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Impact of GRIB2 usage on the Weather Research and Forecasting model performance: preliminary studies.

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Some preliminary studies on the use of GRIB2 (0,5 degree resolution) Global Forecast System (GFS) data to initialize the Weather Research and Forecasting (WRF) model are discussed. In order to evaluate eventual improvements, a series of 7 km resolution simulations were used, comparing the initialization with GRIB1 and GRIB2 GFS initial and lateral boundary conditions. The data analysis includes the forecast validation with data collected by the Portuguese Meteorological Institute Automatic Meteorological Stations network. As final conclusions, the advantages/disadvantages of GRIB2 use is discussed, on the scope of the forecast optimization, regarding its computational demands.