



Call for New US CLIVAR Working Group September 8, 2016

This document describes the purpose and successes of the US CLIVAR Working Groups (WGs), specifies how WGs are established and governed, and invites the US climate science community to develop prospectuses for new WGs starting around January 2017.

Purpose

The US CLIVAR program annually establishes new limited-lifetime, action-oriented WGs of scientists (typically 10-15 members) to coordinate and implement focused activities for the benefit of the scientific community. A major aim of the WGs is to expedite coordinated efforts towards specific scientific activities and objectives, for example: assessing existing or developing new data and modeling products and capabilities, leading community-wide analyses or syntheses of current state of understanding, and/or developing scientific and implementation recommendations on specific subjects for further consideration by US CLIVAR Panels and supporting agencies. Furthermore, WGs should foster wider support of and participation in activities addressing critical scientific challenges and/or CLIVAR needs. WGs may also serve to facilitate joint activities between US CLIVAR and other national and/or international programs.

Prior Working Groups

US CLIVAR has initiated fifteen WGs over the past ten years:

- [Arctic Change and Possible Influence on Mid-latitude Climate and Weather](#) (active)
- [Changing Width of the Tropical Belt](#) (active)
- [Decadal Predictability Working Group](#) (completed)
- [Drought Working Group](#) (completed)
- [Eastern Tropical Oceans Synthesis Working Group](#) (completed)
- [ENSO Diversity Working Group](#) (completed)
- [Extremes Working Group](#) (completed)
- [Greenland Ice Sheet Ocean Interaction Working Group](#) (completed)
- [High Latitude Surface Flux Working Group](#) (completed)
- [Hurricane Working Group](#) (completed)
- [Madden-Julian Oscillation \(MJO\) Working Group](#) (completed)
- [Ocean Carbon Uptake Working Group](#) (completed)
- [Salinity Working Group](#) (completed)
- [Southern Ocean Working Group](#) (completed)
- [Western Boundary Current Working Group](#) (completed)

The WGs have been highly successful in carrying out a variety of productive and remarkably effective activities. Examples of activities of recently completed WGs are summarized below.

- Decadal Predictability WG: Defined a framework to distinguish natural variability from anthropogenically forced decadal variability, summarized in a *BAMS* paper. Developed a set of metrics for assessing the skill of initialized decadal predictions and their comparison in the context of uninitialized projections, summarized in a *Climate Dynamics* article. Furnished recommendations to the World Climate Research Program (WCRP) Climate Model Intercomparison Project (CMIP) Panel on design and evaluation of decadal prediction runs in CMIP5.
- Greenland Ice Sheet/Ocean Interactions WG: Produced a white paper and *BAMS* article summarizing the state of knowledge and gaps in understanding the dynamic response of Greenland's marine terminating glaciers to oceanic and atmospheric forcing. Organized an international workshop that brought together oceanographers, glaciologists, atmospheric and paleoclimate scientists to discuss scientific challenges and scope a multi-disciplinary research strategy to address them, including observing systems, process studies, and modeling.
- High-Latitude Surface Fluxes WG: Organized a community workshop and published a *BAMS* article assessing the current state of knowledge and scientific requirements for air-sea surface fluxes in high latitudes, identifying logistical and physical challenges for why existing products do not meet requirements, and recommending specific actions to improve flux products. Organized a special AMS multi-journal collection on sea fluxes.
- Hurricane WG: Organized and analyzed runs of baseline climatological and idealized experiments using 12 CMIP5-class models, exploring the ability of AGCMs to reproduce observed tropical cyclone metrics and the sensitivity of model response to perturbations in sea surface temperature. Organized and reviewed results at an open workshop and summarized findings in a US CLIVAR report, a submitted *BAMS* article, and a WG-organized *J. Climate* special issue on hurricanes and climate.

Previous WGs have impacts extending beyond the conclusion of their funded lifetimes; each galvanizing a community of researchers to further advance scientific exploration (e.g., the MJO WG gave rise to an international WCRP MJO Task Force which in turn organized a 2011-12 DYNAMO field experiment on MJO initiation; the Drought WG expanded into an international WCRP Drought Interest Group to identify strategic research needs in drought prediction and develop a global drought information system; the Salinity WG Report contributed to the design of an international SPURS process study and 2012-13 field experiment to examine the mechanisms controlling the upper ocean salinity budget). The scope, aims, types of activities, and organization of the completed WGs should serve as the basis for follow-on community activities nationally and internationally.

