LBT Observing Log for 2024 Jan 15/16 (MST)

C19 Observer: Andrew Cardwell

Partner Observer(s): Donald Terndrup, Michael Tucker Telescope Operator: Steve Allanson

Plan:

We begin the night with PEPSI, switching to LBCs later if the clouds clear.

Observed and completed:

G171-58	8.12 PFU	200	CD3	00:01:00	CD6	00:00:30	Phillips
2MASS J00393703+4315380	13.20 PFU	300	CD3	00:21:40	CD5	00:21:40	Rowan
2MASS J01182361+5240551	12.70 PFU	300	CD3	00:11:40	CD5	00:11:40 I	Rowan
2MASS J01580277+3859380	11.85 PFU	300	CD3	00:06:40	CD5	00:06:40	Rowan
2MASS J02190382+3646369	12.40 PFU	300	CD3	00:18:20	CD5	00:18:20	Rowan
2MASS J03080769+6548070	12.70 PFU	300	CD3	00:21:40	CD5	00:21:40	Rowan
2MASS J03111269+6112167	12.60 PFU	300	CD3	00:11:40	CD5	00:11:40	Rowan
2MASS J06502446+2433129	11.70 PFU	300	CD3	00:10:00	CD5	00:10:00	Rowan
2MASS J07374788+2034048	10.68 PFU	300	CD3	00:01:40	CD5	00:01:40	Rowan
2MASS J06440510+0229164	11.89 PFU	300	CD3	00:06:40	CD5	00:06:40	Rowan
2MASS J06590768+1934232	11.20 PFU	300	CD3	00:03:20	CD5	00:03:20	Rowan
2MASS J06253728+8348566	13.86 PFU	300	CD3	00:13:20	CD5	00:13:20	Rowan
2MASS J07040276+7441072	11.59 PFU	300	CD3	00:03:20	CD5	00:03:20	Rowan
2MASS J07374788+2034048	10.68 PFU	300	CD3	00:01:40	CD5	00:01:40	Rowan
2MASS J07013474-0534568	11.80 PFU	300	CD3	00:05:00	CD5	00:05:00	Rowan*
2MASS J08404609+1128039	10.44 PFU	300	CD3	00:01:40	CD5	00:01:40	Rowan
2MASS J08420354+0149501	9.86 PFU	300	CD3	00:01:40	CD5	00:01:40	Rowan
2MASS J08535501-1136033	11.35 PFU	300	CD3	00:03:20	CD5	00:03:20	Rowan
2MASS J09434895-0959279	9.34 PFU	300	CD3	00:01:40	CD5	00:01:40	Rowan
2MASS J10460599+1002584	12.15 PFU	300	CD3	00:15:00	CD5	00:15:00	Rowan
2MASS J08161755+2441448	9.12 PFU	300	CD3	00:01:40	CD5	00:01:40	Rowan
2MASS J12503035+6933196	11.88 PFU	300	CD3	00:05:00	CD5	00:05:00	Rowan
2MASS J12090872+1928415	12.60 PFU	300	CD3	00:13:20	CD5	00:13:20	Rowan
2MASS J12201670+1229024	12.10 PFU	300	CD3	00:13:20	CD5	00:13:20	Rowan
HD106888	8.18 PFU	200	CD3	00:01:45	CD6	00:00:50	Phillips
2MASS J13100180+2230053	13.57 PFU	300	CD3	00:11:40	CD5	00:11:40	Rowan
2MASS J13030787+0811452	12.30 PFU	300	CD3	00:16:40	CD5	00:16:40	Rowan
LP616-93	10.90 PFU	200	CD3	00:21:00	CD6	2x00:10:00) Phillips
LP617-58	11.23 PFU	200	CD3	00:30:00	CD6	2x00:11:00) Phillips
HD125141	7.78 PFU	200	CD3	00:01:10	CD6	00:00:30	Phillips
2MASS J14462334+1136212	13.10 PFU	300	CD3	00:21:40	CD5	00:21:40	Rowan

Summary:

There is an issue with the target below, it is unobservable on DX for technical reasons. 2MASS J07424720-1718524 12.26 PFU 300 CD3 00:05:00 CD5 00:05:00 Rowan

Issues:

Overview (times are given in UT):

00:10 Cloudy conditions. Powering on LBCs.

00:20 Running a 2 bias checkout on LBCs.

00:22 Looks good. Running a bias sequence on LBCs.

00:40 **Sunset**. Remaining closed for now.

01:08 Opening up.

01:28 Preset to G171-58.

01:30 Starting science. We still have clouds and will use this short, bright, target to estimate how much we will need to increase our exposure times.

01:33 Looks like we need to increase exposure time by around 50%. Adjusting exp times and repeating.

01:36 We doubled the exp times in red and got just over the S/N requirement. We will stick with that factor.

01:32 12 degree twilight.

01:38 Preset to 2MASS J00393703+4315380. Exp times will be doubled.

01:40 DIMM reads 1.1", Guiders report 0.7" or better.

02:02 18 degree twilight.

02:25 Preset to **2MASS J01182361+5240551**. We exceeded required S/N on the last target and will increase exp time by about 50% for that target. 11m 40s to 16m.

