

OSURC Nightlog 20220928UT

Observer: Alex Becker

Lead Partner Observer*: Peter Garnavich

Telescope Operator: Josh Williams

AO Support*: ./.

*** = from home**

Night Info (AZ Time):

- Sunset: 18:17
- Nautical Twilight Ends: 19:05
- Astro Twilight Ends: 19:34
- Moonset: 18:30
- Astro Twilight Starts: 4:50
- Nautical Twilight Starts: 5:17
- Sunrise: 06:06

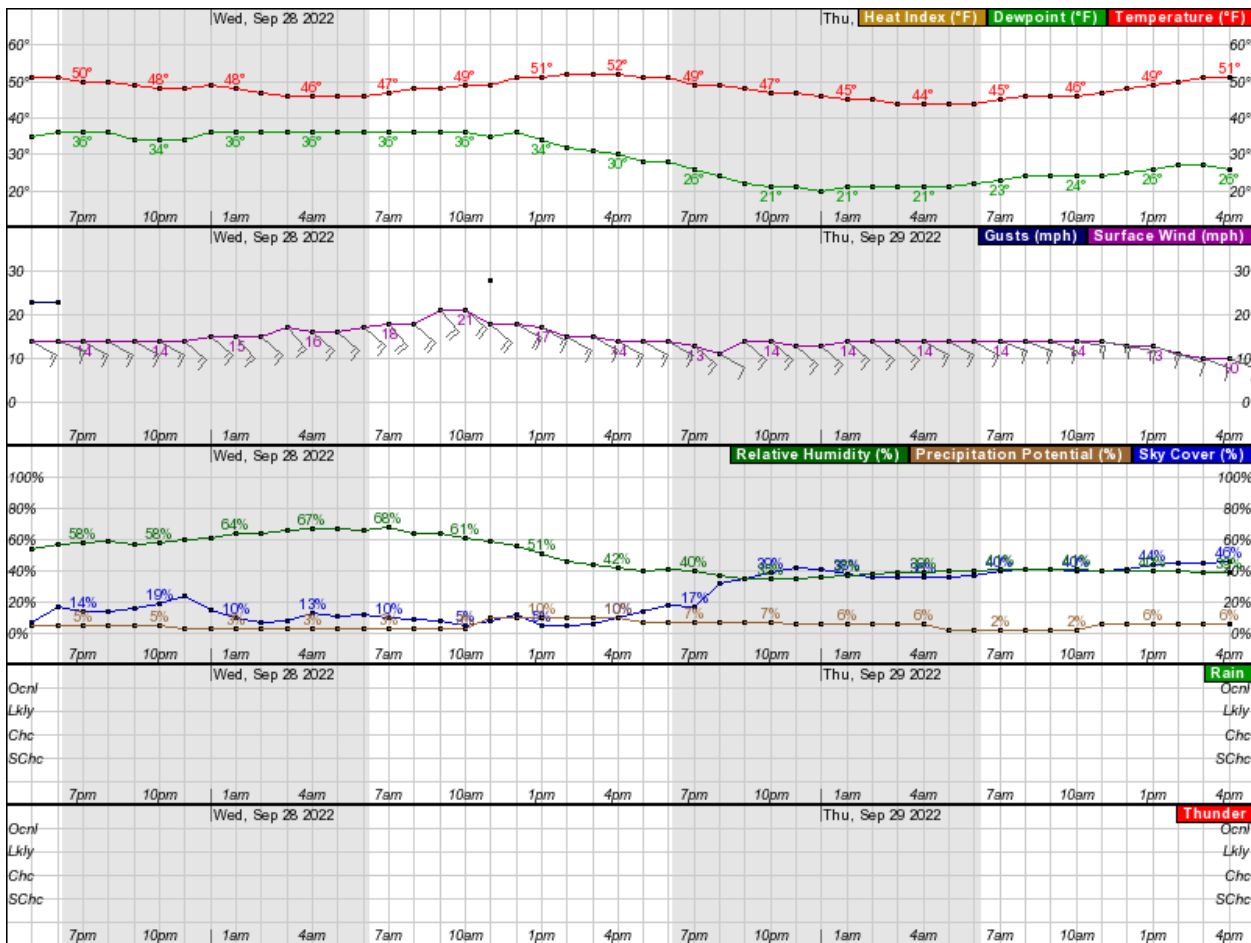
Plan:

