

# LBT Observing Log: 2026 Apr 10 UT

Observers: JRees

Partner Observer: Marshall Johnson, Madeline Howell, Rick Pogge

Telescope Operator: Gil Esquerdo

## Plan:

MODSPhotGal/gd74

ND\_j0933/j0933

Switch to PEPSI:

OSU\_WDBIN/5688438928035529984

Or NGC 2420

- OSU\_NGC2420/865401485983614208
- OSU\_NGC2420/865401417263724160 (didn't have enough time before these set)

OSU\_LiDwarf/921131332347723904

OSU\_LBOISpec/HD73344

OSU\_PASTA/TOI-5726

OSU\_LiDwarf/792020114305974528 (abandoned due to worsening clouds)

OSU\_LBOISpec/TOI5724

UVa\_metalpoor/HD122563

UVa\_metalpoor/1698612634461568896

OSU\_MWAbundDisp/2MJ1616+4929

OSU\_PASTA/TOI-2091

OSU\_LiDwarf/1403292534318310656

OSU\_EBRV/380Dra [exposure needs to start w/in 30 minutes of 10:38 UT]

OSU\_MWAbundDisp/2MJ1611+4136

OSU\_MWAbundDisp/2MJ1602+4450

OSU\_MWAbundDisp/2MJ1558+5049

OSU\_MWAbundDisp/2MJ1548+5424

## Summary:

PEPSI log:

<https://drive.google.com/file/d/1ZFg0pM70KijQiga3zIQJFxl0YKebXDB/view?usp=sharing>

[Weather:](#)

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[ND\\_j0933](#)

