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Ph.D. 1993, University of Southampton, U.K.

Tom's physical oceanography group has changed significantly over the last couple of years with several group members reaching important landmarks in their careers:

Dan Lea, our post-doctoral collaborator from the Applied Physics Laboratory finished his project by publishing a good paper on ocean data assimilation in the Quarterly Journal of the Royal Meteorological Society. He moved home to England but not before embarking on an epic coast-to-coast, and then back again, road trip. Dan is now working at the UK Met. Office.

Both Hong Zhang and Bin Zhao presented their Ph.D. theses in the summer of 2005. Hong's topic was "Transport Timescales in Ocean Double-Gyre Circulations" and he was co-advised by Darryn Waugh. Hong continued to work in the group for a few months before he moved to a longer-term post-doc position at NASA's Jet Propulsion Laboratory. Bin's thesis was on "North Atlantic Climate Variability in a Hierarchy of Ocean Models" and Bin is now a post-doc at the Department of Atmospheric and Oceanic Sciences, UCLA, collaborating with staff at Los Alamos National Laboratory. Congratulations guys and good luck in the future.

Maëlle Nodet joined the group in the Spring of 2006 to work as a post doc on North Atlantic data assimilation. Maëlle has a recent Ph.D. degree in Applied Mathematics from the University of Nice, France. She is a great fit to a new NASA-funded project to explore and apply data assimilation to better quantify and understand ocean circulation east of Greenland (I was delighted that complementary projects funded by NSF and NASA also began recently - I'm still looking for new staff for these). Maëlle stayed with us for only a few months before moving to a faculty position in Applied Maths at Grenoble, France. This is a fantastic opportunity and I'm delighted for Maëlle. We continue to collaborate on the assimilation project.

Erik Kvaleberg left us in Spring 2007 after 3 years in Baltimore to take a position as a Marine Systems advisor to the Norwegian Navy in Bergen. He submitted two nice papers on subpolar North Atlantic transport and dynamics before leaving and we miss his modest, down-to-earth good sense.

Dawn Ring is making progress with her project on fast/slow wave interactions in geophysical fluid dynamics and will take her GBO exam soon. Also, Han Dong and Kumar Jeev left the group in 2005 with Master's degrees to pursue opportunities elsewhere.

Two new students joined the group in September 2007: Mei-Lin Chen, who holds a Master's degree in Civil Engineering from Taiwan, and Qian Hui, who, like Bin Zhao and Han Dong, is a Master's graduate of Qingdao University in China. Welcome to the group!

Finally, I was promoted to Full Professor with tenure in February 2006. I feel very privileged to have achieved this distinction at EPS, Johns Hopkins University and I am fully aware that this was accomplished by a collective effort every step of the way. So, thanks to everyone in the group for working with such enthusiasm, dedication, and curiosity over the years.

In 2006 I offered classes on: "Combining Measurements and Models", "Physics of

Climate Variability”, “Oceans and Atmospheres” (with Darryn Waugh), and “Fluid Dynamics of the Earth and Planets II” (also with Darryn Waugh). In 2007 I was on sabbatical for a year.

Grants

- NSF : *Quantifying Uncertainty in Ocean State Estimation*
- NASA: *Space-based estimates of Arctic/Sub-Arctic exchange using data assimilation and ocean models*
- NOAA: Collaboration with Geophysical Fluid Dynamics Laboratory, Princeton, NJ.
- NOAA: *Anthropogenic Carbon in the Oceans Estimated Using Transit Time Distributions.*
- NSF: *Collaborative Research: Transport Timescales, Pathways, and Carbon Uptake in the North Atlantic Ocean.*
- NSF: *Mechanisms of Climate Variability in the North Atlantic Ocean.*
- NSF: *Exploiting laboratory experiments in the teaching of Meteorology, Oceanography and Climate: Phase II.*
- NSF: *Collaborative Research: Shelf-Basin Exchange South of Denmark Strait: Forcing, Dynamics, and Large-Scale Impact.*
- NASA: *On the Distribution of Colored Dissolved Organic Carbon in the Southern Ocean and the Potential for Photoproduction of CO₂ and CO.*

Publications and Student Theses

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Abstracts

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