

# LBT Observing Log: 2026 Apr 11 UT

Observers: Jon Rees

Partner Observer: Marshall Johnson, Madeline Howell, Lucy Lu

Telescope Operator: Gil Esquerdo

## Plan:

Prime plan will be to go with LUCI at the start of the night and then switch to LBC; however, I would also like to have PEPSI available in the (fairly likely) event that cirrus prevent the conditions from being good enough for the LUCI/LBC dark time programs.

ND\_dwenc/ND\_dwenc

OSU\_monitor/N4236

OSU\_monitor/N4214

OSU\_monitor/N4395

OSU\_monitor/M101

OSU\_monitor/N4826

Switch to PEPSI

UVa\_Snowbird/EM\_UHA138

OSU\_MWAbundDisp/2MJ1332+4002

OSU\_MWAbundDisp/2MJ1408+4900

OSU\_MWAbundDisp/2MJ1548+5424

OSU\_MWAbundDisp/2MJ1532+4214

## Summary:

PEPSI log:

<https://drive.google.com/file/d/1DxGO-xDoDe6XkgMJxgmmnwy8pNc8Llyp/view?usp=sharing>

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[ND\\_dwenc](#)

[DW Cnc \(04:04-06:20\)](#)

[HIP 43018 \(06:20-06:37\)](#)

[RECONFIG \(06:37-07:02\)](#)

### OSU\_monitor

N4236 (07:02-07:31)

N4214 (07:31-07:54)

N4395 (07:54-08:18)

M101 (08:18-09:03)

N4826 (09:03-10:09)

RECONFIG (10:09-11:02)

### UVa\_Snowbird

EM\_UHA138 (11:02-11:26)

### OSU\_MWAbundDisp

2MJ1332+4002 (11:26-11:37)

2MJ1408+4900 (11:37-11:48)

2MJ1548+5424 (11:48-

2MJ1532+4214 (11:56-12:07)

