LBT Observing Log for 2024 Jan 14/15 (MST)

C19 Observer: Andrew Cardwell
Partner Observer(s): Donald Terndrup, Michael Tucker
Telescope Operator: Steve Allanson

PEPSI Log

Plan:

LBCs all night!

PEPSI Observed and completed:

2MASS J05193652+4150203 12.60 PFU 300 CD3 00:10:00 CD5 00:10:00 Rowan
2MASS J05340997+5708294 11.63 PFU 300 CD3 00:06:40 CD5 00:06:40 Rowan
2MASS J06251276+2418106 12.10 PFU 300 CD3 00:08:20 CD5 00:08:20 Rowan
2MASS J06561851+0926267 12.25 PFU 300 CD3 00:10:00 CD5 00:10:00 Rowan
HD51400 06:57:49.99 +16:34:42. 8.35 PFU 200 CD3 00:02:50 CD6 00:01:00 Phillips
2MASS J07323632+2339511 11.80 PFU 300 CD3 00:08:20 CD5 00:08:20 Rowan
2MASS J07415562+3024101 11.50 PFU 300 CD3 00:06:40 CD5 00:06:40 Rowan
2MASS J07565331+3719443 12.66 PFU 300 CD3 00:10:00 CD5 00:10:00 Rowan
2MASS J07591854+5039026 11.84 PFU 300 CD3 00:06:40 CD5 00:06:40 Rowan
2MASS J08120565+3337152 10.55 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J06514318-1329502 12.00 PFU 300 CD3 00:16:40 CD5 00:16:40 Rowan
2MASS J07202130-0856427 12.00 PFU 300 CD3 00:08:20 CD5 00:08:20 Rowan
2MASS J07243768-1729190 11.80 PFU 300 CD3 00:03:20 CD5 00:03:20 Rowan
2MASS J07290795-1842573 12.20 PFU 300 CD3 00:10:00 CD5 00:10:00 Rowan
2MASS J07071042+1647238 12.50 PFU 300 CD3 00:10:00 CD5 00:10:00 Rowan
OSU_SCAT/2023bee 08:56:11.620, Dec -03:19:32.05
ND_bluegals/j1126 11 26 32.2 +12 05 01.8 21.41 4x900
ND_bluegals/j1208 12 08 58.0 +45 40 26.9 22.13 4x900

Summary:

Issues:

Overview (times are given in UT):

00:00 Powering on LBCs. Winds are gusting above our opening limits.

00:27 Temperature is dropping, humidity is rising. Waking mods to take care of some pending cals.

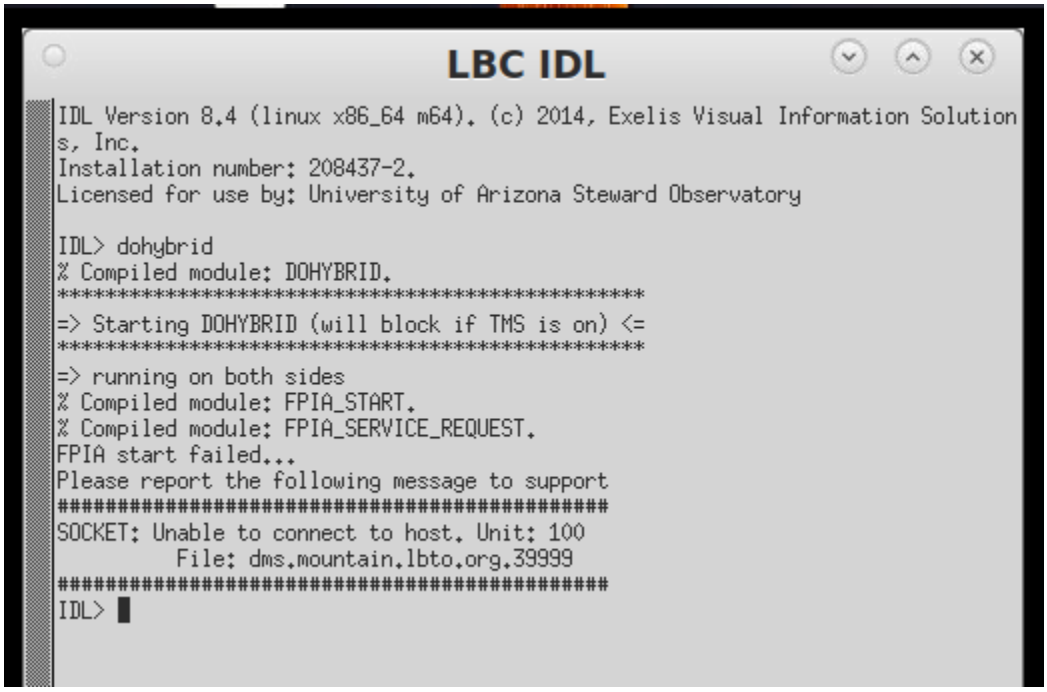
00:36 simSnap looks good on MODS.

