



## **Detail comparison of wind characteristics from ECMWF and NCEP/NCAR reanalysis in the middle latitude stratosphere**

Michal Kozubek (1,2), Jan Lastovicka (1), and Peter Krizan (1)

(1) Institute of Atmospheric Physics, Aeronomy, Prague, Czech Republic (kozubek.michal@ufa.cas.cz), (2) Dept. of Meteorology and Environment Protection, Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic

We are focusing on the detail comparison of reanalysis dataset from ECMWF and NCEP/NCAR centers. We compare reanalysis of wind speed and wind direction (pressure level 10 and 100 hPa) from NCEP/NCAR (1958-2008), ERA-40 (1958-2001), ERA-operim (2002-2008) and ERA-Interim (1989-2008). In this paper various differences between examined reanalysis can be seen. We use yearly and monthly averages of wind speed for selected region of middle latitude ( $52.5^{\circ}\text{N}$ ). Here we can see differences about 15-30% for 10 hPa and about 10% for 100 hPa. The bigger differences are observed between reanalysis ERA-Interim and other ones. In this work is also done a comparison of raw data for selected year (year and month with the biggest differences) and maps of differences for area  $30^{\circ}\text{N}$ - $80^{\circ}\text{N}$  in the period 1958-2002 for each grid point ( $2.5^{\circ}\times 2.5^{\circ}$ ). Rather large differences were observed in some days between both wind speeds and wind directions.