

LBT Observing Log: 2026 May 8 UT

Observers: Justin Rupert
Partner Observer: Tawny Sit
Telescope Operator: Steve Allanson

Plan:

We'll start with LUCIs. At moonrise we'll switch to PEPSI.

UM_XMDs_LUCI/GALEXJ1127 - finder chart and coordinate mismatch? skipping
UM_XMDs_LUCI/SDSSJ1347 - skipped
OSU_SCAT-LUCI/2025adje done

Switch to PEPSI:

~~ND_cd-30/CD3011814 - needs 26 degree override~~ done
~~OSU_LAMP/1467419389641209728~~ done
~~OSU_PANTERA/1373298170645854208~~ done
~~OSU_LAMP/1591450486007267840~~ done
~~OSU_LAMP/1605229703165503104~~ done
~~OSU_LAMP/1649870047051895552~~ done
OSU_MWAbundDisp/2MJ1637+4529 done

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PEPSI Log:

<https://drive.google.com/file/d/1gGZknRyNmh5boXyabg2MKn-rpglzMJUL/view?usp=sharing>

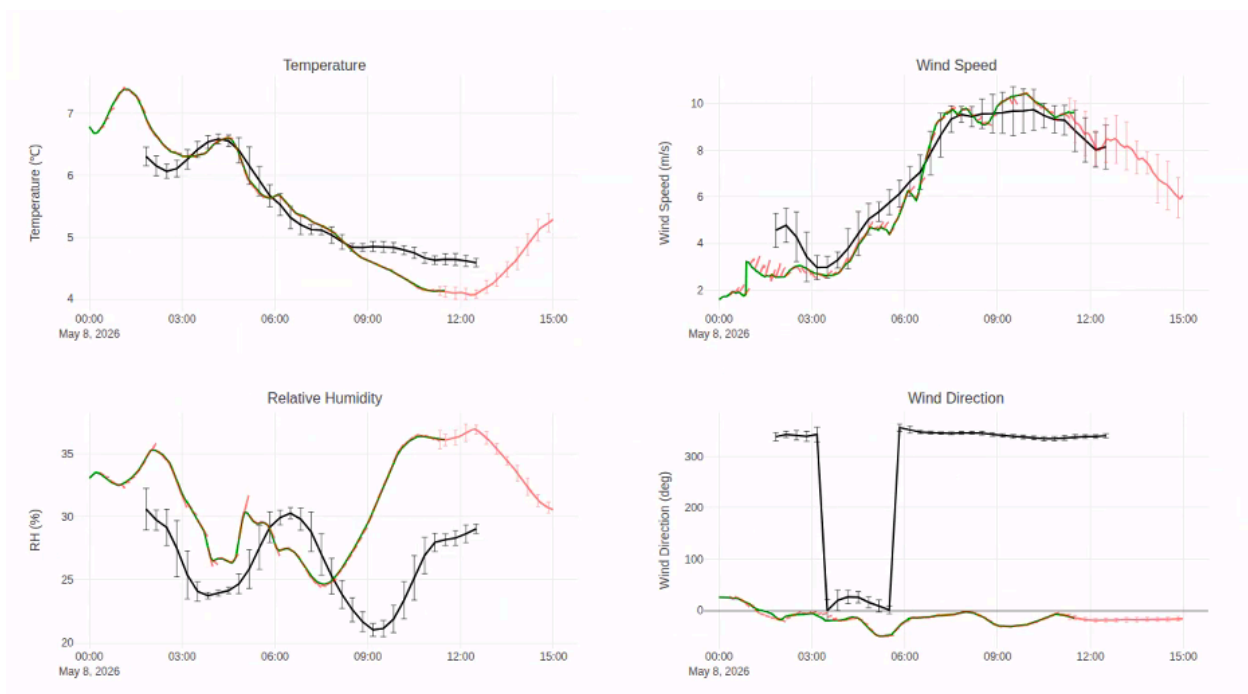
Issues:

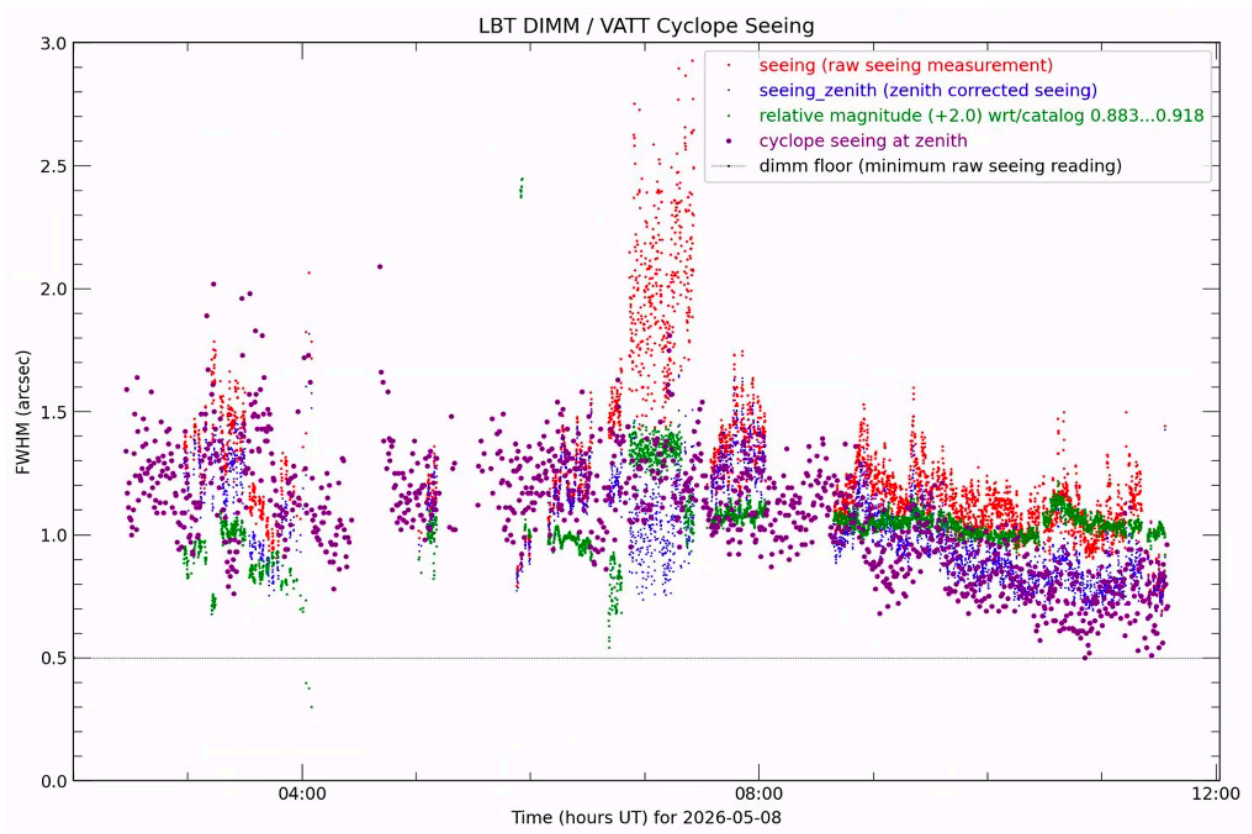
IT 8210: Large difference between requested guide probe position and achieved.

