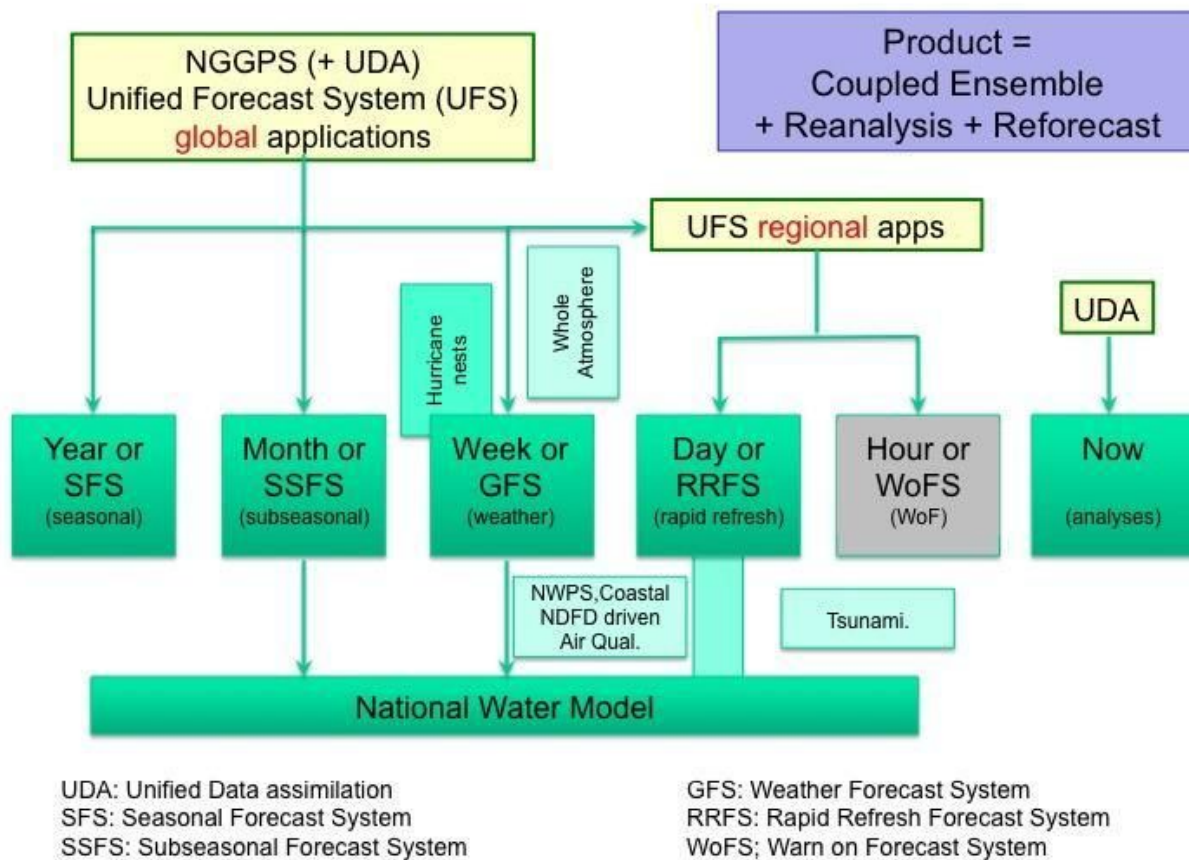


Next Generation Global Prediction System (NGGPS) Unified Forecast System (UFS) Steering Committee (UFS SC) Charter

1. Background

During NWS 2016-2017 Strategic Implementation Plan (SIP) coordination activities, a Governance Working Group was established and was charged with making recommendations on the functions, roles, and responsibilities for governance of the NWS community modeling system, the Unified Forecast System (UFS). The UFS is planned to be an integrated modeling system that unifies scales from climate (1 year outlook) to convection-resolving weather (hour outlook), and integrates environmental subcomponents for weather, oceans, land, ice, hydrology etc. in a scientifically sound, and economically justifiable way with associated unified data assimilation to most efficiently support NOAA's operational mission (see figure below).



The UFS requires the use of components, services, and scientific capacity developed across federal/multi-agency investments in research and development of Earth system simulation and prediction. This is a community of, primarily, federal (including, federally funded research and development centers and federal contractors) and academic experts who span the range of capabilities needed to support the end-to-end functionality of the NCEP Production Suite.

The Governance Working Group recommended a UFS governance system comprised of a UFS Steering Committee (UFS SC) and a set of Working Groups. The UFS SC is charged by and reports to a Technical Oversight Board.

