

Please use the following template for SoD reports

October 1, 2024 SoD name

1. Report the status/quality of EOVSa reference calibrations from the previous night/early in the morning
2. Report the status of generating EOVSa flare spectrogram(s) from the previous day (if any). Provide a link to the wiki record.
3. Report the status of the EOVSa full-disk synoptic image from the previous day.
4. Report notable flare/CME/radio burst events recorded by EOVSa and/or OVRO-LWA of the day. Include interesting correspondence with events observed at other wavelengths (EUV/white light/X-ray).
5. Report of system/recorder/data anomalies. Provide time periods of the data anomalies and possible causes.

Nov 1, 2024 Peijin

1. EOVSa ref cal not good
2. Full disk image good for Oct 31, 10.2 GHz missing
3. OVRO-LWA caltable updated
4. OVRO-LWA performance feature implemented
5. Oct 31 have 1 X flare

(Flare of Oct 30 and 31 are added)

Oct 31, 2024 Peijin

1. EOVSa ref cal looks good except for ant 3 not present
2. EOVSa full disk lost 1.4GHz, other than that quality good
3. LWA test new features, noisy day, lost 4hr data during test, compensation run at full cadence during night
4. Oct 30 have 1 M Flare, spectrum will be made later

Oct 30, 2024 Surajit

1. EOVSa ref cal scan do not look good
2. Synoptic images for October 29, 1.4 GHz, not available. All others are ok.
3. OVRO-LWA fast pipeline was not run today for testing purposes
4. Slow pipeline started dropping frames after ~22 UT. Slurm log shows that the process was canceled about 23:48UT.

Oct 29, 2024 Surajit

1. EOVSa ref cals good for one scan in the high frequency band. All others had wind scram.

2. Synoptic images for October 28 not available
3. OVRO-LWA slow and fast showed frame loss.
4. Lots of small activity in OVRO-LWA data. No major event seen in EOVSa.
5. Data transfer ok.

Oct 28, 2024 Sijie Yu:

1. EOVSa ref cal is good, except for the one at 17 and 22 UT (windscram). Ant3/7 are down.
2. EOVSa synoptic full disk images on Oct 27 are good, except for the image at 1.4 GHz.
3. Data transfer is good.
4. M4.2 flare at 16:20 UT. C7.7 flare at 22:05 UT.
5. OVRO-LWA bandpass/amplitude response of 50-55 MHz is still off.

Oct 27, 2024 Sijie Yu:

1. EOVSa ref cal is very good. Ant3/7 are down.
2. EOVSa synoptic full disk images on Oct 26 are good.
3. Data transfer is good.
4. M2.8 flare at 23:20 UT.
5. OVRO-LWA bandpass/amplitude response of 50-55 MHz is still off.

Oct 26, 2024 Meiqi:

1. EOVSa ref cal is good except 22:14 UT, ant3 is off.
2. Full disk on Oct 25 is good.
3. Data transfer is good.
4. Quiet day: No flares observed by EOVSa. Some type IIIs captured by LWA. LWA fast imaging is missing the band of 66 MHz at several time frames. LWA slow imaging is missing some time frames after ~21:30 UT

Oct 25, 2024 Meiqi:

1. EOVSa ref cal is good except 01:22 and 22:14 UT, ant3 is off.
2. Data transfer is good.
3. Full disk images are good.
4. From Surajit: caltables have been updated today for OVRO-LWA. 50-55 MHz band is a combination of the 20241005 caltable and 20241020 caltables. The bandpass/amplitude response of 50-55 MHz may be off.
5. EOVSa flares: flare monitor didn't observe any flares. Maybe the weak signal at 17:55 UT. Will work on the spectrograms later.
6. Lwa: No large events captured. Some type IIIs. The system is off after ~22:45 UT.