Description and Governance

WGs have in common the following characteristics. They:

- Assemble a team of ~10-12 core US scientists to undertake the work (additional international ‘contributing member’ participation is welcomed)
- Develop and implement a work plan describing expected activities, milestones, support needs, and anticipated benefits to the US CLIVAR program and to the larger research community
- Undertake specific tasks that are both achievable and measurable within a 2-3 year lifetime
- Produce informational material to communicate activities and results with the broader community for inclusion on US CLIVAR website and/or published in journals, newsletters, or as US CLIVAR reports
- Encourage community-wide participation whenever possible through open workshops and sessions at science conferences
- Link with one or more US CLIVAR Panels to facilitate planning of the program and enable annual review of the WG progress

In order to link with the Panel(s), proposers of a WG should contact and consult with the current chairs of the appropriate Panel(s). Panel mission statements and membership lists can be found on the [US CLIVAR website](#).

WGs may be formed jointly with other national and international programs (e.g., US Carbon Cycle Science Program, Global Energy and Water Exchanges Program). In such cases the US CLIVAR Project Office (USCPO) should be consulted regarding programmatic cooperation.

The US CLIVAR Scientific Steering Committee (SSC) reviews prospectuses for new WGs. Evaluation criteria include relevance to US CLIVAR goals, focus of activities, prospects for advancing the science within the broader research community, and deliverables that are achievable within the 2-3 year time period. The IAG considers the SSC review in selecting the WGs to initiate in the coming year. When approved, WGs are supported and administered through the USCPO.

The SSC and its Panels will assess progress of WGs on an annual basis during the annual US CLIVAR Summit held each summer. WG chairs should be prepared to arrange for a briefing during the Summit.

Membership

The SSC approves the membership of the WG. The SSC considers the suggested membership described in the prospectus and may recommend alternate members. It is recommended that those leading the development of a prospectus **do not** notify prospective WG members until after the proposed WG has been approved and membership has been reviewed and confirmed with the SSC.

Membership of non-US scientists is welcome, but should be limited. Such ‘contributing members’ may participate fully in the activities of the WG. However, travel support to non-US members to attend WG meetings and/or workshops is not provided.

Financial Support

Up to \$70K is provided to support the activities of a WG during its lifetime. Typical costs include WG meetings, teleconferences, WG-drafted journal article(s), and a modest-sized open science workshop (such support includes typical workshop-related costs and only very limited travel funds).

WGs should focus on utilizing and maximizing efficient use of existing or expected resources. At this time, most agencies are **not** seeking recommendations for activities requiring new agency resources. WGs will not be formed to explicitly develop proposals for consideration by agencies.

Submission of Prospectuses for New Working Groups

Each prospective new WG that seeks support must develop and submit a prospectus. The prospectus should be limited to five pages and address the following:

- Motivation: What is the motivation for the WG? Why establish a WG now?
- Tasks: What are the proposed specific tasks (these must be measurable and attainable), timeline of activities (including appropriate milestones), and anticipated outcomes and benefits to US CLIVAR (describing links to appropriate Panel goals, the Science Plan, and agency programs)?
- Publications and Outreach: What plans does the WG have for producing and publishing material suitable for the US CLIVAR website, journals, newsletters, reports, etc.? What other programs would the WG activities align with and how would outreach be conducted?
- Reporting: How and to which US CLIVAR Panels will the WG report?
- Leadership and Suggested Membership: Who will co-chair the WG and what complimentary research experience does each co-chair bring? What is the suggested membership of the WG and what expertise does each proposed member provide?
 - NOTE: WGs are great opportunities for early career scientists. Diversity of membership should also be considered.
- Resource Requirements: What are the activities for which resources are sought: travel, communications, reporting (e.g., the WG will meet once per year for 2 days, hold quarterly teleconferences, organize a 50-participant workshop, and submit for publication a 15-page manuscript)?

Prospectuses from previous WGs provide good models for developing a new WG prospectus, for examples see: [Extremes WG](#), [Southern Ocean WG](#), [GRISO WG](#), [Tropical Belt WG](#). A template for a new WG prospectus can be [downloaded here](#).

New WG prospectuses due October 7, 2016

Electronic copies of a prospectus (.doc) should be submitted to USCPO (uscpo@usclivar.org). No exceptions will be made for submissions past deadline. The SSC will then consider the requests received and, in consultation with the USCPO and the IAG, will respond as rapidly as possible to facilitate the initiation of the approved WGs by January 2017. Unless otherwise justified, the start date for new WG activities will be January 2, 2017. WGs should plan to complete their tasks between December 2018 and 2019.

The start of one new WG is anticipated through this call. The next call will be in September 2017.

Please contact the USCPO (uscpo@usclivar.org) with any questions regarding the development of a new WG prospectus.