

LBT Observing Log for 2023 Nov 5/6 (MST)

C19 Observer: Alex Becker

Partner Observer(s): Marshall Johnson (OSU, remote)

Telescope Operator: Josh Williams

Special Guest: Ilya Ilyin

Plan:

PEPSI at the beginning of the night. First 6h on a time critical observation

- TOI-1518 time-critical exoplanet observation for first 6 hours

- PEPSI observations for programs OSU_FGKHosts and OSU_BHBinaries

- If conditions are excellent later, we *may* switch to LBC and/or MODS.

-Seeing varied between 1 and 1.5 arcsec for the latter part of the night, which I judged was insufficiently stable and high quality to switch to LBC. Wind also picked up later on.

Switched to MODS later on to do the programs that can tolerate >1 arcsec seeing.

Observed and completed:

PEPSI:

OSU_PETS: TOI-1518

OSU_FGKHosts: HD 16270, HD 8291, BD+01 299, HIP 26653

OSU_BHBinaries: J2241+3820, J2345+1852, J2355+2835, J2346+5024, J0018+4622, J0021+4715, J0054+5748, J0113+5638, J0143+6231, J0215+5931, J0215+5228, J0222+6124, J0308+5359, J0317+4339, J0317+4339, J0412+4627

MODS:

OSU_nebla: 2023ufx_LS, 2023ufx_IM, 2023ufx_IM2

ND_bluegals: j0958

MODSPhotCal: g191b2b

Summary:

PEPSI log: <https://drive.google.com/file/d/18p08FBdYDIEKSWygKZ1ePeZ9PvDOILVr>

Issues:

IT #8470: TOI-1518 jumped out of the field twice.

IT #8412 Very heterophoric telescope tonight.

Overview (times are given in UT):

23:30 waking up MODS

23:35 modsSimSnap bino

23:40 mods 5.0" DG slit flats

PEPSI

00:25 **Sunset**

TOI 1518

00:50 Searching for the pointing star on DX..

