

U.S. AMOC Executive Committee Consideration of External Review Committee Report Recommendations

Following the structure of *Summary of recommendations* from the review (EC discussion and action items in italics)

Funding:

Report comments: targeted funding expected; less funding than originally envisioned; care with approaches to synthesis; capability to build new international programs that require significant resources is not easily mapped onto U.S. planning and funding structure.

OSNAP is an example of an activity emerging from U.S. planning and funding.

Communications and Membership

- *New PIs:*

Report recommendations: Agency managers should inform newly funded project PIs asap, including additional expectations (attending annual meeting; annual summary, etc.); let them opt out of joining the Science Team, let them choose their TTs; need to direct them to a web page for more information about the program and TTs; invite for suggestions (programmatic, ideas, priorities, etc.); encourage non-ST funded PIs wishing to join to contact their program managers and the EC.

Follow recommendations. Current approach can be modified so that invitational email is sent from Program Managers instead of Project Office. The current invitation covers most of recommended actions.

- *Science Team:*

Report recommendations: More and updated web presence with science highlights; not necessarily after annual meetings, but continuous. When PIs' papers are accepted for publication, send a copy to the U.S. CLIVAR office with a highlight figure and caption that can be included on the web page. After each annual meeting, prepare a summary of highlights and discussions (a few pages).

Follow recommendations. Webpage has already been updated with info on program and focus of each TT.

Project Office will update the website homepage with the science highlights from project reports with captions. Project Office will request updates from PIs at least twice a year to provide highlights for the site. Jenn will propose where best to incorporate the highlights on the website, perhaps adding more pages.

Report recommendations: More “marketing” of the annual report by the Project Office. Should clarify for the reader the purpose of the report.

For marketing of the annual report, the Project Office currently announces via the U.S. CLIVAR website, news-gram, social media, and announcements to PIs. International CLIVAR forwards an announcement as well.

Science Team members will be encouraged to put a link on their own webpage to the U.S. AMOC webpage and annual report. The Project Office will consider giving AGU and AMS poster presentations providing an Executive Summary and highlights following the Annual Meeting. (Note that this year, for the 2013 International AMOC Science Meeting, a BAMS meeting summary is being submitted).

- Annual meetings:

Recommendation: Switch annual meetings between summer and fall.

This recommendation has pros and cons. In the fall there are conflicts with those teaching. In the summer there are conflicts with those going to sea. For federal government PIs, travel in Sept/Oct can be problematic, given the end of the fiscal year.

Would help to quantify the magnitude of the issue. Consider surveying members to determine how many have not come to previous meetings because of conflicts.

The EC will revisit on year-to-year basis. Note that past U.S. AMOC meetings have been held May 2009, June 2010, July 2011, August 2012, and July 2013. The next meeting is being planned for September 2014.

Recommendation: If future meetings are structured as in 2012, all mini-workshops should develop specific action items that will encourage more rapid progress.

The reviewers liked the format of the 2012 Meeting, noting that mini-workshops were well attended and good issues were raised. They also liked that some of the workshops produced action items. They recommend that all future mini-workshop should produce action items to include in the summary following the meeting.

The EC believes that there was active discussion in the mini-workshops that produced action items. A brief one-pager summarizing action items was developed per agency request following the 2012 Meeting. Future PI meetings will continue to identify action items to be summarized for the agencies after the meeting.

Recommendation: For future meetings consider defining more, smaller groups to encourage greater participation in discussions.

It is difficult to split finer than the TT level. The PI meetings provide an important opportunity to get the TT members together for discussion, as was done in the mini-workshops at the 2012 meeting.

An additional downside of having more breakouts is the need for additional breakout rooms, which can limit the location options for the meeting and can add additional costs.

The EC acknowledges the desire to have smaller group discussions, but will need to balance this with the need for convening TTs.

Recommendation: A mechanism for building collaborations and momentum for new programs should be clarified by the EC.

Annual meetings provide a great opportunity for this purpose, providing a mechanism for carrying (some of) the near-term priorities forward.

- Task Teams:

Recommendations: Encourage PI participation through TT communication. Send out current list of TT priorities to all PIs and ask for additional near- and long-term goals/priority ideas to more fully address critical scientific questions beyond funding constraints. Fallback priorities are also needed.

TTs are not currently a very active structure. EC recognizes the need for more active TTs.

Initiate TT telecons and convene at 6-month intervals, asking members to contribute both near- and long-term goals. Consider holding telecons: (1) when requesting annual project reports, and (2) when dates and place are selected for the annual meeting.

Project Office will send a general email to all PIs indicating that we will be establishing the TT elists. TT Leads will request input from community via email exchanges and telecons.

Recommendation: Establish mechanism of TT changes and new TTs as priorities change.

The TTs can be changed and realigned by the EC when it is needed. The EC does not believe it is necessary to have full ST involved in this discussion.

Recommendations: To foster TT3 and TT4 connections to research communities outside U.S. AMOC, a different approach is needed. Side-meetings at AGU meetings might be a way to foment such interactions.

This is a good idea. Believe it is already occurring. The 2012 Boulder meeting attempted to coordinate with other communities rather than doing it ourselves.

- ST membership:

Recommendations: From July EC Meeting: Expand membership to include co-Is on funded projects, perhaps as members of TTs if not the Science Team. Recognizing

funding agency preference to have a single lead project PI designated as the Science Team member, consider creating an expanded elist to include PIs and co-Is (and others if desired) for receiving email broadcasts. An invitation to join the expanded elist could be included on the website.

Co-Is have expressed concern, confusion, and disappointment that they are not considered members of the Science Team. Some co-Is have been unaware of the invitation sent to Science Team members to attend the 2012 meeting. In some cases, the lead PIs had not passed along information.

