

LBT Observing Log: 2025 Jun 23 UT

Observers: Alex Becker

Partner Observer: P. Garnavich, E. McArthur (remote)

Telescope Operator: Josh Williams

Plan:

If winds are high from the south: LBC to start

N4449 (0.27) done

N4605 (0.32) done

N4736 (0.33) done

N4214 (0.22) done

N4236 (0.27) done

M101 (0.56) done

N5474 (0.66) done

N6503 (0.32) done

N6946 (0.66) done

Switch to MODS

DQ Her (no standard) done

V405 Cas

M3456A_spec - got 2 exposures before twilight

Feige110

Summary:

http://people.lbto.org/~cveillet/dms/lbclQ_raw_20250623.png

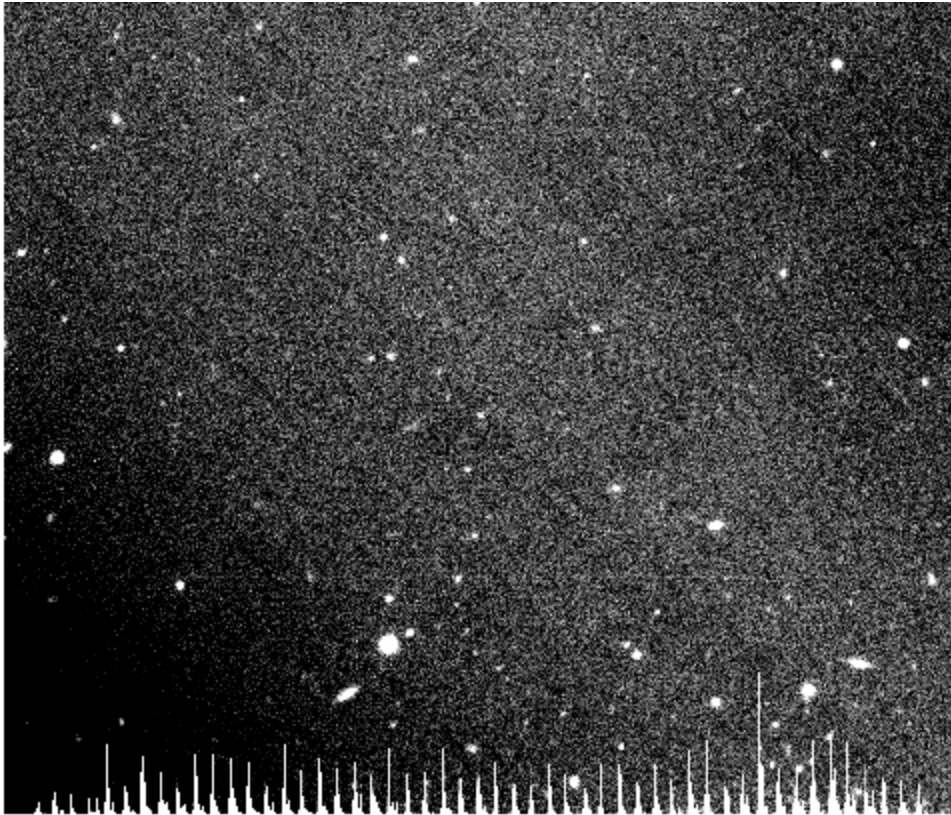
Issues:

LBC: It looks like some issue with the readout electronics? All 4 chips show saturated columns on one end (y 0) of the chip. I think that is where the readout electronic is

lbcb.20250623.50551, 52347, 54331, 61927, 71650, 73935

Example image for 50551 Chip 3

12



Weather:

Overview (times are given in UT):

01:02 turning LBCs on

01:06 waking up MODS

01:07 modsSimSnap bino
all good

01:08 LBC 2bias bino checkout
all good

01:11 LBC 25 bias bino

01:16 MODS grslitflats 1.2 dual

01:40 MODS grslitflats 1.0 dual

02:05 MODS grlamps dual

02:20 TMS lasers turned on

02:30 Opening

LBC

Skyflat

U-spec, F972

Moving to skyflat field: 15:29:15 +52:20:00

02:54 pa0

02:58 pa180

V-Bessel, R-Bessel

03:05 pa180

03:1 pa0

OSU_Monitor

N4449

Seeing ~0.9"