Oct 24, 2024

1. EOVSAs are phase coherent except for 22:14
2. OVRO-LWA beam and HDF transfer
3. No notable events were detected by EOVSAs. X-class flare (3:40 UTC) was not observed but decay phase lasted till about 16:00.
4. EOVSAs synoptic images are available
5. OVRO LWA spectrograms/quicklook images were unavailable after about 22:10

Oct 23, 2024 Ivan Oparin

1. EOVSAs are phase coherent for all times except for 22:14, antenna 3 is off, while refcals for ant7 seem to be either noisy or empty.
2. OVRO-LWA beam and HDF data transfer is complete.
3. EOVSAs synoptic images look fine for all frequencies.
4. EOVSAs observed two C-class flares, C3.9 around 16:05 and C5.4 with peak at 21:10. Working on flare spectrograms.
5. OVRO LWA spectrograms (qllook_spectra) were not available. Images (fast and slow) are available after 18:36 UT. Dale restarted OVRO-LWA system on 10/22 so the data was recorded but beam and imaging were not producing the data presumably.

Oct 22 2024, Brian

EOVSAs

We had two C-class flares, at T165829 and T235533 (I am working the QL and reports now)

Cals look good

Full Disk Images are a mixed bag, Higher freqs look bad, lower ones look good

Spectra look good

Ant 7 is back up! (ant3 is still down though)

LWA - *BAD DATA DAY*

Overnight testing caused Daytime settings to be messed up/not be started

Which caused (what look like) Broad Spectra RFI/Saturation Spikes all over our data, coupled with bad images

Further attempts to both test the Cosmic Ray system and get the Daytime settings up and running were initially unsuccessful, and actually made the data situation worse. First by creating nonsense data, then by crashing the data pipelines

Dale stepped in when he returned near end of day and get the system ready for tomorrow (hopefully)

It is a further shame because the Spectrograms seem to show some emission related to the 16:58UT EOVSAs/GOES flare, and a Type IV-ish event around 17:40UT-17:50UT, but with our array stability yesterday I would be very skeptical of those data

Oct 21 2024, Brian

Summary

The sun was remarkably quiet, we had a slightly elevated x-ray background from a C-class flare we missed by an hour or two, but saw no impulsive changes in GHz or X-ray during our day time. Definitely nothing to set off the Flaremon. Not even that many Type IIIs in the LWA data

EOVSA

1. Cals look good
2. Full Disk Imaging issue fixed?! 10/20 weren't redone, but 10/21 looks great!
3. Spectra look good (other than some 10-12GHz RFI), and the system was up all day
4. Ant8 had a Front End issue that wound up being solved by Owen Putting in a new Finder Unit

LWA

1. System ran all day, Spectra Look Good
2. Data transfer looks good
3. Rolling sporadic drop outs of Slow QL images in changing frequencies from 20:45-End of Day. (But the Spectra and the Fast mode images exist, so they are most likely reconstructable if anyone wants them.)

Oct 20, 2024 Meiqi:

1. EOVSA ref cal looks good except 22:14 UT (windscram). Ant 3 and Ant7 are off.
2. Full disk of Oct 19 looks good
3. No flares observed by EOVSA
4. Data transfer is good
5. Lwa: fast vis images missing band 80 MHz from 16~22 UT. Slow vis images start to lose some time frames from ~22:30 UT.

Oct 19, 2024 Peijin

1. EVOSA phase cal influenced by windscram, Ant 3 and 7 still off
2. full disk of Oct 18 good quality
3. LWA still not updating data since Oct 17
4. LWA spectrum working fine at sunrise, imaging data not coming
5. LWA Imaging starts to arrive after 20UT
6. Flares at 17:30 19:40, 23:20

Oct 18, 2024 Stasia

EOVSA

1. Ant 3 and 7 continue to remain off

2. EOVS reference calibrations are all windscrams this morning
3. Full-disk images for 10/17 look ok, not great though
4. Events at ~15:45, ~17:30
5. Flares at ~19:30, ~23:00, ~23:30 UT

LWA

1. Down today - work being done on the snap boards (from Dale via Bin)

Oct 17, 2024 Stasia

EOVSA

1. Ant 3 and 7 continue to remain off
2. EOVS reference calibrations don't look great. Many windscrams, only one looks okay
3. EOVS spectrogram started late (~15:00) stopped around 00:30
4. No full-disk images for 10/16