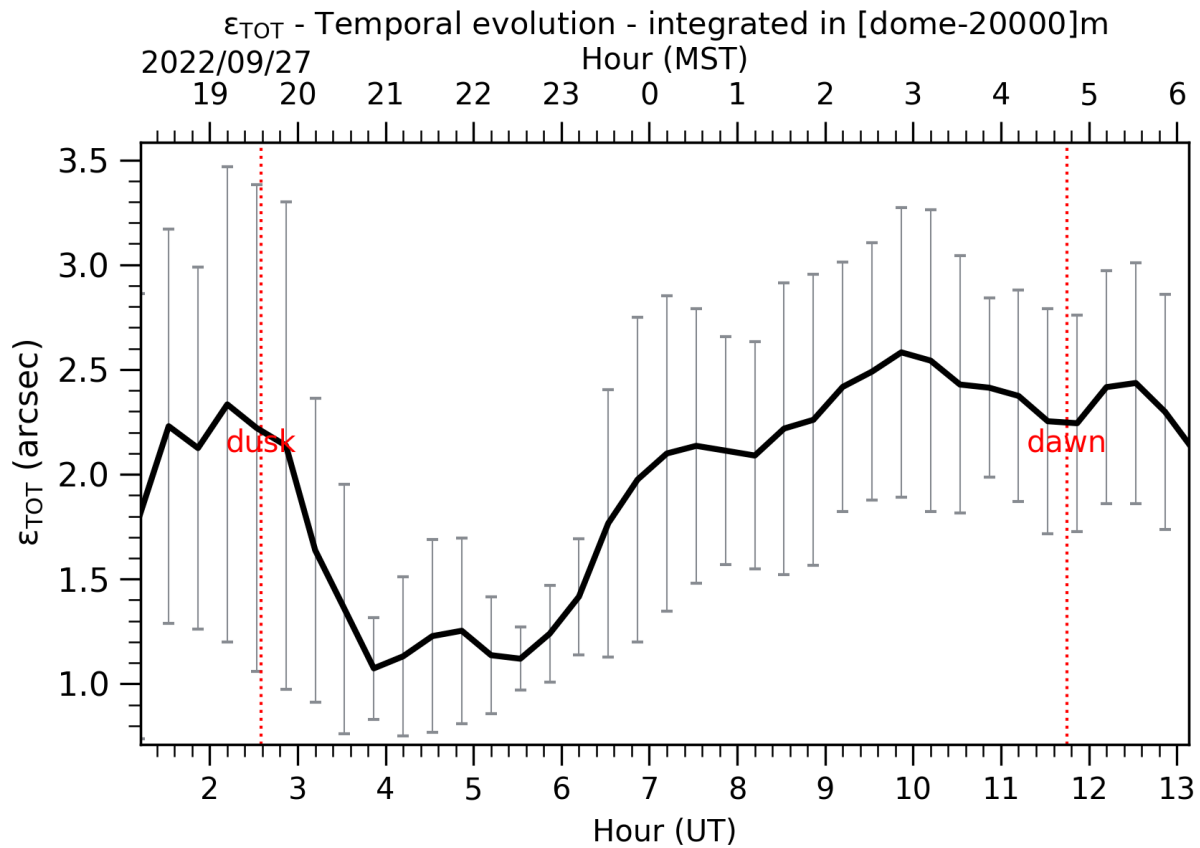
Summary:

