DIMES 2010

The 2010 DIMES meeting will take place 24-25 Sept in Boulder, Colorado. DIMES is a CLIVAR process study and is supposed to lead to improved representation of process studies in climate models. One of the purposes of this meeting is to provide for interaction with the CLIVAR/WGOMD GSOP Workshop.

The meeting is intended for DIMES investigators (and their students and associates); anyone else interested in coming should contact the organizers (K. Speer, S Gille, J. Ledwell).

DRAFT Agenda

Friday 24 September

Morning: Overview of DIMES Field Program Results

9:00-9:20:	Jim Ledwell, Tracer group report
9:20-9:40:	Tim Duda, Shearmeter report
9:40-10:00:	Kevin Speer, Float deployment and trajectory analysis report
10:00-10:20:	Discussion: Tracer, float, and shearmeter issues
10:20-10:40:	break
10:40-11:00:	James Girton, EM-APEX
11:00-11:20:	John Toole/Lou St. Laurent Microstructure group report
11:20-11:40:	Andreas Thurnherr: LADCP Fine-structure/microstructure comparisons
11:40-12:00:	Gillian Damerell and/or Marina Frants. XCTD and/or CTD Fine-structure/Micro-structure comparisons
12:00-12:20:	Discussion: Diapycnal mixing issues
12:20-2:00:	Lunch: Posters available after lunch

Afternoon: Joint Session with WGOMD (Focus on modeling, theory, and using DIMES findings to advance model development)

2:00-2:20:	Alberto Naveira Garabato, DIMES diapycnal mixing results summary
2:20-2:40:	Markus Jochum, Current practices in ocean diapycnal modeling (including model sensitivities)
2:40-3:00:	Raf Ferrari, Using DIMES findings to advance model development
3:00-3:20:	Joe LaCasce, Estimating lateral mixing from data

3:20-3:50: Break

3:50-4:05: Gokhan Danabasoglu, Current practices for (sub)mesoscale mixing at NCAR
4:05-4:20: Steve Griffies, Current practices for (sub)mesoscale mixing at GFDL
4:20-4:40: Baylor Fox-Kemper and/or Frank Bryan, Diagnosing eddy diffusivities from eddy-permitting models

4:40-6:00: Discussion:

- *How can DIMES results contribute to model development?*
- *In what form are DIMES findings needed to help modelers?*
- *How can modeling efforts contribute to DIMES data analysis?*
- *Is DIMES a candidate for a CPT effort?*
- *Are existing parameterizations of isopycnal mixing pertinent?*
- *What happens when interior diapycnal mixing is at the noise floor of the measurement systems---can models cope with such low mixing levels?*
- *If diapycnal mixing varies spatially, at the moment is it more useful to work towards mapping a climatology of these variations or identifying the mechanisms that make it vary?*

Dinner

Saturday 25 September

Morning: UK2 cruise preparation

9:00-9:20: Mike Meredith and Alberto Naveira Garabato, UK2 track and logistics
9:20-9:40: Jim Ledwell and Andy Watson, UK2 Tracer sampling
9:40-10:00: Alberto Naveira Garabato, UK2 micro-structure work
10:00-10:30: General Discussion (*Can we see any desirable changes to the sampling plan for the upcoming DIMES cruises? How should we strategize analysis plans?*)

10:30-10:50: break

10:50-12:10: UK3 Discussion

12:10-1:00: Box Lunch

Afternoon:

1:00-3:30 Breakout sessions for data analysis plans, etc.

Float group:

- *Establish a basic analysis plan that lets the WHOI, FSU, SIO, UK, and U. Oslo research groups make complementary plans about research questions to pursue.*
- *What background states are appropriate for float analysis?*
- *How can models contribute to float analysis?*

Micro-structure + micro-structure/fine-structure intercomparisons:

- *How do we interpret observations collected at the noise floor of the instrumentation?*
- *What is the best framework for writing up micro-structure/fine-structure intercomparisons?*
- *How should micro-structure analysis for Pacific, Drake Passage, and Scotia Sea be coordinated?*

Tracer:

- *Sampling plans*
- *Are there opportunities for piggy-backing on to other US or UK Drake Passage crossings?*
- *How can we use model output (from SOSE, POP, or another model) to help evaluate tracer findings?*

Modeling:

- *Are there process studies that should be planned?*
- *How can we continue to develop a framework for using high-resolution models to inform both our data analysis methods and our understanding of physics?*
- *Allow discussion highlighting different models currently in use and results emerging from these models.*

3:30-3:50 Break

3:50-4:30 Break-out group reports

4:30-5:30 General discussion on issues emerging in break-outs

Anticipated issues:

- Modeling: *What challenges emerging in DIMES results can models help to address?*
- Data management: *How can we coordinate data management across all groups?*
- Other issues as determined from discussion

Sunday 26 September:

Morning: Open modeling discussion as needed:
Overflow discussion time, ancillary meetings, etc.

Some local information provided by NCAR:

http://www.boulderlodging.com/map.asp has a listing of all the local hotels.

A block of rooms is being held at both the Millennium and the Marriott for the CLIVAR workshop and WGOMD. Our DIMES group can use this also. Information can be found on the following web page:

http://www.joss.ucar.edu/events/2010/clivar_wgomd_gsop/index.html#gsop