

IHB File No. S3/2630

**CIRCULAR LETTER 12/2006
25 January 2006**

COMPOSITION OF THE JOINT IHO-IOC GUIDING COMMITTEE FOR GEBCO

Dear Hydrographer,

1. The IHB has been informed by the USA that Dr Mike Loughridge has resigned as an IHO member of the GEBCO Guiding Committee (GGC). The USA has also nominated Dr Christopher Fox for membership of the GGC. A copy of Dr Fox's CV (English only) is attached at Annex A.
2. Details of the current membership of the GEBCO Guiding Committee is given at Annex B.
3. Member States are requested to inform the IHB if they wish to nominate a representative to join the GGC by **28 February 2006**. If no other nominations are received Dr Christopher Fox will be considered to have been elected.
4. The IHB would like to take this opportunity to thank Dr Loughridge for his contribution to the work of GGC since 1998 and the USA for their continued support of GEBCO.

On behalf of the Directing Committee
Yours sincerely,

Captain Hugo GORZIGLIA
Director

Cc: Prof. Bob WHITMARSH, Permanent Secretary of GEBCO
Annex A: CV for Dr Christopher Fox
Annex B: GEBCO Guiding Committee Membership January 2006

CHRISTOPHER G. FOX

NOAA/National Geophysical Data Center
325 Broadway, E/GC, Room 1B148
Boulder, CO 80305-3328

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Email: Christopher.G.Fox@noaa.gov

BORN: 18 March 1952; Philadelphia, PA **PERSONAL:** Married, Two Children

EDUCATION: *Ph.D.*, Columbia University, New York, NY, Geological Sciences, 1985
M.Phil., Columbia University, New York, NY, Geological Sciences, 1982
Sc.M., Brown University, Providence, RI, Geological Sciences, 1976
A.B. (with honors), University of Tennessee, Knoxville, Geology, 1974

PROFESSIONAL EXPERIENCE: *Director*, National Geophysical Data Center, National Oceanic and Atmospheric Administration, Boulder, CO, 2004 - present
Physical Scientist, Pacific Marine Environmental Laboratory, National Oceanic and Atmospheric Administration, Newport, OR 1985-2004
Oceanographer, Advanced Technology Staff, U.S. Naval Oceanographic Office, Bay St. Louis, MS 1980-1985
Oceanographer, Geology and Geophysics Branch, U.S. Naval Oceanographic Office, Bay St. Louis, MS 1978-1980
Hydrologist, Water Resources Division, U.S. Geological Survey, Bay St. Louis, MS 1977-1978

PROFESSIONAL SOCIETIES: American Geophysical Union
Acoustical Society of America

AWARDS: Participant, NOAA Leadership Competencies Development Program, 2000 -2001
Outstanding Scientific Paper Award, NOAA/OAR, 1996
Department of Commerce Gold Medal, 1994
Pacific Marine Environmental Laboratory Certificate of Recognition (9 awards)
U.S. Naval Oceanographic Office Long-Term Training Program, 1981-1982

PROFESSIONAL ACTIVITIES: Associate Professor (Courtesy), Oregon State University, (1986- 2004)
Member, International RIDGE Program Steering Committee (1997-2001)
US Delegate, International Whaling Commission Scientific Committee (1997- 99)
Member, NEPTUNE Project Steering Committee (1998 - 2000)
Member, National Science Foundation RIDGE Steering Committee (1991-1995)
Member, Interagency Working Group on Dual-Use of IUSS (1993-1996)

SCIENTIFIC INTERESTS: Marine geophysics and underwater acoustics; Ocean mapping; Numerical simulation of natural systems; Integration of remote sensing systems; Geographic Information Systems

Professional Experience

Director, NOAA National Geophysical Data Center, Boulder, CO; 4/18/2004-present: Lead a data and data-information service in all scientific and technical areas involving solid earth geophysics, marine geology and geophysics, glaciology/snow and ice, the upper atmosphere, space environment, solar activity and other areas of solar-terrestrial physics. Serve on NESDIS senior management team and various governing boards and councils. Oversee the operation of three World Data Centers, serve as Director of the IHO Data Centre for Digital Bathymetry, and represent NOAA and NESDIS on various international committees.

