

# LBT Observing Log: 2026 Apr 12 UT

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Telescope Operator: Gil Esquerdo

## Plan

PEPSI all night. High priority transit target starting at 22:40MST/05:40UT

OSU\_NGC2420 stars until 5:40 UT:

[OSU\\_NGC2420/865401485983614208](#)

[OSU\\_NGC2420/865403100890875008](#)

[OSU\\_NGC2420/865399969857818240](#)

[OSU\\_NGC2420/865401485983614208](#)

OSU\_PETS/WASP-189 - high priority transit, will be on this the rest of the night probably

## Summary

PEPSI log:

<https://drive.google.com/file/d/1IJMUzH4XLGUjX4R6YNtnfR-TDo1nH6FT/view?usp=sharing>

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[OSU\\_NGC2420](#)

[Gaia DR3 865401485983614208 \(03:14-03:36\)](#)

[Gaia DR3 865403100890875008 \(03:36-04:17\)](#)

[Gaia DR3 865399969857818240 \(04:17-05:09\)](#)

[Gaia DR3 865401485983614208 \(05:32-06:00\)](#)

[OSU\\_PETS](#)

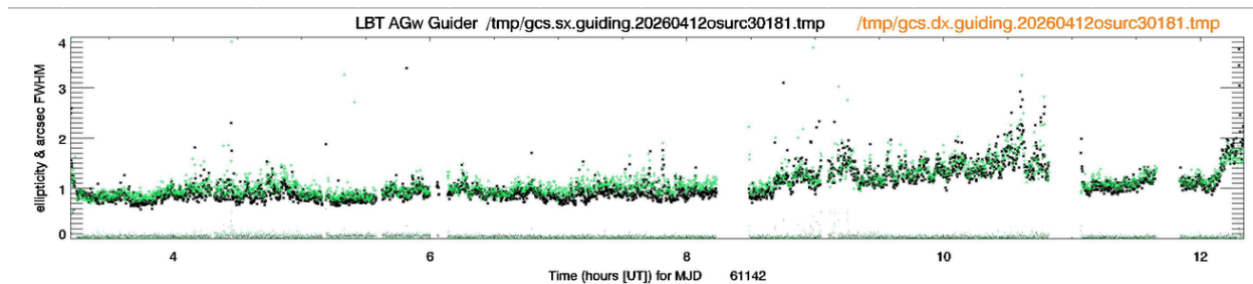
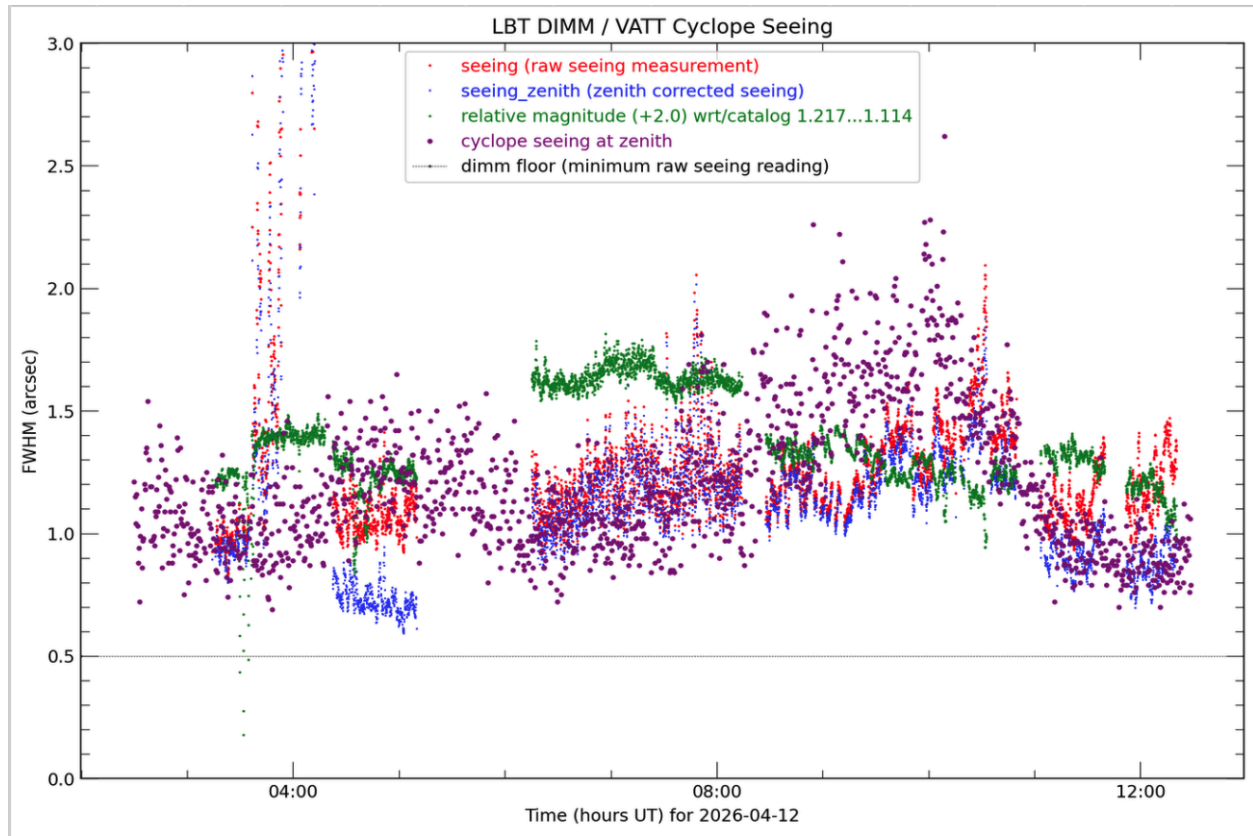
[WASP-189 \(06:00-12:20\)](#)