LWA

1. Slow imaging frames missing ~21:00 (~20%), Fast imaging frames missing intermittent (15:00 ~10%, 18:00 ~25%, 19:00 ~20%)
2. Some type IIIs (~15:36, ~16:35, ~17:44, ~18:53, ~20:44, ~20:53)
3. Dynamic spectrum stopped around 21:10

Oct 16, 2024 Xingyao

EOVSA

1. Ant 3 and Ant 7 not working.
2. Full disk images look good.
3. No EOVS observation today.

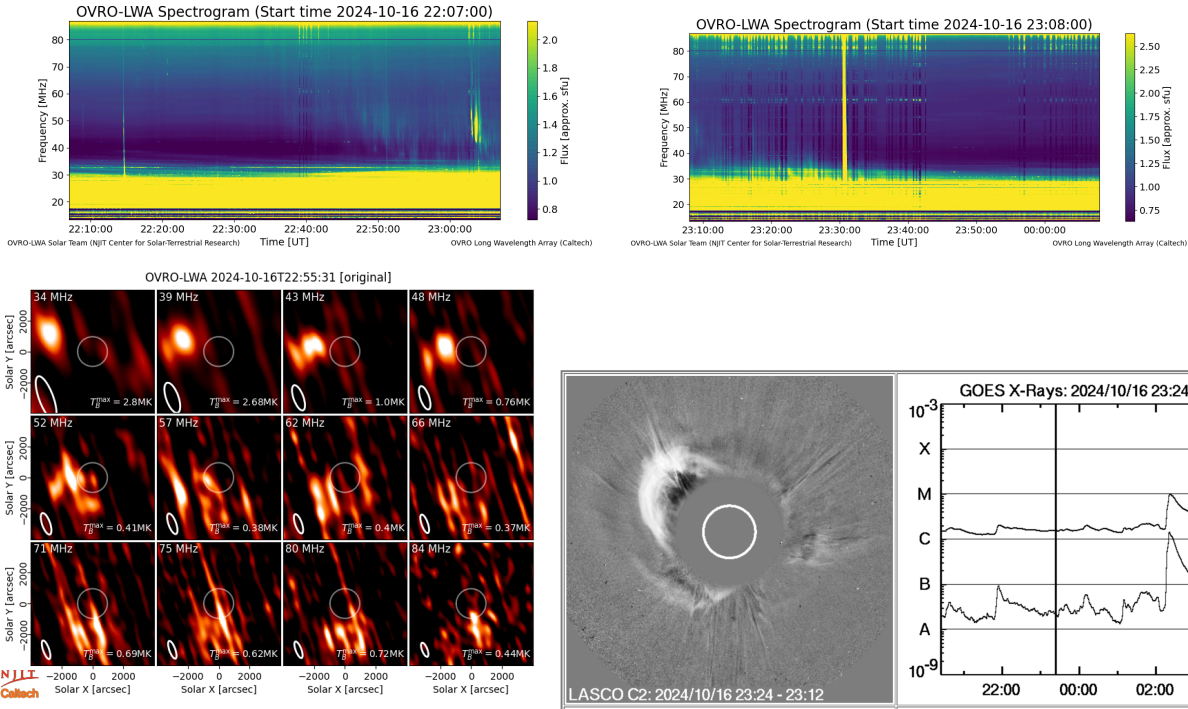
From Owen: we still have a problem collecting data. The issue is that Roach 2 seems to have failed. I am hoping it is just a blown fuse. If I can get it working we will need to reset all of the delays. Power supply failed. We have just tested a new power supply and the roach powered up. We are currently putting it back together.

From Dale: EOVS is down with a correlator problem (one of the Roach boards is off and has a "smokey smell"). If/when the Roach is repaired or replaced, we'll still need to reset all of the delays, so expect it to be down for the day (or longer).

From Dale and Owen: The correlator is back and working. Dale set up the schedule for 17-Oct and we get a reasonable refcal on 17-Oct, no need to adjust delays further.

LWA

1. ~20% frames lost, especially after ~20:00 UT, for LWA slow imaging. The slow imaging pipeline was re-run for testing? as shown from the modified time. Slow imaging stopped at 22:22 UT.
2. <10% frames lost for fast imaging.
3. Some type IIIs. Very weak(~2 sfu) drifting type IV-like structure?, at ~22:50 UT, the source location from fast imaging is similar to the CME at ~23:24.



