

LBT Observing Log for 2024 09 20 UT

Observers: Andrew Cardwell

Partner Observer: Marshall Johnson (remote)

Telescope Operator: Josh Williams.

[PEPSI Log](#)

Plan:

PEPSI DX all night!

- ☒ OSU_BHBinaries/2MJ19052961+6233154
- ☐ ~~ND_RPED/RPED9 — emailed run contact, could not unambiguously identify target in SIMBAD~~
- ☒ OSU_BHBinaries/2MJ20205015+2758347
- ☒ OSU_BHBinaries/2MJ21561240+2510478
- ☒ OSU_BHBinaries/2MJ20303557+4048087
- ☒ OSU_LiDwarf/2MJ18432994+4356589
- ☒ OSU_LiDwarf/2MJ19580796+4052023
- ☒ UVa_Multistar/TIC 89278612
- ☒ OSU_BHBinaries/2MJ20242800+0407075
- ☒ UVa_Multistar/TIC 470710327
- ☒ OSU_BHBinaries/2MJ00525502+6335152
- ☐ ~~OSU_LiDwarf/2MJ19141461+4601476 [too low in west by the time we got to this]~~
- ☐ OSU_BHBinaries/2MJ23005913-0631412
- ☒ OSU_LiDwarf/2MJ03435417+1719250
- ☒ OSU_BHBinaries/2MJ02245932+0108428
- ☒ UVa_Multistar/TIC 367448265
- ☒ OSU_BHBinaries/2MJ02190382+3646369
- ☒ OSU_LiDwarf/2MJ04134178+2305579
- ☒ OSU_BHBinaries/2MJ04453646+3311351
- ☒ OSU_BHBinaries/2MJ05340997+5708294
- ☒ UVa_Multistar/TIC 260056937
- ☒ UVa_Multistar/TIC 392229334
- ☒ UVa_Multistar/TIC 286470992
- ☒ ~~OSU_LiDwarf/2MJ04314519+2502357 [not sure if this is still east enough]~~
- ☐ OSU_BHBinaries/2MJ05214968+0243217
- ☒ OSU_BHBinaries/2MJ06502446+2433129

☒ ~~OSU_BHBinaries/2MJ06251677+4110498 [this will be the final target for the night – bright, will add more targets above if necessary]~~

☐ ~~OSU_BHBinaries/2MJ00425546+0033266 [wind coming up out of the SW, scratching the below to avoid pointing S or SW]~~

☐ ~~OSU_LiDwarf/2MJ01064189-0027182~~

☐ ~~OSU_LiDwarf/2MJ01084954-0030464~~

☐ ~~OSU_BHBinaries/2MJ00535166+2135343~~

NOTE:

- **We have the flat on DX, the SX adsec is unavailable.**
- **The humidity sensor at the telescope is broken. Using sensors from VATT & SMT.**

Summary:

Finally a productive night!

Issues:

Weather:

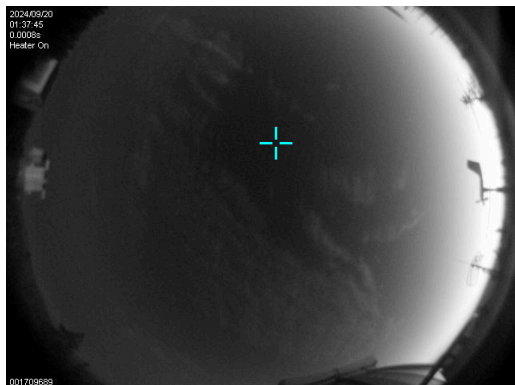
Some scattered cloud and moderate wind.

(times are given in UT):

01:23 Opening up.

01:26 Sunset.

01:40 Some cloud.



01:53 Preset to OSU_BHBinaries/2MJ19052961+6233154.

01:55 ~~Starting science.~~ The pepsi GUI is having an issue. The 'Start' button for observations is unresponsive.

02:05 Starting science.

02:14 12 degree twilight.

02:23 Preset to OSU_BHBinaries/2MJ20205015+2758347.

