

LBT Observing Log: 2026 Mar 12 UT

Observers: Jon Rees

Partner Observer: Michael Tucker

Telescope Operator: Josh Williams

Plan:

Summary:

PEPSI log:

<https://drive.google.com/file/d/11b2olcOLlaouOBPX08XhOEHMqSgRZzhB/view?usp=sharing>

Overview:

OSU_monitor

M82 (02:15-02:49)

M81 (02:49-03:06)

N3077 (03:06-03:29)

N2903(03:29-04:23)

N4736 (04:23-04:51)

N3344 (04:51-05:54)

N4258 (05:54-06:44)

N4449 (06:44-07:10)

N4605 (07:10-07:37)

N5474 (07:37-08:32)

ND_sn95n

sn95n(08:32-09:14)

RECONFIG (09:14-09:43)

ND_Carich

2MASS J12054052+1841592 (09:43-10:04)

ND_M3Cluster

NGC 5272 289 (10:04-11:02)

OSU_MWAbundDisp

2MJ1359+5210 (11:02-11:12)

2MJ13430035+4037150 (11:12-11:21)

2MASS J13402441+5313285 (11:21-11:30)

2MASS J13323405+2551047 (11:30-11:38)

2MASS J13103864+5439237 (11:38-11:47)

OSU_LiDwarf

[Gaia DR3 1564116901818692608 \(11:47-12:07\)](#)

[Gaia DR3 1541256440171188992 \(12:07-](#)

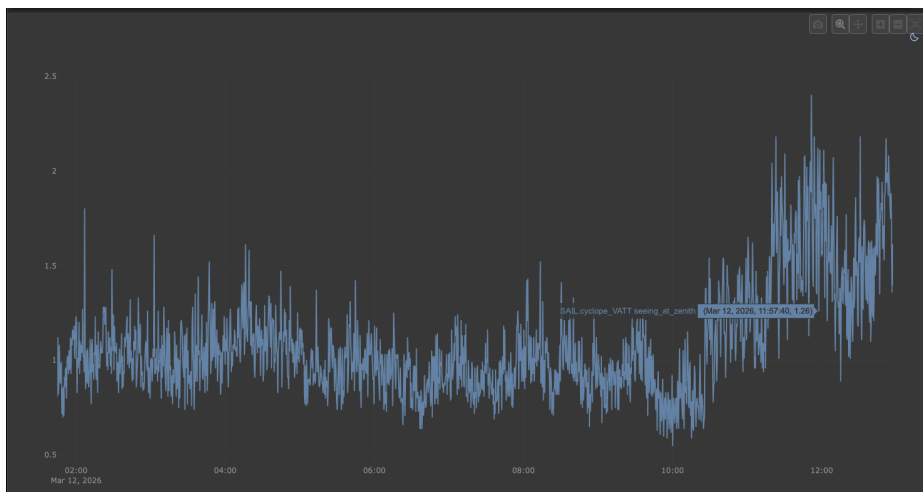
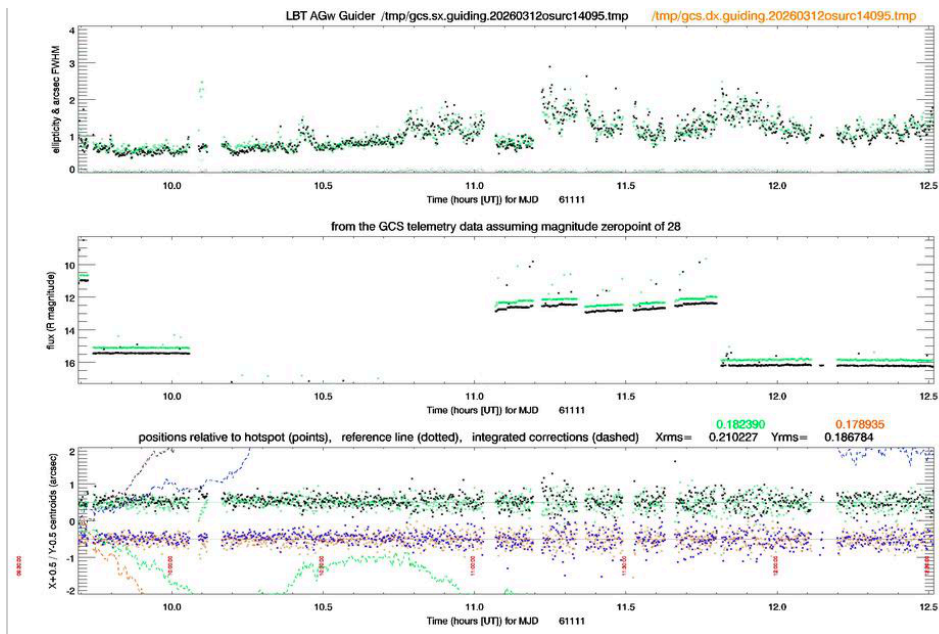
Issues:

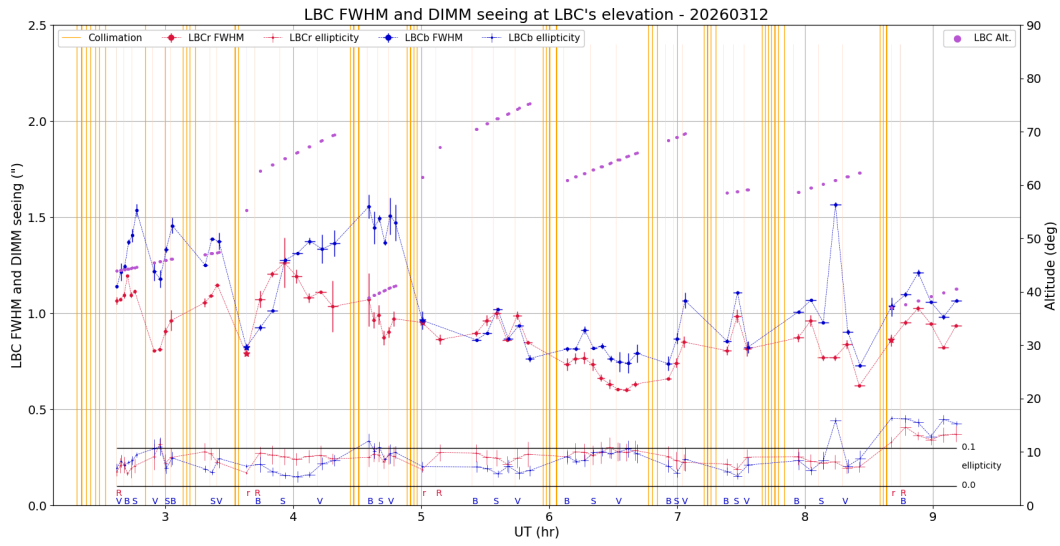
LBC Blue rotator error required restart of lbc control software. ~20m lost

Weather:

Clear skies throughout. Seeing was ~1" at the start of the night. Remained at/below 1" for most of the night, increased to ~1.5" in the last part of the night.

Humidity ~60% and winds ~6m/s for most of the night.





Overview:

00:12 UT LBCs powered on

00:16 UT LUCI init all

00:21 UT Starting LBC biases

LBC filters used in potential programs:

Blue:USpec,B,V

Red:R

01:23 UT Opening shutters. RH 58%, wind ~8m/s. Clear skies.

01:30 sunset

01:30 UT Slewing for sky flats. Starting with USpec/Rbessel

01:42 UT USpec counts are reaching a decent level, starting sky flats. R is still saturated, will tweak exptimes when it starts coming down.

01:44 UT exposures tweaked (USpec 2, R 1):

PA0:

10k/27k

10k/26k

12k/27k

11k/25k
10k/22k

PA180:
9k, 18k
8.5k, 16k
12k, 25k
10k, 20k
8.5k, 17k

02:00 UT Moving on to V/i flats:

PA180:
13k, 26k
12k, 25k
11k, 22k
9.5k, 20k
8.5k, 18k

PA0:
9k, 19k
8.5k, 18k
12k, 26k
12k, 25k
13k, 26k

OSU_monitor

M82 (02:15-02:49)

02:15 UT Preset sent for collimation/copointing

02:17 UT dohybrid

02:31 UT Collimation complete:

02:32 UT Copointing

lbcrangebal:

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-----  
COPOINTING: B=23156 R=23153  
Pointing updates: delta_IE = 12.59", delta_CA = -2.66"  
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")  
SX:    0.43    0.10    2.17    -9.15  
DX:   -0.39   -0.13   -2.78     8.31  
-----
```

02:35 UT Starting science OB

Copointing FWHM looks like 1.2" on both blue/red.

02:39 UT FWHM Blue: 1.05" Red: 1.0"

02:45 UT FWHM Blue: 1.2" Red: 1.2"

M81 (02:49-03:06)

Computed Aberrations (nm)								(arcsec)		blue2026-03-12.Log
?	Defoc (Z4)	Ast0 (Z5)	AstV (Z6)	ComaV (Z7)	ComaH (Z8)	Sph1 (Z11)	Sph2 (Z22)	Est. seeing	Est. WIQ	----- Filename
---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	6370	0	0	-190	267	0	0	0.50	2.52	lbc.20260312.021830.fits
●	-42	-13	-180	-633	-241	400	82	1.44	0.41	lbc.20260312.022036.fits
●	-399	38	-427	3	10	---	---	1.71	0.22	lbc.20260312.022252.fits
●	-723	5	-159	-9	-146	253	53	1.49	0.35	lbc.20260312.022455.fits
●	-609	-22	-130	-38	249	72	28	1.29	0.28	lbc.20260312.022705.fits
●	253	-27	-172	97	-38	-119	-5	1.15	0.16	lbc.20260312.022859.fits
---	876	0	0	0	0	-500	0	----	----	dofpia_sph3_adjustment

Computed Aberrations (nm)								(arcsec)		red2026-03-12.Log
?	Defoc (Z4)	Ast0 (Z5)	AstV (Z6)	ComaV (Z7)	ComaH (Z8)	Sph1 (Z11)	Sph2 (Z22)	Est. seeing	Est. WIQ	----- Filename
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	10438	0	0	-1299	-431	0	0	0.50	4.16	lbc.20260312.021822.fits
●	10203	---	---	---	---	---	---	1.52	4.02	lbc.20260312.022032.fits
●	-961	13	-159	-1078	-396	460	42	1.15	0.71	lbc.20260312.022248.fits
●	-592	52	67	-82	-151	269	51	1.20	0.31	lbc.20260312.022449.fits
●	-1546	54	-206	-13	49	259	44	0.96	0.64	lbc.20260312.022702.fits
●	-224	40	43	58	-2	74	19	0.88	0.13	lbc.20260312.022855.fits
---	667	0	0	0	0	-381	0	----	----	dofpia_sph3_adjustment

02:49 UT Preset sent

These are fairly short targets, and collimation still looks good for now. Copointing

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-----
COPOINTING: B=25035 R=25029
Pointing updates: delta_IE = -2.70", delta_CA = -2.60"
Mirror updates:   dX(mm)  dY(mm)  dRX(")  dRY(")
                  SX:    0.11    0.11    2.30   -2.43
                  DX:   -0.00    0.00    0.06    0.08
-----

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02:53 UT Science exposures started

02:53 UT Sky is clear, conditions look good:



DIMM is down for the night due to technical issues. Cyclope seeing 0.84".

02:59 UT FWHM Blue: 1.0", Red 0.8"

03:03 UT FWHM Blue:1.3" Red: 0.85"

Looks like we need to recollimate on blue. Will do so with the next target

N3077 (03:06-03:29)

03:06 UT Preset sent to focus field

03:13 UT Collimation complete,

---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	1612	15	45	191	89	-233	-61	1.10	0.66	lbc.20260312.030815.fits
●	957	-26	148	12	-29	-202	-58	1.11	0.41	lbc.20260312.030949.fits
●	19	-38	-93	-88	52	-7	-26	1.07	0.10	lbc.20260312.031123.fits
---	829	0	0	0	0	-473	0	----	----	dofpia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	-442	-17	171	195	133	-123	-30	0.93	0.24	lbc.20260312.030811.fits
●	107	-44	77	92	-260	-67	-19	0.96	0.16	lbc.20260312.030945.fits
●	-131	6	-166	-1	51	-29	-28	0.80	0.11	lbc.20260312.031116.fits
---	621	0	0	0	0	-355	0	----	----	dofpia_sph3_adjustment

03:13 UT copointing

lbcrangebal:

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-----
COPOINTING: B=31356 R=31352
Pointing updates: delta_IE = -0.95", delta_CA = 2.45"
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")
SX:      0.06   -0.14   -3.01   -1.33
DX:     -0.02    0.14    2.97    0.52
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03:16 UT Starting science exposures

03:22 UT FWHM Blue: 1.2", Red: 1.1"

Cyclope: 0.75"

03:27 UT FWHM Blue: 1.2", Red: 1.1"

N2903(03:29-04:23)

03:29 UT Preset sent

03:31 UT This is a longer sequence so we'll collimate beforehand to be safe. Running dof pia:

03:36 UT Collimation complete:

---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	1134	-115	119	346	-132	-296	-68	0.87	0.52	lbc.20260312.033237.fits
●	-71	-56	111	-12	40	-106	-52	0.87	0.11	lbc.20260312.033410.fits
---	705	0	0	0	0	-403	0	----	----	dofpia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	640	144	-99	52	117	-300	-62	0.66	0.33	lbc.20260312.033232.fits
●	113	65	-6	-137	-28	-155	-32	0.67	0.15	lbc.20260312.033411.fits
---	540	0	0	0	0	-309	0	----	----	dofpia_sph3_adjustment

03:37 UT Copointing:

lbcrangebal:

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-----  
COPOINTING: B=33757 R=33753  
Pointing updates: delta_IE = 1.88", delta_CA = -0.13"  
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")  
SX:    0.18    0.21    4.56    -3.91  
DX:   -0.14   -0.19   -4.08    2.90  
-----
```

