

LBT Observing Log: 2025 04 04 UT

Observers: Olga Kuhn

Partner Observer: Michael Tucker

Telescope Operator: Steve Allanson

Plan:

Highest priority targets are LUCI/LBC. We'll adjust with the weather with PEPSI and MODS as backups.

Plan to start with MODS, switch to LUCI or LBC if conditions hold

Summary:

Snow started to accumulate around 9:30MST and the night was called. We ran MODS calibrations:

- dual grating bin12 slitless pixel flats,
- dual grating bin12 0.8" slit flats and
- bin 12 8K biases, in addition to
- unbinned dual grating 1" slit flats and
- unbinned biases 3K and 8K

I think that may complete the MODS cals.

With LUCI, we ran the OSU_XMD_LUCI darks after waiting hours for persistence from a slit image to fade.

With MODS, checked some exposure time settings for dual grating slitflats.

Issues:

Switch 10 flakiness on LUCI one. Worked around by Glenn's SW update to have both the Observer Panel and the IMGUI ignore FW2, and observer will move FW 2 with MCU engineering GUI.

Remote room: rm507-s froze once, cntrl-C on x2go to robs1 does not work from rm507-sw, but does work when same x2go session brought up on rm507-s. cntl-C does work on both rm507-s and rm507-sw, so not a keyboard issue, but mapping in x2go?... yet it is the same x2go session.

MODS1B exposure control hung at "Done...Cleaning up" and could not be recovered by expdone.

MODS2(B, I think) needed an expdone (this was outside of a script).

Weather:

Clouds delayed opening at sunset, but then just before 21:30 MST (04:30 UT), it started to snow, with some accumulation, and the night had to be called.

Overview (times are given in UT):

01:48 modsSimSnap — MODS1R & MODS1B have a new dust spot (likely from field lens) in near bottom right of lower right quadrant (Q2). MODS1B Q2 even-odd column striping Tch = -1.95C.

LBC 2 bias checkout - OK

LUCI - 2 quick darks - OK

03:10 The satellite map isn't looking good & it's overcast.
Starting some calibrations.

LUCI : I took a slit image with LUCI1 about an hour ago (02:19UT, luci1.20250404.0006.fits), though with a minimum 2.53s DIT, ~2600 ADU/DIT, at Ks. Checking for persistence with a 100sec MER... there is some persistence. Holding off on the darks for now.

MODS : Last night (20240403UT), dual grating comps, slitless flats & 1.2" slit flats were done.

mods#c.20250404.00NN.fits

	m1b	m1r	m2b	m2r	Comment1	Comment2
Bias 8K	3-7	3-7	3-7	3-7	m1b q2 issue	m1b q2 issue affecting all, even though it may not be so obvious on flats.
Bias 3K	8-12	8-12	8-12	8-12		
Bin12 biases	13-17	13-17	13-17	13-17		
Bin 12 dual grating slitless pixflats	18-22 23-27	18-22	18-22, 23-27	18-22	VFLAT 4: 20k,16k,23 k,21k pk cnts VFLAT 8, UG5: 30k,30k	

Bin 12 0.8" dual grating slit flats	28-30 31-33	23-25 26-28	28-30 31-33	23-25 26-28	QTH/ND:blue have 30k QTH/UG5: pk at 35k, 27k - acceptable (35k is in Q2, 31k in Q4).	
Bin12 dual grating slitless pixflats	34-38 39-43	29-33	34-38 39-43	29-33	Adjusted VFLAT4 exptimes to aim for 30k counts VFLAT4: 38(Q2)34k, 38, 33, 34k	
Bin12 dual grating slitless pixflats	44-48 49-53	34-38	44-48 49-53	34-38	Adjust VFLAT 4 exptimes for M1, good now. best set	
Dual Grating 1" slit flats	54-56* 57-59	39-41 42-44	54-56 57-59	39-41 42-44	m1b hung after 56. See note below. m1r, QTH 23k m1b, QTH+UG5 peak 40k in Q2, but 35k in Q4 m1r, VFLAT 21k	
Dual Grating 1" slit flats (repeat with M1 exptimes adjusted)	60-62 63-65	45-47 48-50	60-62 63-65	45-47 48-50	best set	

Bias Bin12 (repeat)	66-70	51-55	66-70	51-55		
Bias 3K	71-75	56-60	71-75	56-60		
Bias 8K						

04:25 It started to snow, enough that it is staying on the roof. Steve has called the night.

Will continue with calibrations... MODS and, when the persistence on LUCI1 fades, LUCI darks.