00:40 **Sunset**.

00:53 Opening up.

01:04 Preset to NGC672 collimation field. It’s still too bright, but we'll be ready for collimation.

01:20 Attempted dohybrid, but we have an issue with IDL. Calling software support.



01:31 **12 degree twilight.**

01:40 It looks like progress is being made, someone is running dohybrid remotely.

01:45 Running dohybrid, having backout out the initial corrections from the remote attempt.

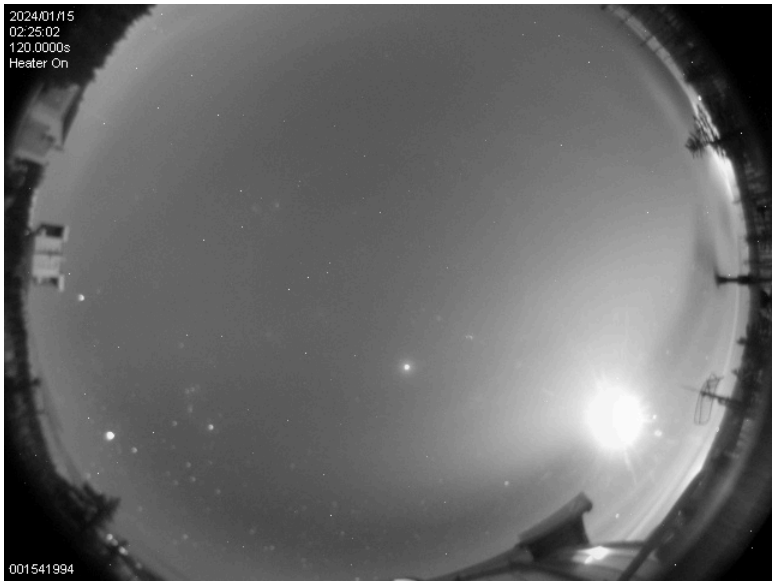
01:47 Humidity is continuing to climb, it is now 87%. DIMM reports 3”!

02:01 **18 degree twilight.**

02:01 Collimated, and confirmed that the seeing is ~ 3”. Giving up and reconfiguring to PEPSI.

Reconfiguring to PEPSI.

02:27 We are pointed and collimated, however clouds have rolled in. Steve reports 10 mags of extinction. We are closing up.



02:37 Humidity is now 90%.

02:50 Taking MODS 1x2 binned slitless flats.

03:23 Conditions have improved enough to open.

03:31 Preset to **2MASS J05193652+4150203**. I have increased the exposure time by 50% as it looks like we still have some clouds.

03:33 Making a pointing check. There are two stars in the field of very similar magnitude, we want to be sure we acquire the right one on both sides.

03:37 Starting science. DIMM reports 1.5”.

03:40 Resending the preset on DX. The AGw was causing issues, we weren’t getting WFS exposures.

03:49 We are still having issues on DX

We were having guiding issues on DX that kept the star out of the pinhole for most of the observation. Non the less the required S/N was achieved. Moving on.

03:57 Moving on. Preset to **2MASS J05340997+5708294**. Exposure times modified from 18m 40s to 25m.

