

# Night Log for UT 20230501

## [PEPSI Log](#)

Partner observers: Donald Terndrup, OSU

Service Observer: Andrew Cardwell

Telescope Operator: Josh Williams

## Plan:

### PEPSI

- UVa\_Multistar
  - TIC161043618long
  - TIC204698586long
- OSU\_FGKBDS
  - BD062986
  - BD492561
- UVa\_Multistar
  - TIC123098844long
  - TIC89278612long
  - TIC278352276long

NOTE: The coordinates for the UVa program are incorrect in the visibility tool. The first digit of the RA is missing, so 14h comes out as 4h. We are relying on the coordinates in the README file.

Summary: We were fighting the cloud for most of the night, and lost at least 1.5 hours to it. Most data was taken with increased exposure times, or increased exposures to achieve, or at least come close, to the S/N requirements.

## Issues:

## Overview

Times are given in UT

01:12 Starting PEPSI calibrations.

01:17 Bringing up LUCI. init all on both sides.

01:19 Taking pending LUCI darks for [UM|OSU]\_XMDs\_LUCI. (Completed later in the night while we were closed.)

01:31 Conditions are cloudy, with the satellite animation showing more on the way.

02:06 Sunset

02:14 Opening up. Conditions remain cloudy. 600s LUCI darks completed.

02:25 Correcting pointing and collimating close to **TIC161043618**.

02:35 Copointing error. Josh is restarting the PCS.

02:40 Collimation preset.

02:44 Preset to **TIC161043618**.

02:47 Guiding on target. Guiders report 0.8" seeing.

02:49 Starting science. It's pretty early, but we can junk the first exposure and add another if necessary. Thicker clouds came over at times during the exposure series. Obtained 5 exposures total.

02:58 12 degree twilight.

03:31 18 degree twilight.

03:32 Starting our second additional exposure.

03:45 Starting third additional exposure.

04:03 Preset to **TIC 204698586**.

04:38 Preset to **BD062986**. We have one 1hr 23min 20s exposure in blue and 3x 27min 10s exposures in red.

05:13 S/N of 393 in the first red exposure.

05:43 S/N of 266 in the second red exposure, clouds are getting thicker.

06:11 Preset to **BD492561**. Doesn't look like we got the same target on both sides, Josh is making a pointing correction.

06:15 Trying again.

06:17 Starting science. Guiders report 1".

06:41 DIMM reports 0.9".

07:31 DIMM reports 1.1". We are currently in a clear patch, but more cloud is on the way.

07:43 Preset to **TIC123098844**.

07:44 Starting science. DIMM reports 1.2".

08:03 Cloud is pretty thick again, adding additional exposures.

08:12 Taking a fourth exposure. This target was originally set up for two.

08:22 Preset to **TIC 89278612**. Exposure time doubled due to conditions.

08:36 1.2" from the DIM, 1.5" from the guiders.

08:42 S/N of 101 in red and 39 in blue. Taking a second exposure.

08:59 Lower S/N in the second exposure than the first. Taking another exposure.

09:17 Cloud has become thicker again. Remaining on this target for a fourth exposure while we assess our options.

09:32 Exposure stopped, we are guiding on noise. Closing the enclosure. Pepsib.20230501.037 and pepsir.20230501.046 can be discarded.

09:40 Running LUCI darks while we are closed.

10:46 Opening again.

10:58 Preset to **TIC 89278612**. We will assess the conditions here.

11:00 Starting science. Exposure time is doubled.

11:03 18 degree twilight.

11:20 S/n of 218 in red and 112 in blue. Preset to **TIC278352276**. Exposure time increased to 8min.

11:21 Starting science.

11:31 S/N or 233 in red and 104 in blue.

11:35 12 degree twilight.

12:28 Sunrise.