

Charge to Panel Business Breakouts

- Address terms of reference and coordinate efforts to:
 - ✧ identify and understand critical observable coupled phenomena
 - ✧ contribute to a sustained observational system
 - ✧ develop assimilation/synthesis capabilities of the coupled ocean-atmosphere-land system

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- ✧ characterize predictability and its limits
- ✧ demonstrate improved predictions across timescales and ensure pathways for operational prediction system development
- ✧ interface with applications, assessment and services communities to identify user requirements and encourage development of tools for decision support

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- Generate a list of **accomplishments and progress** over the past year, **action items** for the Panel and **set of recommendations** for SSC and Funding agency consideration.

Additional Slides on Panel Terms of Reference

POS Panel Terms of Reference

- Review, prioritize, and coordinate U.S. plans for relevant studies needed to identify and elucidate **observable physical coupled ocean-atmosphere-land mechanisms, processes, and phenomena** in the global climate system. Studies such as diagnostics and evaluation of observations and model results, characterization of the coupled system, and others are envisioned to be addressed.
- In consultation with other groups, assess elements of, identify needs of, and coordinate plans for the **sustained climate observation system** especially for the ocean (including the development, assemblage, and curatorship of climate records), to improve monitoring, prediction, and simulation of the coupled ocean-atmosphere-land system.
- Guide and assess efforts to extend the record of past climate variability through **assembly of quality-controlled instrumental data sets** & paleoclimatic data.
- Identify, review, and prioritize **regional observational efforts** that should be pursued through limited deployments (aka enhanced monitoring) to advance our understanding of climate-relevant processes and phenomena.
- In consultation with other groups, assess and prioritize plans, and coordinate activities that lead to syntheses of observations and models in order to develop **consistent four dimensional climate products** (e.g. climate reanalyses).

PSMI Panel Terms of Reference

- Review, prioritize, and coordinate U.S. scientific plans for, and programmatic support of, relevant process studies, CPTs and other investigations that lead to improved parameterizations of critical climate processes, better quantification of climate model uncertainties, improved climate model fidelity, and validation of observing systems aimed at increasing their global utility, as necessary to achieve the goals of CLIVAR.
- Develop and encourage mechanisms (e.g. community workshops, commissioned studies, Working Groups) to further the development and implementation of timely and relevant process studies and a research strategy, including filling gaps.
- Guide, assess, and coordinate efforts to improve utilization of process-oriented research and limited observation campaigns in parameterization and model development (especially in national and community model activities) through the use of CPT and similar frameworks.

PPAI Panel Terms of Reference

- Review, prioritize, and coordinate U.S. plans to **characterize predictability**, and **demonstrate improved prediction** capabilities, on sub-seasonal, seasonal, S-I, decadal, and century and longer time scales as necessary to achieve the goals of CLIVAR.
- Interface with agency and USGCRP activities and groups (e.g. NOAA-NMFS, IRI, and RISAs; NASA-RESACs, RACs, and ESIPs) to **identify user requirements** for useful climate information, **improve the communication** of these requirements, and encourage development of appropriate **tools and approaches** for improved decision support capabilities.
- Coordinate U.S. efforts to insure advances in prediction research have appropriate connections and **pathways into operational forecast system development**.

Panel Terms of Reference (common to all)

- Develop and encourage mechanisms (e.g. community workshops, commissioned studies, Working Groups) to further the development and implementation of a research strategy, including filling gaps.
- Advise on the adequacy and effectiveness of Working Group plans and implementation.
- Advise U.S. CLIVAR on research priorities, identify research gaps, and develop suitable milestones to promote funding opportunities. Help foster and coordinate joint agency participation and support of relevant activities.
- Coordinate with other national and international activities to develop integrated, efficient, and effective overall international plans and activities.
- Liaise with other U.S. CLIVAR Panels and Working Groups to ensure relevant needs are considered in their efforts.
- Publicize accomplishments and demonstrated progress in contributing towards each Panel's objectives.