



Abstract

Since the first historical reanalysis product, the “Twentieth Century Reanalysis” (20CR), has been published in 2011, numerous studies have made use of this data sets for a wide range of applications. In the meantime several new reanalysis data sets have been produced. Currently, four reanalyses reach back to at least 1900, additional research products have been generated, and more reanalyses will likely be produced in the future. As a means of evaluation, ten individual extreme weather events are studied in this volume in one or several of these data products. Together, they demonstrate the usefulness and limitations of historical reanalyses for studying past weather extremes. Supplementing our first volume of case studies, these cases also allow comparisons across data sets. This introductory paper gives an overview of the cases presented and the data sets used. Furthermore, the paper briefly addresses the challenges and opportunities of analysing extremes in a “multi-reanalysis ensemble”.