Ann G. Thresher - Biography

I am currently co-chair of the Argo Data Management Team as well as the GTSPP Steering team (for Data Management). I have a long history of working with data quality issues and have written the program used by CSIRO, BOM and others to apply quality control to our real-time XBT datasets. I have also worked extensively to create the Quota archive of upper ocean temperature which covers all historical data through 2000 in the Indian and South Western Pacific Ocean basin. I should be able to contribute my expertise in quality controlling large historical datasets and assessing among proposals to select the most effective and reasonable methods from those available.

TVS Udaya Bhaskar

uday@incois.gov.in

Affiliation:

Scientist 'D',

Indian National Centre for Ocean Information Services (INCOIS),

Ministry of Earth Sciences (MoES), Govt. of India,

Pragathi Nagar (BO), Nizampet (SO),

Hyderabad, Andhra Pradesh, India - 500090

Educational Profile: I did my MSc in mathematics from Sri Satya Sai Institute of Higher Learning (SSSIHL) and further did my PhD in oceanography from Acharya Nagarjuna University, Guntur, India. Topic of PhD is "characterizing the surface layers of Arabian Sea using Argo profiling float data".

Career Profile: I am working as scientist at Indian National centre for Ocean Information Services (INCOIS), Hyderabad, India since 2001. At INCOIS I am is responsible for processing and Quality control of both Real Time and Delayed Mode, of floats deployed by INCOIS as a part of the Indian Argo program. I am also responsible for the Argo Regional Centre (ARC) activities of Indian Ocean.

Area of expertise/interest:

- Quality control of subsurface profiles, implementing new QC techniques for bulk datasets. Development of QC tool for performing QC on subsurface data.
- Mixed layer and sonic layer characterization based on the subsurface profiles in the Indian Ocean.

Informal Biographical Statement - James H. Swift - May 2013

I am a Research Oceanographer and Academic Administrator at the UCSD Scripps Institution of Oceanography in La Jolla, CA. I received my PhD in Physical Oceanography from the University of Washington in 1980, and have been at SIO since then, except for 1985-1986 when I was on the research faculty at the University of Washington. My primary scientific interests are the waters and circulation of the Arctic Ocean and Nordic Seas, the global climate-scale intermediate and deep circulation, and ocean measurement and interpretation. I have participated on 33 oceanographic expeditions, in most of the oceans, with emphasis on the Southern and especially Arctic Oceans. I have spent three years at sea.

Much of the ocean measurement and interpretation work comes with my position as Scientific Advisor to the SIO Oceanographic Data Facility (ODF), which is a group specializing in reference quality measurements of ocean temperature, salinity, and various dissolved substances. I am also the coordinator for the academic institutions involved in the US Global Ocean Carbon and Repeat Hydrography program, and I direct an international oceanographic data office at SIO called the CLIVAR and Carbon Hydrographic Data Office (CCHDO). I have also continued to bring interpretative tools to the oceanographic community through my Java OceanAtlas (JOA) application and associated data sets, which are used in research and teaching programs.

In the early 1980s I saw the potential of the Arctic Ocean as an active contributor to the global "deep conveyor belt" circulation but was stymied in exploring this further by the inadequate data available. Since that time, and with a great deal of work done by many colleagues, agencies, and institutions, much has been accomplished. My present work explores the relationship of the new observations to four broad themes: circulation patterns, decadal-scale fluctuations in circulation and water properties, structure in mid-depth water properties, and connections between the various basins and the other oceans. Ongoing research projects include studies of the Chukchi Sea and bordering regions, the central Arctic Ocean, and the Nordic Seas.

Service at the national level has been ongoing. I was the founding Chair of the UNOLS Arctic Icebreaker Coordinating Committee and was a member of the UNOLS Council. I also served on the US Antarctic Research Vessel Oversight Committee. I have chaired the National Science Foundation Office of Polar Programs Advisory Committee, and also their subcommittee on the McMurdo Antarctic Resupply. I have served on two National Academy of Science study committees and was a member of their Polar Research Board. From December 2011 through January 2013 I was the Program Director for the Antarctic Research and Logistics Integration Program in the Office of Polar Programs at NSF.

I was presented with the Ocean Sciences Award from the American Geophysical Union in December 2011.

I am also an amateur musician, and especially enjoy my position as second bassoonist in the La Jolla Symphony, which is an excellent community orchestra. I take a practice bassoon with me to sea, and have played it on the ice at the North Pole (2005) and in sight of the Scott "Discovery Hut" near McMurdo Station, Antarctica (2011).

