SUG Minutes – 27 Dec 2016

In attendance
Jim B, Jim T, Tom, Francisco, Chuck, Jim S, Dave

Station Reports – New Info in RED

Tom – TFD array now up and running with the FSX-10S. Getting good Jupiter, but all weak stuff so far. Will do a step cal and make a correction array seed file. Dave sent the SUG loaner noise gen to Tom today. Tom will then send it to Chuck.

Dick –

Whit –

Jim B – Power company visited last week and fixed the major RFI source on a nearby pole. Some RFI still present; Jim plans to call the power company again. LWA array dangle angle at horizontal. DDRR investigation continues – some hints of Jupiter, but the jury is still out.

Wes –

Chuck – Will do a new step cal and correction array seed file when the noise gen is received from Tom. Chuck is currently building the eCallisto antenna and plans to have that system running in 3 to 4 weeks.

Francisco – Set up a Jove receiver and one dipole at RHO last week; all seems very quiet, great observing conditions, no line noise. Started making cables with his student (for the TFD array feed system). Getting intermittent RFI at home on the 20P dipole array, possibly dues to Christmas lights in the neighborhood.

Andy –

Dave – Nothing new.

<p style="text-align:center">**Discussion – New Info in RED**</p>

HEC grant

Chuck asked Dave if having a second SUG loaner noise gen and step attenuator would be useful when we get more observers. Dave said that doing a spectro cal one a month or every six moths really makes little difference; to do it right it should probably be every 24 hours or more often than that. Chuck clarified that the intent was that so Dave's personal equipment wasn't floating around the country so much; Dave agreed that this would be nice.

Dave offered that having an automatic calibrator at each station would be the ideal solution. Jim S suggested using a tiny programmable attenuator and an Arduino. Jim B let everyone know that he and Dick are working on exactly such a project.

Archiving

<mark>**Anyone who has not submitted data on a PDS hard drive is asked do so and to contact Jim Sky for any needed help.**</mark>
Jim S is working on modifications to the data copying program to make it able to handle SPD files as well as SPS files. This will facilitate data transfer of SPD files to the PDS.

Dave asked if Jim had a chance to send the list of metadata around. Jim said he sent a link, but this turns out to be to the VOParis Confluence discussion list group thing at https://voparis-confluence.obspm.fr/display/JOVE/Metadata+mapping
Dave said he would try to log on and distill the documents there into a document that everyone could read without having to supply the three letter code group to recall the bombers.

Software

Latest version of RSS is 2.8.27
http://radiosky.com/spec/Spectrograph_Update_2_8_27.exe

Latest version of RSP is 2.7.15
http://radiosky.com/skypipe/RSPII_Update_2_7_15.exe

Dave asked Jim S if the latest version of RSS allows the user to create a correction array seed file from an old data file. The answer is yes, it can do this.

Phase Plane

A brief article about the phase plane and emission arcs has been published in the most recent issue of the Jove Bulletin.
http://radiojove.gsfc.nasa.gov/library/newsletters/2016Dec/

JUNO

Chuck said that the initial data from Juno presented at the AGU meeting were spectacular. He said that some of it should be published in the Spring.

2017 Solar Eclipse

There will be a solar observing practice session Saturday Jan 7 at 2:00pm EST (1900 UTC). Jim T will advertise a telecon for this even this weekend. This will help get observers trained to set their equipment up for 24-hour runs. All are encouraged to submit a 24-hour strip chart data file for 0000 to 2359 UTC on Jan 8 to the Jove Archive. This will provide a measure of how widely our GB temperatures vary.

Chuck indicated that he has made a map of the participants for the eclipse project.

Dave asked what antenna config should be used to observe the GB. Francisco said absolute measurement will not be possible without a ground plane. Dave asked if we wanted to steer toward the Sun or toward the shadow on the D layer during the eclipse. Chuck and Francisco would like to think about the geometry involved and the size of the penumbra before giving an answer.

Chuck also mentioned that it is important to have instruments not on the path of totality to provide control samples during the eclipse.

Chuck asked if we should do a GB reading now; Francisco said yes, absolutely, to establish a baseline for the eclipse observations.

Jim T asked if spectrograph observers should also provide 20.1 MHz data extracted from the spectral data. Dave mentioned that the data would be much noisier due to the short integration time, but concluded that having such data would be a good thing, more data being better than less data.

Next SUG Telecon Tuesday, 10 Jan 2017 at 5:00 pm EST (2200 UTC)
(844) 467-6272, 352297#