Subject: Cylindrical Equal Area projection
Posted by bryan.s.hong on Thu, 12 Aug 2010 15:22:03 GMT
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Now I'm doing data processing with AMSR L3 soil moisture data which is projected into the cylindrical equal area (CEA), and I found a solution from Fanning webpage, but I think this is not my case.
Please, see below. This is I got from his webpage.

```
AMSR=Map_Proj_Init(103, $  ; Albers Equal-Area Conic Projection
      SEMIMAJOR_AXIS=6371228L, $
      SEMIMINOR_AXIS=6371228L,$
      ;sphere_radius = 6371228, $
      CENTER_LONGITUDE=0.0, $
      CENTER_LATITUDE=0.0, $
      STANDARD_PAR1=60, $
      STANDARD_PAR2=-59.5, $
      FALSE_EASTING=0., FALSE_NORTHING=0.,$
      LIMIT=[-86.72, -180, 86.72,  180])

lon = [-180, -180, 180, 180]
lat =  [-86.72, 86.72, 86.72, -86.72 ]

uv = MAP_PROJ_FORWARD(lon, lat, MAP_STRUCTURE=AMSR)
topv =   (uv[1,1] + uv[1,2]) * 0.5
botv =   (uv[1,0] + uv[1,3]) * 0.5
leftu =  (uv[0,0] + uv[0,1]) * 0.5
rightu = (uv[0,2] + uv[0,3]) * 0.5

xscale = (rightu-leftu) / (1383-1)
yscale = (topv-botv) / (586-1)

print, xscale, yscale
```

Then, the scales I got are 14592.419m and 43165.733m for xscale and yscale, respectively, which are not right. According to NSIDC webpage, the spatial resolution should be around 25km.

Is this because fanning's case is only for the brightness temperature?
I heard that IDL8.0 provides CEA projection option, but mine is 7.0.
Please, help me.

Sincerely,

Bryan