LBT Observing Log for 2024 03 13

Observers: Jason Chu, Olga Kuhn, Kylee Carden
Partner Observer: Peter Garnavich (ND)
Telescope Operator: Steve Allanson

Plan:

Start with MODS and then switch to LBC or PEPSI, depending on cloud and seeing conditions.

Summary:

Started with MODS and got about 60% before we closed due to high particle counts and wind. Re-opened briefly before sunrise until we had to close again due to high humidity.

Issues:

We noticed banding in LBCR bias frames (IT 6748).

Weather:

Cirrus at sunset. It dissipated just around the time the series on SDSS0932 was started, but then the wind speed picked up and reached closing limits.
Lost 6h15m to high winds.
Lost 17m to high humidity.

Overview (times are given in UT):

01:42 Steve is doing a pointing check near the first target, G191B2B

G191-B2B dual grating

02:00 Preset to G191-B2B. We aligned on the target, but then the clouds thickened.
02:19 **12-deg twilight.** Waiting for clouds to thin out… seeing is sub-arcsec, ~0.8".
02:28 Guide star flux has recovered somewhat. Starting the observation.

UT	m1b	m1r	m2b	m2r	seeing	AM
02:28	3-5	6-8	3-5	6-8	0.9-1"	1.108

ND_sdss0932

02:44 acqBinoMODS sdss0932_pa-115.acq
03:04 taking data

UT	m1b	m1r	m2b	m2r	seeing	AM
03:03-04:21	6-22	12-29	6-21	12-29	0.9-1"	1.15

03:34 Guide star flux has been stable since ~03:05.
04:19 Seeing 1.2"
04:21 Wind is picking up and so is the dust, closing the dome.

16-18 of 27 exposures and 1:18 hr of ~2 hr orbit completed.

Reconfiguring for LBCs while closed.

10:58 Wind speed is trending down…

11:05 **Reopening.** Humidity is 88% but wind is down.

OSU_monitor/M101

Collimated on the focus field, corrected pointing & co-pointing.

1.5/1.3" on B/R copointing images.

11:33 Starting the science
– 1.6"/1.5" on LBCB/B / LBCR/R science
IQ looking pretty stable on subsequent exposures

OSU_monitor/NGC4605

12:04 slewing to target and collimating. Skipped pointing/copointing correction since the target is very close to the previous one.

12:10 - **18-deg twilight**

12:11 taking data 7/6 pix (1.6"/1.35") FWHM in LBCB/B / LBCR/R exposures.
12:21 Closing because humidity exceeded 95%. Got 1 pair of LBCB/LBCR exposures.
12:38 - **12-deg twilight**

Closed-Dome Calibrations

MODS Calibrations

05:30 MODS Calibrations for ND_sdss0932 and future programs to be done

Type	**m1b**	**m1r**	**m2b**	**m2r**
pixflats bin12	23-27(clear), 28-32 (UG5)	30-34	22-26 (clear), 27-31(UG5)	30-34
0.8" slit flats bin12	33-35,36-38	35-37,38-40	32-34,35-37	35-37,38-40
lamps bin12	39-41	41-43	38-40	41-43
bias8K bin12	42-46	44-48	41-45	44-48
dual grating pixflats bin11	47-51, 52-56	49-53	46-50,51-55	49-53
dual grating comp lamps bin11	57-59	54-56	56-58	54-56
dual grating 5" slit flats bin11	60-62,63-65	57-59	59-61,62-64	57-59
bias8K bin11	66-70	60-64	65-69	60-64
bias1K bin11	71-75	65-69	70-74	65-69

LBC Biases

12:30 Started a series of 25 biases. The LBCR biases have horizontal banding. Better biases taken yesterday. (IT 6748).