LBT Observing Log for 2023 June 14/15

C19 Observer: Andrew Cardwell (From obs1, x2go session 50)
Partner Observer(s): Mark Whittle (UV, remote),
Telescope Operator: Steve Allanson

PEPSI Log

Plan:

LBC followed by a long PEPSI observation of KELT-20 (hot Jupiter emission) for the remainder of the night. LUCI2 is not available tonight.

LBC Plan:

OSU_Monitor M81, M82, NGC 5194, NGC 4258
If seeing good, then: OSU_Delve: BootesV.

PEPSI Plan:

KELT-20 for 4 hours.

Summary:

Clear with seeing around 1.1-1.4. Problems with LBC focus early.
Completed:
LBC:
OSU_Monitor: M81, M82, N5194, N4258 (all priority 1) [seeing too poor to try OSU_Delve].

PEPSI:
OSU_PETS: KELT-20 4 hours of integration.

Issues:

none

Overview (times are given in UT):

01:25 Wind is gusting above shutdown limits. LBCR bias voltage error on powering on. Cycling power. 25 μm particle counts are over shutdown limits.

01:32 LBCs are up and connected to LBT. Running the 2 bias bino checkout.

01:36 Biases look fine. Running 25 biases on each side. MODS are awake, simSnap is running.

01:40 Running full bias sequence on MODS.

02:03 We have been troubleshooting an issue with LUCI2 detector focus. It will not initialize. It is not clear that movements being set to the mechanism are being executed. It's not in either of its limits. Dave T. is looking into the issue.

02:12 LUCI2 is out of service for tonight. We can not recover the focus mechanism.

02:26 Cracking the enclosure to ventilate. Winds and particle counts are down.

02:35 Sunset Enclosure fully open. Waiting for it to get dark enough for sky flats.

02:45 Preset to blank sky field. Attempting flats for B-Bess and R-Bess at PA=0. Taking test exposures, it will likely still be too bright.

02:49 Saturated on both sides. Waiting.

02:52 Trying again.

02:56 Still saturating.

02:59 Trying again.

03:01 Looks good, starting full frame flats.

03:09 Stitching to PA=180.

03:13 TMS lasers are on.

03:15 Proceeding to V-Bessel and R-Bessel at PA=180.

03:27 It is not worth continuing. Full set in B-Bess at 0 and 180, full set in V-Bess at PA=10, likely full set in both for R-Bess. Preset to collimation field for M81. OSU_Monitor program.

03:30 On the field. Running TMS for a few cycles.

03:33 12 degree twilight. Running dofpia.

03:37 red focus was sent in the wrong direction. Stopping, and manually moving red in the right direction.

03:39 Running dofpia again.

03:59 Red was struggling. In the end we ctrl-S'd out. Moving on to copointing.

Edit: LIkely due to the swingarm issues!

04:06 Preset to OSU_monitor M81 for science, running TMS. Starting science.

04:11 18 degree twilight.

04:12 Some confusion due to the rather dense directory structure. Stopping and sending the With U version of the M81 script.

04:17 1.35" measured on both sides.
Cv: http://people.lbto.org/~cveillet/Chris/lbcIQ_DIMM_20230615z.png

04:25 Preset to OSU_Monitor M82. Collimating.

04:33 Collimation went well. Taking TMS reference and preset to science field. Starting science.

04:40 lbcb.20230615.043629 has a satellite trail.

04:46 Preset to OSU_monitor NGC 5194 collimation field.

04:47 Starting collimation.

04:53 Converged. Preset for copointing.

04:57 Taking TMS reference.

04:58 Preset to science field. Starting science. Seeing 1.15 arcsec both sides from star 078in field.

05:36 Preset to collimation field for OSU_monitor NGC4258

05:41 Collimating.

05:45 Converged. Setting TMS reference.

05:46 Preset to science field. Starting science.

05:55 1.35” in blue and 1.2” in red.

05:58 Satellite trails in lbcb.20230615.055203, and lbcr.20230515.055150.

06:11 Blue IQ is suffering. LBCB is not guiding as no sufficiently bright GS can be found through the U_Spec filter. 1.35” in blue, 1.2” in red.

06:24 Reconfiguring to PEPSI. LBCs powered off. (Transfer from LBC to PEPSI took 27 minutes total).

06:25 TMS lasers are off.

06:53 Reconfigured, preset to KELT-20.

07:08 1.1” from the DIMM.

07:28 1” from the DIMM, clear sky. Mark is leaving us, but remains on call.

08:01 12 exposures in. 1” from the DIMM, clear.

09:08 1” seeing from the guider. 24 exposures in. Clear.

09:18 Passing close to zenith, we are approaching 88 degrees. Exp 25 and 26 may be suspect. (blue 036, red 081).

09:24 Lost both sides, 88.5 degrees in elevation.

09:29 We are back in action.

10:29 18 degree twilight.

10:50 1.3” to 1.5” from the DIMM.

11:07 12 degree twilight.

11:25 Particle count is over the threshold. Closing down.

11:27 Putting MODS to sleep.

12:05 Sunrise.