03:40 UT Starting science exposures

Cyclope 1.0"

03:50 UT FWHM Blue: 0.9" Red:0.95"

04:00 UT FWHM Blue (USpec): 1.2" Red:1.1"

04:08 UT FWHM Blue (USpec):1.25" Red:1.1"

04:17 UT FWHM Blue: 1.15" Red: 1.05"

Cyclope 1.12"

N4736 (04:23-04:51)

04:23 UT Preset sent

04:25 UT dof pia

---	-1050	0	0	0	0	600	0	----	----	dof pia_sph3_adjustment
●	-4369	-6	-167	-60	34	-46	10	0.90	1.72	lbc.20260312.042636.fits
●	-292	-17	-185	-33	9	72	4	1.24	0.16	lbc.20260312.042812.fits
---	934	0	0	0	0	-534	0	----	----	dof pia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dof pia_sph3_adjustment
●	-1468	-12	36	141	-171	-94	-31	0.67	0.60	lbc.20260312.042631.fits
●	-109	58	-29	54	-47	67	-18	0.89	0.11	lbc.20260312.042807.fits
---	678	0	0	0	0	-387	0	----	----	dof pia_sph3_adjustment

04:30 UT Copointing

lbcrangebal:

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-----  
COPOINTING: B=43037 R=43032  
Pointing updates: delta_IE = 6.99", delta_CA = 10.43"  
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")  
SX:   -0.04   -0.07   -1.50    0.83  
DX:    0.07    0.06    1.23   -1.51  
-----
```

04:33 UT Starting science exposures

Cyclope 1.17"

04:47 UT FWHM Blue:1.4" Red:1.0"

N3344 (04:51-05:54)

04:51 UT Preset sent

04:52 UT dof pia

---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	1609	-64	214	162	83	-419	-38	0.76	0.70	lbc.20260312.045315.fits
●	544	43	259	132	-70	-209	-21	0.79	0.28	lbc.20260312.045453.fits
●	446	-5	99	-51	-30	-233	-31	0.70	0.25	lbc.20260312.045628.fits
●	-6	-32	90	-45	4	-43	-14	0.66	0.09	lbc.20260312.045759.fits
---	581	0	0	0	0	-332	0	----	----	dofpia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	544	106	80	113	89	-339	-30	0.48	0.32	lbc.20260312.045310.fits
●	-145	-4	69	-158	-56	-115	-10	0.54	0.14	lbc.20260312.045446.fits
●	196	84	1	-17	64	-112	-8	0.55	0.14	lbc.20260312.045624.fits
●	74	73	96	-2	-48	-64	-7	0.51	0.10	lbc.20260312.045753.fits
---	445	0	0	0	0	-254	0	----	----	dofpia_sph3_adjustment

05:00 UT Copointing

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lbcrangebal:
-----
COPOINTING: B=50030 R=50025
Pointing updates: delta_IE = -5.29", delta_CA = -12.41"
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")
                SX:    0.14   0.10   2.08   -3.00
                DX:   -0.08  -0.06  -1.25   1.80
-----
```