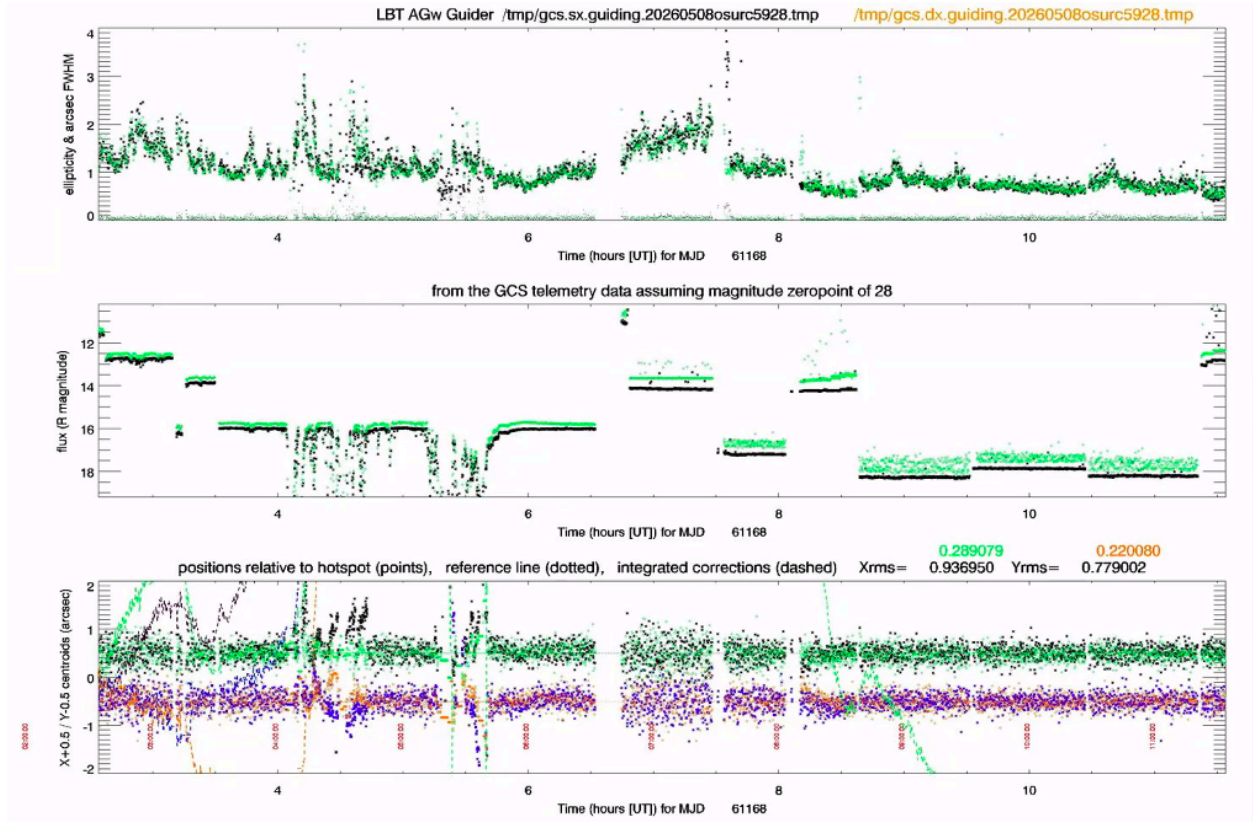
IT 9517 LUCI1 exposure did not start on its own.

Weather:

Pesky clouds formed over us in the beginning. The skies cleared around 6UT and remained so for the rest of the night.







Overview:

01:05 UT Initializing LUCIs.

01:12 UT FS alignment.

02:00 UT Opening.

02:15 UT Pointing check.

02:34 UT Collimation check.

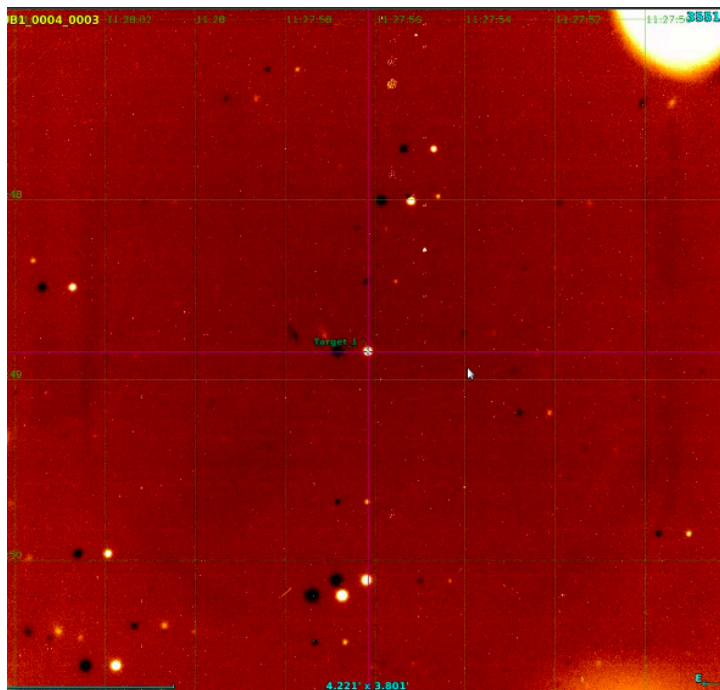
LUCI

UM_XMD_LUCI

~~GALEX J1127 (UT 02:36-03:08)~~

02:36 UT Sending preset. We'll wait until twilight to start science.

