

**Problems with grid definition and flags
in Reanalysis Sigma Level files
28AUG2001
rev - 29AUG2001**

Reanalysis-1 grbsanl files (analysis).

This summary is based on extracting the temperature for the lowest (995) sigma level from the grbsanl files for the period 1948-2000. When the temp values for all longitudes at the northern most latitude are constant, the grid is assumed to be lat-lon.

1948010100 - 1957123118

Grid is 192x94 lat-lon however grid definition flags are partially incorrect. Grid type and dxj still indicate Gaussian grid.

1958010100 - 1997022818

Grid is Gaussian and grid definition flags identify it correctly

1997030100 - 1997041912

Grid is 192x94 lat-lon however grid definition flags are partially incorrect. Grid type and dxj still indicate Gaussian grid.

1997041918 - 1999123118

Grid is 192x94 lat-lon and grid definition flags are correct.

2000010100 - 2000123118

Grid is 192x94 lat-lon, but grid definition flags are partially incorrect - NOTE that the year 2000 data currently in the DSS archive is not from the TOVS reruns and this likely explains why the grid definition flags are incorrect.

Reanalysis-1 grbsf06 files. (6 hour forecast)

Only 1997 has been checked so far. The grids appear to change as in the grbsanl files, BUT the grid definition flags are always incorrect and are not fixed on 18Z19APR97 as they are in the grbsanl files.

Reanalysis-2 sgbanl files (analysis)

These were checked for a few sample periods.

It appears that Reanalysis 2 data in sgbanl files might be on the 192x94 lat-lon grid but with Gaussian definition flags. Kanamitsu checked the code and is fairly certain the data are on the Gaussian grid, but that values at the extreme latitudes were replaced by the average for that latitude as if it was a lat-lon grid.