Questions from the audience in MRW-S2S Town Hall Q&A Session:

1. Marina Timofeyeva (AFS Climate Service Division): What is the plan for evaluating the SFS in terms of skill?

   A: The SFS development plan describes a three phase evaluation and development plan for SFS. Reforecasts from ~1993 will be performed starting in May and November. Each forecast start date will have at least 10 members, and the baseline system will be based on GEFSv13. More details of the plan are currently being developed including the use of METplus package and community input is welcome.

2. From a representative of private industry: are all NOAA observations available for validation / assimilation by private companies? Is NOAA paying for any special observations from private industry?

   A: All NOAA observations are publically available, and can be used by private industry for validation or assimilation. NOAA is also paying for a handful of specialized observations, particularly for data from small polar-orbiting satellites to fill in gaps for near-surface winds, waves, and microwave data. NOAA is also partnering with private industries for some specialized surface observations, such as Saildrone.

3. Cenlin He (NCAR): How will NWS balance higher resolution deterministic forecasts against larger ensembles? Will NOAA get rid of their deterministic forecasts for medium-range weather or subseasonal-to-seasonal forecasts?

   A: This is a question that the NWS, especially EMC, partner laboratories such as PSL and GSL, and university partners such as GMU have explored for some time. There is not a definitive answer, but with further testing and research, we can perhaps get a better understanding of the optimal resolution versus ensemble size phased space for GEFS in the 1-6 week period, as well as for SFS in the 3-12 month period.

4. Matt Newman (PSL): If NOAA already has a prototype SFS system that is more skillful than CFSv2, why don't they start running it immediately?

   A: NOAA is still at the early stages of testing an SFS system, and it is too early to even call it a prototype. An official prototype model configuration has not even been set yet. Once there is an agreed-upon prototype configuration, EMC needs to complete an exhaustive reforecast, as well as a reanalysis, in order to compute the model climatology and compute anomalies and biases relative to the model. Once this has been done, EMC is open to the idea of running a prototype SFS that is available to the external community to start doing forecasting and science with the model with the understanding that it is not yet operational.

   From offline discussions after Town Hall: there is a strong interest in us releasing datasets from our experiments, replay and reforecasts for the broader community, by academics as well as private companies. Moving forward, we should make an effort to make these datasets available.

   Also from offline discussions with Matt after Town Hall: An Interim version SFS is being discussed for its inclusion in the NMME.