02:59 UT The finder chart for this target is not very good. The fields do not match in significant ways. This is a blind offset. We're going to give it a shot (putting faith in telescope pointing).



GALEX J1127



blind offset
 $\Delta\alpha = +29.83''$
 $\Delta\delta = -40.57''$

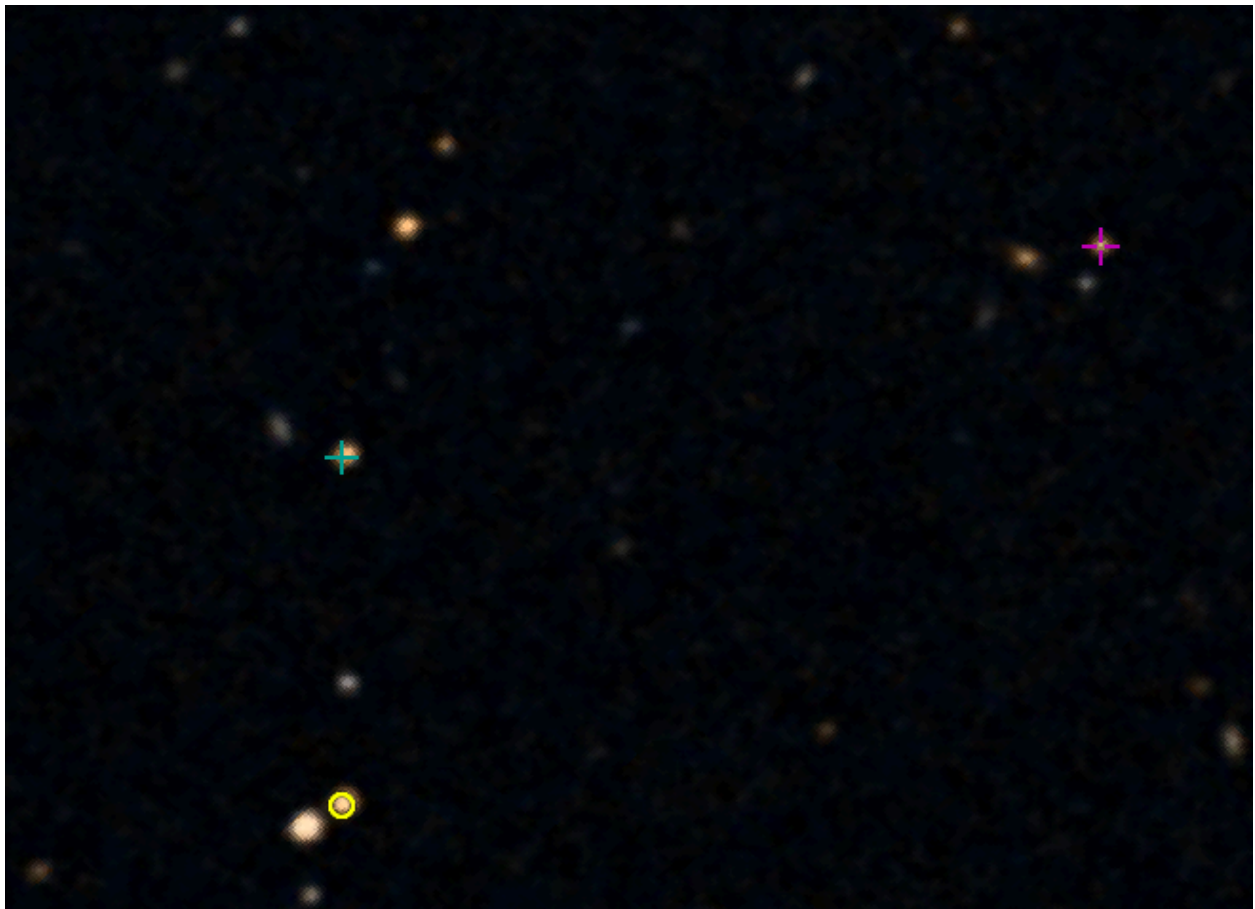
03:01 UT Starting science. Seeing is 1.6" on SX guider, 1.5" on DX guider, 0.97" on DIMM.
Clear skies.

