



SYMPOSIUM ON OCEAN MIXING – The First Announcement

Organized by: *IAPSO/SCOR Working Group 121 on Ocean Mixing*

Location: Victoria Conference Centre
Victoria, Canada
11-14 October 2004

Scientific Advisors: The Working Group 121 membership (both Full and Associate) consisting of *Molly O'Neil Baringer* (USA), *Hans Burchard* (Germany), *Sybren Drijfhout* (Netherlands), *Gary Egbert* (USA), *Ann Gargett* (USA), *Chris Garrett* (Canada), *Theo Gerkema* (Netherlands), *Toshiyuki Hibiya* (Japan), *Peter Killworth* (UK), *Trevor McDougall* (Australia), *Mark Merrifield* (USA), *Eugene Morozov* (Russia), *Robin Muench* (USA, Chair), *Rob Pinkel* (USA), *Barry Ruddick* (Canada), *Louis St. Laurent* (USA), *David Salas de Leon* (Mexico) and *Anders Stigebrandt* (Sweden)

Conference Objectives:

Our understanding of ocean mixing processes has generally lagged our grasp of large-scale ocean circulation. Perhaps the greatest impact of this knowledge gap has been the inability of large-scale ocean models to parameterize these small-scale processes adequately. This lack of adequate parameterization has, in turn, limited the ability of models to recreate all pertinent aspects of the large-scale circulation or to provide credible predictions of reaction to various climate change scenarios. Recently, though, a number of elegant studies involving methods such as tracer releases and utilizing newly developed instrumentation have started to close the gap in understanding between the very large-scale and the very small-scale ocean processes. We are now acquiring a quantitative, as well as a qualitative, understanding of the interactions among mean and fluctuating currents, internal waves, seafloor topography and roughness, stratification, and both diapycnal and lateral mixing.

As a result of these developments over the past decade, we are now at a point from where we can see a rapid growth in our quantitative understanding of ocean mixing and in our ability to model the large-scale ocean. The challenge will be to coordinate developments in these two areas so that we can obtain the greatest possible benefit to both, and to oceanography in general. This was a primary sentiment underlying the formation of Working Group 121. The planned symposium is seen as a mechanism to encourage and accelerate the needed coordination through exchange of small-scale results within the context of large-scale processes. This exchange will rely on the active participation of internationally known experts in the fields of ocean mixing and large-scale modeling. Equally important is the participation of younger researchers, who will be

responsible for the future nurturing of ideas which, it is hoped, may surface during the course of the symposium.

Structure of The Conference:

The conference will utilize invited presentations and contributed poster displays for development of ideas and results. The invited presentations are intended to provide points of focus and will consist primarily of overview talks addressing the major issues involved with ocean mixing, summarizing our present understanding, and speculating on future needs and trends. The poster displays should provide the material addressing the primary focal points and are anticipated to consist primarily of new results, program-specific and otherwise. Ample time will be provided, during coffee and lunch breaks and during dedicated poster sessions, for discussions and interactions among conference participants.

Expenses:

Funds for helping to defray conference costs are being requested, through formal proposal submission or request, from different agencies and countries. A conference fee, amount to be determined, will be charged to conferees to offset costs for refreshments and incidentals. It is planned to offer assistance in defraying travel and registration costs to qualified and needful attendees, especially to graduate students, postdoctoral fellows, and scientists from developing nations.

The Venue:

Victoria is situated on the southern tip of Vancouver Island, on the Strait of Juan de Fuca, in the province of British Columbia, Canada. Victoria is conveniently located with respect to Europe, Asia and the Americas and is easily accessed via international airports in Seattle, USA or Vancouver, Canada. A short connecting flight or scenic ferry ride serves to connect both of these airports with Victoria. The conference has been scheduled outside the summer tourist season in order to reduce lodging costs and ensure availability. The Victoria Conference Centre is a large, modern facility that will be well suited for this conference. Details can be found on their website at <http://www.victoriainconference.com>.

The Victoria region has a proud history of oceanographic research, being the site of both the University of Victoria and of the Institute for Ocean Sciences in nearby Sidney. Some of the earliest, pioneering observations of ocean turbulence were made in nearby tidal channels.

Conference Proceedings:

The conference proceedings will be published as a collection of peer-reviewed papers in one or more dedicated issues of *Deep-Sea Research II*. This medium combines global distribution of results with minimal publication costs and a reasonably short turnaround between the conference and final publication.

Contact Information:

Website for updated information: <http://www.jhu.edu/scor/WG121Symposium.htm>
Meeting Chair: Robin Muench (email rmuench@esr.org)