
Subject: Georeferencing Errors

Posted by [will.mccarty](#) on Tue, 02 Nov 2004 18:20:10 GMT

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OK, I've posted on this before, and this time I'm using a bit of a more common dataset (GTOPO30 terrain elevation), but getting similar geolocation errors. Thus I'm interested in seeing what (if anything) you guys can come up with. I use the following code:

```
--test_lat_lon.pro
ulx = -99.995833333333334
uly = 39.995833333333333
dx = 0.008333333333333
dy = 0.008333333333333

lat = fltarr(4800,6000)
lon = lat
for i = 0, 4799 do begin
    for j = 0, 5999 do begin
        lat[i,j] = uly - dy*j
        lon[i,j] = ulx + dx*i
    endfor
endfor

openr,1,'W100N40.DEM'
z = intarr(4800,6000)
readu,1,z
close,1

z = swap_endian(z)
map_set,mean(lat),mean(lon),/cylindrical,limit=[min(lat),min(lon),max(lat),max(lon)],/noborder

rmz = map_patch(z,lon,lat,missing=-9999)
tvsc1,rmz
map_continents
end
---end
```

to put the topographic info to a projection. The result is at <http://vortex.nsstc.uah.edu/~mccarty/georef-err.png>. Clearly there are some georeferencing errors. I've tried both idl 5.6 (my normal version) as well as 6.0. Similarly, I've tried multiple projections. I've got some theories, but i'm looking to the experts on this one.

Thanks for any help you folks can provide.

Will
