Users and Member Coordinators Meeting

September 12, 2025

LARGE BINOCULAR TELESCOPE OBSERVATORY

Agenda

1. Introduction (Joe)

Welcome
New Instrument Proposals Update
LBT Access

2. Observatory Status Update (LBT Staff)

A. 2025B and 2026A Instrument Availability
B. 2025B and 2026A Coordination
C. MODS Upgrades News
D. AO Status
E. Archive and Calibration File Updates (Al)
F. iLocater Update
G. Shutdown Activities

3. Questions and Discussion (All)

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Call for New Instrument Proposals

- 9 proposals were received
- Have gone through internal staff review and are currently being reviewed by SAC and external reviewers

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LBT Access and Allocations for 2026A

LBTB will depart from membership at the end of 2025B.

What will happen to that additional time in 2026A?

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General Information

Posted Schedule: https://www.lbto.org/2025b-observing-schedule/

Instrument Modes Available for 2025B and 2026A

Facility Instruments

Seeing Limited:

- Monocular and Homogenous Binocular (twin or fraternal): Facility instruments in seeing-limited mode including LBC, MODS (after Oct 1), LUCI, and PEPSI PFU, all of which are flexibly scheduled in partner science blocks.
- Mixed Mode Binocular in shared risk (e.g., LBC + MODS)

Enhanced Seeing Mode: LUCI1/LUCI2 Imaging offered,
Spectroscopy offered in shared risk

Diffraction Limited : LUCI1/LUCI2 Imaging offered,
Spectroscopy offered

Strategic Instruments – LBTI

PI Instruments – SHARK-NIR (SX) and SHARK-VIS (DX)

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2025B Coordination

- Member coordinators should notify LBT staff of any planned AO use during their block, ideally 2 weeks in advance and including instrument modes, observing windows
- Likewise, coordinators should send proposal IDs and proprietary periods in advance of the semester
- PEPSI PFU readme files should be submitted no later than 1 week in advance of a block, leaving time for OBs to be generated and checked
- Time sensitive observations – listed on the schedule for convenience with instrument requested. Please communicate with member coordinators in advance of the block.

2026A Allocations **Due December 1**

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MODS News

MODS upgraded to Archon CCD controllers to improve performance and to replace old controllers that were custom and ageing and not easily replaceable

What should you expect?

- Faster readout – exact improvement TBD – much faster!
- No even-odd column striping
- Headers will look somewhat different
- Brand new pre-processing software – modsCCDRed

PypeIT Workshop

October 21, 2025 via Zoom - 2 hour workshop – 4-6pm AZ time

- Most of the workshop (1.5 hours) will be breakout sessions, including one for MODS-specific reduction questions with Olga

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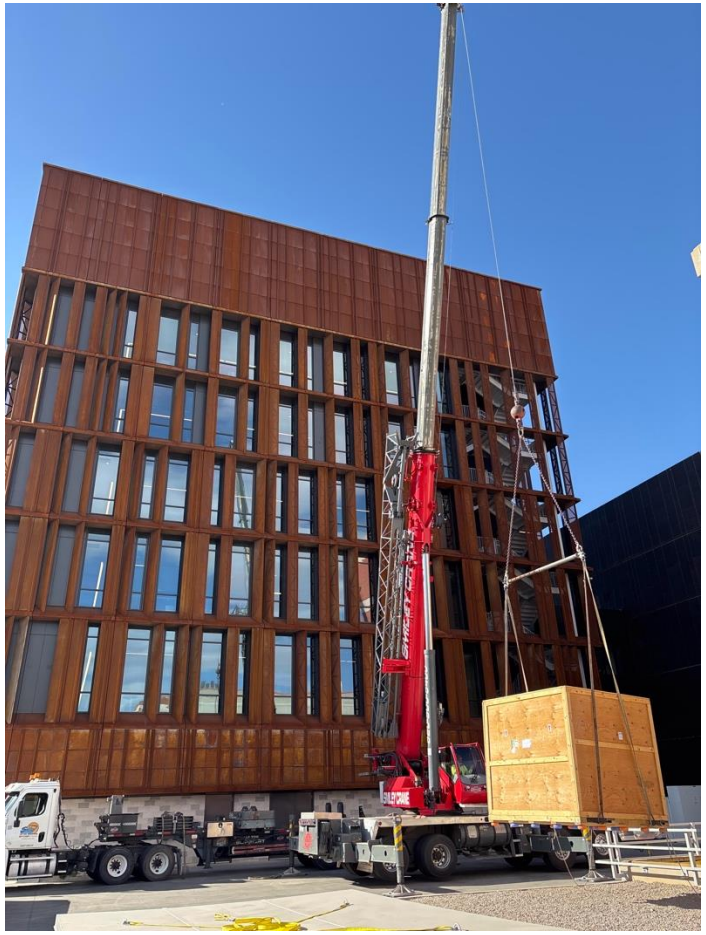
AO Status Update