Alison Macdonald – Bio

I am a physical oceanographer who has worked with many data sets in various ocean basins, but my main expertise is in handling large hydrographic data sets and estimating 3-D circulation from them. My focus has been the effect of circulation (advection, and mixing) on heat, freshwater and carbon cycles on basin and global scales. More recently my interests have lead me to look at how changing property concentrations and/or circulation may affect these balances. I am particularly interested in changes to bottom water properties and the pathways and timescales associated with variability. I am not a numerical modeler though I have worked with model output, neither am I a chemist although I use carbon parameters and tracers in my research. Current projects include an investigation of anthropogenic carbon pathways within the Pacific, and an associated project using WOCE and CLIVAR hydrography together with high-resolution model output to better understand mixing and overturn in the Indian Ocean.

Sergey Gladyshev

Shirshov Institute of Oceanology (Moscow, Russia)

sgladyshev@ocean.ru

Birthday: 1959, September 21
Citizenship - Russia, Place of birth – Omsk

Education:

Oceanology diploma of Moscow State University, 1981 (Russia);
Candidate of Sciences (Ph.D), Pacific Oceanological Institute (Vladivostok), 1990.

Scientific Experience:

2003-present time Department of Expeditions and Marine Operations, Deputy Chief Shirshov Institute of Oceanology (Moscow)

2002-2003 Laboratory of Internal Waves and Boundary Layers, Senior Scientist Shirshov Institute of Oceanology (Moscow)

2001-2002 Physical Oceanography Laboratory, Senior Scientist Pacific Oceanological Institute (Vladivostok)

1998-2001 Visiting scientist in Institute of Low Temperature Science, Hokkaido University (Hokkaido, Japan)

1991-1998: Physical Oceanography Laboratory, Head Pacific Oceanological Institute (Vladivostok)

1990-1991: Junior Researcher, Pacific Oceanological Institute, Vladivostok, member of Physical Oceanography Laboratory.

1987-1989: Candidate courses at the Pacific Oceanological Institute
Preparation of the thesis "Some Aspects of the Evolution of Warm-Core Kuroshio Eddies".

1983-1986: Assistant researcher, a member of the Hydrology Research Laboratory

Viktor Gouretski

DEGREES
1975: graduated Leningrad State University, Oceanography Department
1982: Ph.D. in Physics and Mathematics

POSITIONS HELD
2008-present: Research Scientist, KlimaCampus, University of Hamburg, Germany

1990-2008: Research Scientist
Alfred Wegener Institute, Bremerhaven, Germany
German Maritime and Hydrographic Agency
Max-Planck-Institute for Meteorology, Hamburg
Institute for Marine Research, University of Hamburg

1975-1990: Scientist, Arctic and Antarctic research Institute, Leningrad/St. Petersburg, Russia

MAIN FIELD OF WORK: Quality control and analysis of the global hydrographic dataset

RECENT PUBLICATIONS:

Gouretski, V.V., and K.P. Koltermann (2007), How much is the Ocean really warming?, *Geophys. Res. Lett.,* 34, L01610, doi:10.1029/2006GL027834

Lyman, J.M., S.A.Good, V.V. Gouretski, M. Ishii, G.C. Johnson, M.D. Palmer, D.M. Smith & J.K. Willis (2010). *Robust warming of the global ocean*, Nature, 465, 334–337, doi:10.1038/nature09043.

Gouretski, V., and F. Reseghetti (2010), On depth and temperature biases in bathythermograph data: Development of a new correction scheme based on analysis of a global ocean database, *Deep Sea Res. I,* 57, 812-833; doi:10.1016/j.dsr.2010.03.011

Gouretski, V., Using GEBCO digital bathymetry to infer depth biases in the XBT data. Deep-Sea Res. Pt. I (2012), doi:10.1016/j.dsr.2011.12.012

Gouretski, V., J. Kennedy, T. Boyer, and A. Köhl (2012), Consistent near-surface ocean warming since 1900 in two largely independent observing networks, *Geophys. Res. Lett.*, 39, L19606.

Koltermann, K.P., V.V. Gouretski, and K. Jancke (2013), *Hydrographic Atlas of the World Ocean Circulation Experiment (WOCE*). Volume 3: Atlantic Ocean (eds. M. Sparrow, P. Chapman and J. Gould). International WOCE Project Office, Southampton, UK, ISBN 090417557X.