03:04 UT 12-degree twilight

03:08 UT Tawny did some more investigating and we think the coordinates used to make this script are incorrect. We see the finder field in an Aladin image a couple arcminutes away from where we are. In the image below, the blue crosshair is where we are, and the purple is where the finder says to be. We're going to move on.

[Note: Right call, investigated with PI, incorrect reference star coordinates in the LUCI script, but not in the program that made the finder. Corrected LUCI xml file will be uploaded later.

Seeing was out of spec anyway]



~~SDSS J1347 (UT 03:09-03:12)~~

03:09 UT Preset.

03:12 UT Seeing is out of spec here (1.7" on guiders). Moving on.

OSU_SCAT-LUCI

HD116405 (UT 03:14-03:29)

03:14 UT Preset.

03:22 UT Starting science. Seeing is 1.2" on guiders, 1.33" on DIMM. Clear skies.

2025adje (UT 03:29-04:07, 04:43-05:19, 05:40-06:31)

03:29 UT Preset.

03:34 UT of Issue: There was a big difference between the requested and achieved guide probe position on SX, so WFSing paused (IT 8210). Resent preset. That worked.

03:38 UT 18-degree twilight

03:44 UT Tweaking slit alignment on LUCI1.

03:45 UT Wrong way.

03:46 TU Starting science. Seeing is 1.2" on guiders, 0.85" on DIMM. Clear skies.

04:04 UT A small patch of clouds have moved in. We're losing the guide star

04:07 UT We'll have to repeat this exposure once the clouds move on. I've inserted a pause after this LUCI block.

04:19 UT Resuming science. Trying to take advantage of what may be a break in the sky where we're pointed.

04:23 UT Lost it again. Aborting exposure and waiting.

04:43 UT Trying again. The patchiness is breaking up (but not totally gone).

05:12 UT Patchy clouds are forming above us now. Losing up to 3 mag to extinction, occasionally losing the guide star completely.

05:19 UT Aborting exposure. We'll repeat this block of the script when the sky clears.

05:40 UT Resuming.

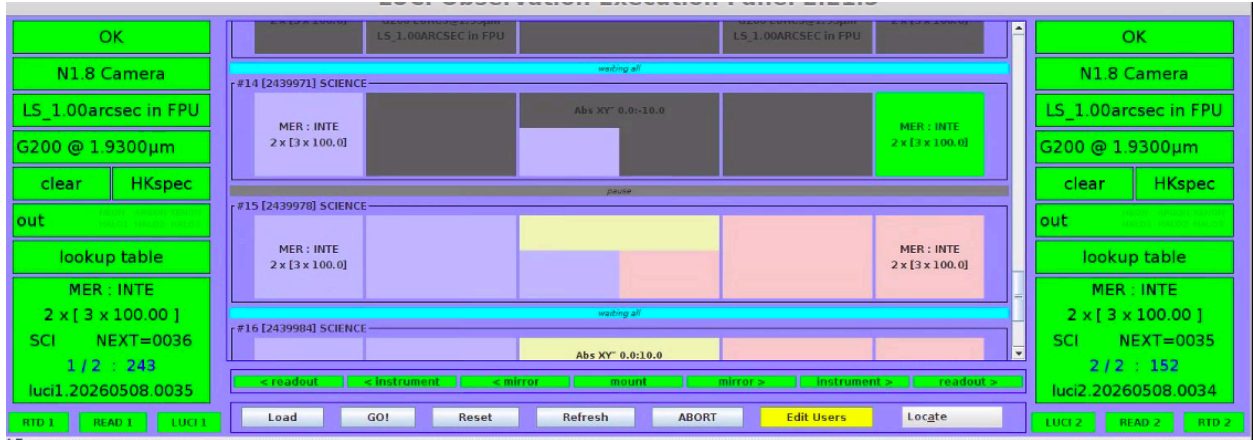
05:45 UT Seeing is 0.88" on SX guider, 0.91" on DX guider, 1.22" on cyclope. Clouds are dissipating.