- Successful DX ASM service campaign over the summer shutdown
- Both ASMs were released for seeing-limited science on the 1st week of restart
- Efforts are underway to recondition the Magellan secondary for use at the LBT; this a year-long process
- The new secondary could possibly be ready for testing by mid-2026



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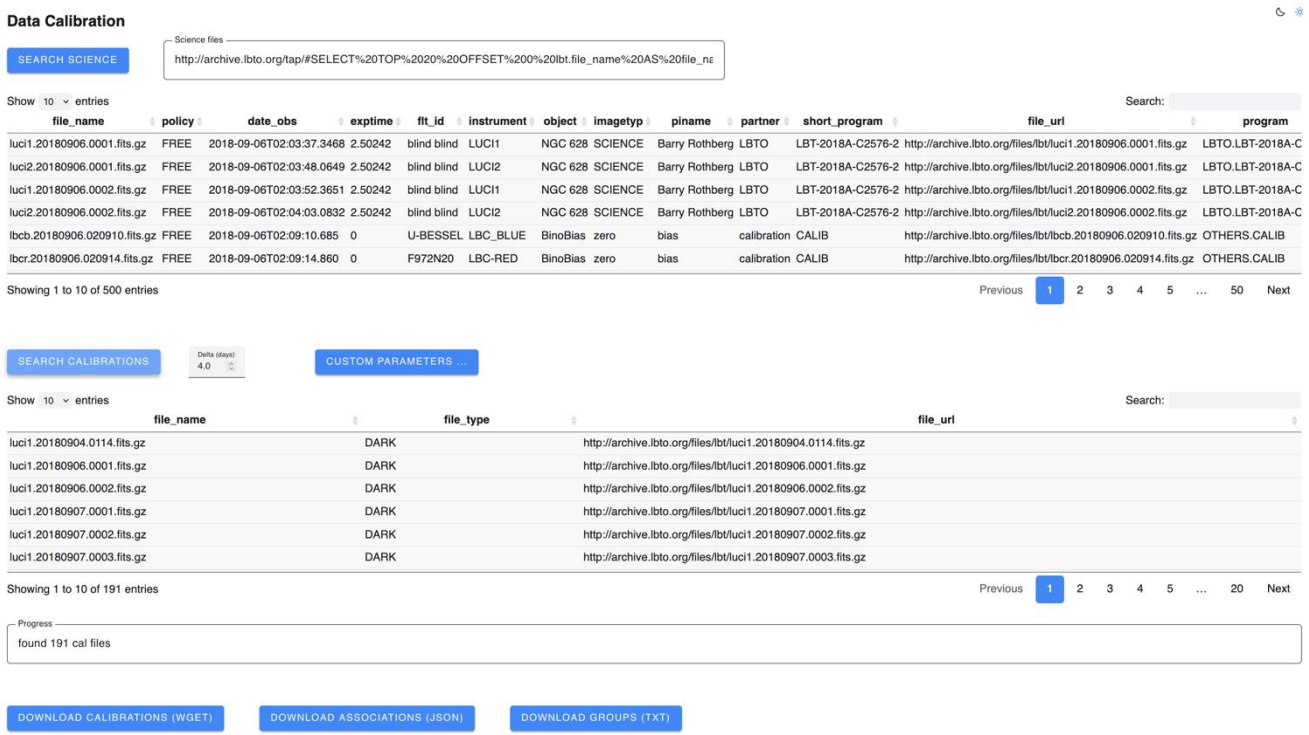
Archive Update

- A faster virtual machine for the archive database has been deployed
- PEPSI data are now available via the archive
- More data are available, in accordance with the new archive policies
- GetCals – new feature to find and download calibration files

The LBTO Archive
Get Cals Feature

- The LBTO archive "Get Cals" feature can be used to:
  - Locate the calibration files needed for data reduction (darks, arcs, biases flats, etc.) that are appropriate for a given set of science files found in the archive.
  - Download the found calibration files to local storage on the users computer.