## Issues

Multiple issues with SX M1 panics: IT#8868 and IT#9509

# Weather

Threatening clouds at the beginning of the night delayed opening. Thin cirrus for most of the night. Wind was elevated at the beginning of the night, settled down around 10UT. Seeing was subarcsecond for most of the night. Degraded to  $\sim 1.5\text{-}2''$  between 8-11UT.



# Overview

01:50 UT Threatening clouds overhead, virga visible, we'll remain closed at sunset to see how things evolve



01:52 UT Sunset

02:42 UT 12 deg twilight

02:49 UT Nearby rain has moved off, clouds are clearing out. We'll plan to open in ~10 minutes.

02:59 UT Shutters opening

OSU\_NGC2420

Gaia DR3 865401485983614208 (03:14-03:36)

03:07 UT Pointing check

03:12 UT 18 deg twilight

03:12 UT Collimation preset

03:14 UT Preset sent

03:16 UT Exposures started.

DIMM 0.92" Cyclope 0.85"

Guider FWHM SX:1.07" DX:1.05"

Skies are mostly clear. Still some cloud at horizon:



Wind ~7m/s now. Had some gusts near 15m/s when opening. RH~60%.  
03:27 UT Particles elevated with the wind gusts, we'll monitor.

03:35 UT SNR CD1:73 CD5:359

Gaia DR3 865403100890875008 (03:36-04:17)

03:36 UT Preset sent

03:37 UT Exposures started.  
Some thin clouds blowing through.  
DIMM: 1.25" Cyclope 0.89"  
Guider FWHM SX:0.85" DX:0.90"



04:02 UT Cyclope 1.08"  
Guider FWHM SX: 0.87" DX: 0.95"

04:17 UT SNR CD1:84 CD5:343

Gaia DR3 865399969857818240 (04:17-05:09)

04:17 UT Preset sent

04:20 UT Exposures started.  
DIMM unreliable - likely getting shaken by the winds.  
Cyclope 1.12"  
Guider FWHM SX:0.93" DX:1.0  
Wind ~11m/s. Sky still mostly clear, some clouds at horizon.