Gouretski, V., J. Jungclaus, and H.Haack (in press) Revisiting the *Meteor* 1925-27 hydrographic dataset reveals centennial full-depth changes in the Atlantic Ocean, Geophys. Res. Letters.

Masayoshi Ishii

Meteorological Research Institute (MRI) of
Japan Meteorological Agency (JMA)
maish@mri-jma.go.jp

Biography:

1984-88 Meteorological College /JMA
1988-91 Kobe Marine Observatory/JMA
1991-03 Headquarter /JMA
2003-04 MRI/JMA
2004-09 Japan Agency for Marine-Earth Science and Technology (JAMSTEC)
2006 PhD (University of Tokyo)
2009- MRI/JMA

Selected Publications

Ishii, M. and M. Kimoto and M. Kachi, 2003: Historical ocean subsurface temperature analysis with error estimates. Mon. Wea. Rev. 131, 51-73.

Ishii, M., A. Shouji, S. Sugimoto, and T. Matsumoto, 2005: Objective Analyses of SST and Marine Meteorological Variables for the 20th Century using ICOADS and the Kobe Collection. Int. J. Climatol., 25,865-879.

Ishii, M., M. Kimoto, K. Sakamoto, and S.-I. Iwasaki, 2006: Steric sea level changes estimated from historical ocean subsurface temperature and salinity analyses. J. Oceanogr. 62, 155--170.

AchutaRao, K. M., M. Ishii, B. D. Santer, P. J. Gleckler, K. E. Taylor, T. P. Barnett, D. W. Pierce, R. J. Stouffer, and T.M.L. Wigley, 2007: Simulated and Observed Variability in Ocean Temperature and Heat Content. PNAS, 104, 10768-10773.

Ishii, M. and M. Kimoto, 2009: Reevaluation of Historical Ocean Heat Content Variations with Time-Varying XBT and MBT Depth Bias Corrections. J. Oceanogr. 65, 287-299.

Suzuki, T. and M. Ishii (2011), Regional distribution of sea level changes resulting from enhanced greenhouse warming in the Model for Interdisciplinary Research on Climate version 3.2, Geophys. Res. Lett., 38, L02601, doi:10.1029/2010GL045693.

Yasunaka. S., M. Ishii, M. Kimoto, T. Mochizuki, and H. Shiogama, 2011: Influence of XBT temperature bias on decadal climate prediction with a coupled climate model. J. Climate, 24, 5303-5308, doi: 10.1175/2011JCLI4230.1.

Tatebe, H., M. Ishii, and coauthors, 2012: Initialization of the climate model MIROC for decadal prediction with hydographic data assimilation. JMSJ, 90A, 275-294.

Smith, D. M., A. A. Scaife, G. J. Boer, M. Caian, F. J. Doblas-Reyes, V. Guemas, E. Hawkins, W. Hazeleger, L. Hermanson, C.-K. Ho, M. Ishii, V. Kharin, M. Kimoto, B. Kirtman, J. Lean, D. Matei, W. J. Merryfield, W. A. Müller, H. Pohlmann, A. Rosati, B. Wouters, and K. Wyser, 2012: Real-time multi-model decadal climate predictions. Clim. Dyn., 10.1007/s00382-012-1600-0.

Dr Karen Evans is a research scientist with CSIRO Marine and Atmospheric Science in Hobart, Tasmania. Her expertise include: movement, behaviour, foraging ecology and physiology of top order pelagic predators, including teleosts, cetaceans, pinnipeds and seabirds, particularly in relation to the impacts of climate change. She has lead and co-ordinated a number of projects on pelagic predators throughout the Tasman and Coral Seas and Southern Ocean and collaborated on a number of large regional programs in the Indian and Pacific Oceans. She regularly contributes to a number of regional management organisations, including the Commission for the Conservation of Bluefin Tuna, the Western and Central Pacific Tuna Commission and the International Whaling Commission. She is currently co chair of Working Group 2 (Physiology, Behaviour and Distribution) on the international scientific program Climate Impacts on Top Predators (CLIOTOP) and is a member of the World Meteorological Organisation Task Team on fisheries and climate change. She has published 1 book, 4 book chapters, 26 peer-reviewed papers (14 lead author), 31 reports and working papers and guest edited 2 special issues of Deep Sea Research II.