Data Calibration

SEARCH SCIENCE — Science files: http://archive.lbto.org/tap/#SELECT%20TOP%2020%20OFFSET%200%20lbt.file_name%20AS%20file_na

Show 10 entries — Search:

file_name	policy	date_obs	exptime	flt_id	instrument	object	imagetyp	piname	partner	short_program	file_url	program
luci1.20180906.0001.fits.gz	FREE	2018-09-06T02:03:37.3468	2.50242	blind blind	LUCI1	NGC 628	SCIENCE	Barry Rothberg	LBTO	LBT-2018A-C2576-2	http://archive.lbto.org/files/lbt/luci1.20180906.0001.fits.gz	LBTO.LBT-2018A-C
luci2.20180906.0001.fits.gz	FREE	2018-09-06T02:03:48.0649	2.50242	blind blind	LUCI2	NGC 628	SCIENCE	Barry Rothberg	LBTO	LBT-2018A-C2576-2	http://archive.lbto.org/files/lbt/luci2.20180906.0001.fits.gz	LBTO.LBT-2018A-C
luci1.20180906.0002.fits.gz	FREE	2018-09-06T02:03:52.3651	2.50242	blind blind	LUCI1	NGC 628	SCIENCE	Barry Rothberg	LBTO	LBT-2018A-C2576-2	http://archive.lbto.org/files/lbt/luci1.20180906.0002.fits.gz	LBTO.LBT-2018A-C
luci2.20180906.0002.fits.gz	FREE	2018-09-06T02:04:03.0832	2.50242	blind blind	LUCI2	NGC 628	SCIENCE	Barry Rothberg	LBTO	LBT-2018A-C2576-2	http://archive.lbto.org/files/lbt/luci2.20180906.0002.fits.gz	LBTO.LBT-2018A-C
lbcb.20180906.020910.fits.gz	FREE	2018-09-06T02:09:10.685	0	U-BESSEL	LBC_BLUE	BinoBias	zero	bias	calibration	CALIB	http://archive.lbto.org/files/lbt/lbcb.20180906.020910.fits.gz	OTHERS.CALIB
lbcr.20180906.020914.fits.gz	FREE	2018-09-06T02:09:14.860	0	F972N20	LBC-RED	BinoBias	zero	bias	calibration	CALIB	http://archive.lbto.org/files/lbt/lbcr.20180906.020914.fits.gz	OTHERS.CALIB

Showing 1 to 10 of 500 entries — Previous 1 2 3 4 5 … 50 Next

SEARCH CALIBRATIONS — Delta (days) 4.0 — CUSTOM PARAMETERS …

Show 10 entries — Search:

file_name	file_type	file_url
luci1.20180904.0114.fits.gz	DARK	http://archive.lbto.org/files/lbt/luci1.20180904.0114.fits.gz
luci1.20180906.0001.fits.gz	DARK	http://archive.lbto.org/files/lbt/luci1.20180906.0001.fits.gz
luci1.20180906.0002.fits.gz	DARK	http://archive.lbto.org/files/lbt/luci1.20180906.0002.fits.gz
luci1.20180907.0001.fits.gz	DARK	http://archive.lbto.org/files/lbt/luci1.20180907.0001.fits.gz
luci1.20180907.0002.fits.gz	DARK	http://archive.lbto.org/files/lbt/luci1.20180907.0002.fits.gz
luci1.20180907.0003.fits.gz	DARK	http://archive.lbto.org/files/lbt/luci1.20180907.0003.fits.gz

Showing 1 to 10 of 191 entries — Previous 1 2 3 4 5 … 20 Next

Progress: found 191 cal files

DOWNLOAD CALIBRATIONS (WGET) — DOWNLOAD ASSOCIATIONS (JSON) — DOWNLOAD GROUPS (TXT)

