

LBT Observing Log for 2024 12 25 UT

Observers: Justin Rupert

Partner Observer: None (Queue Night)

Telescope Operator: David Gonzalez Huerta

Plan:

Tonight is another queue night. We will start with PEPSI and the PETS transit of TOI-1518 (Ilya will join for this). After three hours of that we will observe some other PEPSI targets for various programs. At just before midnight, if the seeing is good, we will switch to MODS. If it isn't, we will switch to LBC for the OSU_Monitor program. Either way we'll end the night with some more PEPSI.

Summary:

PEPSI Log:

<https://drive.google.com/file/d/1MxO7LFC5fxASL14UKQNYt-cZxBMcTJNS/view?usp=sharing>

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Issues:

More occurrences of the PEPsi DX hotspot guiding issue.

Weather:

Variable seeing all night between, 1" and 2". Skies were clear to start but clouds rolled in around 6UT. This would eventually pause observing until around 8UT. At around 9UT winds picked up to beyond the observing limit, which would keep us closed the rest of the night.

Overview (times are given in UT):

23:20 Initializing LUCI2.

00:30 Opening.

00:51 Pointing check.

00:57 Collimation check.

01:01 Slewing to target.

OSU

PETS - TOI-1518 (UT 01:13-04:16)

01:13 Starting science early. Why not. Seeing is 1.7" on guiders. 2.1" DIMM. Skies are clear.

01:16 12-degree twilight

01:21 CD3 SNR: 172, CD5 SNR: 217

01:32 Seeing is 1.2" on guiders, 1.3" on DIMM.

01:36 CD3 SNR: 208, CD5 SNR: 254

01:46 18-degree twilight

01:54 CD3 SNR: 178, CD5 SNR: 218

02:19 CD3 SNR: 226, CD5 SNR: 276. Seeing is 1" on guiders, 1.1" on DIMM. Skies still clear but clouds are on the way.

02:46 CD3 SNR: 210, CD5 SNR: 267. Seeing is 0.9" on guiders, 1.1" on DIMM. Skies still clear.

03:08 CD3 SNR: 161, CD5 SNR: 190. Seeing is 1.6" on SX guider, 1.5" on DX guider, 2.3" on DIMM. Skies still clear.

03:29 CD3 SNR: 178, CD5 SNR: 220. Seeing is 1.3" on guiders, 1.6" on DIMM. Skies still clear, though I can see those impending clouds on the western edge of the all-sky cam. We are pointed northwest. Photon counter: ~60K on SX, ~20K on DX.

03:39 Photon counts have fallen by half over the last few minutes.

03:42 CD3 SNR: 150, CD5 SNR: 193

03:53 Counts are rising and falling. We're staying above goal SNR, though.

03:56 Seeing is 1.2" on guiders.

04:08 Pepsib.039 CD3 SNR: 141, Pepsir.035 CD5 SNR: 159. Clouds are starting to roll in now.

04:13 Pepsib.040 CD3 SNR: 139, Pepsir.036 CD5 SNR: 159

04:15 Pepsib.041 CD3 SNR: 150, Pepsir.037 CD5 SNR: 178

UVa

Multistar - TIC 52856877 (UT 04:17-04:27)

04:17 Preset.

04:19 Missed it on SX. David is nudging.

04:21 Resending preset.

04:23 Starting science. Seeing is 1.3" on SX, 0.9" on DX. We're further east than before, so clouds are thinner.

04:26 CD3 SNR: 113, CD6 SNR: 114

Multistar - TIC 367448265 (UT 04:49-04:54)

04:27 Preset

04:29 Missed it on SX.

04:31 PEPSI software froze. killPEPSI

04:36 Still working on pointing.

04:49 Resending preset.

04:51 Starting science. Seeing is 1" on guiders, 1.3" on DIMM. Thin clouds overhead.

04:53 CD3 SNR: 421, CD6 SNR: 533

OSU

BHB - GDR3 260133151079329792 (UT 04:55-05:08)

04:55 Preset

04:58 Missed it on both sides. Pointing check.