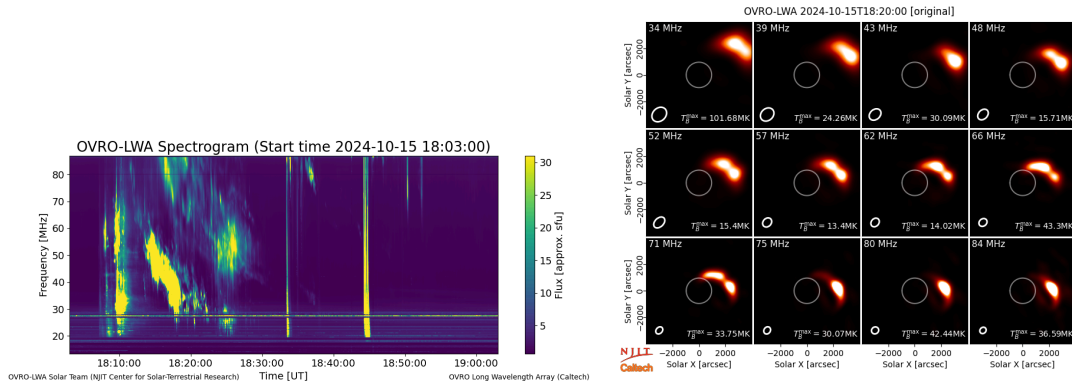
Oct 15, 2024 Xingyao

EOVSA

1. Ant 3 and Ant 7 not working. No coherence from [phasecal](#)?
2. Full disk images look not good except for 1.4GHz on Oct-14.
3. Flares at 18:31, related to M2.1.
4. [From Owen: Note that data EOVSA data recording stopped at about 23:22 UT Oct-15. I have just restarted it. As a result we do not have calibrations for Oct-15]

LWA

1. Lwa slow imaging running slowly, two hours laid behind. And lots of “no data” for slow imaging. This is due to Peijin’s compensation test. [From Peijin] The type II compensation run done, 18:00 ~ 18:50 with 10s cadence.
2. A type II at 18:20 (No LASCO image found?). Some intense type IIIs.



Oct 14, 2024 Peijin

1. EOVSa phase cal plot still missing 3 and 7's YY YX pol, other than that, looks good
2. Full disk image of 2024-Oct-13 looks good
3. LWA imaging recorder not working since Oct-15 02UT, there is spectrum.
4. today lwa imaging realtime pipeline run on 7 nodes, --keep-working-fits, to test about the reason of the frames-loss recent days
5. LWA imaging has been great today