05:58 UT of Issue: Just realized the exposures never started on LUCI1. It's about 6.5 minutes behind LUCI2. No error messages. Set a pause and manually ran exposures on that side. The below image was taken after I started the manual exposures on LUCI1. Created IT 9517.

```
Fri May 8 05:51:13.341 2026 left Synchronous Offset command received for LUCIFER
```

```
Fri May 8 05:51:13.468 2026 right Synchronous Offset command received for LUCIFER
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^^ offset for offending line-item



06:09 UT Skipping to the next line. Script is running as normal.

PEPSI

06:31 UT **Reconfiguring to PEPSI.**

06:39 UT Pointing check.

06:44 UT Collimation check.

ND_CD-30

CD-30 11814 (UT 06:47-07:28)

06:47 UT Preset.

06:49 UT Starting science. Clear skies.

07:00 UT Seeing is 1.59" on SX guider, 1.51" on DX guider, 1.27" on DIMM. We're at EL 26.

07:06 UT SNR: CD1 68. CD4 284.

07:18 UT SNR: CD2 116, CD5 327. Seeing is 1.87" on SX guider, 1.77" on DX guider.

07:28 UT SNR: CD3 177, CD6 320.

OSU_LAMP

GDR3 1467419389641209728 (UT 07:28-08:03)

07:28 UT Preset.

07:30 UT Missed it on DX. Pointing check.

07:32 UT Resending preset.

07:37 UT Starting science. Skies are clear.

07:53 UT SNR: CD2 56. CD4 75. Seeing is 1.07" on SX guider, 1.14" on DX guider, 1.11" on DIMM.

08:03 UT SNR: CD3 65, CD 5 73.

OSU_Pantera

GDR3 1373298170645854208 (UT 08:03-08:37)

08:03 UT Preset.

08:05 UT Missed it on DX. Pointing check.

08:08 UT Resending preset.

08:11 UT Starting science. Clear skies. Increased exptime to 407s (CD3/5) and 1003s (CD2/4).

08:16 UT Seeing is 0.69" on SX guider, 0.71" on DX guider, 1.12" on cyclope.

08:19 UT SNR: CD3 89, CD5 142.

08:37 UT SNR: CD2 101, CD4 204.

OSU_LAMP

GDR3 1591450486007267840 (UT 08:37-09:31)

08:37 UT Preset.

08:39 UT Starting science. Clear skies.

08:56 UT SNR: CD2 49, CD4 52. Seeing is 0.95" on SX guider, 0.96" on DX guider, 1.09" on DIMM.

09:22 UT SNR: CD3 54, CD5 57.

09:31 UT SNR: CD3 52, CD5 56.

GDR3 1605229703165503104 (UT 09:31-10:27)

09:31 UT Preset.

09:33 UT Missed it on DX. Steve is nudging.

09:34 UT Resending preset.

09:35 UT Starting science. Clear skies.

09:48 UT Seeing is 0.73" on SX guider, 0.75" on DX.

10:24 UT SNR: CD2 33, CD4 62, CD3 57, CD5 58.

GDR3 1649870047051895552 (UT 10:27-11:21)

10:27 UT Preset.

10:28 UT Starting science. Clear skies.

10:34 UT Seeing is 0.79" on SX guider, 0.75" on DX, 0.91" on DIMM.

10:44 UT SNR: CD2 53, CD4 49.

10:54 UT 18-degree twilight

11:14 UT SNR: CD3 56, CD5 49.

OSU_MWAbund

2Mass J16370401+4529443(UT 11:21-11:33)

11:21 UT Preset.

11:22 UT Starting science. Clear skies.

11:27 UT 12-degree twilight

11:28 UT Seeing is 0.53" on SX guider, 0.56" on DX guider, 0.89" on DIMM.

11:33 UT SNR: CD2 286, CD4 517. Closing. Running PEPSI cals.