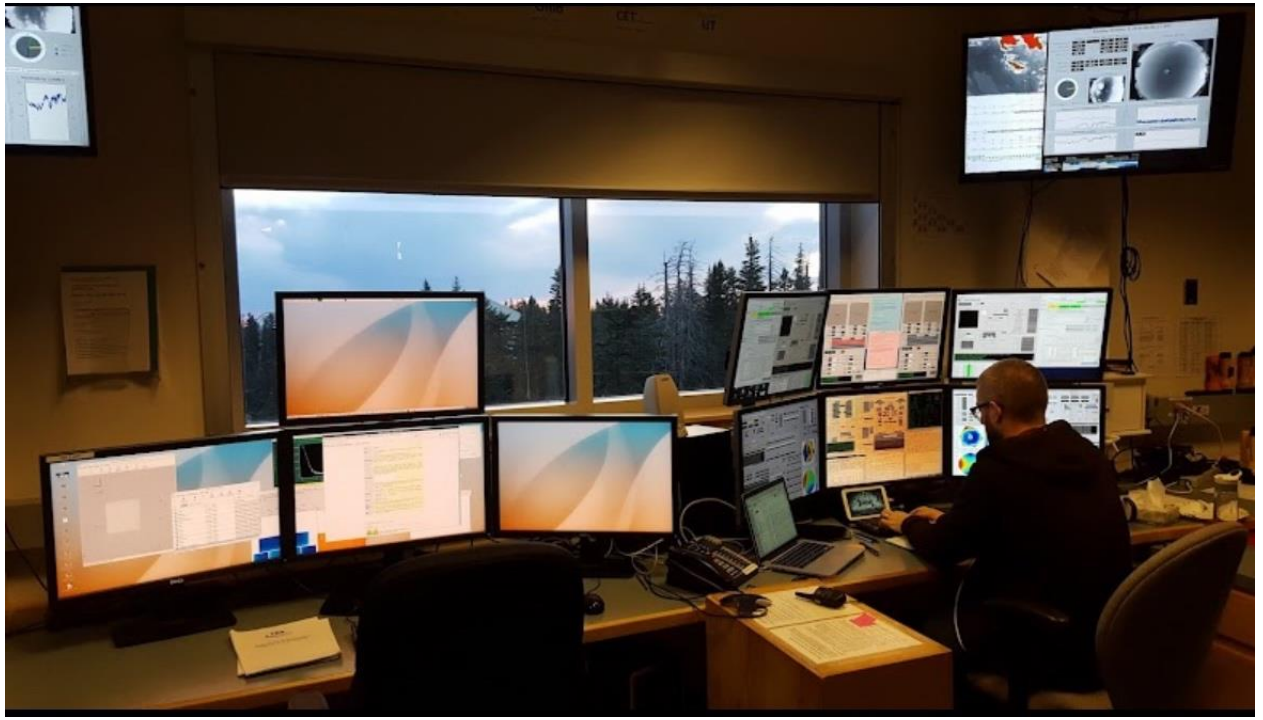
- These are the types of calibration files that are currently searched for, depending on the instrument

MODS:
- Bias
- Slitless Flat
- Slit Flat
- MOS Flat
- Longslit Arc
- MOS Arc
- Spec Std
- Imaging Flat
- Twilight Flat

LBC:
- Twilight Flat
- Bias

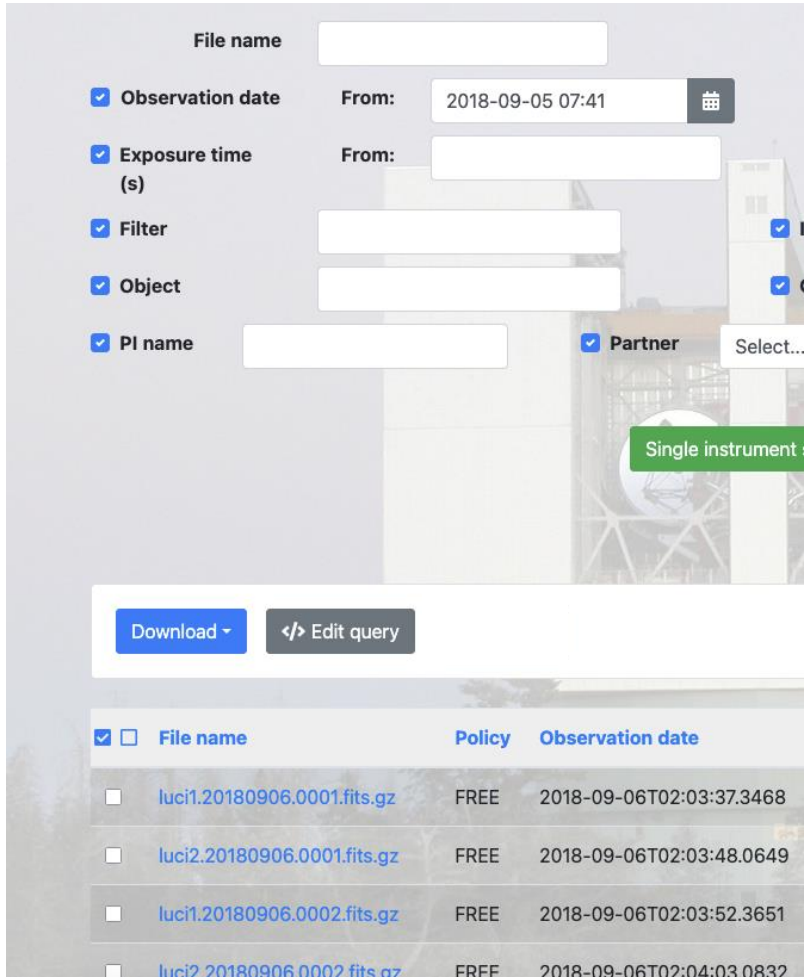
LUCI:
- Dark
- Slit Arcs and Flats
- Telluric
- Imaging Flats
- Twilight Flats

- The ”Get Cals" feature can be used by:
  - Current observers, as a quick way to obtain the calibrations they need for recently acquired data, and
  - Researchers mining older data in the archive, with plans to analyze and publish science frames that are no longer proprietary (made publicly available during July 2025).