05:05 UT Starting science exposures

Cyclope 1.0"

05:13 UT FWHM Blue: Red: 0.8"

Blue failed to read out, restarting OB

05:14:26.673634 ROTATOR actual motion has been 0.000 deg instead of 4.150 deg

05:14:26.717783 >>> preset/expose/save interrupted at preset time, retcode=-1

No luck after restarting OB.

lbckill/lbcstart

05:23 UT Starting science exposures, worked that time

05:30 UT FWHM Blue: 0.85" Red: 0.85

Cyclope 0.82"

05:40 UT FWHM Blue:1.0" Red: 0.9"

Cyclope 1.17"

05:46 UT FWHM Blue 0.80" Red: 0.90"

Cyclope 1.12"

N4258 (05:54-06:44)

05:54 UT Preset sent

05:55 UT dof pia

---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	-1703	-50	-133	83	-231	-91	27	0.91	0.69	lbc.20260312.055700.fits
●	-221	101	-72	83	151	1	-16	0.90	0.15	lbc.20260312.055833.fits
●	-18	-70	0	-95	-89	-7	3	0.96	0.10	lbc.20260312.060010.fits
---	763	0	0	0	0	-436	0	----	----	dofpia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	-703	-136	-82	228	109	-87	7	0.61	0.32	lbc.20260312.055656.fits
●	-349	-81	-110	-166	-53	-9	12	0.66	0.18	lbc.20260312.055829.fits
●	229	-86	-97	74	85	-77	-4	0.71	0.14	lbc.20260312.060002.fits
---	563	0	0	0	0	-322	0	----	----	dofpia_sph3_adjustment

06:02 UT Copointing

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lbcrangebal:
-----
COPOINTING: B=60320 R=60315
Pointing updates: delta_IE = 4.41", delta_CA = 5.88"
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")
                  SX:   -0.06   -0.08   -1.62   1.36
                  DX:    0.12    0.11    2.36  -2.47
-----

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06:05 UT Starting science exposures

Cyclope 0.98"

06:11 UT FWHM Blue:0.85" Red:0.70"

Cyclope: 0.88"

06:27 UT FWHM Blue:0.75" Red: 0.75"

Cyclope 0.95"

06:35 UT FWHM Blue:0.75" Red: 0.7"

Cyclope 0.74"

06:44 UT FWHM Blue 0.8" Red 0.7"

N4449 (06:44-07:10)

06:44 UT Preset sent

06:45 UT dof pia

---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	934	96	67	107	109	-5	-1	0.77	0.38	lbc.20260312.064636.fits
●	247	62	22	-125	-145	-143	0	0.84	0.18	lbc.20260312.064810.fits
---	686	0	0	0	0	-392	0	----	----	dofpia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	-157	-85	-48	-94	-171	-32	-6	0.57	0.14	lbc.20260312.064632.fits
●	360	65	-38	23	-20	-134	-19	0.57	0.19	lbc.20260312.064809.fits
---	479	0	0	0	0	-273	0	----	----	dofpia_sph3_adjustment

06:50 UT Copointing

lbcrangebal:

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-----  
COPOINTING: B=65035 R=65030  
Pointing updates: delta_IE = -0.25", delta_CA = -8.61"  
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")  
SX:  0.13  0.15  3.16  -2.76  
DX:  -0.06 -0.11 -2.33  1.37  
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```

06:53 UT Science exposures started.
Cyclope 0.97"

06:59 UT LBC Red pressure dropped out. Temps still look good, so we'll hold off on doing any kill/restart for now since everything is working well.

07:00 UT FWHM Blue:0.75" Red:0.70"
Cyclope 0.91"

N4605 (07:10-07:37)

07:10 UT Preset sent

07:11 UT dof pia

---	-1050	0	0	0	0	600	0	----	----	dof pia_sph3_adjustment
●	-848	-40	-94	-63	298	-234	-7	0.76	0.40	lbc.20260312.071235.fits
●	-47	-73	47	129	-13	-17	-2	0.71	0.10	lbc.20260312.071412.fits
●	115	95	91	43	-36	9	-2	0.75	0.10	lbc.20260312.071545.fits
---	637	0	0	0	0	-364	0	----	----	dof pia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dof pia_sph3_adjustment
●	159	25	265	101	79	-128	-11	0.49	0.16	lbc.20260312.071230.fits
●	-280	-54	71	48	-219	-48	3	0.43	0.17	lbc.20260312.071408.fits
●	-81	1	-77	-204	155	-56	16	0.44	0.15	lbc.20260312.071538.fits
---	401	0	0	0	0	-229	0	----	----	dof pia_sph3_adjustment