03:20 Preset to co-pointing field

it is still early and I will wait a few minutes there before collimation

03:25 dohybrid

03:28 doubling exposure time

03:38 Setting TMS reference offset

03:39 Starting TMS loop

03:40 Starting copointing script and stopping, waiting for TMS

03:41 Starting copointing script

Radial star offsets from rotator centers: BLUE 24.5" and RED 6.8"

lbcrangebal:

COPOINTING: B=34222 R=34218

Pointing updates: delta_IE = 13.09", delta_CA = 6.02"

Mirror updates: dX(mm) dY(mm) dRX(") dRY(")

SX: 0.34 0.35 7.43 -7.35

DX: -0.31 -0.29 -6.27 6.58

03:45 Preset to science field and waiting for TMS

03:46 TMS has done its thing. Starting science observation

03:59 Taking another set of data

N4605

Seeing slowly getting worse ~1.1"

04:12 Preset to copointing field and waiting for TMS

04:15 Copointing check

Radial star offsets from rotator centers: BLUE 6.6" and RED 6.8"

lbcrangebal:

COPOINTING: B=41623 R=41620

Pointing updates: delta_IE = -7.06", delta_CA = 0.24"

Mirror updates: dX(mm) dY(mm) dRX(") dRY(")

SX: 0.11 0.05 1.01 -2.35

DX: -0.08 0.02 0.43 1.64

04:18 Preset to science field and waiting for TMS

04:20 Starting science observation

N4736

Seeing 1.2"

04:35 Preset to copointing field and waiting for TMS

04:37 Copointing check

Radial star offsets from rotator centers: BLUE 5.5" and RED 21.2"

lbcrangebal:

COPOINTING: B=43800 R=43756

Pointing updates: delta_IE = 11.76", delta_CA = -4.28"

Mirror updates: dX(mm) dY(mm) dRX(") dRY(")

SX: 0.02 -0.37 -7.84 -0.38

DX: 0.02 0.42 9.04 -0.40

04:40 Preset to science field and waiting for TMS
04:42 Starting science script

N4214

Seeing 1.3"-1.4"
04:58 Preset to copointing field and waiting for TMS
04:59 Copointing check

Radial star offsets from rotator centers: BLUE 5.3" and RED 24.6"

lbcrangebal:

COPOINTING: B=50121 R=50115
Pointing updates: delta_IE = -14.91", delta_CA = -3.73"
Mirror updates: dX(mm) dY(mm) dRX(") dRY(")
SX: 0.01 0.51 10.94 -0.28
DX: 0.02 -0.44 -9.50 -0.47

05:03 Preset to science field and waiting for TMS
05:05 Starting science observation
05:08 Seeing is exploding above 2"

N4236

05:14 Preset to copointing field and waiting for TMS
05:16 copointing check
There is a very bright star somewhere producing a large reflection.

Radial star offsets from rotator centers: BLUE 7.3" and RED 5.4"

lbcrangebal:

COPOINTING: B=51822 R=51817
Pointing updates: delta_IE = -2.59", delta_CA = 5.46"
Mirror updates: dX(mm) dY(mm) dRX(") dRY(")
SX: 0.09 0.10 2.13 -1.88
DX: -0.05 -0.03 -0.67 1.17

05:21 Preset to science field and waiting for TMS
05:23 Starting science script

M101

Seeing is still poor 1.5" on average

05:35 Preset to copointing field and waiting for TMS

05:37 Copointing check

Radial star offsets from rotator centers: BLUE 4.7" and RED 9.5"

lbcrangebal:

COPOINTING: B=53849 R=53845

Pointing updates: delta_IE = 6.20", delta_CA = -0.76"

Mirror updates: dX(mm) dY(mm) dRX(") dRY(")

SX: -0.07 -0.09 -2.03 1.40

DX: 0.10 0.15 3.21 -2.12

05:41 Preset to science field and waiting for TMS

05:42 Starting science observation

N5474

06:12 Preset to copointing field and waiting for TMS

06:14 copointing check

Radial star offsets from rotator centers: BLUE 4.7" and RED 3.4"

lbcrangebal:

COPOINTING: B=61455 R=61449

Pointing updates: delta_IE = -4.23", delta_CA = 0.83"

Mirror updates: dX(mm) dY(mm) dRX(") dRY(")

SX: 0.07 0.01 0.15 -1.47

DX: -0.03 0.04 0.87 0.71

06:17 Preset to science field and waiting for TMS

06:18 Starting science script

N6503

06:54 Preset to copointing field and waiting for TMS

06:57 dofpia

07:07 tms reference offset

07:09 Preset for copointing check and waiting for TMS

07:11 Copointing check

Radial star offsets from rotator centers: BLUE 2.8" and RED 13.8"

lbcrangebal:

COPOINTING: B=71147 R=71142
Pointing updates: delta_IE = -0.65", delta_CA = -7.33"
Mirror updates: dX(mm) dY(mm) dRX(") dRY(")
SX: 0.33 0.16 3.41 -7.06
DX: -0.29 -0.10 -2.25 6.12

07:14 Preset to science field and waiting for TMS

07:15 Starting science observation

N6946

07:31 Preset to copointing field and waiting for TMS

07:33 Copointing check

Radial star offsets from rotator centers: BLUE 7.6" and RED 8.5"

lbcrangebal:

COPOINTING: B=73423 R=73415
Pointing updates: delta_IE = 6.42", delta_CA = -4.44"
Mirror updates: dX(mm) dY(mm) dRX(") dRY(")
SX: 0.01 -0.01 -0.16 -0.15
DX: 0.04 0.06 1.29 -0.78

07:36 Preset to science field and waiting for TMS

07:38 Starting science observation

08:15 We are done with LBCs, reconfig to MODS

MODS

08:17 MODS in observing mode and AGw homed! Yay!! This time we didn't have to find out the hard way.

UM_NovaRecon

DQ Her

PA 120

08:41 acqBinoMODS DQHer_PA120.acq.txt

modsAlign -y 11 mods1r.20250623.0018.fits mods1r.20250623.0019.fits

MODS1 Offset Command:

offsetxy -0.254 10.781 rel

modsAlign -y 9 mods2r.20250623.0018.fits mods2r.20250623.0019.fits

MODS2 Offset Command:

offsetxy 3.505 8.392 rel

08:50 execBinoMODS DQHer_PA120.obs.txt

V1405 Cas

PA 265

09:20 acqBinoMODS V1405Cas_PA265.acq.txt

09:23 We missed the guide star on the left. Pointing check

09:26 acqBinoMODS V1405Cas_PA265.acq.txt

modsAlign -y 11 mods1r.20250623.0026.fits mods1r.20250623.0027.fits

MODS1 Offset Command:

offsetxy -0.228 11.549 rel

modsAlign -y 9 mods2r.20250623.0026.fits mods2r.20250623.0027.fits

MODS2 Offset Command:

offsetxy 3.877 8.235 rel

manual offset delta_x +0.18"

09:39 execBinoMODS V1405Cas_PA265.obs.txt

Feige 110

09:57 acqBinoMODS Feige110.acq

modsAlign -r mods1r.20250623.0033.fits

MODS1 Offset Command:

offsetxy -0.153 11.664 rel

modsAlign -r mods2r.20250623.0035.fits

MODS2 Offset Command:

offsetxy 3.923 8.237 rel

10:06 execBinoMODS Feige110.obs

OSU_merianassoc

M3456A_spec

10:23 acqBinoMODS M3456A_spec.acq

modsAlign -y 11 mods1r.20250623.0039.fits mods1r.20250623.0040.fits

MODS1 Offset Command:

offsetxy -0.431 10.358 rel

modsAlign -y 9 mods2r.20250623.0041.fits mods2r.20250623.0042.fits

MODS2 Offset Command:

offsetxy 3.876 7.372 rel

10:35 execBinoMODS M3456A_spec.obs

We found Halpha in both targets and two emission lines in the blue (OIII?), not at the same wavelength (~190A difference)

11:19 Clouds are passing through ... But we are also done...

Calib

MODS

grslitflats 2.4 dual

1k red imaging flats r-sloan (for Chick)

LBC

25 bias bino