



Towards an integrated set of surface meteorological observations for climate science and applications

Robert Dunn (1) and Peter Thorne (2)

(1) Met Office, Hadley Centre, Exeter, United Kingdom (robert.dunn@metoffice.gov.uk), (2) ICARUS, University of Maynooth, Ireland

We cannot predict what is not observed, and we cannot analyse what is not archived. To meet current scientific and societal demands, as well as future requirements for climate services, it is vital that the management and curation of land-based meteorological data holdings is improved. A comprehensive global set of data holdings, of known provenance, integrated across both climate variable and timescale are required to meet the wide range of user needs. Presently, the land-based holdings are highly fractured into global, region and national holdings for different variables and timescales, from a variety of sources, and in a mixture of formats. We present a high level overview, based on broad community input, of the steps that are required to bring about this integration and progress towards such a database. Any long-term, international, program creating such an integrated database will transform the our collective ability to provide societally relevant research, analysis and predictions across the globe.