04:00 Starting science.

04:27 Preset to **2MASS J06251276+2418106**. We will use the original exposure time, clouds have largely cleared and the last target easily met S/N requirements.

04:30 Starting science.

04:40 Preset to **2MASS J06561851+0926267**.

04:43 Starting science.

04:54 Preset to **HD51400**.

04:55 Starting science.

05:00 Preset to **2MASS J07323632+2339511**.

05:03 Starting science.

05:12 Preset to **2MASS J07415562+3024101**.

05:14 Starting science. Guiders report 1.3”.

05:22 Preset to **2MASS J07565331+3719443**

05:24 Starting science

05:35 Preset to **2MASS J07591854+5039026**.

05:37 Starting science

05:45 Preset to **2MASS J08120565+3337152**

05:47 Starting science

05:49 Preset to **2MASS J06514318-1329502**.

05:52 Pointing check required, GS not found on either side.

05:55 Resending preset.

05:57 Starting science

06:14 Preset to **2MASS J07202130-0856427**.

06:18 Starting science

06:27 Preset to **2MASS J07243768-1729190**

06:29 Starting science

06:33 Preset to **2MASS J07290795-1842573**.

06:34 Starting science

06:45 Preset to **2MASS J07424720-1718524** – **NOTE: aborted at 06:53, could not guide**

06:49 This is a crowded field. Confirming which target is the correct one. We have the wrong target on SX. We want the fainter northern target. Pinhole guiding couldn't cope with how close together the stars are.

06:53 **Skipping this**

06:55 Preset to **2MASS J07071042+1647238**. Pointing check required.

06:58 Returning to the science field.

07:00 Starting science.

07:11 **Reconfiguring to MODS**, taking PEPSI calibrations.

OSU_SCAT: 2023bee

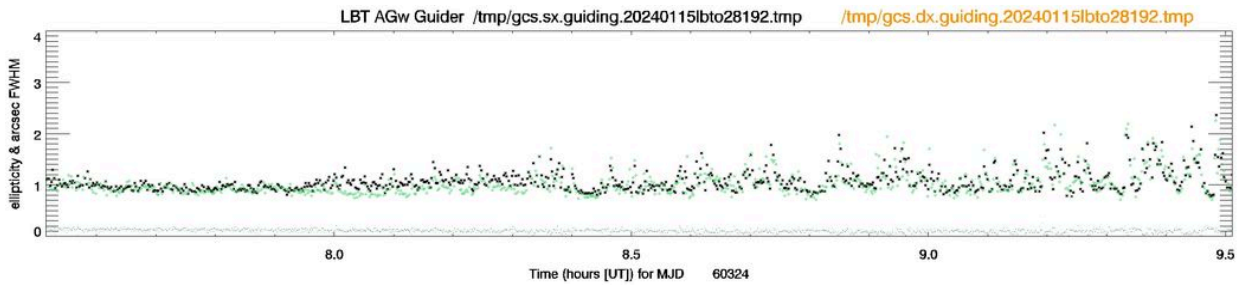
07:27 Preset to 2023bee, using the 'rising' acq script.

07:40 Starting science. Guiders report 1". Mods[1|2]b.0016-0021, mods[1|2]r.0008-0013.

08:50 Observations are proceeding smoothly. Seeing has typically been 1" to 1.2".

09:24 Taking imaging. Seeing may be going soft… Below is a plot of the guider seeing values over the past 2 hours. It is certainly becoming less stable.

09:28 Guide probe is in the field, and the target of interest is close to the quadrant boundary. However, the PI is happy, so all good.



ND_bluegals: j1126

09:35 Preset to J1126, MODS spectroscopy. Mods[1|2]b.0025-0028, mods[1|2]r.0020-0023

10:07 Faint trace visible in red spectra.I don’t see anything in the blue.

ND_bluegals: j1208

10:57 Preset to J1208.

11:12 Starting science. Mods[1|2]b.0029-0033, mods[1|2]r.0027-0031.

11:16 DIMM reports 1.1”, guiders 0.85”.