### CALIBRATIONS

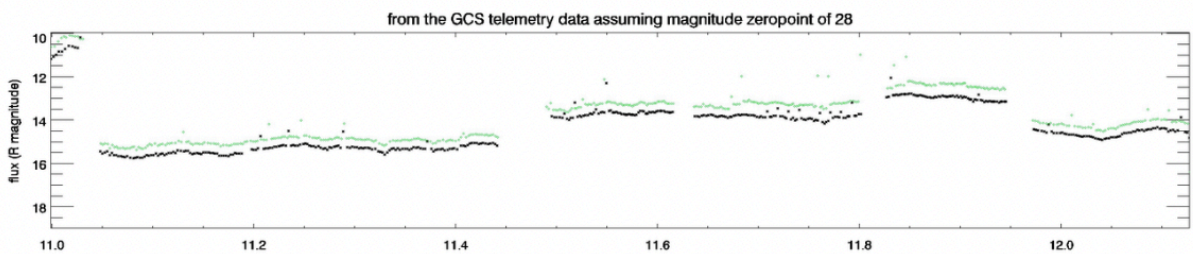
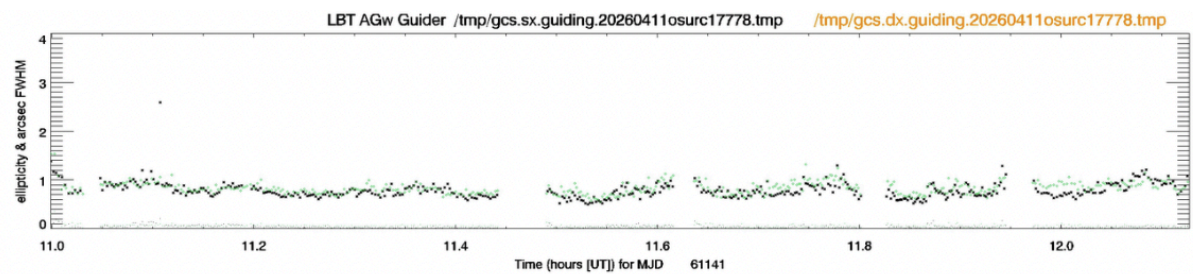
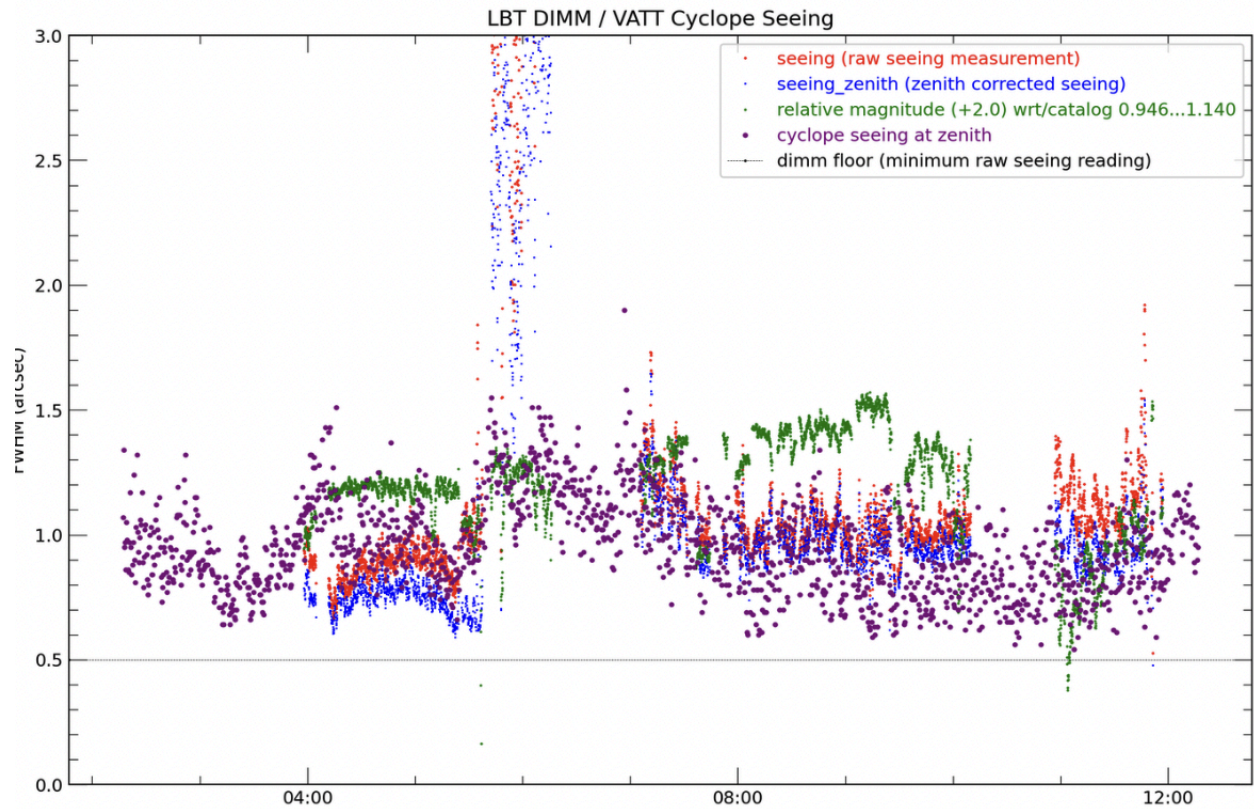
## Issues:

Network issues abounded. SWG/ITS are in the loop. Mountain unable to access most outside sites. Phones down. Zoom fortunately working. x2go unusable. Used VNC as a backup.

## Weather:

Mostly clear skies at the beginning of the night. Clouds began to encroach at ~5:45UT. Sky remained mostly clear for the LBC observations. Eventually thin cirrus covering entire sky after switch to PEPSI at 11UT.

Seeing remained at/below 1" throughout.



## Overview:

01:12 UT LBCs powering on

01:12 UT LUCI2 init all

01:14 UT LUCI2 test exposure - success

01:17 UT LBC biases running

01:18 UT Note - mountain is having some connectivity issues. Unclear if Lumen issues resolved, or if running on Starlink. Mountain staff having issues reaching external sites. x2go does not launch properly on robs2. Running VNC as a backup.

01:33 UT Brandon/Stephen troubleshooting.

01:49 UT Rebooting to1 to troubleshoot connectivity issues.