02:27 Starting science.

02:44 Clouds have thickened. Retimed exposures to 23m 20s, double the original exposure time.

02:52 Preset to **2MASS J01580277+3859380.**

02:54 Starting science. Exp time increased from 6m 40s to 15m. We are looking through a fairly thick band of cloud.

03:11 Preset to 2MASS J02190382+3646369. Doubling exposure time.

03:12 Starting science.



03:51 Preset to 2MASS J03080769+6548070. Increasing exposure time by 50%.

03:53 Making a pointing check to ensure that we have the same star on both sides.

03:57 Returning to target.

03:49 Starting science. Finally the exposure time was doubled, the clouds are not moving in our favor.

04:44 Preset to **2MASS J03111269+6112167**.

04:47 Starting science. Exp time increased by 50%, the sky is looking clearer right now.

05:00 Pointing jump on DX, target briefly lost.

05:06 Preset to **2MASS J06502446+2433129**. Increasing exp time by 50% worked well for the last target, we will stick with that.

05:11 Starting science.

05:27 Preset to **2MASS J07374788+2034048**. The sky has further cleared, no change in exposure time made.

05:30 Starting science.

05:33 We did not meet S/N requirements. Doubling the exposure time and running it again.

05:38 Preset to **2MASS J06440510+0229164**. We just cleared the S/N requirement after doubling the last exposure time. I will continue to double until conditions change.

05:40 Starting science.

05:55 Preset to **2MASS J06590768+1934232**. Last target exceeded S/N requirements by far, I can only assume that the time for 2MASS J07374788+2034048 was incorrect. No change to the exp time for this target.

05:57 Starting science.

06:02 Preset to **2MASS J06253728+8348566**. We were just under S/N requirements for the last target. Increasing S/N by 50%.

06:05 Range balancing issue. Steve is fixing it.

06:06 Sending preset again.

06:07 Nope, we still have issues. Sending the preset again.

06:09 Starting science.

06:32 Preset to **2MASS J07040276+7441072**. Exp time increased by 50%.

06:39 Preset to 2MASS J07374788+2034048. Exp time increased by 50%.

06:44 Starting science.

06:48 Preset to **2MASS J07013474-0534568**. Target has an original exp time of 5 mins, considerably shorter than other targets of similar magnitudes. We have opted for 15mins, and further increased that by 50% to account for conditions.

06:52 Starting science.

07:00 Made the decision to stick with PEPSI. DIMM seeing is highly irregular, with frequent poor seeing.



07:02 Pointing jump on DX. Target was briefly off position.

07:17 Preset to 2MASS J07424720-1718524. Exp time increased as per the previous target.

07:18 Wrong target grabbed on DX. Steve is steering it in.

07:19 Sending the preset again.

07:20 We tried this target yesterday and had issues. Skipping it [Queue management note: PI please remove this target from the program]

07:21 Preset to 2MASS J08404609+1128039.

07:22 No GS found on DX. Steve is performing a pointing check.

07:27 Returned to science source, starting science.

07:31 Preset to 2MASS J08420354+0149501.

07:33 Starting science.

07:37 Preset to 2MASS J08535501-1136033.

07:39 Starting science.

07:45 Preset to 2MASS J09434895-0959279.

07:47 Starting science.

07:52 Preset to **2MASS J10460599+1002584**.

07:53 Starting science.

08:16 Preset to 2MASS J08161755+2441448.

08:19 Starting science.

08:23 Preset to **2MASS J12503035+6933196**. Long azimuthal slew. Exp time seems short, we have doubled it to 10mins.

08:26 Starting science.

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08:38 Preset to 2MASS J12090872+1928415. Az unwrap required. 50% increase in exposure time.
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08:43 Starting science.

09:04 Preset to **2MASS J12201670+1229024**.

09:28 Preset to HD106888 .

09:30 Starting science.

09:35 Preset to 2MASS J13100180+2230053. Exp time increased to 20mins.

09:58 Preset to **2MASS J13030787+0811452**. Exp time increased by about 25% to 20m.

10:00 Starting science.

10:22 Preset to **LP616-93**.

10:24 Starting science. No change made to exposure time.

10:49 Preset to **LP617-58**.

10:51 Starting science. No change made to blue exp time. Red exp time increased slightly to avoid idle time.

10:56 Another issue with PSF. Resending the preset, but letting the integration continue. I'll add a little time to it to compensate.

11:24 Preset to HD125141.

11:29 Starting science.

11:32 Preset to **2MASS J14462334+1136212**. Exp time increased to 30mins.

11:35 Starting science.

12:07 **Reconfiguring to MODS**. We were out of PEPSI targets. Running PEPSI cals. Running simSnap on MODS.

ND_bluegals: J1145

12:27 Preset to J1145. DIMM reports 1.2".

12:39 Starting science. We do not expect to finish the target, but should get 2 good exposure of the 4 required.

12:52 Visible trace in the red.

12:55 18 degree twilight.

13:25 12 degree twilight.

13:28 End of observations. Closing Enclosure.

13:41 Taking MODS biases.

14:17 Sunrise.