12:20 Taking an additional exposure here as we don’t have time for another complete target.

Specphot: GD153

12:40 Preset to GD153, MODS specphot.

12:51 Starting science. Mods[1|2]b.0034-0036, mods[1|2]r.0024-0036.

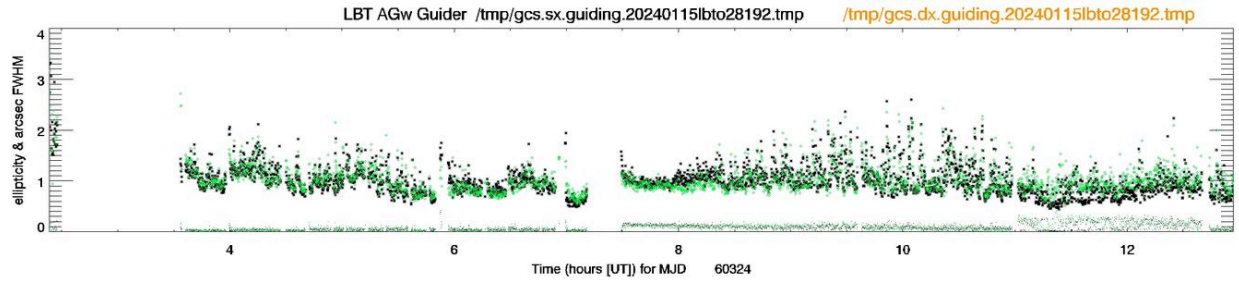
12:55 **18 degree twilight.**

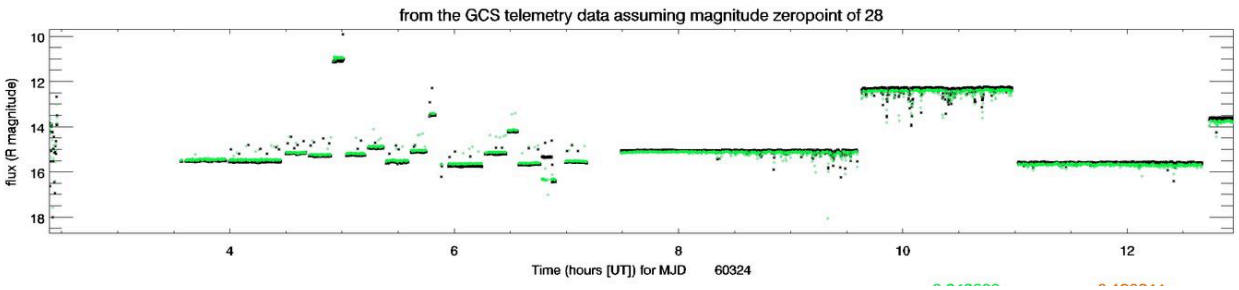
13:10 **End of observations. Closing the enclosure.**

