Notes for eis_three_pointing
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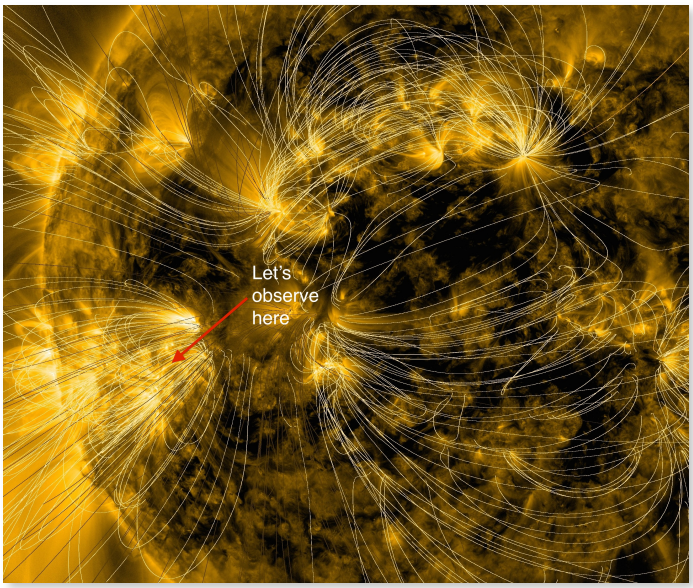
This routine is designed to use a single pointing from a current image to compute the pointings needed for a three panel mosaic using the EIS study HPW022_VEL_480x512v1. Since the total field of view for the three panels is approximately 1440”x512” the Hinode spacecraft will need to repoint and it is difficult to calculate the necessary pointing information by hand. The routine eis_three_pointing takes care of this.

The input pointing information needs to be written to a text file in the following way. See eis_three_pointing.dat in SSW as an example.

```
# This is the reference time read from an image
xcen = -645.4
ycen = -229.9
tref = '14-Apr-2014 23:28:00'
# These are the times for the three pointings
tim1 = '18-Apr-2014 09:45:00'
tim2 = '18-Apr-2014 11:45:00'
tim3 = '18-Apr-2014 13:47:00’
```

The variables xcen, ycen, and tref are desired center of the field of view taken from any current image available for planning. In this example we’ve read the coordinates and time from an AIA image downloaded from the Sun Today web site. The three time variables are the times that EIS will begin observing after Hinode repoints. Note that the study takes 71 minutes to execute so the time between pointings must be longer than this. Also remember to begin the EIS observations approximately 3 minutes after the repoint to allow for spacecraft settling.



Now run

```
IDL> eis_three_pointing,ipf=ipf
```

where ipf is the file that contains the pointing information. Do not change the names of the variables. Each line is input to the IDL function “execute” so the variable names and formatting are important.

After the program runs you should see output similar to this and a figure similar to what is shown below. The start times will need to be agreed on at the Hinode planning meeting.

Start Time	XCEN	YCEN
18-Apr-14 09:45:00	469.95	-208.26
18-Apr-14 11:45:00	17.37	-208.39
18-Apr-14 13:47:00	-434.92	-208.54