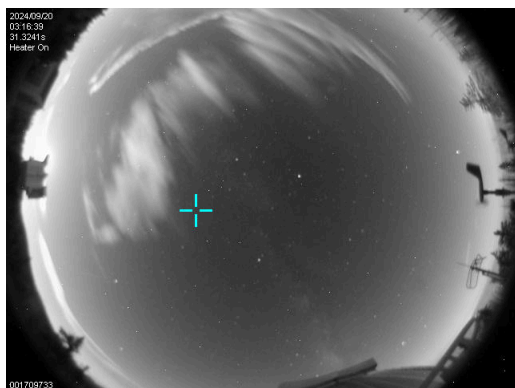
02:26 Starting science. Guider reports 0.9"

02:43 18 degree twilight.

02:52 Preset to OSU_BHBinaries/2MJ21561240+2510478.

02:54 Starting science. Guider reports 0.8".

03:20 1.1" from the DIMM. We still have scattered cloud passing through.



03:30 Preset to OSU_BHBinaries/2MJ20303557+4048087.

03:34 The target has a close companion. We are performing a pointing correction nearby before proceeding with the target.

03:39 Starting science. The pointing correction was necessary, we picked up a different star than the first time.

04:06 Preset to OSU_LiDwarf/2MJ18432994+4356589.

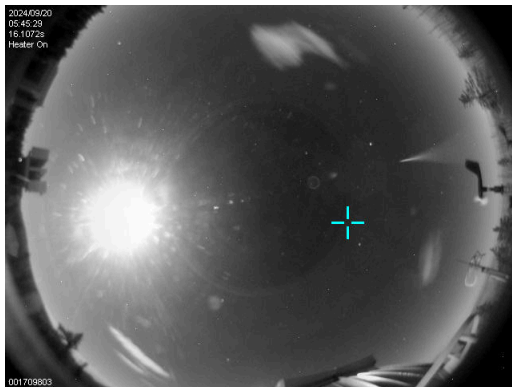
04:38 Preset to OSU_LiDwarf/2MJ19580796+4052023.

04:40 Starting science.

05:15 Preset to UVa_Multistar/TIC 89278612

05:17 Starting science.

05:48 Preset to OSU_BHBinaries/2MJ20242800+0407075. DIMM reports 1". We still have scattered clouds moving fast.



05:53 Starting science. We had to unwrap in az.

06:39 Preset to UVa_Multistar/TIC 470710327.

06:42 It looks like the wrong star was acquired, performing a pointing correction.

06:45 Returning to the science target and starting science.

06:56 Preset to OSU_BHBinaries/2MJ00525502+6335152.

07:30 Preset to OSU_BHBinaries/2MJ23005913-0631412

07:34 Starting science.

08:05 We lost our preset, likely due to high winds on the telescope. 75% of the first exposure completed.

08:09 Preset to OSU_LiDwarf/2MJ03435417+1719250. Target is out of the wind. DIMM reports 1".

08:19 Preset to OSU_BHBinaries/2MJ02245932+0108428.

08:32 Preset to UVa_Multistar/TIC 367448265.

08:34 Starting science.

08:40 Preset to OSU_BHBinaries/2MJ02190382+3646369.

09:24 Preset to OSU_LiDwarf/2MJ04134178+2305579

09:28 Preset to OSU_BHBinaries/2MJ04453646+3311351.

09:40 Starting science.

10:21 Preset to OSU_BHBinaries/2MJ05340997+5708294.

10:23 Starting science.

10:37 Preset to UVa_Multistar/TIC 260056937.

10:38 Starting science.

10:52 Preset to UVa_Multistar/TIC 392229331.

10:53 Starting science.

10:56 1.2" from the DIMM.

11:10 Preset to UVa_Multistar/TIC 286470992.

11:12 The target appears to be a double. We are not sure if this is expected. The acquisition exposure shows 2 close targets of similar magnitude. Checking the pointing nearby.

11:15 Preset back to science target.

11:16 Starting science. We are confident that there is a close companion.

11:30 Preset to UVa_Multistar/TIC 286470992.

11:33 Starting science.

11:43 18 degree twilight.

11:56 Preset to OSU_BHBinaries/2MJ05214968+0243217.

12:00 The last target would be too long to fit in the remaining time. Preset to OSU_BHBinaries/2MJ06502446+2433129.

12:01 Starting science.

12:13 12 degree twilight.

12:22 Preset to OSU_BHBinaries/2MJ06251677+4110498 .

12:24 Starting science.

12:28 End of science, closing up. Taking PEPSI cals.

13:01 Sunrise.