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Oral
NOAA has initiated the development of a new Seasonal Forecast System (SFS) to be implemented into National Weather Service (NWS) operations. Through the SFS, the NWS will provide enhanced seasonal predictions for precipitation, drought, temperature, tropical cyclone frequency, and their extremes, for decision makers across industries in the public and private sectors.

Using the community-based Unified Forecast System (UFS), the SFS will build upon and extend the capabilities of the sub- seasonal Global Ensemble Forecast System (GEFS). Accurate SFS prediction requires improved physical descriptions of slowly changing processes on the land, in the oceans, for sea ice, and for atmospheric composition. Data assimilation improvements are also required to improve initial states for the land, ocean and sea ice in SFS component models that provide the long-term memory of the Earth System. A historical reanalysis and reforecast will also be performed for model calibration and to further improve seasonal forecast outlooks along with post-processing methods.

A SFS development plan has been drafted with a goal to build SFSv1 as a replacement of the more than one decade-old Climate Forecast System version 2 (CFSv2). We will present the development plan, which includes SFS development code on GitHub, global workflow on various computing platforms such as RDHPC and Cloud, a public release of the operational SFS and reanalysis-reforecast data sets to the community once implemented, along with target configurations and experiments to resolve
systematic biases and improve forecasts of climate variability for a variety of phenomena such as MJO and ENSO.
Presentation file
Xue-Yan.pdf
Meeting homepage
S2S Community Workshop
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