Oct 13, 2024 Peijin

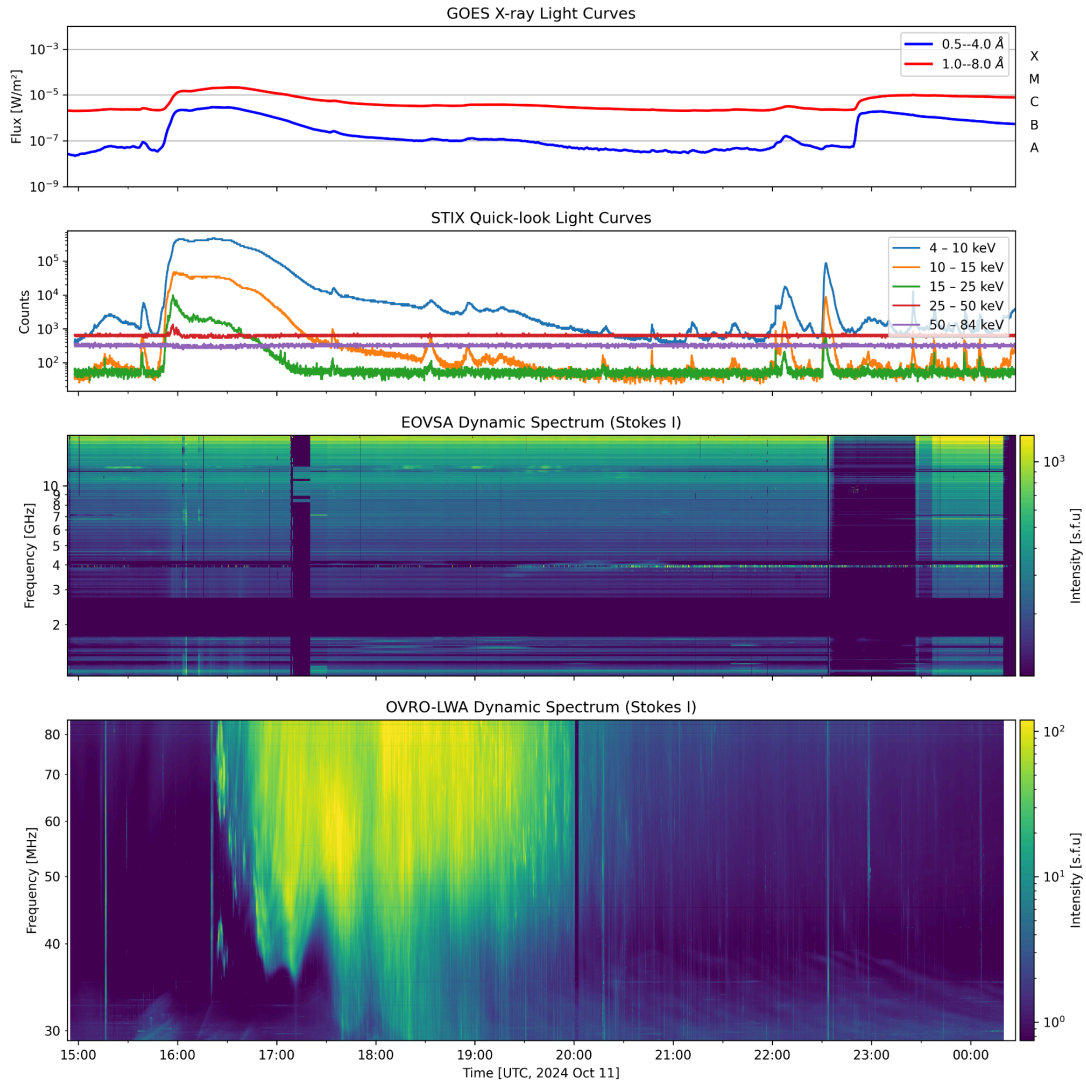
1. EOVSa phase cal missing ant 3 and YY YX pol. Other than that pretty good.
2. Full disk image of 2024-Oct-12 looks bad
3. LWA imaging started correctly on Oct-13, 43MHz 80 MHz missing
4. Data not complete due to clash

Oct 12, 2024 Sijie Yu

1. EOVSa ref calibrations: the two 1331+305 scans are messy. Ant 3 and 7 are not working. Ant7's Stokes YY and YX have been missing again since Oct 11 (Caius noted that "the FEM still in the lab, but the Ant7 DCM is on, so it still recording.")
2. Synoptic imaging for EOVSa worked well.
3. OVRO-LWA data transfer was fine.
4. Both slow and fast images show up to 50% frame loss. Additionally, the 52 MHz channel is missing in the slow images. One of the recorders is not running, and Dale tried resetting it twice. Bin mentioned that he may have found the bug.

Oct 11, 2024 Sijie Yu

1. EOVSa ref calibrations look ok. Ant 3 is not working.
2. Synoptic imaging for EOVSa worked well
3. OVRO-LWA data transfer was fine.
4. Both the slow and fast images show frame loss. celery is using 600+% CPU. That would potentially cause a resource clash.
5. An M-class flare occurred at 16 UT, accompanied by Type II/IV radio bursts.
6. The ionospheric activity is extreme.