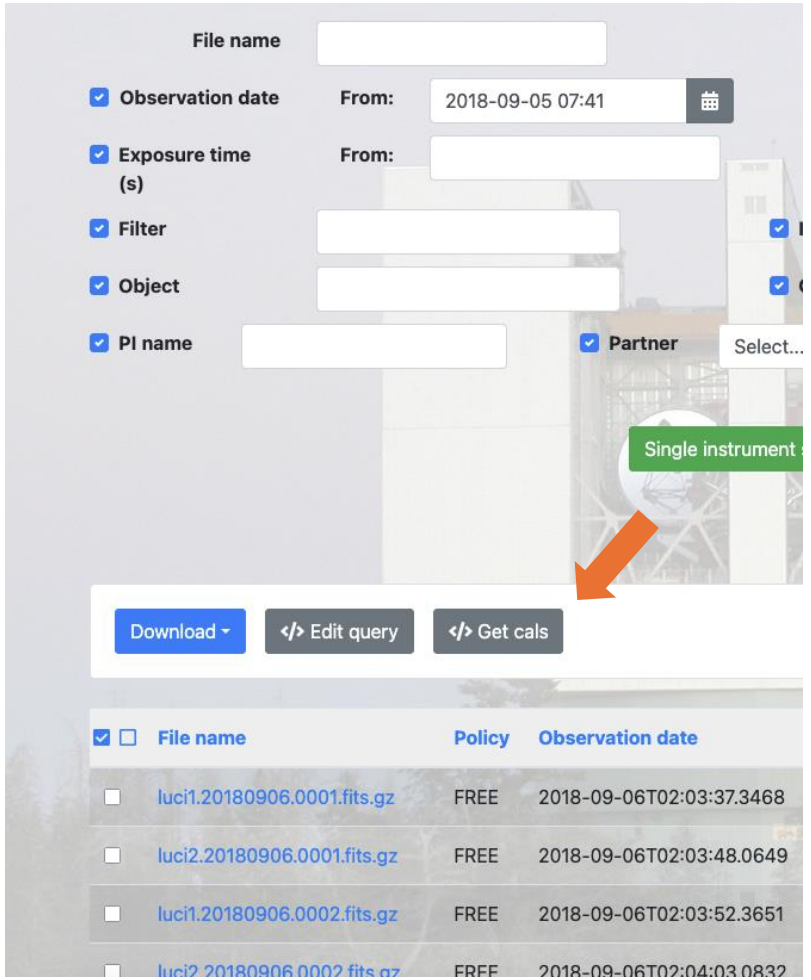


How it works…

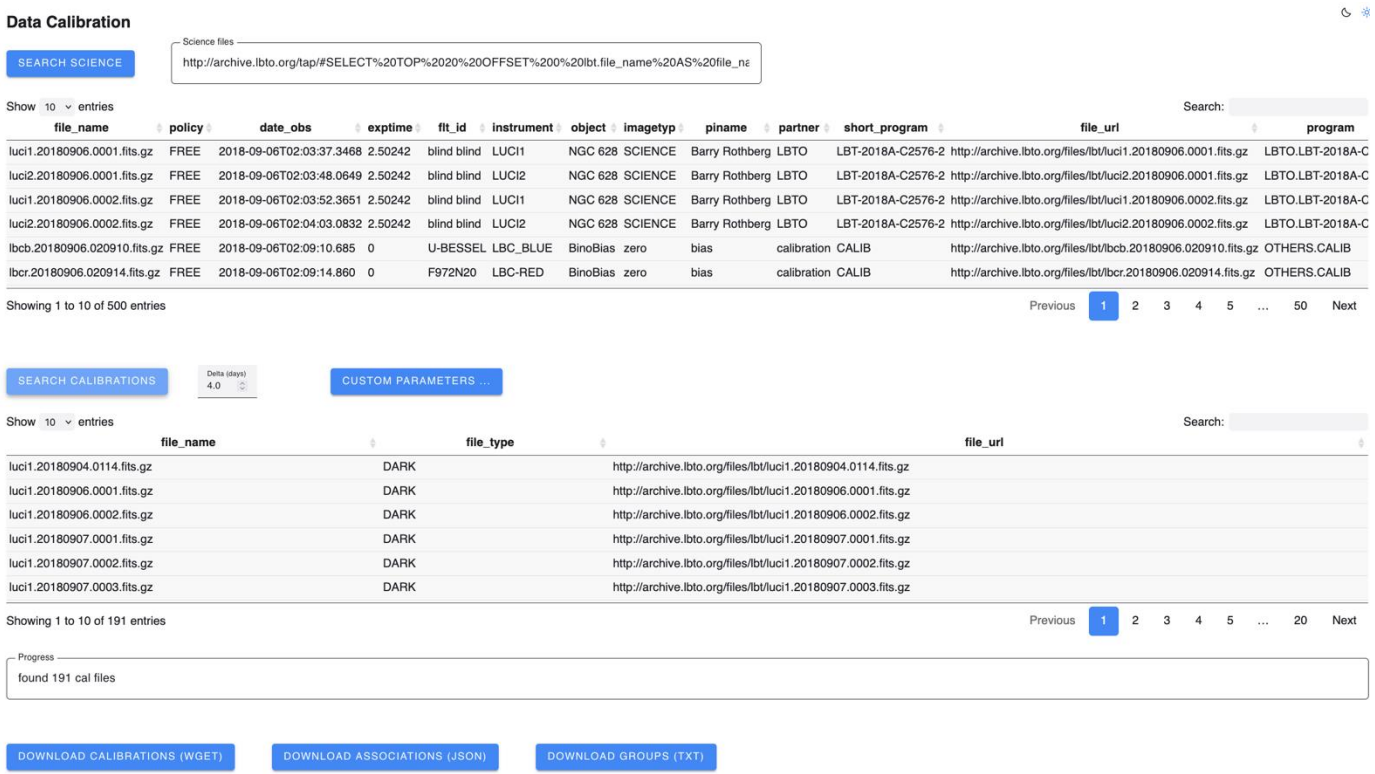
A portal search result has always looked like this:



Now there's a third option:

