

First Announcement  
19 July 2007

GSOP Workshop on Ocean Velocity Measurements and their Application

Convenors: Rick Lumpkin (AOML, Miami) and Brian King (NOC, Southampton)

Venue and dates: Scripps Institution  
December 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> (until 1545 if needed) 2007.

This document is not yet the formal announcement of objectives, but is an evolving outline of what the workshop will discuss. There is some preamble, a draft list of objectives; a summary of the workshop format.

Preamble

Rick Lumpkin and Brian King have been asked by the CLIVAR GSOP co-chairs to convene a CLIVAR workshop on ocean velocity measurements.

The objective of the workshop is to establish CLIVAR's requirements for measurements of ocean velocity as a component of the suite of ocean observations needed for climate research. The format of the workshop will be refined by the convenors in consultation with the workshop attendees, and the GSOP co-chairs.

The expected outcomes of the meeting are :

- 1) review, document and characterise ocean velocity data presently available or likely to become available in the near future;
- 2) review current dissemination and storage of ocean velocity data streams and identify enhancements to make their exploitation more effective;
- 3) identify critical ocean velocity data streams that may constitute a global network and ;
- 4) develop the scientific justification and requirements that define the need for the inclusion of ocean velocity measurements in the suite of ocean observations used in climate research.

A report from the meeting will be provided to the GSOP co-chairs. It is envisaged that this document could then be used to justify the inclusion of ocean velocity data as a component of a global ocean / climate observing system in CLIVAR and beyond.

The workshop will consider:

Present measurement techniques: Review of ocean velocity measurements that will be consistently available over the next 5-10 years. Including, for example Drifters; subsurface float trajectories (chiefly Argo); gliders; Shipboard and Lowered ADCP; Moored instruments; satellite-derived velocity;

For each measurement technique the workshop should review the likely data availability (nature of provider (PI or agency), timeliness of delivery, spatial and temporal sampling aspects; security of archive and dissemination (data centres) and quality (errors), etc etc)

- The workshop will consider the exploitation of ocean velocity measurements: Assimilation; Inverse modelling, budgets and transports; climate monitoring ; requirements of users; access.....
- For each mode of exploitation, the workshop could review the likely number of end users of each data stream and their requirements for access to data, dependence on particular data streams; the capacity of the method to help refine the sampling strategy,.....

#### Format of the workshop

We have the Martin Johnson House (T-29) for 5& 6 Dec, and up to 1545 on 7 Dec if needed.

The convenors will invite attendees representative of the main data measurement techniques and the main exploitation activities. In order to ensure that there is plenty of opportunity for contribution and discussion, the convenors expect to limit invitations to between 15 and 20 attendees.

The meeting will be a round-table discussion. It is not intended to simply be a scientific symposium and review. Rather, it is intended that the workshop will discuss the strengths/ weaknesses/ advantages/ disadvantages of all techniques and scientific approaches. These can be argued out to arrive at recommendations that begin to define the requirement for ocean velocity measurement for Climate research and associated activities over the next 10 years.

The convenors will be responsible for circulating a draft and then final report to the co-chairs of GSOP.

Timing: It should be possible to consider spending two-thirds of a day each on measurements, exploitation and recommendations, leaving the third day for the convenors to prepare the report. The detailed timing will depend on the number of attendees and the amount of time they require for discussion of their area of expertise.

#### Funding

It is expected that attendees will be able to find their own funding to attend the workshop. It has been chosen to fall immediately prior to AGU in the expectation that this will reduce the travel burden on some participants.

End of First Announcement.