

# LDT Observer Information

		Instruments		
		<a href="#">Instrumentation Main Page</a>		
		<b><u>Facility Instruments:</u></b>		
Quick Links	LDT Observer Information Home	Large Monolithic Imager (LMI)		At the Telescope
	Instrumentation	DeVeny Optical Spectrograph	Observing Planning	Observing Quick Links
	Applying for Observing Time	NIR Spectrograph (NIHTS)	Applying for Observing Time	Remote Observing
	Observing Run Planning	<b><u>Visitor / PI Instruments:</u></b>	Planning Checklist	LDT Startup Procedures
	At the Telescope (Printable Logsheets)	High-Res Spectrograph (EXPRES)	Remote Observing	Closure Conditions
	After Your Observing Run	Speckle Imager (QWSSI)	Target Lists	Night Feedback Form
	First-Time Users	High Speed Imager (POETS)	First-Time Users	End of Night Tasks
	Logistics	NIR Spectrograph (RIMAS)	Logistics	
	LDT Important Notes			
		<b><u>User Manuals:</u></b>		
		<a href="#">LMI Manual</a>		
		<a href="#">DeVeny Manual</a>		
		<a href="#">NIHTS Manual</a>		



## Lowell Discovery Telescope Observer Information Pages



**COVID-19 Note:**

Continuing in 2024A, limited in-person observing will be supported at LDT. For those observing remotely, see [LDT Remote Observing Notes](#).

- [Current Semester Observer and Telescope Operator Calendar](#)
- [Facility Overview](#)

### Updates (and Old Updates)

UPDATE: The 2024A LDT Schedule has been released. (2023Dec08)

- **List of LDT Scientific and Technical Publications**

The 4.3-m Lowell Discovery Telescope (LDT) is Lowell Observatory's flagship facility at a dark-sky site approximately 40 miles southeast of Flagstaff on the Coconino National Forest. The telescope is classically [scheduled by semester](#), with the current being 2024A. See the current [call for observing proposals](#) for Lowell Observatory and Partner Institution members.

The facility was constructed as the Discovery Channel Telescope, but was renamed in 2019 in cooperation with Discovery Communications.



Image: J. Fernandez (Lowell)

Lowell Observatory operates the LDT in partnership with [Boston University](#), [University of Maryland](#), [Northern Arizona University](#), [University of Toledo](#), and [Yale University](#).

**UPDATE:** The change over to the new confluence server <https://confluence.lowell.edu> has happened. Please let us know if you run across problems with these pages. (2022Mar07)

**UPDATE:** The new VPN platform is now required for connection to the Lowell network. All [remote observers](#) MUST update their VPN settings: [Watch guard SSLVPN Installation](#). (2021Sep06)

The LMI User Manual has been updated.

The new version (v1.8 – 16 November 2023) updates to the Pypelt instructions and introduces the LDT Observer Tools python package. It is available on the LDT Observer Information Confluence page.

An updated version of the NIHTS User Manual (v1.7) has been released and is available on the LDT confluence pages. Per the authors, NIHTS User Manual v1.7 includes a couple of revised figures from the NIHTS Commissioning paper.

The new LDT Observer Information Pages were released, replacing the prior DCT Observer Information Pages. We have looked into quantifying the delay between when a user requests an image with LMI, and when the shutter actually opens. Details can be found in the write up under the LMI link about the [shutter delay](#). The bottom line is that:

1. The exposure times are as recorded to within a few hundredths of a second, based on the star streaks.
2. The shutter throw time in each direction is between roughly 0.1 and 0.2 seconds, meaning that there is also a temporal gradient across all the images.
3. Formal uncertainty on the measured time offsets are an underestimate of the true variation. The shutter throw time alone means the mid-time varies across the frame systematically by at least 0.1 second (added as the systematic uncertainty below).
4. The shutter opens 2.05 +/- 0.06 (ran) +/- 0.1 (sys) seconds later than the UTCSTART in the image header.
5. The shutter closes 0.19 +/- 0.06 (ran) +/- 0.1 (sys) seconds earlier than the UTCEND in the image header.

Exposure times should be computed as:

1. Start time = UTCSTART + 2.05 sec
2. End time = UTCEND - 0.19sec
3. Mid-time = UTCSTART + 2.05 + EXPTIME/2 or
4. Mid-time = [(UTCSTART + 2.05) + (UTCEND-0.19)] / 2

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**Facility Information:**

- [Telescope](#)
- [Instrumentation](#)
- [Staff](#)
- [Logistics](#)
- [Weather](#)

**Planning Your Observing  
Run:**

- [Applying for Time](#)
- [First-Time Users](#)
- [Remote Observing](#)
- [Target Lists](#)

**At the Telescope:**

- [LDT Startup Procedures](#)
- [Closure Conditions](#)
- [Night Feedback Form](#)
- [End of Night Tasks](#)