Data Description

1. ha_navgem_mflux_uwind_500hPa_2014110100-2014111023.nc (119 Mb)

Data Description: This file contains global hourly NAVGEM resolved momentum flux and zonal wind at 500 hPa from 0000 UTC on 1 November 2014 to 2300 UTC on 10 November 2014. Variables include:

lon: longitude [degrees east]
lat: latitude [degrees north]
time: time in [YYYYMMDDHH]
uwind: zonal wind [m/s]
mflux: momentum flux [mPa]

2. ha_navgem_mflux_acceleration_zm_2014110100-2014111000.nc (3.6 Mb)

Data Description: This file contains zonal mean daily NAVGEM momentum flux and acceleration for resolved gravity waves, orographic parameterized gravity waves, and nonorographic parameterized gravity waves, along with the zonal mean zonal wind from 0000 UTC on 1 November 2014 to 0000 UTC on 10 November 2014. Variables include:

lat: latitude [degrees north]
lev: approximate pressure level [hPa] based on surface pressure near 1000 hPa
time: time in [YYYYMMDDHH]
uwind: zonal mean zonal wind [m/s]
oflux: orographic momentum flux [mPa]
nflux: nonorographic momentum flux [mPa]
rflux: resolved momentum flux [mPa]
odudt: orographic acceleration [m/s/day]
ndudt: nonorographic acceleration [m/s/day]
rdudt: resolved acceleration [m/s/day]

3. ha_navgem_increments_2014101300-2015041312_E0.nc (109 Mb)
4. ha_navgem_increments_2014101300-2015041312_E1.nc (109 Mb)
5. ha_navgem_increments_2014101300-2015041312_E2.nc (112 Mb)

These files contain 6-hourly zonal mean NAVGEM analysis increments (zonal wind, meridional wind, and temperature) for three experiments:

E0: 2014050118 – 2014102518

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E1: 2014050118 – 2014102518
E2: 2014101300 – 2015041312

Data variables include:

lat: latitude [degrees north]
lev: approximate pressure level [hPa] based on surface pressure near 1000 hPa
time: time in [YYYYMMDDHH]
uinc: zonal mean zonal wind increment [m/s]
vinc: zonal mean meridional wind increment [m/s]
tinc: zonal mean temperature increment [K]

6. ha_navgem_gwp_2014043000-2015050100.nc (4.2 Mb)

Data Description: This files contains (1) time series of source parameters as a function of the "tie" latitudes, (2) time series of the orographic and non-orographic gravity wave acceleration averaged over pressure levels from 1 to 0.01 hPa, and (3) zonal mean frontogenesis and zonal mean 6-hourly convective precipitation as a function of time.

Data variables include:

lat: latitude [degrees north]
tlat: "tie" latitudes [degrees north]
time: time in [YYYYMMDDHH]

tau: Source momentum flux [mPa]
c0: Width of the source spectrum [m/s]
wgt: Weighting relative to the source-level wind [unitless]
ngwd: Zonal mean of the non-orographic gravity wave drag [m/s/day]
ogwd: Zonal mean of the orographic gravity wave drag [m/s/day]
cuprec: Zonal mean 6-hourly convective precipitation [m]
fzm: Zonal mean of the frontogenesis function at 500 hPa [K^2/s]

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