What is ERA-20C

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Public access to this dataset will be **closed** on June 1st, 2023. For more information and possible alternatives, please consult the dedicated page on Decommissioning of ECMWF Public Datasets service.

ERA-20C is a climate reanalysis dataset covering the period 1900 to 2010.

ERA-20C assimilates observations of surface pressure and surface marine winds only. It is an outcome of the ERA-CLIM project.

The ERA-20C analysed surface parameters that are only available 6-hourly are those that are produced by the land-surface analysis scheme. Separate from the 4D-Var assimilation, the land-surface analysis scheme runs every 6 hours and only produces one temporal estimate at the centre of each 6-hour window. These 6-hourly parameters are:

- 1. Sea-ice cover
- 2. Snow density
- 3. Sea surface temperature
- 4. Volumetric soil water layer 1
- 5. Volumetric soil water layer 2
- 6. Volumetric soil water layer 3
- 7. Volumetric soil water layer 4
- 8. Soil temperature level 1
- 9. Snow depth
- 10. 2 metre temperature
- 11. 2 metre dewpoint temperature
- 12. Soil temperature level 2
- 13. Soil temperature level 3
- 14. Temperature of snow layer

The other ERA-20C analysed surface parameters are available 3 hourly. All the ERA-20C forecast surface parameters are available 3 hourly (from daily forecasts beginning at 0600UTC).

For further details please see the ECMWF product page.

Also of interest: ERA-20C: ECMWF's atmospheric reanalysis of the 20th century (and comparisons with NOAA's 20CR)

Known issues

Currently there are no known issues with ERA-20C.

References

Poli, P., H. Hersbach, D.P. Dee, P. Berrisford, A.J. Simmons, F. Vitart, P. Laloyaux, D.G. Tan, C. Peubey, J. Thépaut, Y. Trémolet, E.V. Hólm, M. Bonavita, L. Isaksen, and M. Fisher. ERA-20C: An Atmospheric Reanalysis of the Twentieth Century, *Journal of Climate*, 2016, **29:11**, 4083-4097, Doi: 10.1175/JCLI-D-15-0556.1

Some ERA-20C references available from the ECMWF website.

Related articles

- C3S Documentation Centre
- C3S Knowledge Base (CKB)
- C3S Seasonal Forecast known issues
- C3S User Support Journey
- Climate Data Store (CDS) API Keywords