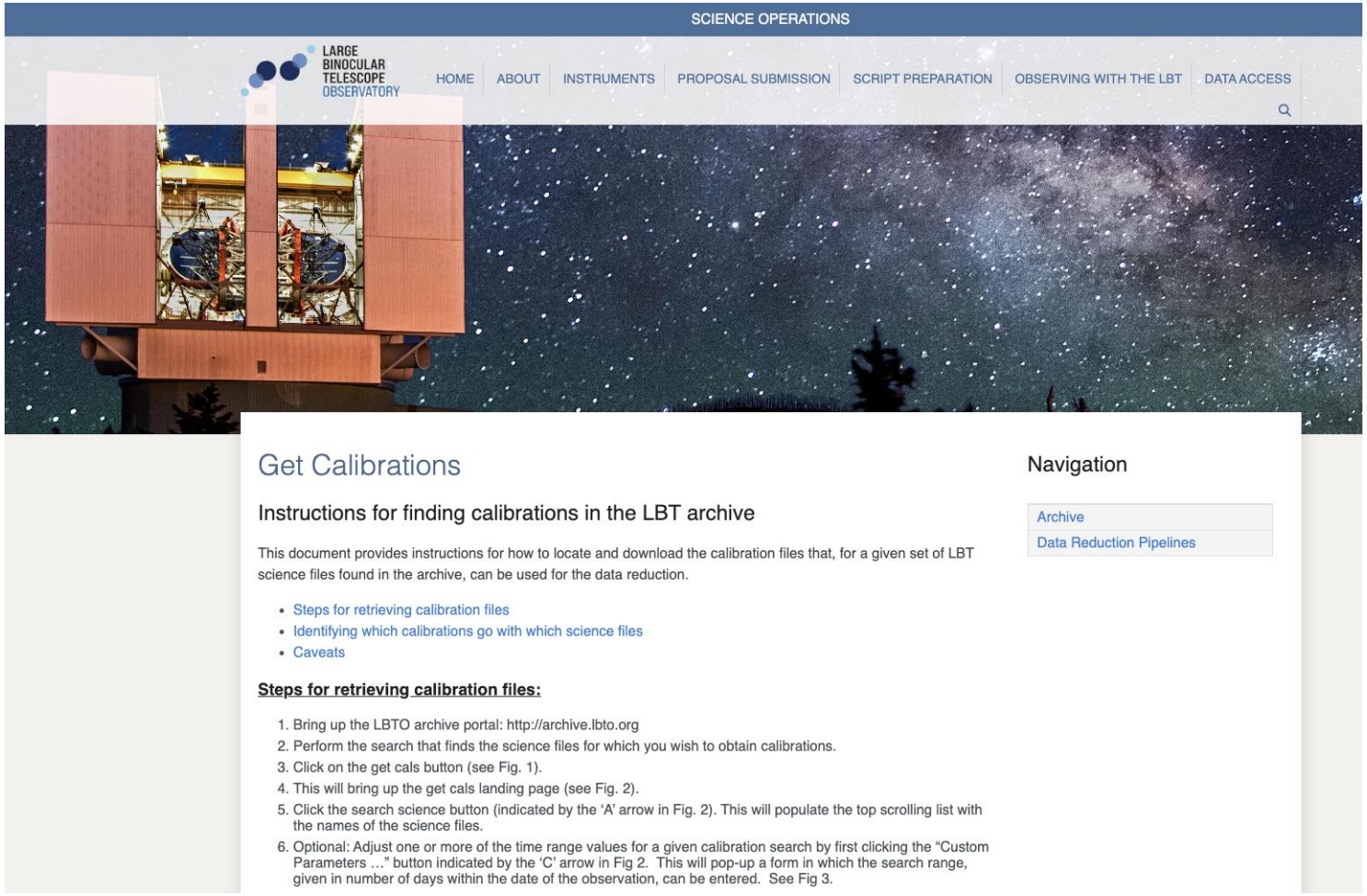


- Clicking on the “Get Cals” button brings you to the Get Cals landing page
- From this page you can
  - Search for calibrations matching the science files that you found on the portal
  - Tweak the search parameters
  - Download the calibrations that were found to your local computer
  - Download text files that show which calibrations go with which science files



Documentation

- Instructions for how to use this tool will soon be available on the LBTO Science Operation webpages.



The Team