Physical Scientist, Ocean Environment Research Division, NOAA Pacific Marine Environmental Laboratory, Newport, OR; 6/10/1985-4/17/2004: Conduct basic research in marine geology and geophysics, including low-frequency underwater acoustics in the ocean environment, the distribution of low-level seismicity and volcanism in the global ocean, the dynamics of seafloor spreading centers, and the effects of hydrothermal venting systems on the oceanic environment. Developed autonomous underwater hydrophones to allow long-term monitoring of ocean acoustics over the global ocean. Earlier research focused on inferring seafloor processes from remotely-sensed instruments such as multibeam sonars, side-scan sonar and bottom photography; as well as developing instrumentation to monitor the temporal variability of active ridge crest volcanic systems using *in situ* instruments. Also responsible for computer systems development and operations for NOAA's Newport, Oregon facilities as well as data archive and distribution.

Oceanographer, Advanced Technology Staff, U.S. Naval Oceanographic Office Bay St. Louis, MS; 2/10/1980 - 6/9/1985: Responsible for formulating the design and testing of numerical mathematical procedures for the analysis of geophysical and oceanographic data. Duties involved investigating the applicability of modern mathematical techniques to design strategies, developing numerical techniques for the solution of technical requirements, and the creation of necessary computer software to perform the tasks. Conducted basic research into the mathematical description of seafloor relief, oceanographic variability, and satellite derived geoid. I participated in the development of the DBDB-5 digital bathymetric data base, the Generalized Digital Environmental Model for oceanic sound speed, and the GEOSAT altimetry mission.

Oceanographer, Geology and Geophysics Branch, U.S. Naval Oceanographic Office, Bay St. Louis, MS; 6/4/1978 - 2/10/1980: Responsible for the management of all geophysical and oceanographic digital data bases. Developed software system to allow rapid access and graphic output for large geophysical data sets. I acted as subject matter specialist for software development on new shipboard computer systems. At sea, served as Lead Underway Oceanographer, responsible for ships' navigation and data quality.

Hydrologist, Water Resources Division, U.S. Geological Survey, Bay St. Louis, MS; 2/13/1977 - 6/4/1978: Responsible for the assessment of geothermal energy potential of subsurface brines in southern Louisiana. Created dynamic models of production well history for a two-phase system in a porous medium.

Other Research

Development of Geographic Information Systems (GIS) for marine sciences (1990 -)
Development of digital enhancement techniques for marine sonar systems (1985 - 1995).
Formulation of stochastic models to describe high spatial frequency topography of the seafloor for acoustic bottom interaction modeling (1981-1985).
Development of digital techniques to improve quality of data from multibeam sonar systems (1980-1981).
Development of efficient data storage/retrieval/contouring systems for randomly spaced geophysical data sets (1978-1980).
Interpretation of the Pleistocene climatic history of the Asian monsoonal circulation through the deep-sea sediment record (1974-1976).

Oceanographic Expeditions

WILKES	Karachi - Columbo	8/21/78 - 10/21/78
SILAS BENT	Yokosuka - Yokosuka	6/11/79 - 8/01/79
SILAS BENT*	Honolulu - San Diego	1/2/80 - 1/24/80
DISCOVERER	Astoria - Seattle	7/10/86 - 7/25/86
DISCOVERER*	Newport - Seattle	8/17/87 - 8/27/87
ATLANTIS II/ALVIN	Newport - Newport	9/15/87 - 10/05/87
DISCOVERER*	Seattle - Newport	8/1/88 - 8/18/88
DISCOVERER*	Astoria - Astoria	8/12/90 - 9/03/90
SURVEYOR	San Diego-Seattle	5/08/95 - 5/16/95
DISCOVERER*	Seattle-San Francisco	7/17/95 - 7/29/95
RONALD H. BROWN*	San Diego - Newport	9/10/97 - 9/14/97
RONALD H. BROWN*	Newport - San Francisco	10/3/99 - 10/20/99
MAURICE EWING	Norfolk - Barbados	1/30/99 - 2/24/99
RONALD H. BROWN*	Seattle - San Diego	8/27/01 - 9/3/01
R/O LE SUROIT	Ponta Delgada - Brest	5/17/02 - 6/4/02

* Chief Scientist

Other Professional Activities

Associate Professor (Courtesy), College of Oceanic and Atmospheric Sciences, Oregon State University (1986-2004)

Over 100 published scientific papers

Selected Publications

Chaytor, Jason D., Chris Goldfinger, Robert P. Dziak, and **Christopher G. Fox**, Active deformation of the Gorda "Plate": Constraining deformation models with new geophysical data, *Geology*, vol. 32 no. 4, 353-356, 2004.