Selected Publications:

Hobday, A.J. and EVANS, K. (2013). Detecting climate impacts with oceanic fish and fisheries data. Climatic Change. doi:10.1007/s10584=-013-0716-5

EVANS, K., Patterson, T.A. and Lea, M-A. (2012). Recent advances in bio-logging science: technologies and methods for understanding animal behaviour and physiology and their environments. Deep Sea Research II 88-89: 1-6. doi: 10.1016/j.dsr2.2012.10.005.

Lan, K-W., EVANS, K., and Lee, M-A. (2012). Effects of climate variability on the distribution and fishing conditions of yellowfin tuna (*Thunnus albacares*) in the western Indian Ocean. Climatic Change. doi: 10.1007/s10584-012-0637-8.

EVANS K, Patterson, T.A., Reid, H. and Harley S.J. (2012). Reproductive schedules in southern bluefin tuna: are current assumptions appropriate? PLoS One 7(4): e34550

EVANS, K., Baer, H., Bryant, E., Holland, M., Rupley, T. and Wilcox, C. (2011). Resolving estimation of movement in a vertically migrating pelagic fish: does GPS provide a solution? Journal of Experimental Marine Biology and Ecology 398: 9-17.

Marty Hidas

I obtained my PhD in Observational Astrophysics from the University of NSW in Sydney, and spent 3 years as a postdoc with Las Cumbres Observatory Global Telescope Network in California. I studied planets around distant stars. I then decided there's more than enough on my home planet to keep me interested. I joined the IMOS eMarine Information Infrastructure group as a Project Officer and Data Scientist in 2011 (I am learning about oceanography as I go).

I may be able to contribute to the data management and distribution aspects of this CLIVAR-GSOP project.

Sebastien Mancini
IMOS, UTAS

Following training in marine science in a French Engineering school (ISITV, Toulon), I began my Physical Oceanographic career as a numerical modeller in a multidisciplinary coastal and marine environmental services company, CREOCEAN (www.creocean.fr/contenu).

My principal work topic concerned numerical modelling (coastal circulation, waves, tidal currents, sediment and pollutants transport) and design or construction of coastal structures (sea-wall, harbour developments ...). But I also participated in the collection, preparation and analysis of in-situ data.

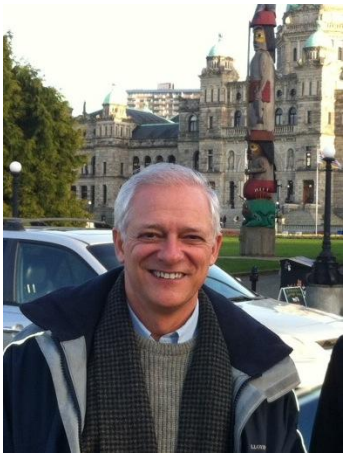
Since August 2008, I have worked as a project officer and more recently as a team leader within the eMarine Information Infrastructure facility. eMII is in charge of the data management of the IMOS (Integrated Marine Observing System, http://www.imos.org.au/) and AODN (Australian Ocean Data Network) data. During this period, I have contributed to the creation and improvement of the single integrative framework for data and information management that allow discovery and access of the data by scientists, managers and the public.

Dr. Toru Suzuki is the general manager of research division and planning

division, Marine Information Research Center (MIRC), Japan Hydrographic Association. He received his Bachelor of Fisheries (1990), Master of Fisheries (1992) and Doctor of Fisheries (1997) from Tokyo University of Fisheries (the present Tokyo University of Marine Science and Technology). His background is physical oceanography and he works for oceanographic and bathymetric data management and quality control in MIRC since 1997. He also produces some oceanographic and bathymetric data products for enlightening and popularization.

Toru contributes PICES (North Pacific Marine Science Organization) and was member of Working Group on Biogeochemical data Integration and Synthesis (WG-17; 2001-2005), and is member of Section on Carbon and Climate (S-CC; 2005-present), TCODE (Technical Committee on Data Exchange; 2007-present), and AP-COVE (Advisory Panel on Climate, Oceanographic Variability and Ecosystem; 2009-present), and he has appointed as chairperson of TCODE in 2010. He is also member of Group Experts on Biological and Chemical Data Management and Exchange Practices of IOC's International Oceanographic Data and Information Exchange (IODE GEBICH).