Issues:

- I had a problem logging into rm507-1. After entering the password it showed the loading symbol next to the password field but nothing happened even after waiting for several minutes. I tried it a second time with the same result. Restarting the computer fixed the issue. However, I was given a warning that the user “observer”, which I used, is logged in twice. I guess my two login attempts were technically successful, but it failed to load the awful GNOME 40 Desktop; which is another story.
- Some tabs/websites keep on crashing in firefox. It is usually our scienceops websites and info.lbto.org: in rare cases also gmail/google docs. In case of a crash all of these specific websites/tabs crash at the same time and are restored when restoring one tab.
- mods1r.20220928.0048.fits Corrupted FITS header. maskpos = ‘EMPTY’ instead of ‘IN’

Weather:





Night/Closed Dome Log (times are given in UT)

Closed Dome:

00:17 waking up MODS

00:28 LUCIs initialized

On-sky:

Temp. 8.2, Humidity: 70%, Wind: ~10m/s@90

Std

BD+28

Seeing ~1.2" on the guiders

01:40 Sending preset

Well, the seeing is 1.2", sometimes. But mostly between 2" and 2.5". Highly variable. Centering the standard star in the 5" slit can be difficult.

```
modsAlign -r mods1r.20220928.0001.fits
```

MODS1 Offset Command:

```
offsetxy -0.804 12.149 rel
```

```
modsAlign -r mods1r.20220928.0002.fits
```

MODS1 Offset Command:

```
offsetxy 0.411 -0.023 rel
```

```
modsAlign -r mods2r.20220928.0001.fits
```

MODS2 Offset Command:

```
offsetxy 3.456 8.560 rel
```

```
modsAlign -r mods2r.20220928.0002.fits
```

MODS2 Offset Command:

```
offsetxy 0.605 -0.418 rel
```

We are waiting a bit until it gets darker.

02:02 Starting science integration

We now have a DIMM reading. It's around 4"

OSU_WD

HAT-P-18

02:22 Preset HAT-P_18.acq

We have to abort this target. Seeing is not good enough.

There was also a typo in the script, using a wrong name for the 1arcsec LS. Fixed after aborting the script.

OSU_ASASSN

ELLJ180425

02:40 Preset to ELLJ180425.acq

modsAlign -y 11 mods1r.20220928.0009.fits mods1r.20220928.0010.fits

MODS1 Offset Command:

offsetxy -0.680 11.104 rel

additional offsetxy -0.24 0

additional offsetxy 0.2 0

Playing PingPong with the seeing. We just keep it at an average position and go from there.

modsAlign -y 9 mods2r.20220928.0008.fits mods2r.20220928.0009.fits

MODS2 Offset Command:

offsetxy 3.235 8.516 rel

02:57 Starting science!

ELJ001532

03:18 Preset ELLJ001532_UT0700.acq

modsAlign -y 11 mods1r.20220928.0017.fits mods1r.20220928.0018.fits

MODS1 Offset Command:

offsetxy -0.404 10.649 rel

manual: delta_X: -0.25

modsAlign -y 9 mods2r.20220928.0014.fits mods2r.20220928.0015.fits

MODS2 Offset Command:

offsetxy 3.596 7.834 rel

manual: delta_X: -0.12

03:32 Starting science!

Seeing is still craptastic and wind gusts up to 20 m/s.