04:22 UT Wind gusts occasionally hitting warning levels.

04:48 UT DIMM 0.75" Cyclope 1.25"  
Guider FWHM SX: 1.0 DX:1.13"  
Very thin cirrus across the sky.

05:09 UT SNR CD1:86 CD5:345

Gaia DR3 865401485983614208 (05:32-06:00)

**NOTE: Wrong object from 05:09-05:32**

05:09 UT Preset sent

05:12 UT Wrong object on SX. Nudging it in.  
(See below - this still ended up being the wrong object)

05:13 UT Exposures started.  
Cyclope 1.31"  
Guider FWHM SX:0.81" DX:0.90"  
Very thin cirrus trailing through the sky.

05:32 UT SNR CD1:48 CD5:274  
Need more SNR in the blue, starting an extra exposure while we wait for the PETS program  
Actually, the wrong object was acquired on SX for this round. **Reacquiring and starting over**

05:32 UT Preset sent.

05:40 UT Exposures started  
Cyclope 1.10"  
Guider FWHM SX:0.87" DX:0.92"

05:57 UT SNR CD1:26 CD5:110  
Desired SNR is 100, so the blue side will need more observations on future nights.

## OSU\_PETS

WASP-189 (06:00-12:20)

06:00 UT Preset sent

06:03 UT Missed it on DX. Pointing check.

06:07 UT Resending preset

06:09 UT Exposures started. Cyclope 0.94"  
Guider FWHM SX: 0.93" DX: 0.99"  
Wind hitting ~16-18m/s.

06:14 UT SNR CD3:450 CD5:556

07:00 UT DIMM 1.26" Cyclope 0.96"  
Guider FWHM SX:0.82" DX:0.96"

07:52 UT DIMM 1.16" Cyclope 1.68"  
Guider FWHM SX:0.93" DX:1.03"  
Sky remains clear.

08:11 UT SX M1 forces error - may need to reset primary

08:13 UT Returning to zenith to reset SX M1

08:14 UT SX M1 panicked enroute to zenith, will need to recover

08:27 UT Preset resent

08:28 UT Resuming exposures

09:05 UT Telescope preset canceled - unclear what caused it.  
Telescope off source too long  
Resending preset.  
Cyclope 1.73"  
Guider FWHM SZ: 1.24" DX:1.21"

09:11 UT Another instance. Possibly due to wind shake.  
Resending preset.

09:50 UT DIMM 1.41" Cyclope 1.65"  
Guider FWHM SX:1.27 DX:1.35  
Wind down to ~10m/s

10:30 UT DIMM 1.46" Cyclope 1.50"  
Guider FWHM SX: 1.59" DX: 1.64"  
Seeing has degraded, some thin cirrus blowing through.

10:41 UT Seeing more of the SX M1 Servo loop/collimation errors. May be looking at another M1 panic shortly.

10:48 UT M1 panic

10:49 UT heading to zenith to recover M1 panic.

11:00 UT Sending acquire preset

11:04 UT Active preset

11:05 UT Exposures resumed

11:20 UT DIMM 0.84" Cyclope 1.01"

Guider FWHM SX:1.0 DX:1.09"

Clear skies, with some incoming cirrus visible on the satellite

11:28 UT 18 deg twilight

11:39 UT SX M1 panic - no warning this time. 7V failure (5.98V)

11:39 UT Heading to zenith to recover

11:48 UT Acquire preset

11:49 UT Active preset

11:51 UT Exposures started

11:59 UT 12 deg twilight

12:15 UT DIMM 1.04" Cyclope 0.80"

Some thin clouds are coming in.

12:20 UT Done with observations. Closing up

12:21 UT Starting PEPSI cals