

WGSIP's Long-Range Forecast Transient Intercomparison Project (LRFTIP)

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The Long-Range Forecast Transient Intercomparison Project (LRFTIP) is an initiative of WCRP's Working Group on Subseasonal to Interdecadal Prediction (WGSIP). Its objective is to develop a multi-model archive of hindcast climatologies and associated diagnostics that represent the evolution of climate prediction models from observation-based initial states, averaged over many ensemble members and forecast years, as a function of lead time. Such model trajectories characterize initialization shocks and drifts, and hence can inform investigations of (i) the transient behavior of initialized subseasonal to decadal climate predictions, (ii) the development of model biases, and (iii) the relative merits of different forecast initialization methods.

An initial focus of LRFTIP has been to derive hindcast climatologies from multi-model hindcast datasets assembled for various climate prediction research initiatives, including S2S (subseasonal), the WGSIP CHFP and EU ENSEMBLES projects (seasonal), and CMIP5 (decadal). Thus far, 4 subseasonal, 19 seasonal, and 14 decadal prediction models are represented. This presentation will describe the configuration and current status of the LRFTIP dataset, as well as examples from the suite of multi-model diagnostics being developed, which potentially could serve as a standard set of shock and drift diagnostics for climate prediction models.