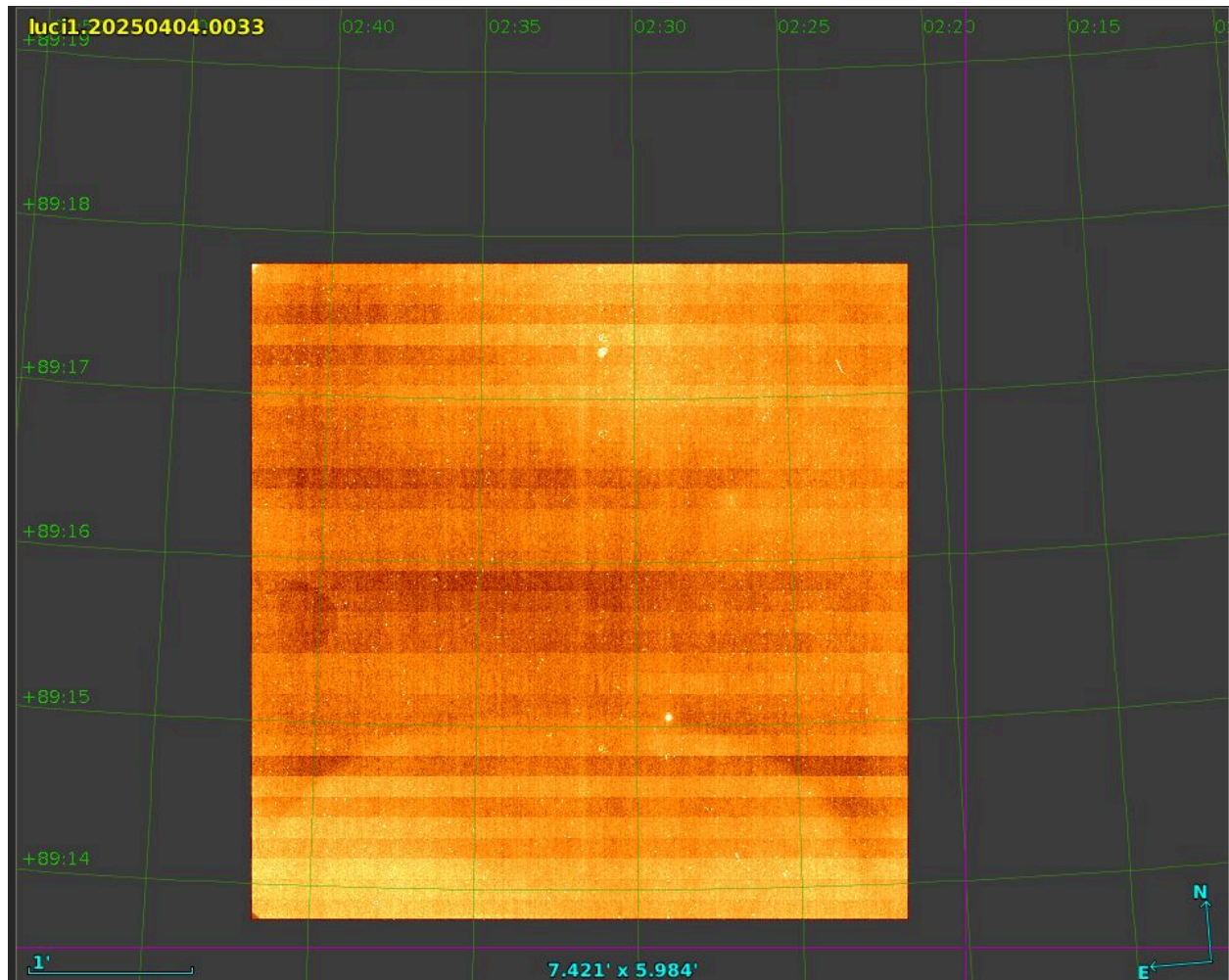
* After m1b 56, exp control hung at "Exposure Done... cleaning up". Time was 05:30UT. At 05:43UT, I noticed this and issued "blue expdone". This advanced nextfile to 0057, however the script did not proceed any further and is hung; the script should have taken 3 more (UG5) m1b files and then 3 m1r files. Is there a time within which the "expdone" must be given? Control-C'd, and made a copy of the script in ~/scratch/20250404 which I edited to create a new block, Set2, that will execute the 3 remaining blue (57-59) and 3 remaining red files (42-44):
execMODS -mods1 b Set2 ~/scratch/20250404/grslitflats_1.0_m1.txt

A few repeats of the flats, but I highlighted the best set in green, though others which used different exposure times are also acceptable. Biases just repeated to check for variations - all are useable. Unfortunately, all calibrations tonight are affected by the MODS1B Q2 even-column bias instability.

10:40 - the LUCI1 persistence is gone (on the image taken 08:54). Starting the dark script

luci#.20250404.00NN.fits

LUCI1	LUCI2	DIT	NDIT	readmode	savemode	
12-21	5-14	5	1	LIR	inte	
22-31	15-24	15	4	LIR	inte	
32-41	25-34	600	1	MER	normal	very slight hint of slit image (see screenshot below)



12:51 - The LUCI darks for OSU_XMDs_LUCI have finished.

Closed the LUCI interface, the LUCIs are safed.

Turned off the LBCs.

Put MODS to sleep & closed their GUIs.