05:01 Resending preset.

05:03 Starting science. Seeing is 1.1" on SX guider, 1.2" on DX guider.

05:07 CD3 SNR: 67, CD5 SNR: 100

BHB - GDR3 277055356579399296 (UT 05:08-05:12)

05:08 Preset

05:09 Starting science. Seeing is 1.2" on SX guider, 1.5" on DX guider. Still thin clouds above us.

05:11 CD3 SNR: 66, CD5 SNR: 91

BHB - GDR3 246429078670559744 (UT 05:12-05:18)

05:12 Preset

05:15 Starting science. Seeing is 1" on SX guider, 1.2" on DX guider, 1.5" on DIMM.

05:17 CD3 SNR: 231, CD5 SNR: 427

BHB - GDR3 251157906379754496 (UT 05:18-05:24)

05:18 Preset

05:20 Starting science. Seeing is 1.2" on SX guider, 1.3" on DX guider, 1.4" on DIMM.

05:23 CD3 SNR: 65, CD5 SNR: 84

BHB - GDR3 445064684677614848 (UT 05:24-05:43)

05:24 Preset

05:27 WFSing is faint. Clouds may be a factor here. Mag=14.4.

05:30 Starting science. Seeing is 1.1" on guiders, 1.4" on DIMM. Mix of thin and thick clouds.

05:42 CD3 SNR: 51, CD5 SNR: 96

BHB - GDR3 448452383082046208 (UT 05:43-05:54)

05:43 Preset

05:45 Saw the target briefly, but thicker clouds are getting in the way now.

05:47 Waiting on WFSing. The exptime has been increased.

05:48 Starting science. Seeing is 1.2" on guiders, 1.5" on DIMM. Upped exptime from 200s to 320s.

05:53 CD3 SNR: 71, CD5 SNR: 89

BHB - GDR3 436356724385365504 (UT 05:54-06:18)

05:54 Preset. Missed it on DX. David is nudging.

05:57 Resending preset.

06:01 Increasing WFSing exp ime on SX.

06:02 Losing the target. Clouds.

06:07 Starting science. Seeing is 1.4" on SX guider, 1.1" on DX guider. Increased exptime from 300s to 600s.

06:17 CD3 SNR: 59 CD5 SNR: 60

~~BHB - GDR3 3053364444843262080 (UT 06:20-06:31)~~

06:20 Preset

06:24 Can't see the target. Clouds!

06:31 Going to try a different part of the sky.

~~BHB - GDR3 3444098373034546304 (UT 06:31-06:43)~~

06:31 Preset

06:34 Missed on SX. Pointing check (we're at EL 84).

06:39 Resending preset.

Weather Downtime (UT 06:31-08:03)

06:43 Had it, but lost it. This is the best part of the sky in terms of cloud coverage. We shall wait the clouds out. David moving to zenith.

07:19 Running remaining OSU_XMD_LUCI darks. MODS unit error. Calling Dave.

07:27 We're back.

07:49 Running OSU_SCAT_LUCI darks.

08:03 Clouds are clearing. We're going to the previous target.

OSU

BHB - GDR3 3444098373034546304 (UT 08:03-08:19)

08:03 Preset. Missed it on DX. Pointing check.

08:08 Resending preset.

08:13 Starting science. Seeing s 1" on both guiders.

08:18 CD3 SNR: 59 CD5 SNR: 85

RRL - 592574541885127168 (UT 08:19-08:46)

08:19 Preset

08:23 Starting science. Seeing is 1" on guiders, 1.4" on DIMM.

08:32 CD3 SNR: 80 CD5 SNR: 94. Going to run this again (goal is 100) upping the exp time from 404s to 644s.

08:38 Wind is picking up from the south. Gusts are near the limit.

08:45 CD3 SNR: 79 CD5 SNR: 95. Was too distracted by coming up with a target given the recent uptick in the winds to realize the target had fallen off the pinhole at some point. Moving on to get us further out of the wind.