UFS governance functions at the interface of NCEP, NOAA laboratories and programs, and the broader research and development community, with the goal of providing end-to-end modeling capacity bridging research and operations. Hence, what is being governed is a community-based, unified, coupled modeling system (the UFS) suitable for application in NCEP's Production Suite. The role of the UFS SC in governing the UFS is described below.

2. Roles and Responsibilities

NWS Assistant Administrator: Final decision authority on plans, priorities and goals relating to this initiative.

Technical Oversight Board: Provide technical oversight to the UFS SC, including review and action, as appropriate, on UFS SC recommendations and decisions.

UFS SC: Governs the content of the community-based UFS.

The UFS SC is a review, coordination, and decision-making body. Major milestones and schedule of NWS EMC applications are a foundational consideration of the UFS SC.

- EMC Director and other NWS and OAR Representatives assure the relevance of the UFS SC deliberations and commitment of organizations to the UFS SC decisions
- EMC Director solely decides what portion of UFS managed by the SC becomes the technical solution for producing operational guidance supporting NWS products and Services

Essential, long-term functions:

- Define the organizational structure of the community governance of the UFS (and on associated communications plan). The UFS SC will assume the following charges:
 - Oversight of activities of working groups
 - Approval of candidate capabilities and development strategies
 - Encouragement of external participation in the project
- Approve strategic direction and strategic plans for the UFS
 - Using input from the NGGPS/SIP working groups, develop a recommended UFS strategic plan
 - Coordinate UFS planning activities with other NOAA & NCEP strategic planning activities
 - Take a five-year outlook, but focus on the research to development and development to implementation interface
- Recommend content and development path of the production suite, including:
 - Determination of goals for the NCEP Production Suite at the research-development and development-implementation interface
 - Review of design, progress, code, and requirements on a regular basis
 - Recommendation on applications to merge
 - Recommendation on systems to sunset
 - Assessment of risk and benefit
 - Consideration of system as a whole in making recommendations
 - Identification and promotion of use of operational systems in community research

The UFS SC will recommend a planning cycle for UFS contribution to the NCEP Production Suite, e.g., 3-year plan updated annually. The UFS SC may define and recommend other governmental bodies as functioning governance evolves. The UFS SC will work by consensus. In the event that consensus is not met, a final decision will be made by the co-chairs. The EMC Director and other NWS and OAR representatives will assure the relevance of the UFS SC deliberations and commitment of organizations to the UFS SC decisions.

UFS SC Co-Chairs:

- Direct/schedule UFS SC activities
- Present UFS SC recommendations and decisions to the Technical Oversight Board for review/approval

Administrative Support of UFS SC: To be provided by NGGPS Program Office

- Assist in scheduling of UFS SC activities/meetings
- Assist in meeting coordination (including agendas, presentation material, minutes)
- Coordination of other administrative actions as needed

3. Composition

The UFS SC membership will include a balance of NOAA and non-NOAA members, including representation from Research and Operational Laboratories/Centers, appropriate Program Offices, and NGGPS/SIP Working Groups.

UFS SC Membership: The NWS/Office of Science and Technology Integration (OSTI) Senior Advisor for Advanced Modeling Systems and a Community Lead will serve as co-chairs and will establish UFS SC membership. The NWS Environmental Modeling Center (EMC) Director, the NGGPS Deputy Program Manager, and a Communications/Outreach Officer will be assigned as Ex-Officio members. A list of membership will be managed and maintained in a separate document.

Membership Term: The NWS/Office of Science and Technology Integration (OSTI) Senior Advisor for Advanced Modeling Systems, EMC Director, and NGGPS Deputy Program Manager will serve in their respective roles as permanent members. The External Community Lead and Communications/Outreach Officer will serve in their roles for two-year term, renewable terms at the discretion of the Technical Oversight Board. Non-permanent UFS SC membership (with the exception of External Community Lead and Communications/Outreach Officer) will be reviewed/modified as needed by the UFS SC Co-Chairs every six months.

There is no dedicated funding associated with the UFS SC for federal employees. Compensation for other participants will be considered on a case-by-case basis and provided, as applicable, in accordance with relevant contracts.

4. Duration

This Charter will be in effect from the date of approval by the Technical Oversight Board co-chairs until terminated by same. Reviews of this charter may be conducted as deemed necessary by the UFS SC Co-Chairs or the Technical Oversight Board at any time. The latest date of amendment constitutes the new effective date unless some later date is specified.

5. Signature

//Dr. John V. Cortinas Jr. / Nov 29, 2019//
_____ Date _____
Technical Oversight Board Co-Chair

//Dr. Ming Ji. / Nov 28, 2019//
_____ Date _____
Technical Oversight Board Co-Chair

6. Acknowledgment

_____ Date _____
UFS SC Co-Chair

_____ Date _____
UFS SC Co-Chair