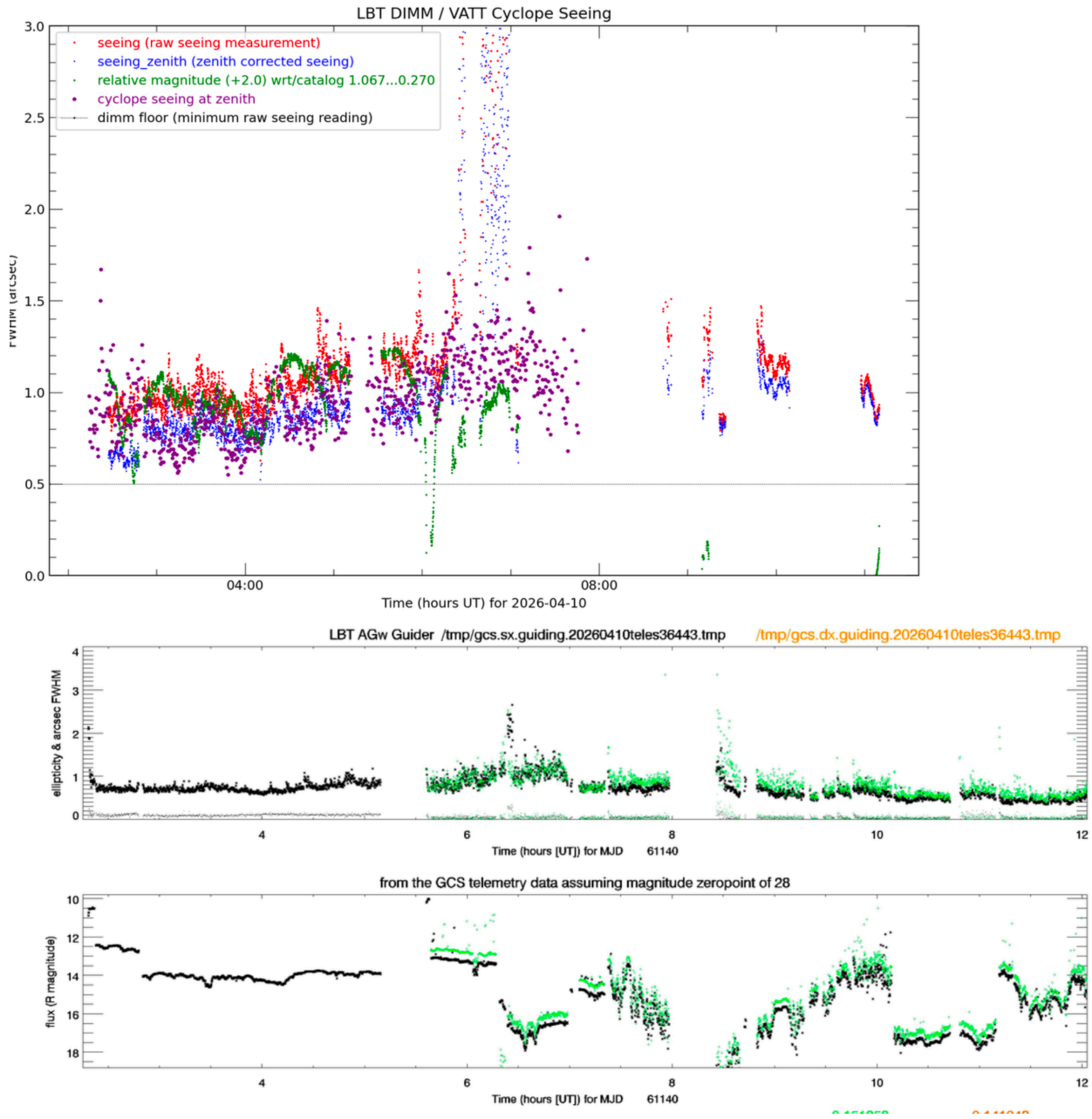
[GD71 \(02:22-02:47\)](#)  
[j0933 \(02:47-05:11\)](#)  
[RECONFIG\(05:11-05:39\)](#)  
[OSU\\_WDBIN](#)  
[Gaia DR3 5688438928035529984 \(05:39-06:17\)](#)  
[OSU\\_NGC2420](#)  
[Gaia DR3 865401485983614208 \(06:17-06:22\)](#)  
[OSU\\_LiDwarf](#)  
[Gaia DR3 921131332347723904 \(06:22-06:59\)](#)  
[OSU\\_LBOISpec](#)  
[HD73344 \(06:59-07:20\)](#)  
[OSU\\_PASTA](#)  
[TOI-5726 \(07:20-](#)  
[Downtime \(07:58-08:24\) PLC reset\)](#)  
[OSU\\_LiDwarf](#)  
[Gaia DR3 792020114305974528 \(08:24-08:40\) \(Abandoned\)](#)  
[OSU\\_LBOISpec](#)  
[TOI5724 \(08:40-09:17\)](#)  
[UVa\\_metalpoor](#)  
[HD122563 \(09:17-09:25\)](#)  
[Gaia DR3 1698612634461568896 \(09:25-09:35\)](#)  
[OSU\\_MWAbundDisp](#)  
[2MJ1616+4929 \(09:35-09:44\)](#)  
[OSU\\_PASTA](#)  
[TOI-2091 \(09:44-10:08\)](#)  
[OSU\\_LiDwarf](#)  
[Gaia DR3 1403292534318310656 \(10:08-10:42\)](#)  
[OSU\\_EBRV](#)  
[V380Dra \(10:42-11:09\)](#)  
[OSU\\_MWAbundDisp](#)  
[2MJ1611+4136 \(11:09-11:19\)](#)  
[2MJ1602+4450 \(11:19-11:28\)](#)  
[2MJ1558+5049 \(11:28-11:48\)](#)  
[2MJ1548+5424 \(11:48-12:01\)](#)  
[CALIBRATIONS](#)  
[PEPSI](#)  
[MODS](#)

## Issues:

IT#9507 - luci.luci crashed and will not boot

# Weather:

Variable cirrus throughout the night. Started thin, became thick and limiting around ~8:30UT. Improved somewhat towards the end of the night, but still present across the sky. Seeing remained at or below 1" throughout.



# Overview:

00:14 UT MODS powered up, guide probes homed

# CALIBRATIONS

## MODS

00:20 UT Starting MODS cals for j0933 program

grslitflats (0.8" slit):

mods[12]b.20260410.0003-0008

mods[12]r.20260410.0003-0008

grslitflats (5.0" slit):

mods[12]b.20260410.0009-0014

mods[12]r.20260410.0009-0011

Arcs:

mods[12]b.20260410.0015-0017

mods[12]r.20260410.0012-0014

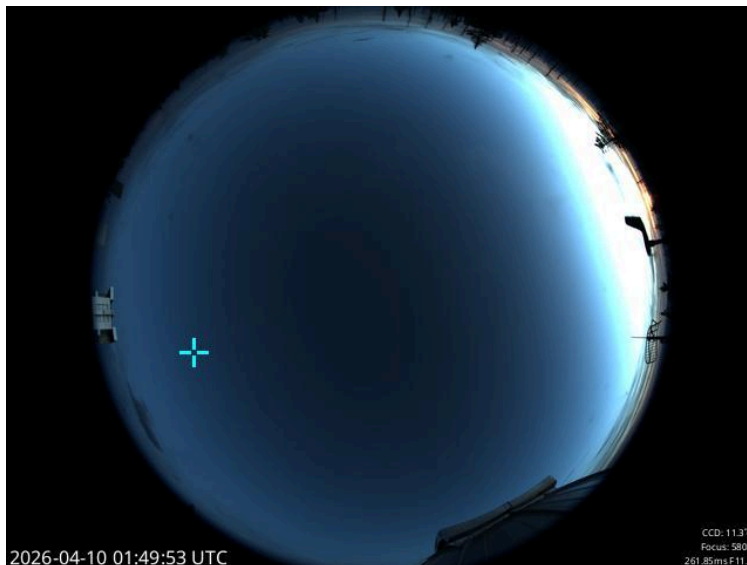
Bias:

mods[12]b.20260410.0018-0022

mods[12]r.20260410.0015-0019

01:41 UT Opening shutters

01:51 UT Thin cirrus currently:



ND\_j0933

GD71 (02:22-02:47)

02:01 UT Pointing check

02:08 UT Sky is currently very bright, waiting for things to get darker.

02:12 UT Collimation preset

02:22 UT Starting acqMODS (monoMODS1 only)

r:0020

Slit image:

r:0021

02:31 UT Starting science exposures

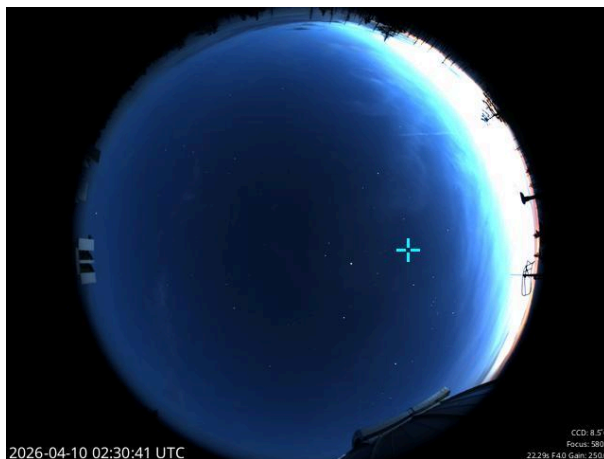
mods1b.20260410.0023-0025

mods1r.20260410.0022-0024

DIMM 0.68" Cyclope 0.70"

Guider FWHM SX: 0.71"

Thin cirrus:



02:40 UT 12 deg twilight

02:45 UT Standard complete

j0933 (02:47-05:11)

02:47 UT Acquisition preset sent (PA0)

r:0025-0026

02:57 UT Alignment done, thru-slit:

r:0027

02:59 UT Starting science exposures

Inst config completed with 2 faults but Rick verified that it did complete successfully:



A glitch in the command sequencer

In the command window:

- blue camfoc
- blue grating

Showed these as fine. Instconfig just didn't capture the completion of these states

mods1b.20260410.0026-0062

mods1r.20260410.0028-0064

03:22 UT DIMM 0.75" Cyclope 0.72"

Guider FWHM SX: 0.69"

Still thin cirrus across the sky, satellite looks like this will continue

03:49 UT DIMM 0.80" Cyclope 0.73"

Guider FWHM SX: 0.67"



04:19 UT DIMM 0.93" Cyclope 1.11"

Guider FWHM SX: 0.69"

04:36 UT LUCI computer unpingable, Gil verifying computer status in comp room.

04:58 UT DIMM 0.89" Cyclope 1.11"

Guider FWHM SX: 0.86"

05:02 UT Final exposure starting. 2h 15m hours of clock time estimate met expectations.

05:05 UT luci.luci will not boot. We don't have LUCI ops planned for tonight, so Glenn will submit an IT and it should be addressed in the daytime.