Dziak, Robert P., **Christopher G. Fox**, Andra M. Bobbitt, and Chris Goldfinger, 2001, Bathymetric map of the entire Gorda Plate: Structural and geomorphological processes inferred from multibeam surveys, *Marine Geophysical Researches*, vol. 22, no. 4, 235-250.

Fox, Christopher G. and Andra M. Bobbitt, 1999, NOAA Vents Program GIS: Integration, Analysis and Distribution of Multidisciplinary Oceanographic Data, in *Marine and Coastal Geographical Information Systems*, D.W. Wright and D. Bartlett, eds., Taylor and Francis, London, 320 pp.

Wright, Dawn J., **Christopher G. Fox**, and Andra M. Bobbitt, 1997, A scientific information model for deep sea mapping and sampling, *Marine Geodesy*, vol. 20, no. 4, 367-379.

Bobbitt, Andra M., Robert P. Dziak, Kathleen M. Stafford, and **Christopher G. Fox**, 1997, GIS analysis of oceanographic remotely-sensed and field observation data, *Marine Geodesy*, vol. 20, no. 2-3, p. 153-161.

Fox, Christopher G., 1996, Objective classification of ridge crest terrains using two-dimensional spectral models of bathymetry: Application to the Juan de Fuca Ridge, *Marine Geophysical Researches*, vol. 18, p. 707-728.

Chadwick, Jr., William W., Robert W. Embley, and **Christopher G. Fox**, 1995, SeaBeam depth changes associated with recent lava flows, CoAxial Segment, Juan de Fuca Ridge: Evidence for multiple eruptions between 1981-1993, *Geophysical Research Letters*, vol. 22, no. 2, p 167-170.

Fox, Christopher G., William W. Chadwick, and Robert W. Embley, 1992, Detection of changes in ridge crest morphology using repeated multibeam sonar surveys, *Journal of Geophysical Research*, vol 97, no B7, pp 11149-11162.

Appelgate, T. Bruce, Chris Goldfinger, Mary E. MacKay, LaVerne D. Kulm, **Christopher G. Fox**, Robert W. Embley, and Philip J. Meis, 1992, A left-lateral strike-slip fault seaward of the central Oregon convergent margin, *Tectonics*, vol. 11, no. 3., pp 465-477.

Lau, Tai-Kwan A., and **Christopher G. Fox**, 1991, A technique for combining SeaMARC I sidescan sonar and gridded bathymetric data to display undistorted seafloor images, *Oceans91: Proceedings*, vol. 2, p. 1140-1145.

Embley, Robert W., Kim M. Murphy, and **Christopher G. Fox**, 1990, High resolution studies of the summit of Axial Volcano, *Journal of Geophysical Research*, vol. 95, no. B8, p 12785-12812.

Fox, Christopher G., 1990, Acoustic Techniques for Imaging the Seafloor, in G.R. McMurray, ed., *Gorda Ridge, A Seafloor Spreading Center in the United States' Exclusive Economic Zone*, Springer-Verlag, New York, p 169-178.

Gonzalez, Frank I., **Christopher G. Fox**, and Eddie N. Bernard, 1988, Tsunami source definition through pre- and post- event seafloor mapping, *Proceedings of the U.S. Hydrographic Conference*, April 12-15, p 102-108.

Fox, Christopher G., and Dennis E. Hayes, 1985, Quantitative methods for describing the roughness of the seafloor, *Reviews of Geophysics and Space Physics*, vol. 23, no. 1, p 1-48.

LIST OF IHO-IOC MEMBERS ON THE GEBCO GUIDING COMMITTEE
(January 2006)

IHO Members

- Mr. David MONAHAN (Canada), since 1985.
- Mr. Kunio YASHIMA (Japan), since 1991.
- IGA Etienne CAILLIAU (France), since 2003.
- Cdr Paulo LUSIANI (Italy), since 2005
- Vacant

IOC Members

- Dr. Gleb B. UDINTSEV (Russian Federation), since 1974.
 - Dr. Robin K.H. FALCONER (New Zealand), since 1985.
 - Dr. Ing. Hans-Werner SCHENKE (Germany), since 1991.
 - Lic. José Luis FRIAS SALAZAR (Mexico), since 1994.
 - Dr. Meirion JONES (UK), since 2003.
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