Using GMT topo data from MACLAB

GMT comes with a small set of low resolution topo data files that are “broken”. If you have not made any changes to your GMT setup and you run **grdraster** you get the following:

grdraster(core) 5.4.3 (r19528) [64-bit] - Extract subregion from a binary raster and save as a GMT grid

usage: grdraster <file number>|<text> -R<west>/<east>/<south>/<north>[+r] [-G<outgrid>]

 [-I<xinc>[m|s][/<yinc>[m|s]]] [-T<table>] [-bo[<ncol>][t][w][+L|B]] [-do<nodata>]

 [-ho[<nrecs>][+c][+d][+r<remark>][+t<title>]] [-o<cols>[,...]]

 <file number> (#) or <text> corresponds to one of the datasets listed.

 [<text> can be a unique substring of the description].

# Data Description Unit Coverage Spacing Registration

------------------------------------------------------------------------------------

grdraster: Metadata conflict: Actual size of file /sw/share/gmt/dbase/haxby5m\_faa.i2 [18671040] differs from expected [18675362]. Verify file and its grdraster.info details.

grdraster: Metadata conflict: Actual size of file /sw/share/gmt/dbase/haxby5m\_geoid.i2 [18671040] differs from expected [18675362]. Verify file and its grdraster.info details.

grdraster: Metadata conflict: Actual size of file /sw/share/gmt/dbase/cande5m\_ages.i2 [18671040] differs from expected [18662400]. Verify file and its grdraster.info details.

1 "ETOPO5 global topography" "m" -R0/359:55/-90/90 -I5m GG

2 "US Elevations from USGS" "m" -R234/294/24/50 -I0.5m PG

7 "1=land, 0=sea bitmask" "T/F" -R0/360/-90/90 -I5m PG

------------------------------------------------------------------------------------

It complains about a data file size check. The data files and the grdraster.info file that describes them are supposedly in **/sw/share/gmt/dbase** on the MACLAB system. In addition to the files with problems there is a missing entry in the report (cat the file grdraster.info in the directory and you will see a file 6 that is not reported – this is another problem).

On my installation of GMT on my Mac I’ve replaced the whole directory, commented out the bad files, added some data sets, and don’t get any errors.

To fix the problem “permanently” on the MACLAB systems you should add the following line to your .cshrc (or .tcshrc) file

**setenv GMT\_DATADIR /gaia/home/rsmalley/Public/dbase/**

or this to your .bashrc

**GMT\_DATADIR=/gaia/home/rsmalley/Public/dbase/**

Doing this should make MySecondMap.sh work.

You can also put the appropriate line into your shell script to fix it “locally” – i.e. in that shell script only.

Or you can set the gmtdefaults (see man page).

Check it!