07:17 UT copointing

lbcrangebal:

```
-----  
COPOINTING: B=71813 R=71808  
Pointing updates: delta_IE = -3.14", delta_CA = -1.77"  
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")  
SX:  -0.02  0.02  0.40  0.37  
DX:  0.07  0.02  0.41  -1.51  
-----
```

07:20 UT Starting science exposures
Cyclope 0.72"

07:31 UT FWHM Blue:1.05" Red: 0.90"
Cyclope 0.91"

07:36 UT FWHM Blue: 0.8" Red: 0.75"

N5474 (07:37-08:32)

07:37 UT Preset sent

07:38 UT dofpia

---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	73	-45	-92	46	-150	-42	17	0.99	0.12	lbc.20260312.073944.fits
●	-418	-141	-200	117	123	-18	11	1.08	0.21	lbc.20260312.074120.fits
●	222	96	-38	-300	-87	-71	13	1.00	0.19	lbc.20260312.074248.fits
●	-357	-109	-83	54	260	-4	7	1.07	0.20	lbc.20260312.074416.fits
●	29	-16	29	67	40	21	-12	0.95	0.09	lbc.20260312.074553.fits
●	-99	154	113	-55	-339	63	21	0.96	0.19	lbc.20260312.074721.fits
---	760	0	0	0	0	-434	0	----	----	dofpia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	1044	78	64	-178	186	-365	-13	0.78	0.49	lbc.20260312.073939.fits
●	-1086	165	-40	-7	45	141	32	0.82	0.45	lbc.20260312.074117.fits
●	977	-26	105	215	-98	-271	-6	0.76	0.44	lbc.20260312.074243.fits
●	-785	-82	28	-96	102	140	-6	0.72	0.34	lbc.20260312.074412.fits
●	-389	-51	35	3	32	95	3	0.72	0.18	lbc.20260312.074543.fits
●	0	-83	47	214	-38	75	14	0.75	0.14	lbc.20260312.074717.fits
---	590	0	0	0	0	-337	0	----	----	dofpia_sph3_adjustment

07:49 UT Copointing

```
lbcrangebal:
-----
COPOINTING: B=75020 R=75015
Pointing updates: delta_IE = 1.06", delta_CA = 8.35"
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")
                SX:    -0.04  -0.09  -1.98   0.76
                DX:     0.08   0.13   2.72  -1.81
-----
```

07:53 Starting science exposures.

08:02 UT FWHM Blue: 0.95" Red: 0.9"

Cyclope 1.42"

08:30 UT FWHM Red 0.6" Blue 0.7"

ND_sn95n

sn95n(08:32-09:14)

08:32 UT Preset sent

08:34 UT dofpia

---	-1050	0	0	0	0	600	0	----	----	dofpia_sph3_adjustment
●	73	-45	-92	46	-150	-42	17	0.99	0.12	lbc.20260312.073944.fits
●	-418	-141	-200	117	123	-18	11	1.08	0.21	lbc.20260312.074120.fits
●	222	96	-38	-300	-87	-71	13	1.00	0.19	lbc.20260312.074248.fits
●	-357	-109	-83	54	260	-4	7	1.07	0.20	lbc.20260312.074416.fits
●	29	-16	29	67	40	21	-12	0.95	0.09	lbc.20260312.074553.fits
●	-99	154	113	-55	-339	63	21	0.96	0.19	lbc.20260312.074721.fits
---	760	0	0	0	0	-434	0	----	----	dofpia_sph3_adjustment
---	-875	0	0	0	0	500	0	----	----	dofpia_sph3_adjustment
●	1044	78	64	-178	186	-365	-13	0.78	0.49	lbc.20260312.073939.fits
●	-1086	165	-40	-7	45	141	32	0.82	0.45	lbc.20260312.074117.fits
●	977	-26	105	215	-98	-271	-6	0.76	0.44	lbc.20260312.074243.fits
●	-785	-82	28	-96	102	140	-6	0.72	0.34	lbc.20260312.074412.fits
●	-389	-51	35	3	32	95	3	0.72	0.18	lbc.20260312.074543.fits
●	0	-83	47	214	-38	75	14	0.75	0.14	lbc.20260312.074717.fits
---	590	0	0	0	0	-337	0	----	----	dofpia_sph3_adjustment