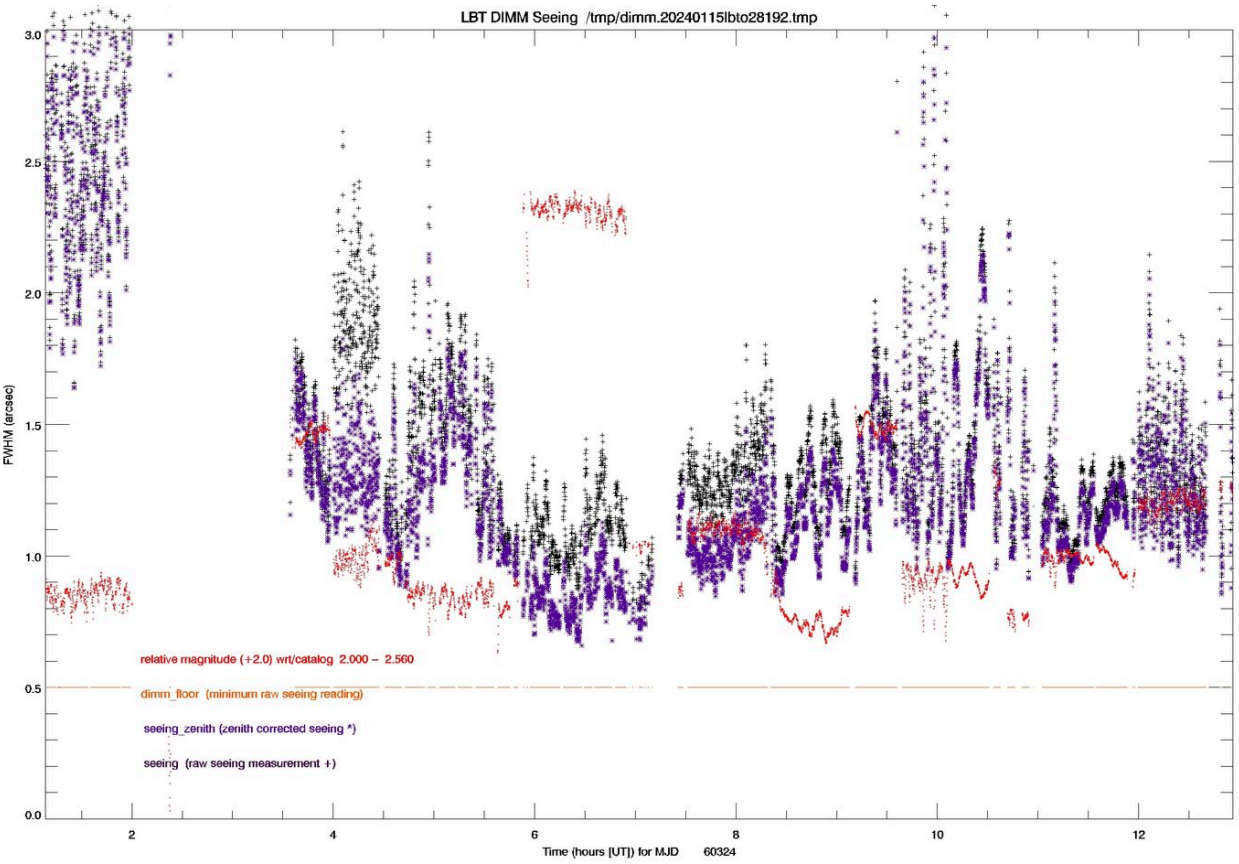
13:21 Running MODS biases.

13:25 **12 degree twilight.**

14:17 **Sunrise.**


LBT AGw Guider /tmp/gcs.sx.guiding.20240115lbto28192.tmp
/tmp/gcs.dx.guiding.20240115lbto28192.tmp
ellipticity & arcsec FWHM
Time (hours [UT]) for MJD 60324


from the GCS telemetry data assuming magnitude zeropoint of 28
flux (R magnitude)
Time (hours [UT]) for MJD 60324


LBT DIMM Seeing /tmp/dimm.20240115lbto28192.tmp
FWHM (arcsec)
relative magnitude (+2.0) wrt/catalog 2.000 – 2.560
dimm_floor (minimum raw seeing reading)
seeing_zenith (zenith corrected seeing *)
seeing (raw seeing measurement +)
Time (hours [UT]) for MJD 60324

Unobserved targets:
MODS targets:

ND_bluegals/J1145 11 45 49.3 +62 06 12.2 20.78 4x600

Pepsi targets:

2MASS J07374788+2034048 10.68 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J07583938+2601243 8.71 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J08014724+3209020 8.13 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J08052665+3159276 8.67 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J08084707+3453258 9.46 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J08161755+2441448 9.12 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J08242196+1128202 9.80 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J08253396+0056571 8.90 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J08404609+1128039 10.44 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J08420354+0149501 9.86 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J08535501-1136033 11.35 PFU 300 CD3 00:03:20 CD5 00:03:20 Rowan
2MASS J09434895-0959279 9.34 PFU 300 CD3 00:01:40 CD5 00:01:40 Rowan
2MASS J10460599+1002584 12.15 PFU 300 CD3 00:15:00 CD5 00:15:00 Rowan