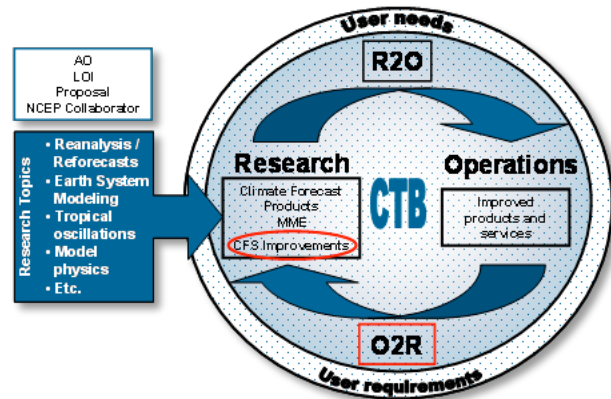


NOAA Climate Test Bed Terms of Reference

1. Introductory Note

NOAA's Climate Test Bed (CTB) was established in 2004 as a facility within the National Centers for Environmental Prediction (NCEP) Climate Prediction Center (CPC) to accelerate the transition of research advances into NOAA climate forecast products and services. Through its activities, CTB serves as conduit between the operational, academic and research communities.



2. Vision and Mission

- Vision
 - An accurate, reliable, and timely suite of NOAA science-based operational climate forecast products that meet the needs of a diverse user community
- Mission
 - To accelerate the transition of scientific advances from the climate research community to improved NOAA climate forecast products and services.

3. Objectives

1. Facilitate and improve the transfer from research to operations of new and improved products.
2. Support full utilization of and access to CFS and related datasets
3. Support the development of tools and techniques for an improved NOAA climate product suite
4. Conduct studies with a National Multi Model Ensemble (NMME) Prediction System
5. Support the development of post processing and regional downscaling techniques to enhance the NCEP climate product suite
6. Serve as a facilitator for other NOAA programs to incorporate climate information into their products and services

4. Concept of Operations

The mission will be accomplished by:

1. A grants program to accelerate the transition of research advances into NCEP operations – R2O (Research to Operations)
2. Internal experiments to address ongoing developmental challenges not addressed in the grants program
3. Directed activities that support projects on the verge of transition
4. A Model Test Facility (MTF) to provide NCEP coupled model components and supporting datasets to the user community (Operations to Research – O2R) and thereby accelerate the transition of research advances back to operations (R2O) through
5. Sustained infrastructure (scientific and computing) support
6. An Annual User’s Workshop on NCEP’s Climate Forecast System (CFS)
7. Transfer and testing of coupled model components and infrastructure
8. Partnership with the National Climatic Data Center for ensuring model data accessibility
9. A Visiting Scientist Program to provide external scientists and their students the opportunity to work for an extended period of time at NCEP to speed the transition of their research to NCEP forecast operations
10. The CPC-RISA Program to develop and improve climate forecast applications in partnership with the external community in direct response to user demands
11. Partnerships with other programs, such as Oceans and Human Health Initiative, Marine Sanctuaries, and others, to identify their climate information needs and incorporate that information into their product suite
12. Outreach activities
13. Engaging community on priorities
14. Sharing information on CTB and priorities
15. CTB Seminar Series

5. Location and Organization

CTB is jointly sponsored by NCEP and CPO and housed within the Climate Prediction Center.

1. CTB Director responsibilities include
 - a. Provide scientific leadership and develop programs that facilitate the transition of research advances into improved products for climate forecasting
 - b. Provide effective management to CTB activities and operations, including establishing a Model Test Facility and a Visiting Scientist Program
 - c. Oversees and coordinates all CTB activities, including the CTB Seminar Series
 - d. Prepare CTB related documentation, including reports and science strategies
 - e. Works with the Steering Committee (SC – see below) and the Climate Program Office CTB Program Manager to set program priorities and prepare the annual AO
 - f. Coordinates with the CTB Program Manager on relevant issues including budget
 - g. Proposal process

- h. General CTB activities
 - i. Project milestones
 - j. Works with Management Team, operational center directors, and the SC as necessary, to make recommendations for final disposition of favorably reviewed proposals
 - k. Negotiates the needs, milestones, and timelines with the funded PIs
 - l. Leads routine and annual CTB meetings
 - m. Serves as a PI for CTB and manages resources allocated to support transition and other infrastructure activities
 - n. Coordinates with other NOAA programs to facilitate incorporation of NCEP climate expertise and information into their product suites
2. Management Team is made up of the CTB Director, CTB Deputy Director for Administration, CTB Deputy Director for Science, CPC Director, and EMC Director with responsibilities that include
- a. Make recommendations for SC membership, panelists for proposal review
 - b. Facilitate matching proposals with NCEP scientists as collaborators
 - c. Manage ongoing CTB activities
3. Science Teams for CFS Improvements, Multi-Model Ensembles, Climate Products
- a. Relevant NCEP Staff, CTB PIs
 - b. Contribute to CTB priorities
4. Steering Committee (SC)
- a. Made up of internal (2) and external experts (9-11)
 - b. CTB director serves in ex-officio capacity
 - c. Serve as an advisory group and knowledge resource on CTB issues
 - d. Make recommendations for panelists for CTB proposal process, including extensions
 - e. Establish priorities for CTB focus areas after coordination with NCEP operations at EMC and CPC, the CPO CTB Program Manager, CTB Management Team, and CTB Science Teams
 - f. Make recommendations to Program Manager for Announcements of Opportunity (AO)
 - g. Contribute to proposal evaluation criteria
 - i. To be considered for CTB
 - 1. Importance/relevance and applicability of proposal to the program goals
 - 2. Project readiness for transition
 - 3. Project efficiency
 - 4. Technical merit
 - 5. IT compatibility
 - 6. Forecast benefits
 - 7. Sustainability
 - 8. Overall qualifications of applicants
 - 9. Project costs
 - h. Review Letters of Intent and make recommendations to CTB Program Manager (with strict conflict of interest restrictions)

- i. PM will do first pass to cull those not viable
- ii. A subset of LOIs will then be parsed out with particular attention to conflict of interest
- iii. SC to review subset based on a scale (1-5)
- i. May review extensions/grant supplement requests and make recommendations for continuations to PM
- j. May serve as mail reviewers and/or review panelists for proposals
- k. Rotate members every three years
- l. Attend semi-annual meetings

6. CTB Proposal Process

1. CTB will contribute to the proposal process as outlined above
2. Proposals must satisfy evaluation criteria for scientific merit as outlined by the SC and must include
 - i. Project computer requirements
 - ii. Budget with consideration of travel to CTB PI annual meetings
 - iii. Outline of transition process and collaboration with NCEP scientists
 - iv. State project relevance to society in general
 1. Currently projects must state contribution to improving drought forecasts