



Low frequency variability in the family of ERA-20C reanalyses

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The latest 20th Century reanalysis from the ECMWF, ERA-20C, uses a state of the art 4D-VAR analysis system to assimilate surface pressure and marine winds into a deterministic reanalysis from 1899 to 2010. There is also an accompanying ensemble reanalysis, an ensemble model only run and a high resolution downscaled land-surface model run, all for the same period. This family of 20th Century reanalyses provide a relatively novel means of investigating the temporal variability of atmospheric variables over this period. So in this presentation we discuss the low frequency variability of temperature and other variables. Where possible, comparison is made with other reanalyses.