
Subject: Map_Set and Sat_P

Posted by [doyle](#) on Thu, 24 Oct 2002 22:06:06 GMT

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Hi everyone,

I've got kind of a wierd problem (but then aren't they all). I'm using Map_Set with a satellite projection to show a longitude, latitude track. I'm setting the projection limit around the midpoint of the data but when the graph appears the start of the track is off to the right side and down of the center point and the end of the track is out of the projection entirely. I can't figure out why this is happening and would appreciate your help in figuring out how to solve my problem. I've included the program that does all this stuff and draws the graph. A couple of notes: exp_data is just a huge data structure. I'm using IDL 5.3. I'm calling the included program along with some others to make a window with multi plots on it. I figured that might be important in case !p.multi had anything to do with the problem.

Thanks in advance

Nate Doyle

```
pro plot_sc_track,exp_data
```

```
; plots position of satellite for given timespan
```

```
k=n_elements(exp_data)
```

```
midpoint_lat=mean(exp_data.sc_lat)
```

```
midpoint_lon=mean(exp_data.sc_lon)
```

```
;determine the limits of the map projection
```

```
p=min(exp_data.sc_lat)
```

```
q=max(exp_data.sc_lat)
```

```
u=min(exp_data.sc_lon)
```

```
v=max(exp_data.sc_lon)
```

```
;removes any ambiguity from experiments that cross the dateline or are
```

```
;carried out near the poles.
```

```
dlat=abs(q-p)
```

```
dlon=abs(v-u)
```

```
if dlon gt 180 then dlon=abs(dlon-360)
```

```
y=midpoint_lat
```

```
x=midpoint_lon
z=30
lim=[y-z,x-z,y+z,x-z,y+z,x+z,y-z,x+z]

;add in the SAA polygon

read_saa_region,n,maxlat,vlat,vlon,r,n_vertices
n_vertices=n_vertices[0]

map_set,/satellite,sat_p=[1.4,0,0],y,x,/continents,/advance, $
limit=lim,/usa,/grid

;plots the satellite track on to the map

polyfill,vlon,vlat,color=5
oplot,exp_data.sc_lon,exp_data.sc_lat,psym=1,color=4

xyouts,exp_data[0].sc_lon,exp_data[0].sc_lat,'Start'
xyouts,exp_data[k-1].sc_lon,exp_data[k-1].sc_lat,'Finish'

end
```
