, Rosamund
86-34

Lazarus, David
86-40

Levy, Ellen
86-14

Livramento, Joaquim B.
86-8

Longworth, S. P.
86-42

Martin, Ann
86-43

McKee, Theresa K.
86-24, 86-31

McNichol, Ann P.
86-27

Mellinger, E. C.
86-30

Montgomery, Ellyn T.
86-33

Montgomery, W. Linn
86-21

Morin, Roderick
86-21

Moro, Boris
86-39

Naiman, Robert J.
86-21

Pennington, Nancy J.
86-35, 86-36

Pierce, Stephen D.
86-41

Polcari, John J.
86-38

Prada, K. E.
86-30

Price, James F.
86-31, 86-5

Putnam, Susan S.
86-4

Rabushka, Anne I.
86-2

Richardson, Philip L.
86-31

Sayles, F.L.
86-6

Shen, Glen T.
86-37

Silva, Maynard E.
86-11

Spivack, Arthur J.
86-10

Stalcup, M. C.
86-15

Stern, Melvin E.
86-45

Tarbell, Susan A.
86-14

Tripp, Bruce W.
86-8

Valdes, James R.
86-31

Von Herzen, R. P.
86-3

Weinstein, Ehud
86-25, 86-26

Weller, Robert A.
86-5, 86-35, 86-36

Xiaoping, Jia
86-8

Zani, A. Cleo
86-13

FUNDING AGENCIES

American Sociological Society

86-34

Andrew W. Mellon Foundation

86-8, 86-16, 86-19, 86-27

U.S. Department of Energy

86-32

Hertz Foundation

86-10

J. N. Pew Jr. Charitable Trust

86-1, 86-11, 86-34

Ministry of Agriculture, Animal Husbandry and Fisheries and Ministry of Education, Beijing

86-8

Mobil Foundation, Inc.

86-16

National Aeronautics and Space Administration

86-15, 86-41

National Science Foundation

86-3, 86-12, 86-13, 86-15, 86-18, 86-24, 86-27, 86-31, 86-37, 86-39, 86-40, 86-41, 86-44, 86-45

U.S. Navy

86-38

Navy, Naval Air Systems Command

86-25, 86-26

Navy, Naval Civil Engineering Laboratory, Naval Facilities Command

86-28

Navy, Naval Underwater Systems Center

86-7

Navy, Office of Naval Research

86-5, 86-12, 86-14, 86-17, 86-29, 86-30, 86-33, 86-35, 86-36, 86-37, 86-39,
86-42, 86-45

Navy, Office of Naval Research, Fluid Mechanics Program

86-22

Oak Ridge Associated University Travel

86-32

Richard King Mellon Foundation

86-8, 86-16

Sandia National Laboratories

86-43

Standard Oil Co., Ohio

86-23

Tai-Ping Aquaculture Foundation

86-20

Tinker Foundation

86-11

U.S. Department of Commerce, NOAA, National Sea Grant College Program

86-1, 86-11, 86-19, 86-20, 86-21, 86-34

U.S. Geological Survey

86-3

Woods Hole Oceanographic Institution, Coastal Research Center

86-28

Woods Hole Oceanographic Institution, Ocean Industry Program

86-3, 86-43

Woods Hole Oceanographic Institution, Marine Policy and Ocean Management

86-1

EARLIER BIBLIOGRAPHIES OF TECHNICAL REPORTS

WHOI REF.	NTIS ORDER NUMBER
76-116 Bibliography of Reports, 1976	AD-A039 662
78-33 Bibliography of Reports, 1977	AD-A055 041
79-31 Bibliography of Reports, 1978	PB-295 727
80-14 Bibliography of Reports, 1979	PB80-169964
81-9 Bibliography of Reports, 1980	PB81-185167
82-14 Bibliography of Reports, 1981	PB81-237579
83-2 Bibliography of Reports, 1982	PB83-191064
84-1 Bibliography of Reports, 1983	PB84-173798
85-2 Bibliography of Reports, 1984	PB85-201747
86-4 Bibliography of Reports, 1985	PB86-214756/AS

SUMMARIES

WHOI REF.	
76-49	Abstracts of papers submitted in 1975 for publication
77-3	Abstracts of papers submitted in 1976 for publication
78-6	Abstracts of papers submitted in 1977 for publication
79-37	Abstracts of papers submitted in 1978 for publication
80-22	Abstracts of papers submitted in 1979 for publication
81-36	Abstracts of papers submitted in 1980 for publication
82-9	Abstracts of papers submitted in 1981 for publication
83-3	Abstracts of papers submitted in 1982 for publication
84-11	Abstracts of papers submitted in 1983 for publication
85-9	Abstracts of papers submitted in 1984 for publication
86-2	Abstracts of papers submitted in 1985 for publication

GEOPHYSICAL FLUID DYNAMICS

WHOI REF.	NTIS ORDER NUMBER
80-53	Coherent features in geophysical flows. AD-A094 433.
81-102	Physics of convection. AD-A114 366/8.
82-45	Particle motions in fluids. AD-A122 864.
83-41	Baroclinic instability and ocean fronts. AD-A166 898
84-44	Dynamic differentiations. AD-A149 386/5/XAB.
85-36	Chaos. AD-A164 601
86-45	Order and disorder in turbulent shear flow.