Oct 10, 2024 Surajit Mondal

1. EOVS ref calibrations look ok. Antenna 3,7 is not working, and has been already reported in the EOVS log on October 7.
2. Synoptic imaging for EOVS worked well
3. OVRO-LWA data transfer was fine.
4. Fast pipeline did not start at the beginning of the day; restarted by Peijin later in the day

Oct 9, 2024 Surajit Mondal

1. EOVS ref calibrations look ok. Antenna 3,7 is not working, and has been already reported in the EOVS log on October 7.
2. Synoptic imaging for EOVS worked well except at 1.4 GHz.
3. OVRO-LWA data transfer was fine.

4. Compensation run for October 8 started from 19:50-22:00 at 10s cadence
5. 59 MHz data has not been recorded since 4 UT. Started working after Dale's fix
6. X-flare, type II around 15:45 UT; significant ionospheric activity.. Might have focussing and defocussing effects as well. Check carefully.
7. Lots of missing frames in slow. Fast has also been lagging behind, and has dropped many frames

Oct 8, 2024 Meiqi

1. EOVSa ref cal at 17:14 UT and 22 UT are not good.
2. EOVSa full disk is good except 1.4 GHz
3. Lwa is down due to the restart. It was back at night.
4. EOVSa flare at 20:18 UT

Oct 7, 2024 Meiqi

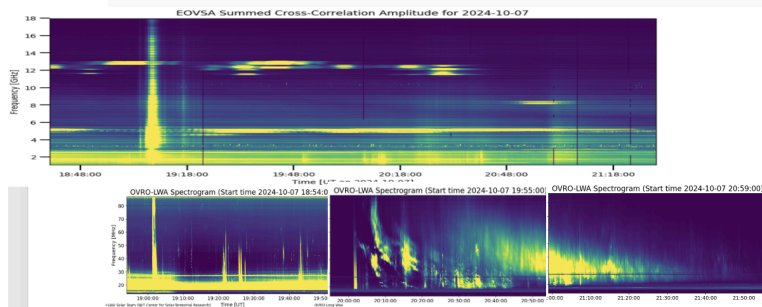
EOVSa ref cal: Missing 22:10 calibration because of the activity

EOVSa Full disk available

data transfer is good.

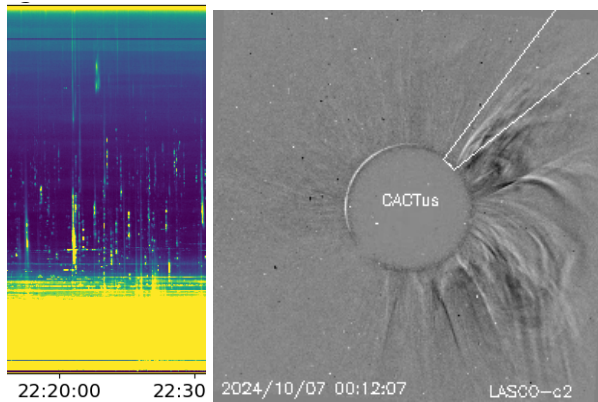
EOVSa flare: ~19:00 UT (X2.2 class, lwa has the type III associated). LWA records the type II at about ~20:05 UT associated with a CME, and type IV followed (EOVSa has the counterpart at low frequencies). (Added X2.2 and X1.0 flare to EOVSa wiki)

LWA: missing some time frames after ~20UT



Oct 6, 2024 Ivan Oparin

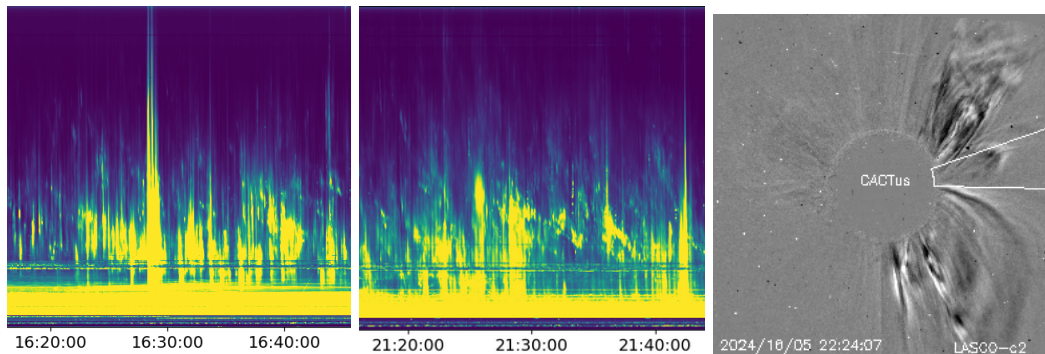
1. EOVSa ref calibrations are completely noisy for all times
2. OVRO-LWA data transfer is complete
3. EOVSa observed two M-class flares: [M1.0 \(16:41\)](#), [M1.4 \(18:52\)](#)
4. EOVSa full-disk synoptic images are available
5. Weak type-II associated with [CME](#) at 22:24 was detected by OVRO-LWA.