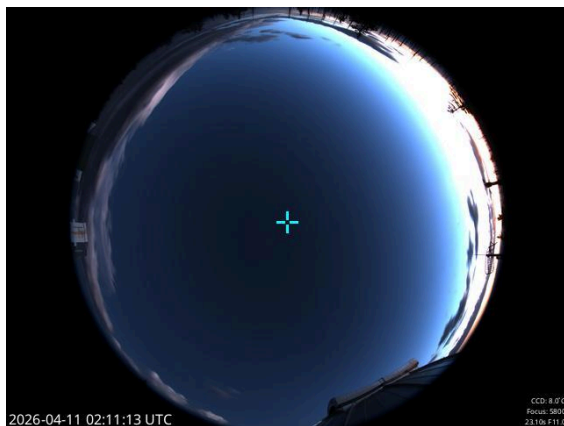
01:51 UT Sunset

We were already planning to stay closed at sunset due to threatening clouds overhead (and very brief intervals of snow flurries earlier in the afternoon). With the current network troubleshooting, we will remain closed for those efforts.

01:54 UT MGIO switching back to backup internet connection.

Still lingering issues, Stephen contacting UITS

02:13 UT Clouds are clearing out for now:



Particle counts in warning level, but still within limits.

02:41 UT 12 deg twilight

03:02 UT Mountain is unable to access weather/satellite/radar info so we remain closed out of caution since we can't see what's incoming. External radar/satellite pages shared via Zoom screen sharing for a base-level indicator at least.

03:37 UT Still not connectivity on mountain. I'll be monitoring weather for Gil. Opening enclosure.

ND\_dwcnc

DW Cnc (04:04-06:20)

03:53 UT Collimation preset

04:04 UT Preset sent

Acquisition images:

luci2.20260411.0002-0004

Thru-slit:

luci2.20260411.0005-0006 (nudged 0.5pix for 2nd image)

04:16 UT Science exposures started

DIMM 0.66"

Guider FWHM DX: 0.62"



luci2.20260411.0007-0067

04:27 UT Good strong trace in quicklook reduction.

Rotator has ~1:15 to limit. We'll plan to reacquire in 1hr as per PI instructions anyway, so that will be a good time for rotator unwrap.

04:38 UT DIMM 0.75" Cyclope 1.04"

Guider FWHM SX: 0.74"

05:06 UT: DIMM 0.74" Cyclope 1.05"

Guider FWHM DX: 0.77"

05:21 UT Actually we're good on the rotator limit. El time to limit is the limiting factor now, ~1h25m

Will continue to monitor object flux and reacquire if necessary.

05:35 UT DIMM 0.62" Cyclope 1.19"

Guider FWHM DX: 0.76

05:43 UT Allsky shows band of cloud right where we are pointing. Dropoff in flux noticeable starting at image 0046



05:51 UT That band of cloud is moving away from this field now. Trace looks better, but we're still in a thin band

06:05 UT DIMM 3.18" Cyclope 1.51

Guider FWHM DX: 1.1"

06:13 UT DIMM measurements are skewing very high ~3-5". Likely due to us being at low elevation now (El 31). Cyclope and guider FWHM still look decent.

06:17 UT Really getting hit by clouds now, 0065 shows another drop in trace flux.

HIP 43018 (06:20-06:37)

06:20 UT Preset sent

06:23 UT Acquisition images:

0068-0069

Thru-slit:

0070

06:31 UT Exposures started  
luci2.20260411.0071-0074  
Cyclope 1.43"  
Guider FWHM DX: 1.4"



06:37 UT Exposures complete, evaluating conditions.

RECONFIG (06:37-07:02)

06:37 UT Reconfig MonoLUCI2 -> BinoLBC

06:41 UT LUCI safed

OSU\_monitor

N4236 (07:02-07:31)

07:02 UT Preset to focus field

07:04 UT dohybrid

blue2026-04-11.Log										
?	Computed Aberrations (nm)							(arcsec)		Filename
	Defoc (Z4)	Ast0 (Z5)	AstV (Z6)	ComaV (Z7)	ComaH (Z8)	Sph1 (Z11)	Sph2 (Z22)	Est. seeing	Est. WIQ	
---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	-3875	0	0	333	-69	0	0	0.50	1.54	lbc.20260411.070517.fits
●	209	-101	-40	117	-160	-146	-26	1.03	0.17	lbc.20260411.070721.fits
●	10	-99	-57	-1	-49	124	47	1.65	0.12	lbc.20260411.070855.fits
---	1187	0	0	0	0	-678	0	----	----	dofpia_sph3_adjustment

red2026-04-11.Log										
?	Computed Aberrations (nm)							(arcsec)		Filename
	Defoc (Z4)	Ast0 (Z5)	AstV (Z6)	ComaV (Z7)	ComaH (Z8)	Sph1 (Z11)	Sph2 (Z22)	Est. seeing	Est. WIQ	
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	4239	0	0	-1642	235	0	0	0.50	1.83	lbc.20260411.070539.fits
●	-192	27	-147	168	-1161	260	-17	0.75	0.56	lbc.20260411.070713.fits
●	60	55	113	-99	-134	218	61	1.54	0.18	lbc.20260411.070850.fits
---	1073	0	0	0	0	-613	0	----	----	dofpia_sph3_adjustment

