
Subject: MAP_SET, /SATELLITE

Posted by [dean](#) on Tue, 03 May 1994 03:55:09 GMT

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I have been getting GMS satellite data from over the internet. I already have a FORTRAN program that navigates the images pretty well. However, when I use IDL's MAP_SET for /SATELLITE, the IDL map doesn't line up. It looks OK near the subsatellite point, but the farther you get away, the the worst the navigation becomes.

Consider the following problem:

How do we fill in the !MAP structure for a satellite projection when we know the following?

The satellite is located at [x,y,z] and we have an image of part of the earth as an array of bytes b(nx,ny). We know the latitude and longitude of a few of the points, landmarks: [i,j,longitude,latitude]. The following conditions may be true:

- The aspect ratio of the pixels is not one (we do know its value, though).
- The image of the Earth may be bigger than the earth so that some or all the edges of the image are space. This makes it difficult to use the limit key word although some combination of margin and limits might fit the data.

What is the definition of each of the !MAP parameters, perhaps they can be set with something besides MAP_SET.

We would like to do the following in IDL:

```
TV, b  
plot,/satellite,/continent..
```

Use the IDL cursor>lat,lon conversions to navigate through the image.

Kelly Dean
CSU/CIRA
