



The Met Office Ensemble of Regional Reanalyses

Peter Jermey

UK Met Office, Data Assimilation and Ensembles, Exeter, United Kingdom (peter.jermey@metoffice.gov.uk)

The principal contribution of the Met Office to the EU funded project UERRA (Uncertainties in Ensembles of Regional Reanalyses) will be an ensemble of regional reanalyses over Europe. The system will be driven by an ensemble of 4DVARs. Data from this will be incorporated into an ensemble data assimilation (hybrid 4DVAR) scheme to drive a high resolution, 12km, deterministic regional reanalysis. Both the ensemble and the deterministic reanalysis will cover the entire satellite era (1978-2017).

The UERRA project will be the first time that an ensemble scheme has been used for regional reanalysis. The ensemble will provide users with a valuable measure of uncertainty in regional reanalysis over Europe. It will also provide hybrid 4DVAR with "errors of the day" so that the deterministic assimilation can benefit from flow-dependent background error covariances.

Work already completed and plans for production will be outlined and the expected quality of the ensemble will be demonstrated, with reference to early results.