07:12 UT TMS reference failed - not enough channels present

07:14 UT Copointing

```

lbcrangebal:
-----
COPOINTING: B=71501 R=71456
Pointing updates: delta_IE = -10.64", delta_CA = -1.73"
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")
                SX:    0.74    0.33    7.18   -15.95
                DX:   -0.69   -0.29   -6.29   14.70
-----

```

07:19 UT Starting science preset

DIMM: Cyclope: 1.22"

07:26 UT FWHM SX:1.0" DX:1.1"

N4214 (07:31-07:54)

07:31 UT Preset sent

07:33 UT dof pia

---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	1995	-57	2	239	-73	-350	-87	1.00	0.83	lbc.20260411.073427.fits
●	-387	35	-113	8	-31	-9	-16	0.99	0.18	lbc.20260411.073555.fits
●	223	-84	1	-76	31	-145	-41	0.79	0.16	lbc.20260411.073718.fits
---	660	0	0	0	0	-377	0	----	----	dofpia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	161	-114	-18	344	422	-154	-67	0.67	0.28	lbc.20260411.073422.fits
●	-191	40	-89	38	28	6	-20	0.71	0.11	lbc.20260411.073550.fits
●	-409	102	-6	-55	74	139	-17	0.64	0.21	lbc.20260411.073714.fits
---	521	0	0	0	0	-298	0	----	----	dofpia_sph3_adjustment

07:41 UT Copointing

lbcrangebal:

```
-----  
COPOINTING: B=74051 R=74047  
Pointing updates: delta_IE = 7.64", delta_CA = -1.93"  
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")  
SX:   -0.01  -0.04  -0.75   0.11  
DX:    0.10   0.05   1.10  -2.14  
-----
```

07:44 UT Science preset sent

Sky clearing nicely.

Cyclope 0.96"



07:49 UT FWHM Blue: 1.0" Red: 0.7"

N4395 (07:54-08:18)

07:54 UT Preset sent

07:55 UT dof pia

---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	288	-51	-54	131	189	-194	-27	0.74	0.21	lbc.20260411.075721.fits
●	262	97	37	50	19	-187	-37	0.72	0.18	lbc.20260411.075912.fits
●	266	-106	-94	-100	-119	-116	-35	0.58	0.17	lbc.20260411.080038.fits
●	-64	81	10	256	221	-27	-26	0.78	0.18	lbc.20260411.080207.fits
---	652	0	0	0	0	-372	0	----	----	dofpia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	1483	-174	-66	-61	-73	-299	-44	0.53	0.62	lbc.20260411.075721.fits
●	26	-158	-21	-183	183	-76	-9	0.58	0.16	lbc.20260411.075907.fits
●	607	166	-82	110	-159	-201	-21	0.50	0.30	lbc.20260411.080032.fits
●	-495	-136	74	33	108	6	-9	0.54	0.22	lbc.20260411.080203.fits
---	463	0	0	0	0	-264	0	----	----	dofpia_sph3_adjustment

08:03 UT Copointing

```
lbcrangebal:
-----
COPOINTING: B=80433 R=80427
Pointing updates: delta_IE = -1.41", delta_CA = -2.05"
Mirror updates:   dX(mm)  dY(mm)  dRX(")  dRY(")
                  SX:    0.04   0.11   2.46   -0.92
                  DX:    0.05  -0.10  -2.10  -1.03
-----
```

08:06 UT Starting science OB  
DIMM Cyclope 0.81"

08:11 UT FWHM Blue:0.95" Red:0.90"

M101 (08:18-09:03)