Gustavo Jorge Goni



NOAA/AOML/PHOD
4301 Rickenbacker Causeway
Miami, FL 33149
United States
Tel: 305-361-4339
Email: Gustavo.Goni@noaa.gov

B.S. in Ocean Engineering, Buenos Aires Institute of Technology, Argentina, 1985
M.S. in Ocean Acoustics, The Pennsylvania State University, PA, USA, 1987
PHD in Applied Marine Physics, The University of Miami, FL, USA, 1991

Work:

Oceanographer at the U.S. National Oceanic and Atmospheric Administration since 1997. Current director of the Physical Oceanography Division at the Atlantic Oceanographic and Meteorological Laboratory, located in Miami, FL. Manager of NOAA XBT Program. Chairman of the WMO/IOC Ship Of Opportunity Program Implementation Panel.

Research Interest:

Analysis of the upper ocean dynamics and thermal structure, and Meridional Overturning Circulation, using remote sensing (particularly satellite altimetry) and hydrographic observations. More than 50 peer-review scientific publications.

Jeff Dunn

Position: Ocean data analyst / programmer with CSIRO Marine and Atmospheric Research

Science areas:

- Co-developer and Custodian of CARS (CSIRO Atlas of Regional Seas) and BOA (BLUElink Ocean Archive). Involved assessment and extra quality control of available ocean profile datasets, developing data management systems and ocean mapping systems.

- Argo realtime and delayed-mode processing software development.

Previously:

- ship's programmer and cruise manager, data acquisition and processing software
- ADCP and XBT data acquisition and processing
- Patent examiner
- store manager, farm hand, roustabout, jackaroo, geological field assistant

Studies:

Diploma in Town Planning (incomplete), BSc Physics, Grad Dip Computer Science.

Other interests:

Bicycle advocacy, recreational cycling, orienteering

Simon Good

Met Office Hadley Centre, UK

Email: simon.good@metoffice.gov.uk

Website:
http://www.metoffice.gov.uk;
http://www.metoffice.gov.uk/research/people/simon-good

Simon joined the Met Office in February 2008. At the Met Office he is part of the Climate Monitoring and Attribution group and has responsibility for developing the EN dataset of quality controlled subsurface ocean temperature and salinity profiles and objective analyses (http://www.metoffice.gov.uk/hadobs/en3). He also uses the data to estimate how the temperature of the oceans has changed over time and is interested in quantifying the uncertainty in the data such as that associated with our imperfect knowledge of how to correct for biases in the data from expendable and mechanical bathythermographs (XBTs and MBTs). He has also been involved in the European Space Agency Sea Surface Temperature (SST) Climate Change Initiative, which aims to unlock the potential of satellite-derived SSTs for climate research. His work on this project has included user requirements gathering, specification of data products and writing a product user guide.

Prior to his time at the Met Office, Simon studied for a PhD at the University of Leicester, UK, the topic of which was an investigation of the physical properties of white dwarf stars. After completing his PhD he worked as a post-doctoral research associate, studying retrievals of sea surface temperature from satellite data in the Earth Observation Science research group at the University of Leicester. Immediately before joining the Met Office, he worked at QinetiQ on the processing and analysis of synthetic aperture radar data.

Main areas of expertise:

- Quality control of temperature and salinity profiles
- Objective analysis of ocean data
- Biases in XBT and MBT data
- Quantifying uncertainty in the data
- File formats and specification

Dr Matt Palmer

Lead Scientist: Sea Level Research

Met Office Hadley Centre
FitzRoy Road Exeter
EX1 3PB
United Kingdom
Tel: +44 (0)1392 884302
Fax: +44 (0)1392 885681

Email: matthew.palmer@metoffice.gov.uk

Interests and Expertise

- understanding the mechanisms of observed ocean heat, freshwater and sea level changes
- understanding the ocean's role in the planetary energy budget
- development of observational constraints on ocean heat uptake and sea level rise
- using ocean observations to inform climate model evaluation and development
- detection & attribution of climate change signals to anthropogenic and natural external forcings
- historical ocean subsurface temperature observations (1950 to present)
- building observation-based data sets and comparison with coupled model simulations
- assembling projections of global and regional sea level change

Selected Publications

Menary, M.B.et al. (incl. M.D. Palmer) (2013) "Mechanisms of aerosol-forced AMOC variability in a state of the art climate model", *J. Geophys. Res.*, doi:10.1002/jgrc.20178.

