

NOAA/NWS Forecast Uncertainty Steering Team Terms of Reference

Purpose: There is a growing need for NOAA/NWS to comprehensively address user needs and science opportunities for assessing, generating, and communicating uncertainty in its forecast products, information, and services. Uncertainty is a fundamental characteristic of fluid system prediction, including the weather, seasonal climate, hydrological, and related environmental (hydrometeorological) predictions germane to the NOAA/NWS mission. Although there are notable exceptions, including probability of precipitation, hurricane track, river flood stage forecasts, certain severe weather and seasonal climate outlooks, etc., most current operational NWS forecast products are presented as a single-value deterministic prediction with no accompanying forecast uncertainty information. Consequently, decisions by users at all levels are generated largely without the benefit of knowing and accounting for the inherent uncertainties of the forecast upon which they rely. Furthermore, while there are increasing numbers of individual development and prototyping efforts within NWS (in addition to NOAA and the enterprise at large) to generate and communicate more forecast uncertainty information, there is no comprehensive corporate NWS plan to identify and validate user needs and to develop and implement responsive products and services based on sound science.

Vision: The NWS provides forecast uncertainty products, services, and information meeting customer, partner, and forecaster needs.

Mission: To advise and coordinate NWS activities related to the development, implementation, and evolution of forecast uncertainty products, services, and information.

Roles and Responsibilities:

- Ensure corporate communication and coordination of NWS forecast uncertainty activities.
- Ensure communication and coordination of needs, opportunities, priorities, and other appropriate activities pertaining to forecast uncertainty with NOAA and the external community, including user groups, the private sector, and R&D activities such as THORPEX.
- Develop and sustain a corporate NOAA/NWS Plan for generating and communicating forecast uncertainty information.
- Use the NWS Operations and Services Improvement Process (OSIP) as appropriate to validate needs and opportunities, and initiate and matriculate projects implementing scientifically sound, cost-effective solutions meeting operations and services improvement requirements pertaining to forecast uncertainty consistent with plan.
- Recommend programmatic needs and other NOAA Planning, Programming, Budgeting, and Execution System (PPBES) information pertaining to forecast uncertainty and consistent with plan to NOAA Program Managers and Goals.
- Advise the NWS Corporate Board on matters pertaining to forecast uncertainty, e.g., response to NRC Report.

Scope of Authority and Limitations:

- Report to the Operations Committee of the NWS Corporate Board.
- Coordinate activities among NCEP, Regions, and HQ Offices, OAR Labs, other LOs, Programs and Goals, as well as related NWS programs such as Service Evolution.
- Budgets for travel and other Uncertainty Steering Team activities must be obtained through participating organizations.
- Create work teams and other subordinate groups as needed subject to participating organizations approval.
- Mission and TOR will be reviewed annually by the Operations Committee.

Membership:

- Principals (Voting Members): One representative from:

Pacific Region	Office of Climate, Weather, and Water
Alaska Region	Office of Hydrological Development
Western Region	Office of Science and Technology
Central Region	Office of Strategic Plans and Policy
Southern Region	Office of Oceanic and Atmospheric Research
Eastern Region	NWS Service Evolution
National Centers for Environmental Prediction	

- Non-voting Members: Stakeholders, subject matter experts, observers, and interested parties
- Chair: Nominated by the Principals and selected by Operations Committee, Supplies Exec Sec.

Decision Making Process:

The NOAA/NWS Uncertainty Steering Team will collect and analyze information to formulate its recommendations and its responsibilities. Decisions will be accomplished by informed consensus of the Principals according to NWS Corporate Board Rules. The Chair will strive for consensus on every issue. Decisions that cannot be reached by consensus will be made by majority vote and elevated to the Operations Committee as appropriate.

Meeting frequency: Biweekly or at call of the Chair.

Activities in CY 07:

- Develop NOAA/NWS plan for generating and communicating forecast uncertainty products, services, and information.
- Work with Programs and Goals to submit forecasts uncertainty capability improvements to FY10-14 PPBES.
- Identify, submit, and champion forecast uncertainty requirements and related implementing projects into OSIP, focusing initially on new and improved products and services that can be addressed quickly and within existing resources.