To promote inclusion, the EC favors broadening the Science Team to include PIs and co-Is. A separate “project leads” list of PIs can be assembled providing lead contact point for annual progress reports. Project Office will engage PIs to assemble the lists.

Recommendations: Engage people outside the AMOC community. One approach is to have annual meetings at university / lab settings. Invite participation in special sessions organized at various meetings.

Follow recommendations. Expand outreach to researchers by hosting U.S. AMOC meetings at universities/labs. Organize AMOC sessions at certain meetings.

- IAG and EC communication

Recommendation: Increase opportunities for dialogue between the EC and the IAG.

Discussed with reviewers during Baltimore EC meeting. They were unaware of EC/IAG meetings at least once a year at annual meetings. Additional “opportunity” meetings also occur at scientific conferences.

IAG members will be invited to EC telecons (this used to occur, but it seemed that managers might have lost interest). ST chair and/or EC can engage IAG during IAG meetings as needed.

EC Leadership

- Rotation:

Recommendations: Codify leadership terms and procedures for nominations and selection. All ST members should have opportunity to be involved in process.

Terms and rotation schedules have been established for EC members. Formal selection procedure for the ST chair has also been established (EC nominations, program managers' selection).

There are reservations to asking for a vote from the broader PI group when choosing TT chairs and vice-chairs. However, member input should be sought. More openness is requested. There is an advantage to incoming TT leads to have been nominated by their peers, bolstering authority in their role.

For TT leads, when rotation occurs, ask for private nominations from TT members for new TT vice-chair (noting that vice-chairs automatically assume chair at rotation). The EC will vet the nominations, taking into account the desire for individuals who can work together and who are contributors. The vetted nominations could then be put back to the TT for vote (more democratic) or could be decided by EC vote.

The new procedures will be posted on the website, promoting transparency.

- Salary and travel funds:

Recommendation: Small amount of salary support (2 weeks per year) and travel funds (at minimum, to the annual meeting) should be provided to the EC members.

To be determined by the funding agency managers. The EC notes that federal PIs cannot accept salary funds.

Setting Priorities

Recommendation: Input from individual PIs on a regular basis for revising priorities and getting advise on new opportunities and hypothesis. Two natural input points: i) prior to writing the annual report and ii) prior and during the annual PI meetings. When the PIs join the science team, they should be informed about how they can contribute. Also should be made clear that they can contribute ideas, etc. any time. Stress the need for long-term goals. Enable input from PIs not able to attend the Annual Meeting.

Improved TT communication will get input from members.

Capitalizing on Science

Recommendation: Funding mechanisms should be considered to promote cross-institutional collaborations, particularly for large-scale observational and modeling programs.

Such collaborations are ongoing.

Recommendation: Careful with extending too much in ocean – atmosphere coupling and carbon and ecosystem linkages.

There might be some misunderstanding here, particularly with the latter, as we are trying to bring communication with experts in these fields rather than attempting to do the work ourselves. This is also ironic in the sense that these two are labeled as longer-term priorities in the report and the report asks for long-term priorities, but the report cautions us about getting too much involved.

Need to examine ocean-atmosphere interactions that should be included in the program. If the current program includes such projects, then they should continue. From the numerical modeling point of view, there is interest in exploring ocean-atmosphere interaction and such work is included in funded projects. Ocean-

atmosphere interaction is potentially a focus for a new TT. It is a very important part of mechanisms for TT3. Yet, it opens up new doors for new Team.

Some additional issues and recap from the body of the report

Adequacy of Science Planning

Report comments: Goals and objectives are well suited to making important scientific progress. Refinements seem appropriate. Good evidence of links between scientists focused on data those focused on models.

Recommendation: Clear definition or indices of AMOC (evolving). Should be guided by broad vetting, with regular review and revisions as needed.

Follow recommendation. Definition(s) and indices are being worked on by TT3, with participation of NCAR and GFDL.

Implementation

Report comments: Annual meeting is important focal point for synthesis and collaboration. Annual progress report is important and valuable product. Observational efforts (MOCHA/RAPID, MOVE, planning of SAMOC and OSNAP) are successes and critical. Investigations of proxy data are valuable and should continue. Interaction among modelers and observations is strength, having stimulated synthesis activities. Modeling synthesis / inter-comparison is an important goal.

- Status of AMOC fingerprint workshop?

A significant effort was undertaken with engagement of the international community to pull together the previous workshop request in 2011. The EC was frustrated that the request was not funded. The EC viewed this as an opportunity for one of the TTs to put forward a workshop idea as a priority to be pursued. U.S. CLIVAR has only one ST, so would think its workshop ideas might receive priority consideration of funding agencies.

A key issue for funding consideration by U.S. CLIVAR is the potential for joint sponsorship by paleo programs. If another request is developed, it is recommended to include members of the paleo research community in developing the request and pitching it jointly to U.S. CLIVAR and paleo program managers.

There is interest in pursuing an AMOC fingerprinting workshop. However, previous organizers are now busy, so there is a need to identify new leaders to develop a revised request. TT members can be asked for interest in spearheading the effort. It would help to have in advance expression of interest by agencies.

The EC will explore if TTs have other potential ideas for workshops.

Future Research Directions and Implementation

Report comments: Near-term priorities are appropriate. However, they are constrained by funding. Valuable new directions for additional focus in the immediate future were highlighted at 2012 meeting.

Recommendations: Develop longer-term goals beyond funding constraints. Also develop fallback priorities should funding worsen. Emphasize preservation and continuity of observational time series as highest priority.

Will be addressed through TT discussions, the ST meetings, and in the annual reports.