Roberts, C.D. and M.D. Palmer (2012) "Detectability of changes to the Atlantic Meridional Overturning circulation in the Hadley Centre Climate Models", *Clim. Dyn.*, doi: 10.1007/s00382-012-1306-3

Palmer, M.D. (2012) "Climate and Earth's Energy Flows", *Surv. Geophys.*, doi: 10.1007/s10712-011-9165-8

Robson, J. et al. (incl. M.D. Palmer) (2012) "Causes of the Rapid Warming of the North Atlantic in the 1990s", *J. Clim.*, doi:10.1175/JCLI-D-11-00443.1

Walters, D. N. et al. (incl. M.D. Palmer) (2011) "The Met Office Unified Model Global Atmosphere 3.0/3.1 and JULES Global Land 3.0/3.1 configurations", *Geosci. Mod. Dev.*, doi:10.5194/gmd-4-919-2011

Palmer, M.D., D.J. McNeall and N.J. Dunstone (2011) "Importance of the deep ocean for estimating decadal changes in Earth's radiation balance", *Geophys. Res. Lett.*, doi:10.1029/2011GL047835

Palmer, M.D. and P. Brohan (2011) "Estimating sampling uncertainty in fixed-depth and fixed-isotherm estimates of ocean warming", *Int. J.of Climatol.*, doi: 10.1002/joc.2224

Lyman, J.M.et al. (incl. M.D. Palmer) (2010) "Robust Warming of the Global Upper Ocean", *Nature*, doi:10.1038/nature09043

Palmer, M. et al. (2010) "Future Observations for Monitoring Global Ocean Heat Content" in *Proceedings of Ocean Obs '09* doi:10.5270/OceanObs09.cwp.68

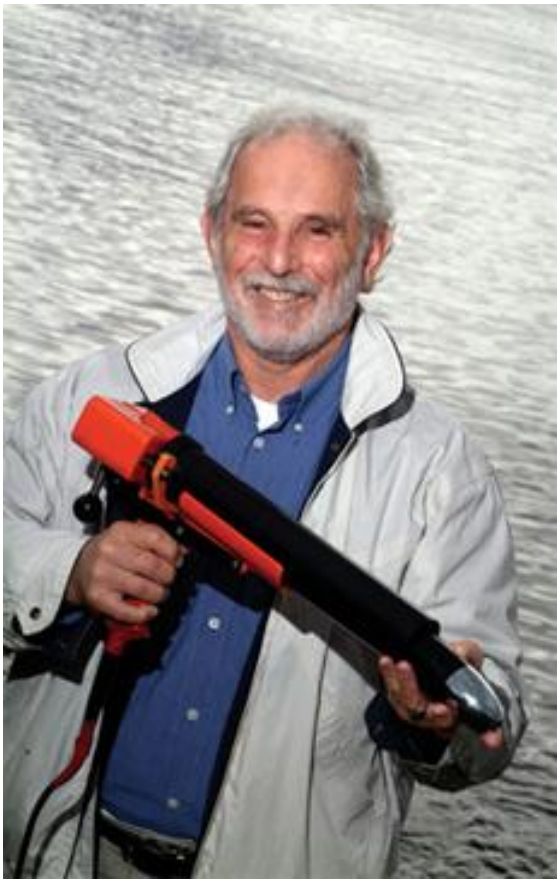
Palmer, M. D. et al. (2009) "A new perspective on warming of the global oceans", *Geophys. Res. Lett.* doi:10.1029/2009GL039491

Palmer M.D. and K. Haines (2009) "Estimating oceanic heat content change using isotherms", *J. Clim.*, doi:10.1175/2009JCLI2823.1

Palmer M.D. et al. (2007) "Isolating the signal of ocean global warming", *Geophys. Res. Lett.*, doi:10.1029/2007GL031712

Gregory, J.M., H.T. Banks, P.A. Stott, J.A. Lowe, and M.D. Palmer (2004) "Simulated and observed decadal variability in ocean heat content", *Geophys. Res. Lett.*, doi:10.1029/2004GL020258

Gary Meyers



Main interests in large scale oceanography, ocean-atmosphere interaction, seasonal-to-interannual climate, ENSO formerly, recent focus on Indian Ocean. I started the three main transequatorial XBT lines in the Pacific in 1978, then Indian Ocean lines in 1983. Retired since 2009, formerly leader of CSIRO Oceans and Climate Program, Chair CLIVAR/IOC-GOOS Indian Ocean Panel and Director IMOS.

