EMS Annual Meeting Abstracts
Vol. 13, EMS2016-80, 2016
16th EMS / 11th ECAC

Subseasonal-to-seasonal (S2S) forecasts with CNRM-CM : a case study on the July 2015 West-European heat wave

Constantin Ardilouze, Lauriane Batté, and Michel Déqué
CNRM, Météo-France and CNRS, Toulouse, France (constantin.ardilouze@meteo.fr)

Météo-France takes part in the WWRP/Thorpex-WCRP joint project S2S since May 2015 and thus provides sub-seasonal ensemble forecasts run with the CNRM-CM coupled model up to 32 days. These forecasts, initially available at a monthly frequency, are now computed every week.
We examine the case of the heat wave that struck western Europe during the first three weeks of July 2015. The forecast initialized on the 1st of July managed to capture the persistence of warmer than normal temperatures during the first three weeks of the forecast, and to a lesser extent, the cooler temperatures over Scandinavia. This encouraging prediction contrasts with limited skill as evaluated with summer re-forecasts over the 1993-2014 period.

We revisit this case study with weekly forecast initialization in June and July 2015, therefore highlighting the impact of the start date on the success of this forecast. These results set the ground for a discussion on the retrospective utility of our S2S forecasts to issue early-warnings for this heat wave.