08:18 UT Preset sent

08:21 UT dof pia

---	-1050	0	0	0	0	600	0	----	----	dof pia_sph3_adjustment
●	426	107	69	-279	-144	-88	0	0.71	0.24	lbc.20260411.082244.fits
●	13	79	-37	62	0	-56	13	0.91	0.09	lbc.20260411.082448.fits
●	109	111	67	38	-64	-119	-8	0.73	0.13	lbc.20260411.082613.fits
●	577	-21	-56	-29	50	-173	-40	0.69	0.27	lbc.20260411.082737.fits
---	598	0	0	0	0	-341	0	----	----	dof pia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dof pia_sph3_adjustment
●	-401	113	159	40	-211	15	-1	0.63	0.21	lbc.20260411.082326.fits
●	698	26	-135	72	-98	-41	21	0.93	0.30	lbc.20260411.082444.fits
●	-254	150	64	-114	327	-73	5	0.74	0.21	lbc.20260411.082605.fits
●	-153	134	72	-61	-364	7	-5	0.67	0.20	lbc.20260411.082732.fits
---	542	0	0	0	0	-309	0	----	----	dof pia_sph3_adjustment

08:29 UT Copointing

```
lbcrangebal:
-----
COPOINTING: B=83029 R=83025
Pointing updates: delta_IE = -4.06", delta_CA = 2.66"
Mirror updates:   dX(mm)  dY(mm)  dRX(")  dRY(")
                  SX:    0.20   0.02   0.46   -4.33
                  DX:   -0.11   0.01   0.20   2.35
-----
```

08:32 UT Starting science exposures  
DIMM 0.93" Cyclope 1.11"

08:39 UT FWHM Blue: 1.0" Red: 1.0"

08:58 UT FWHM Blue: 1.1" Red: 1.15"

N4826 (09:03-10:09)

09:03 UT Preset sent

09:06 UT dofpa

09:14 UT dofpa ran away on red side. Backing out. Clearing active optics on DX M1.

09:17 UT dofpa --askme

09:27 UT Collimation complete. Copointing

09:31 UT Science exposures starting

DIMM: Cyclope: 1.03"



09:36 UT FWHM Blue:1.2" Red:0.8"

09:49 UT FWHM Blue: 1.2" Red: 1.05"

10:01 UT Too few pixels on red:

lbcr.20260411.095603

10:08 UT Final exposures reading out

RECONFIG (10:09-11:02)

10:09 UT Reconfig BinoLBC -> BinoPEPSI

**10:11 UT of Issue:** SX M1 panic, recovery will add some time to reconfig. One of the voltages is low, which is preventing recovery

10:27 UT SX M1 recovery complete. Continuing reconfig

10:43 UT Rebalancing

## UVa\_Snowbird

EM\_UHA138 (11:02-11:26)

10:54 UT Pointing preset

10:59 UT Collimation preset

11:02 UT Preset sent

11:03 UT Exposures started

DIMM 0.91" Cyclope 0.85"

Guider FWHM SX: 0.93 DX: 0.90

Light cirrus across the sky:



11:10 UT SNR CD1:30 CD4:37

11:11 UT Hotspot jumped on SX. Reacquired.

11:16 UT SNR CD2:45 CD5:69

11:22 UT SNR CD3:65 CD6:72

## OSU\_MWAbundDisp

2MJ1332+4002 (11:26-11:37)

11:26 UT Preset sent

11:29 UT 18 deg twilight

11:30 UT Exposures started

DIMM 0.85" Cyclope 0.92"

Guider FWHM SX:0.67" DX: 0.73"

11:36 UT SNR CD2:152 CD4:241

2MJ1408+4900 (11:37-11:48)

11:37 UT Preset sent

11:39 UT Exposures started

DIMM 1.08" Cyclope 0.81"

Guider FWHM SX:0.81" DX: 0.89"

11:47 UT SNR CD2:158 CD4:297

2MJ1548+5424 (11:48-

11:48 UT Preset sent

11:50 UT Exposures started

DIMM 0.82" Cyclope: 0.86"

Guider FWHM SX:0.72" DX:0.87"

11:56 UT SNR CD2:205 CD4:349

2MJ1532+4214 (11:56-12:07)

11:56 UT Preset sent

11:58 UT Exposures started

DIMM: Cyclope:1.02"

Guider FWHM SX:0.78" DX:0.83"

12:00 UT 12 deg twilight

12:07 UT Exposures complete.

SNR CD2:113 CD4:196

## CALIBRATIONS

12:09 UT PEPSI cals running

12:19 UT LBC biases running

12:35 UT LBCs powering off

