

How well do reanalyses represent the Quasi-Biennial Oscillation?

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The SPARC Reanalysis Inter-comparison Project (S-RIP) is a coordinated activity to compare reanalysis data sets. A number of key diagnostics have been examined to understand the causes of differences among reanalyses; to provide guidance on the appropriate usage of various reanalysis products in scientific studies; and to connect such activities with future improvements in the reanalysis products by establishing collaborative links between the reanalysis centres and the SPARC community.

As part of this activity the representation of the Quasi-biennial Oscillation (QBO) and tropical variability by the main reanalysis datasets has been examined, primarily concentrating on the most recent datasets JRA-55, ERA-Interim, MERRA2 and CFSR/CFSv2. The results of this inter-comparison are presented in this poster. These include an assessment not only of the representation of the equatorial QBO and the equatorial wave processes that contribute to it but also the representation of QBO influences on, for example, the polar vortex, tropospheric winds and surface fields

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