01:00 Preset

01:02 Starting science exposures

01:17 Seeing ~2" on the DIMM, 1.6" on the guider

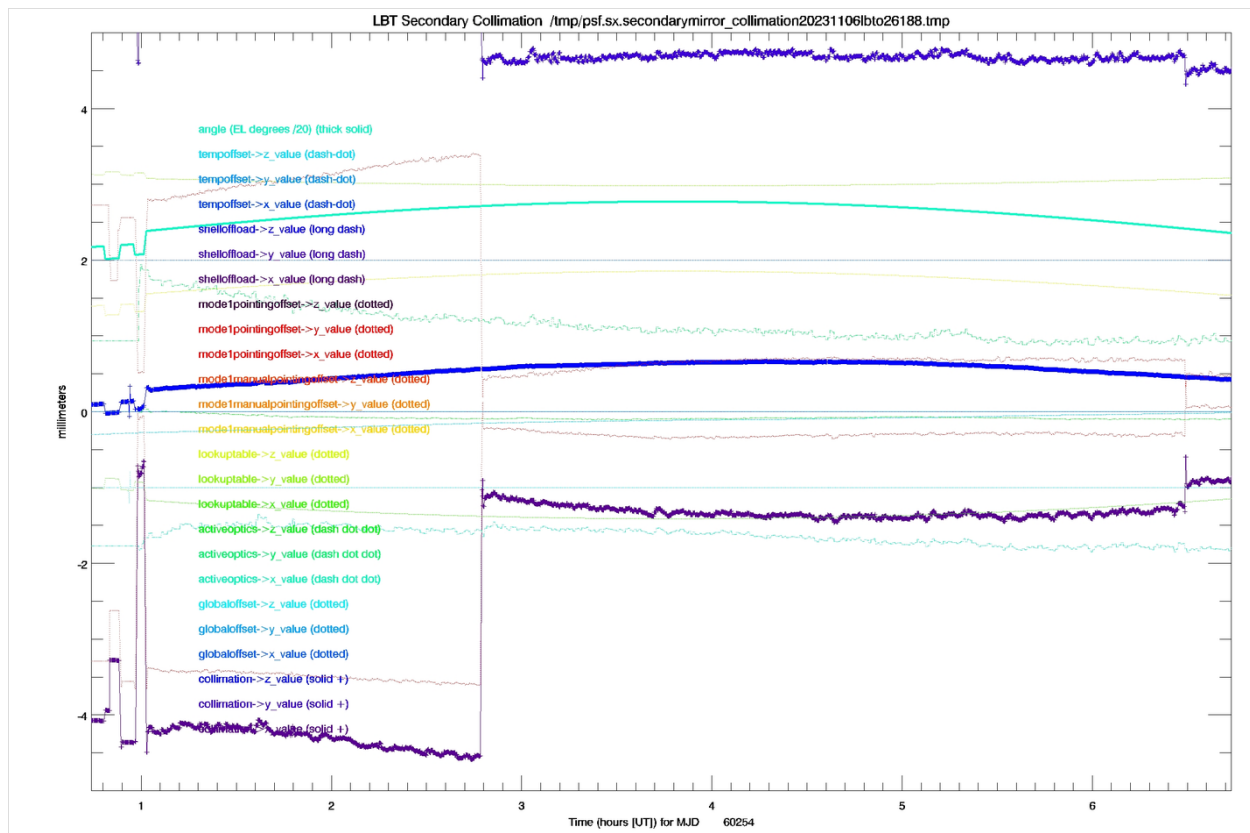
01:20 12deg twilight

02:48 We lost the star on SX for a bit. It recovered itself

It looked like a jump (star trail on the guider image). From the PEPSI photon counter one can see that it also must have happened on DX, but I didn't catch the event.

05:26 Seeing mostly below 1", with a few excursions to ~1.5".

06:31 Star on SX moved again for a couple of seconds. Both events are easily identifiable in LBTplot (sxM2xyz and sxM1xyz)



HD 16270

07:17 Preset

Gaia 19050

07:26 Preset

Target not found on DX. Pointing check. We changed the azimuth twice by 180 degrees. So, it was about time

Gaia 282277

07:37 Preset

Gaia 285507

07:43 Preset

Gaia 1943955

07:47 Preset

Wrong star on DX. Pointing check

07:52 Preset

HD 8291

07:57 Preset

Aaaaaaand, pointing check. However, this time the left side failed.

08:02 Preset

BD+01 299

08:06 Preset

HIP 26653

08:28 Preset

And we nearly missed the star on both sides. But, right at the edge of the SX field it was. Didn't help ... there was still nothing on DX. Time for a pointing check. It has been 30 minutes...

08:37 Preset

Gaia 3919509

08:41 Preset

Pointing check!!!!

08:47 Preset

Gaia 392456

08:52 Preset

Gaia 4243477

08:57 Preset

Gaia 413296

09:02 Preset

Gaia 51161

09:07 Preset

Gaia 507297

09:13 Preset

Gaia 455180

09:17 Preset

Gaia 513522

09:20 Preset

Gaia 465648

09:26 Preset

Gaia 4471020

09:31 Preset

Gaia 242075

09:36 Preset

Gaia 23395

09:40 Preset

Oh! How I missed it! ... Let's do the pointing check!! 😊

MODS

09:47 Reconfig MODS
10:00 Pointing preset
10:09 Collimation preset

2023ufx LS

10:13 Preset
mods1: offsetxy -0.710 12.154
mods2: offsetxy 3.936 7.991

10:22 Starting science script
10:23 Communication glitches with MODS1

instconfig dual grating timed out. retry disallowed as already in progress. According to the GUI everything should be set properly. Ignore...

Command 'object 2023ufx' timed out.

As a result, mods1 is about 3.5 minutes behind.

2023ufx IM (u,r)

11:17 Preset

2023ufx IM2 (g,i)

11:27 Preset

J0958

11:36 Preset
mods1 offsetxy: -2.152 6.522
mods2 offsetxy: 2.022 3.719

11:46 Starting science script

G191b2b

12:38 Preset
We picked up different guide stars (flux differs by a factor of ~50). As we are close to twilight, we will stick with it and hope that we don't violate the copointing limit and tear the telescope apart

DX is ~30 arcsec off
mods1 offsetxy -1.218 11.918
mods2 offsetxy -32.179 -7.7984

12:46 **12deg twilight**

12:48 Starting science script

Closing 13:00

13:00 We are done for tonight!

13:41 **Sunrise**