## RECONFIG(05:11-05:39)

05:11 UT Reconfig MonoMODS -> BinoPEPSI



## OSU\_WDBIN

Gaia DR3 5688438928035529984 (05:39-06:17)

05:30 UT Pointing check

05:36 UT Collimation preset

05:39 UT Preset sent

05:40 UT Exposures started

DIMM 0.98" Cyclope 0.83"

Guider FWHM SX: 0.81" DX: 0.82"

Still thin cirrus across the sky, very light in this area of the sky.

05:48 UT Disabling Mirror Ventilation on SX - thermocouple readings unreliable and we don't want MV chasing a high temp and warming the mirror.

05:52 UT SNR CD3:474 CD5:750

06:04 UT SNR CD2:217 CD4:468

06:13 UT SNR CD1:64 CD6:569

SNR is lower than desired for CD1 (target 100), but we're already at 28 deg elevation so have to move on.

## OSU\_NGC2420

Gaia DR3 865401485983614208 (06:17-06:22)

06:17 UT Preset sent

06:20 UT Wrong object on DX. Pointing check.

Actually, not enough time here for the observations anyway. Moving to alternative target

## OSU\_LiDwarf

Gaia DR3 921131332347723904 (06:22-06:59)

06:22 UT Preset sent

Mirror ventilation back on, stable enough to use for now.

06:28 UT Exposures started. Collimation took some time.

DIMM: 1.26" Cyclope 1.06"

Guider FWHM SX: 0.95" DX: 0.86"

06:33 UT SNR CD3:61 CD5:48

06:41 UT SNR CD2:33 CD6:52

Targeting SNR 100 so repeating exposures.

Light cirrus in this part of the sky, so may be seeing some impact:



06:51 UT SNR CD3:71 CD5:69

06:57 UT CD2:38 CD6:75

## OSU\_LBOISpec

HD73344 (06:59-07:20)

06:59 UT Preset sent

07:00 UT Missed it on DX. Pointing check.

07:05 UT Preset sent

07:06 UT Exposures started.

Cyclope 1.15. EI 31, DIMM struggling

Guider FWHM SX: 0.74" DX: 0.73"

07:10 UT SNR CD2:300 CD6:564

07:14 UT SNR CD3:386 CD5:470

07:18 UT CD2:278 CD4:430

## OSU\_PASTA

TOI-5726 (07:20-

07:20 UT Preset sent

07:23 UT Exposures started

Increased exposures by 50% to account for optimistic SNR/Exptime requirements

07:26 UT SNR CD3:94 CD5:122

07:29 UT SNR CD2:69 CD4:105

Cyclope 1.10"

Guider FWHM SX: 0.7" DX: 0.94"

We are at low elevation (EI 34) and pointing into a patch of cirrus:



07:30 UT Mirror ventilation thermal data stale. MV disabled for both sides. PLC needs to be reset, but this will involve parking telescope and OSA going onto the telescope for reset. Will wait until this target is done.

07:41 UT SNR CD1:98 CD6:335

07:44 UT CD3:63 CD5:80

07:47 UT SNR CD2:35 CD4:54

07:56 UT Cyclope not reporting (likely due to clouds).  
Guider FWHM SX: 0.76" DX: 0.89"

07:57 UT SNR CD1:45 CD6:144

Downtime (07:58-08:24) PLC reset)

07:58 UT Gil needs to access the telescope to reset PLC for thermal data.

OSU\_LiDwarf

Gaia DR3 792020114305974528 (08:24-08:40) (Abandoned)

08:24 UT Preset sent



Cirrus continues to get worse.

08:30 UT Exposures started. Target is fairly faint on the guiders. Cirrus pretty thick here  
Guider FWHM SX: 1.0" DX 1.3"

08:39 UT SNR CD3:32 CD5:26

SNR is too low with these clouds (target SNR 100). Electing to move to a brighter target as it looks like clouds will continue to get worse.

## OSU\_LBOISpec

TOI5724 (08:40-09:17)

08:40 UT Preset sent

08:42 UT No star on DX. Pointing check.

08:48 UT Resending preset

08:50 UT Exposures started.

Guider FWHM SX: 0.69" DX: 0.96"

08:54 UT SNR CD2:107 CD6:194

We'll run this sequence twice to meet the SNR requirements.

09:00 UT SNR CD3:150 CD5:187

09:02 UT SNR CD2:184 CD4:298

09:07 UT SNR CD2:217 CD6:378

Clouds clearing a little in this part of the sky.