08:39 UT Copointing

lbcrangebal:

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COPOINTING: B=75020 R=75015
Pointing updates: delta_IE = 1.06", delta_CA = 8.35"
Mirror updates:  dX(mm)  dY(mm)  dRX(")  dRY(")
                  SX:    -0.04   -0.09   -1.98   0.76
                  DX:    0.08    0.13    2.72  -1.81
-----

```

08:43 UT Science exposures started
Cyclope 0.89"

08:52 UT FWHM Blue:0.95" Red:1.0"

09:01 UT FWHM Blue 1.05" Red:1.0"
Cyclope 0.97"

09:14 UT FWHM Blue:0.95" Red:1.0"
Cyclope 0.94"

RECONFIG (09:14-09:43) for PEPSI

09:14 UT Reconfig BinoPEPSI
09:36 UT Pointing preset
09:40 UT Collimation preset

ND_Carich

2MASS J12054052+1841592 (09:43-10:04)

09:43 UT Preset sent

09:45 UT Exposures started.
Cyclope 0.90"
Guider FWHM SX:0.74" DX: 0.81"

SNR CD2:83 CD4:132
SNR CD2:81 CD4:134

ND_M3Cluster

NGC 5272 289 (10:04-11:02)

10:04 UT Preset sent

10:05 UT Pointing check, not convinced we have the same object on both sides

10:09 UT Preset resent

10:12 UT Exposures started
Cyclope 0.99"
Guider FWHM SX: 0.66" DX: 0.69"

SNR CD2:54 CD4:71
SNR CD2:52 CD4:64

OSU_MWAbundDisp

2MJ1359+5210 (11:02-11:12)

11:02 UT Preset sent
11:05 UT Exposure started
Cyclope 1.28"
Guider FWHM SX:0.78" DX:0.85"

SNR CD2:224 CD4:374

2MJ13430035+4037150 (11:12-11:21)

11:12 UT Preset sent
11:14 UT Exposure started
Cyclope 1.05"
Guider FWHM SX:1.1" DX:1.1"

11:16UT Looks like the seeing is blowing up. 1.5" on Cyclope, 1.7" on SX guider, 1.6" on DX.

SNR CD2: CD4:

2MASS J13402441+5313285 (11:21-11:30)

11:21 UT Preset sent

11:23 UT Exposure started

Cyclope 1.57"

Guider FWHM SX:1.6" DX:1.6"

SNR CD2:184 CD4:305

2MASS J13323405+2551047 (11:30-11:38)

11:30 UT Preset sent

11:32 UT Exposures started.

Cyclope 1.32"

Guider FWHM SX: 1.3" DX:1.3"

SNR CD2:205 CD4:339

2MASS J13103864+5439237 (11:38-11:47)

11:38 UT Preset sent

11:41 UT Exposures started. Cyclope 1.46"

Guider FWHM SX:1.07 DX:1.1

SNR CD2:213 CD4:455

OSU_LiDwarf

Gaia DR3 1564116901818692608 (11:47-12:07)

11:47 UT Preset sent

11:52 Exposure started

Cyclope 1.65"

Guider FWHM SX:1.7" DX:1.6"

SNR CD3:68 CD5:73

12:00 UT Repeating the exposure (aiming for SNR 100)

Cyclope 1.58"

Guider FWHM SX:1.32" DX: 1.4"

SNR CD3:79 CD5:85

Gaia DR3 1541256440171188992 (12:07-

12:07 UT Preset sent

12:08 UT Missed it on DX. Pointing check.

12:11 UT Resending preset

12:12 UT 18 deg twilight

12:14 UT Exposure started

Cyclope 1.38"

Guider FWHM SX: 1.0 DX: 1.1"

SNR CD3:77 CD5:85

12:22 UT Repeating exposure

Cyclope 1.23"

Guider FWHM SX:1.56" DX:1.24"

SNR CD3:77 CD5:83

12:31 UT Exposures complete. Parking telescope.

12:32 UT Starting PEPSI cals

12:39 UT LUCI safed

12:46 UT LBC biases running

13:00 UT LBC biases complete. LBCs powered off.