RRL - 758404019457881472 (UT 08:46-09:08)

08:46 Preset. Pointing check.

08:51 Starting science. Seeing is 2.1" on the guiders. Some system must be moving in with all these quick changes in conditions.

08:56 CD3 SNR: 75 CD5 SNR: 79. Trying again with exp time 619s instead of 259s. Seeing is 2" on guiders and DIMM.

09:07 CD3 SNR: 98 CD5 SNR: 109

RRL - 3848995793407283584 (UT 09:08-12)

09:08 Preset

09:11 Starting science. Seeing is 2" on guiders.

09:12 CD3 SNR: 91 CD5 SNR: 100

Weather Downtime (UT 09:13-)

09:13 Closing due to high winds.

09:26 Running UVa_BCD_Darks

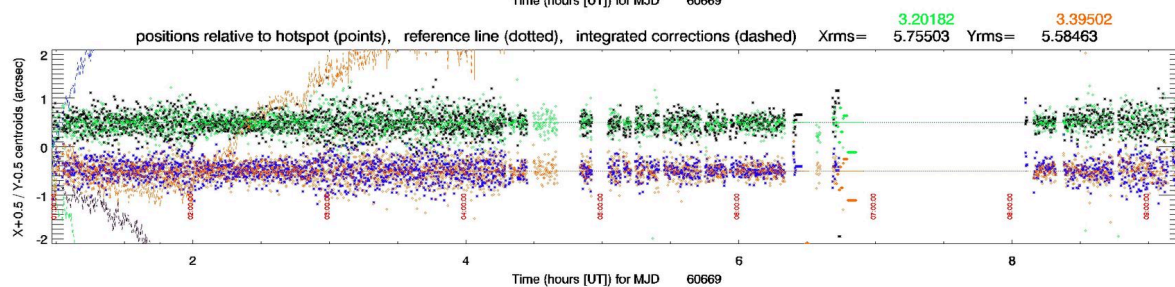
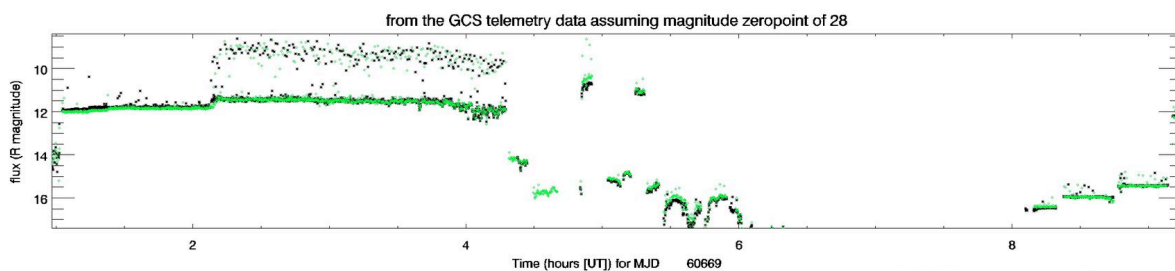
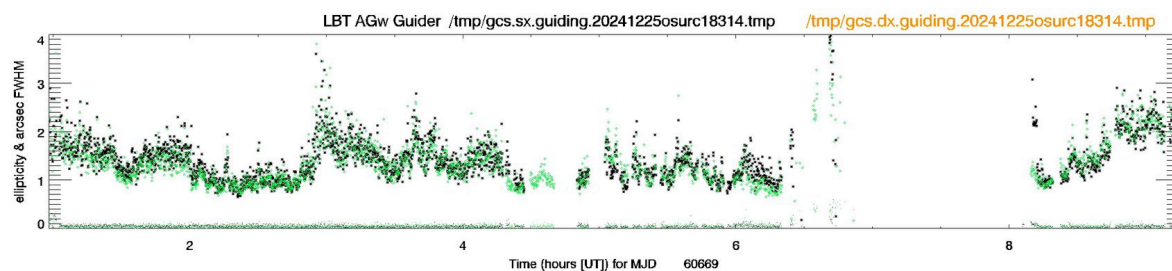
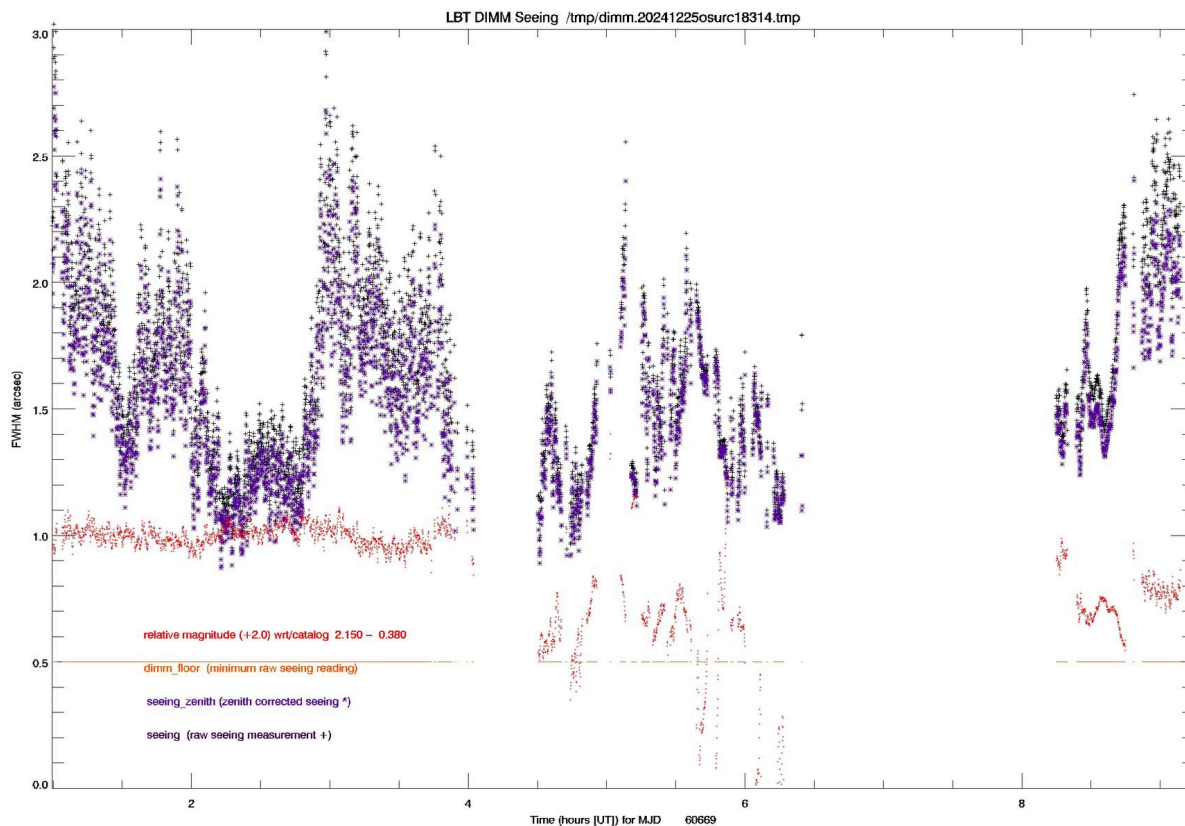
09:31 Waking MODS for cals.

09:32 modsSimSnap

09:37 Running UVa_BCD_MODS 1.2" slit flats

11:33 Running PEPSI cals

12:17 Calling the night.



Cals

MODS:

~~UVa_BCD_MODS_slit flats~~

LUCI:

~~UVa_BCD_darks~~

~~OSU_SCAT_darks~~

~~OSU_XMD_darks (Need 2 more)~~

~~UVa_BCD_imaging flats~~

~~UVa_BCD_arcs~~