Humidity now at 80%

ND_foaqr

foaqr

03:56 Preset to foaqr pa0

```
modsAlign -y 11 mods1r.20220928.0024.fits mods1r.20220928.0025.fits
```

MODS1 Offset Command:

```
offsetxy -2.690 9.250 rel
```

```
modsAlign -y 9 mods2r.20220928.0021.fits mods2r.20220928.0022.fits
```

MODS2 Offset Command:

```
offsetxy 2.119 7.052 rel
```

manual adjustment: delta_x: -0.3"

04.11 Starting science

OSU_WD

04:55 HIP116454.acq

This is a bit of a special acquisition as the target WD is close to another bright star. The "field" image is taken with the 5" slit to mask out the bright star. I initially thought this error might be caused by having the slit in the field for the field image. However, the header keyword maskpos as the value "EMPTY" which should not happen.

```
[osurc@obs2 20220928]$ modsAlign -y 11 mods1r.20220928.0048.fits
```

```
mods1r.20220928.0049.fits
```

```
** ERROR: Cannot determine mask position in/out
```

```
Does /lbt/data/new/mods1r.20220928.0048.fits have a corrupted FITS header?
```

There was also a typo in the script, using a wrong name for the 1arcsec LS.

That was quite some work. We finally got the WD into the slit.

05:50 Starting science

HIP116454_BK.acq

08:05 Sending acquisition script

```
modsAlign -y 11 mods1r.20220928.0061.fits mods1r.20220928.0062.fits
```

MODS1 Offset Command:

```
offsetxy 5.181 7.089 rel
```

modsAlign -y 9 mods2r.20220928.0065.fits mods2r.20220928.0066.fits

MODS2 Offset Command:

offsetxy 9.397 3.459 rel

08:15 ** ERROR: IMCSLOCK RedIMCS=Fail BlueIMCS=LockedOn

UVa_BCD_MODS

J0139

08:27 Preset J0139.acq

modsAlign -y 11 mods1r.20220928.0067.fits mods1r.20220928.0068.fits

MODS1 Offset Command:

offsetxy -0.969 11.405 rel

There is a bright reflection(?) in the mods1 field image (mods1r.20220928.0068). Not sure where it is coming from

modsAlign -y 9 mods2r.20220928.0071.fits mods2r.20220928.0072.fits

MODS2 Offset Command:

offsetxy 3.643 8.107 rel

We have something in MODS2. Not sure if it is centered.

We have ... a surprise in MODS1. Not sure if the target is in the slit.

However, Humidity is approaching 95% and we will try to get some data in before it hits the closing limit. 94.9% as of writing this.

08:46 Starting science

Stopped science exposures 5 minutes early. Emission lines visible.

08:59 Closing shutters due to RH

09:08 Reconfig LUCI

09:17 Reconfig complete

11:00 We are calling the night

Calibrations:

10:01

Moving from J to K:

```
2022.09.28 09:58:37 s | error medium | luci.luc | Luci ONE | ONE_InstrumentM |  
RMInstrumentManagerImpl.java#commitSetu(323) | error while committing setup FILTER_TWO  
2022.09.28 09:58:37 s | error medium | luci.luc | Luci ONE | ONE_InstrumentM |  
FilterUnitClient.java#setPosition(80) | Error setting the position of the filter unit to 13 at  
"rmi://localhost:60001/ONE_FilterUnit_2"!
```

```
2022.09.28 09:58:37 s | error high | luci.luc | System | Scheduler |  
AbstractCommitter.java#call(120) | Error during commit  
2022.09.28 09:58:37 s | error medium | luci.luc | System | Scheduler |  
InstrumentManagerClient.java#commitSetup(65) | Error committing setup to instrument  
manager at "rmi://luci.luci.lbto.org:60001/ONE_InstrumentManager"!
```

Initializing FW2 didn't solve the problem and FW2 now showed the 'blind' filter is in place. Tried to move FW2 to K again resulted in the same error. I had to call Dave to fix this error.

LBC

50 Bias (Thanks Olga!)

LUCI

UVa_nirjets

W3_IRS5

- darks
- Img flats
 - LUCI1 Br_gam
 - LUCI1 P_beta
 - LUCI1 J
 - LUCI1 K
 - LUCI2 H2
 - LUCI2 Fell
 - LUCI2 H
 - LUCI2 K

MODS

grflats_b

mods1b: 0039-

mods2b: 0038-