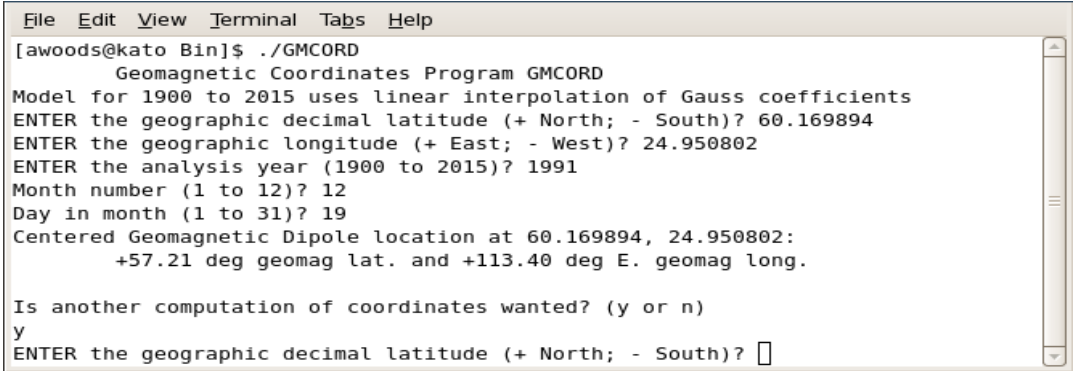


# Geomagnetic Coordinates 1940–2015 (GMCORD)

The GMCORD program provides a determination of the geomagnetic coordinates for any selected global location. The program uses a linear interpolation of the dipole Gauss coefficients from the geomagnetic reference field models (see file ALL-IGRF.TAB below). The fitting allows specification of any date from the first day of January 1940 to the projected values on the last day of December 2015. This program uses a computational method devised by Fraser-Smith (1987) and originally coded by W.H. Campbell. New version coded by Adam Woods. An example screen is shown below.



```
File Edit View Terminal Tabs Help
[awoods@kato Bin]$ ./GMCORD
    Geomagnetic Coordinates Program GMCORD
Model for 1900 to 2015 uses linear interpolation of Gauss coefficients
ENTER the geographic decimal latitude (+ North; - South)? 60.169894
ENTER the geographic longitude (+ East; - West)? 24.950802
ENTER the analysis year (1900 to 2015)? 1991
Month number (1 to 12)? 12
Day in month (1 to 31)? 19
Centered Geomagnetic Dipole location at 60.169894, 24.950802:
    +57.21 deg geomag lat. and +113.40 deg E. geomag long.

Is another computation of coordinates wanted? (y or n)
y
ENTER the geographic decimal latitude (+ North; - South)?
```

To run the program, enter the desired latitude and longitude in geographic coordinates (decimal degrees with + for North and East, - for South and West), and answer the date questions (months are to be given as numbers 1 to 12). The displayed output may be saved by using the "print screen" key on your computer.