6. OVRO-LWA spectrogram has glitch after 23:00

Oct 5, 2024 Ivan Oparin

1. EOVSAs reference calibrations are phase coherent except for 17:14, and 22:14. (Data for ant3 is also unavailable for these times).
2. OVRO/LWA data transfer is complete
3. EOVSAs observed M1.2 class [flare](#) at 22:11 (N17W82).
4. EOVSAs full disk synoptic images for 10/5 are ready
5. Type IIIs associated with CME events are observed around 16:24, 21:20



October 4, 2024 Brian O'Donnell

EOVSA

Ant 5 locked up one more time (4th in my 2 days) at 20:09

Otherwise the only issues were the longer term things

Calibrations, Best one is 2:41UT, (Honestly, the other times look to me like noise blocks, not sure what is up with that)

Monitor flagged 2 flares, at 21:42 and 23:18, which correlate with GOES M class and C class detection respectively

Our spectra were a bit flushed out by an intermittent 300-500 SFU RFI (both below 3GHz and some channels centered around 12GHz), so if not for the flaremon it would have been hard to pick those 2 out

LWA

An Engine error and reset (followed by a delayed change back from night settings) damaged the data from ~15:50UT - ~16:50UT

There were also some strange 1-5 min drop outs of ql-imaging at any given frequency, but they seemed to come back on their own before I could try fix them

Otherwise we had the system up and running,

Data Transfer- Looks Normal

Sun was much quieter than yesterday,

With brightnesses from 0.1-3 SFU being the norm

And only one event (around 19:40 not really in line with eovsa or goes) forced the vmax to go as high as 15SFU in the quick look

But as we've seen before. a quite day with active regions basically means 100s of "micro-"Type IIIs

October 3, 2024 Brian O'Donnell

EOVSA

Ant 5 was acting up, had to be reset 3 times (13:33, 19:25, 20:11)

Otherwise the only issues were the longer term things with ants 3, 7 ect

Calibrations: Best of the day were 2:49 UT and 13:05UT, the midday ones look much less coherent

Spectra were good

The Flare Monitor Flagged 4 events

But unfortunately, we missed the big STIX/GOES Flares of the day, as the X Class Flare happened at 12UT, and (I guess) the Larger M-Class Flare from 20UT wasn't on our side of the Sun, because our signal is quite faint.

Best of the bunch for us was a smaller M-Class Flare ~23:30 that we seem to have a full spectra of

LWA

System seems to have run fine

Data transfer went well

We had a huge amount of Solar activity (like pick any hour in the ql)

Mostly Type IIIs and IVs in the 20-50SFU Brightness range

Much brighter stuff around 20UT though (200 SFU) Which I presume is associated with the flare that was dim for EOVSA (maybe it's right behind the limb?)

October 2, 2024 Yuqian Wei

1. The refcal from the one from previous night looks reasonable while the morning one is messy
2. EOVSa full disk images from yesterday looks good
3. EOVSa flares at 20:05 (M3.3) added to wiki.

OVRO-LWA data transfer looks fine.

October 1, 2024 Yuqian Wei

4. The morning EOVSa refcal looks fine while the one from previous night doesn't..
5. EOVSa full disk images from yesterday are missing.
6. EOVSa flares at 00:00 (M7.7), 18:58 (M1.5), added to wiki.
7. X7.1 class flare at 21:58 but we missed the peak.
8. OVRO-LWA data transfer looks fine.
9. Bright Type II Burst associated with the X7 flare is captured by ovro-lwa.