- Olga Kuhn (LBTO)
- Matthieu Bec (LBTO)
- Al Conrad (LBTO)
- Martina Vicinanza (IA2)

Disclaimer

- This early release of the Get Cals web tool is at a beta test stage..
- In cases where calibrations were taken in a non-standard way, they may not be found.
- The tool only works with the first generation LBT instruments: LBC, LUCI, MODS.

Questions?

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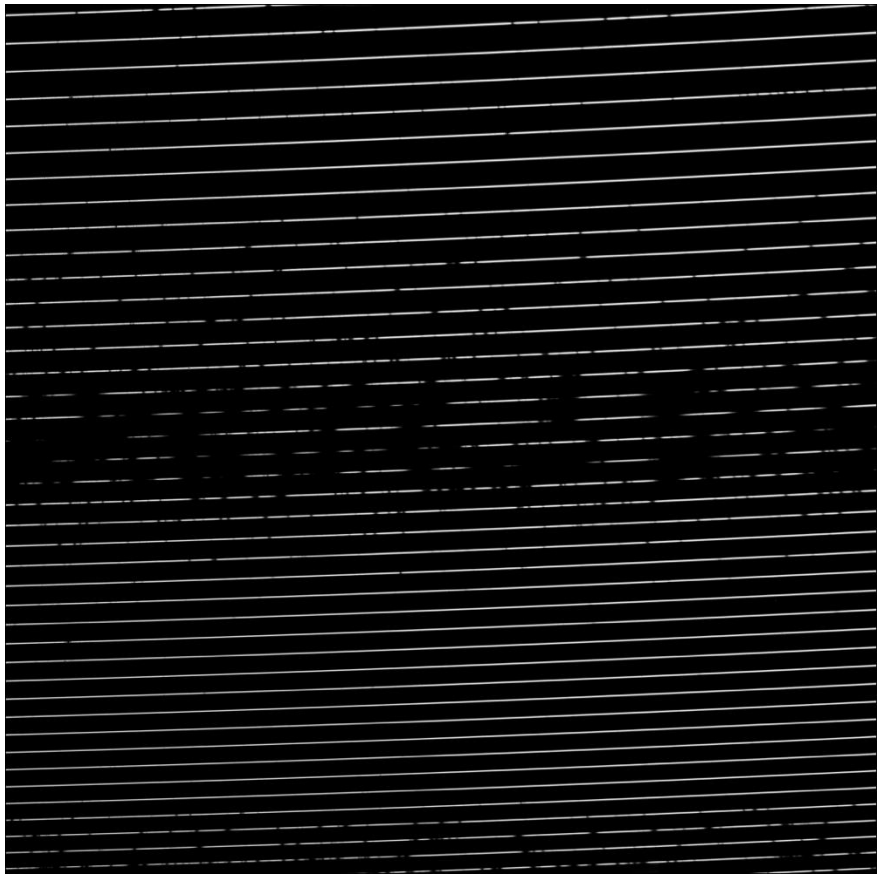
iLocater Update



An iLocater spectrum of the Sun taken in June from the testing laboratory at OSU.