09:12 UT SNR CD3:223 CD5:279

09:16 UT SNR CD2:160 CD4:249

## UVa\_metalpoor

HD122563 (09:17-09:25)

09:17 UT Preset sent

09:22 UT Exposure started

DIMM 0.82"

Guider FWHM SX: 0.56" DX: 0.72"

09:24 UT SNR CD2:205 CD4:383

Gaia DR3 1698612634461568896 (09:25-09:35)

09:25 UT Preset sent

09:29 UT Exposure started

Guider FWHM SX: 0.54" DX: 0.57"

09:35 UT SNR CD2:58 CD4:78

## OSU\_MWAbundDisp

2MJ1616+4929 (09:35-09:44)

09:35 UT Preset sent

09:38 UT Exposures started

Guider FWHM SX: 0.62" DX: 0.78"

09:44 UT SNR CD2:127 CD4:230

Aiming for 100

## OSU\_PASTA

TOI-2091 (09:44-10:08)

09:44 UT Preset sent

09:47 UT Exposures started.

DIMM 1.21"

Guider FWHM SX: 0.65" DX: 0.77"

09:48 UT SNR CD3:49 CD5:52

09:49 UT SNR CD2:32 CD4:64

09:54 UT SNR CD1:45 CD6:191

Aiming for SNR 200 in the blue for all CD pairs. Since we're so far below, taking another 2 cycles.

## OSU\_LiDwarf

Gaia DR3 1403292534318310656 (10:08-10:42)

10:08 UT Preset sent

10:11 UT Exposures started

Guider FWHM SX: 0.55" DX: 0.78"

10:16 UT SNR CD3:37 CD5:35

Still being affected by clouds:



10:21 UT SNR CD2:33 CD6:35  
Target was 100. Repeatingx2

10:28 UT SNR CD3:31 CD5:39

10:33 UT SNR CD2:23 CD6:32

10:37 UT SNR CD3:33 CD5:34

10:42 UT SNR CD2:29 CD6:45

## OSU\_EBRV

V380Dra (10:42-11:09)

10:42 UT Preset sent

10:45 UT GCSL hung, restarted GCS

10:50 UT Reacquired.

10:50 UT Exposures started.  
Guider FWHM SX: 0.58" DX: 0.63"

10:55 UT SNR CD3:36 CD5:50  
Aiming for 70, 100. Repeating with x2 exposures

11:03 UT SNR CD3:32 CD5:40

11:08 UT SNR CD3:33 CD5:51

## OSU\_MWAbundDisp

2MJ1611+4136 (11:09-11:19)

11:09 UT Preset sent

11:13 UT Exposures started

Guider FWHM SX: 0.52" DX: 0.69"

11:19 UT SNR CD2:110 CD4:240

Aiming for 100

2MJ1602+4450 (11:19-11:28)

11:19 UT Preset sent

11:21 UT Exposures started.

Guider FWHM SX: 0.42" DX: 0.57"

11:27 UT SNR CD2:87 CD4:150

2MJ1558+5049 (11:28-11:48)

11:28 UT Preset sent

11:30 UT Exposures started

Guider FWHM SX:0.43" DX:0.58"

11:31 UT 18 deg twilight

11:39 UT SNR CD2:60 CD4:116

Repeating this one to get the blue SNR closer to desired 100.

11:48 UT SNR CD2:81 CD4:151

2MJ1548+5424 (11:48-12:01)

11:48 UT Preset sent

11:49 UT Exposures started

Guider FWHM SX:0.42" DX: 0.53"

11:56 SNR CD2:87 CD4:160

Close to the requested SNR of 100 in blue. Only 5 mins to 12 degree twilight anyway, so taking another round of exposures.

12:01 UT SNR CD2:109 CD4:200

12:01 UT 12 deg twilight

12:01 UT closing up

## CALIBRATIONS

### PEPSI

12:04 UT Starting PEPSI cals.

300 fiber.

200 fiber

100 fiber

13:24 UT PEPSI cals complete

### MODS

12:05 UT Still need pixel flats for MODS. Will get those when done with closeup.

12:19 UT MODS pixel flats started:

mods1b.20260410.0063-72

mods1r.20260410.0065-69

mods2b.20260410.0023-32

mods2r.20260410.0020-24

12:31 UT MODS sleep