Steve Diggs
UCSD, Scripps

I currently manage the Hydrographic Data Group at Scripps Institution of Oceanography, and have spent the majority the past four decades at SIO dealing with data associated with GEOSECS, SAVE, WOCE and CLIVAR. Our group also manages data for DIMES, iAnZone/SASSI, US Repeat Hydrography and GO-SHIP.

My primary interests relate to the design and operation of enterprise level information systems that deliver useful data from sensors in the field to the users in the lab. I do my best to be involved in the consolidation, curation and interoperability of in situ ocean observation data through my on-going participation in the data management teams for OceanSITES, Argo and SOOS.

I spend a significant amount of time trying to hide the fact that in a previous life I was an electronics engineer and head of research computing for a prominent San Diego defense contractor.

Susan E. A. Wijffels

Education:
Tertiary: B. Sc. (Hons. First Class) in Oceanography and Meteorology, Flinders University of South Australia, Adelaide, Australia, 1986
Post-graduate: Ph.D. in Physical Oceanography, Massachusetts Institute of Technology – Woods Hole Oceanographic Institution's Joint Program in Oceanography and Oceanographic Engineering, Boston, USA, 1993

Work:

2011-present: Theme Leader, The Dynamic Ocean, Wealth form Oceans Flagship, CSIRO, Hobart Tas., Australia.

Scientific Achievements:
Established and scientific lead of the Australian Argo program, and oversees CMARs contribution to the high density ship-of-opportunity XBT network.
Established and co-leads Australia's Repeat Deep Ocean Time Series Sections.
Internationally recognized expert on ocean freshwater transport/global salinity changes
Expert on the oceanography of the Indonesian Throughflow and its significance in global heat and freshwater budgets.
Expert in quantifying large-scale multi-decadal ocean change
Expert in global ocean observing systems for climate

Positions held:

Member of CLIVAR Ocean Observing Panel for Climate, 1999-2001
Member of Argo Science Team and Executive, 1998-present
Leader, Australian Argo Programme, 1998 – present
Co-Chair, International Argo Science Team, 2010-present
Member of CLIVAR Global Synthesis and Observation Panel, 2004-2010.
Member of Antarctic Science Advisory Committee, 2005-present.
Member of Science Advisory Committee, International Pacific Research Center, Hawaii, USA, 2007 – 2011.
Member, Australian Academy of Science's Earth Systems Science Committee, 5/2009-2012
CSIRO Coordinator, Quantitative Marine Science Ph. D. program, 2007 – Dec 2009
CSIRO Wealth from Oceans, Ocean Predictions and Observations Stream Leader, 2007 – 2011.
CSIRO Wealth from Oceans, The Dynamic Oceans, Theme Leader, 2011 – present.
IMOS Blue Water and Climate Node co-Leader, 2009-2011
Member, IOC/UNESCO International Steering Committee for the Global Ocean Observing System, 2012-present
Member, WMO IOC/UNESCO Observation Coordination Group, 2010-present

Sea-going Experience:
1992 RV *Knorr*, WOCE Pacific Section P6, leg 3, Watch Stander
1993 RV *Thomas Washington,* WOCE Pacific Section P10, Watch Leader
1995 RV *Franklin*, WOCE Indian Ocean section FA9503-IR6, Chief Scientist
1995 RV *Franklin,* WOCE Indian Ocean section FA9508-IR6, Chief Scientist
1995 SS *Flinder*s Bay (P&O), XBT/XCTD section Fremantle-Singapore.
1996, RV *Franklin*, Retrieval WOCE ICM6 array, Chief Scientist.
2003, RV *Southern Surveyor,* INSTANT mooring deployments, Ombai Strait, Ashmore Reef, Chief Scientist
2003, KR *Baruna Jaya VIII,* INSTANT mooring deployments, Sunda Arc, Indonesia, Chief Scientist
2005, KR *Baruna Jaya VIII,* INSTANT mooring turnaround, Sunda Arc, Indonesia, Co-Chief Scientist
2007, KR *Baruna Jaya I,* INSTANT mooring retrieval, Sunda Arc, Indonesia, Co-Chief Scientist
[Note for the INSTANT cruises Wijffels lead the CSIRO mooring team which were responsible for 80% of INSTANT moorings and logistics]
2009, RV *Southern Surveyor,* Deep Ocean Time Series Section: repeat occupation of WOCE line P15S, Chief Scientist
2011, RV *Solander,* IMOS Indonesian Throughflow array deployments, June 2011.