- Pre-ship review planned for October
- Progress continues on the enclosure located on 3L
- The goal is on-sky testing in early 2026, AZ and OSU/RC contributing time
- iLocater will be listed in the PIT
- Anyone interested in early observations should contact Jonathan Crass and the iLocater team at ilocater-obs-list@nd.edu

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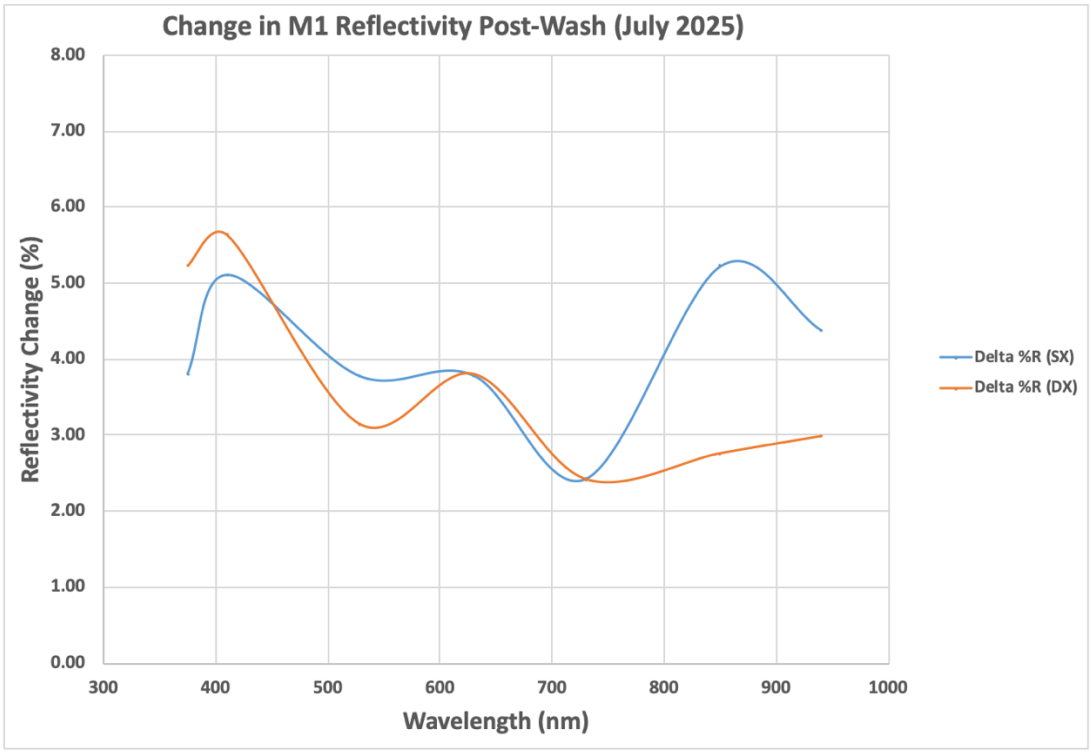
Shutdown Activities



- New all sky camera (Alcor Omea 9c) is ready to go and will be installed during September ECD time
- Both primary mirrors washed
- New versions of the OT and a new PIT server upgrade
  - The new OT includes the Gaia catalog
  - Both old and new OT will work for a while
  - Improvements to position editor
  - Security improvements

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DISCUSSION

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LBTI Status Update

- LMIRCam – all modes available
- FFTCam – is deployed and being commissioned
- NOMIC – remains offline until detector upgrade planned for SSD 2026
- Completed summer work on UBC
- Next run is in October / split with SHARK NIR for 4 nights, then 5 additional full nights

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Proposal Deadlines

- AZ — CfP: Sep 1; Closing: Oct 1 12pm MST
- OSU — CfP: Oct 1; Closing: Nov 1
- UMinn — CfP: Sep 1; Closing: Oct 20 23:45 (hard)
- INAF — No call this semester
- UVirginia — CfP: Oct 1; Closing: Oct 31 (soft) Nov 8 (Grace)
- ND - No call this semester

https://scienceops.lbto.org/proposal-submission/

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Current Instrument Status

- MODS1 & MODS2 – unavailable until October 1
- LUCI1 & LUCI2 - ready and working, with some instability seen in the G210 grating; please contact sciops for details
- LBCB and LBCR – ready and working
- TMS - available
- PEPSI PFU - available
- PEPSI POL - scheduled for installation Oct 29 – Foster prism undergoing repairs
- LBTI - work occurred in August - expected to be ready for block beginning Oct 4
- SHARK VIS - activities (new filters, etc.) taking place Sept 24-Oct 1 - available
- SHARK NIR - available