12 September 2025

Call for McDonald Observing Proposals (HET and Mt. Locke Telescopes) – Trimester 26-1.

Change Log

v1.0	September 12	Original version released

12 September 2025

1. Trimester 2026-1 - Overview

Trimester 26-1 covers the December 1, 2025, through March 31, 2026, observing period for HET and Mt. Locke telescopes. (For the Mt. Locke telescopes Dec 1 & 2 have been scheduled in T25-3).

The proposal ingest opens on 12 September 2025.
Mt Locke telescope proposals are due: 5pm CDT, 30 September 2025.
HET proposals are due: 5pm CDT, 7 October 2025.

These deadlines are **firm**. The proposal submission web sites will close shortly after the stated deadlines. *You may update a submitted proposal any number of times up until the deadline. The last submission will be the one which is reviewed.*
Therefore, do not wait for the last minute to submit your proposal!

Please use new cover sheets for all telescopes. Do not resubmit an old proposal without updating the cover sheets.

1.1 HET (UT PIs only)

Available instruments: LRS2, HPF, and VIRUS.

Anticipated Pr 0 - Pr 3 time is not yet completely certain (the Board still needs to decide on engineering time) but UT's total time for Pr 0 - Pr 3 should be ~416 hours (Pr0=55, Pr 1=83, Pr2=Pr3=139). Again, these are approximate numbers, only.

1.2 Mt. Locke Telescopes

Proposals are invited for the 2.7m, 2.1m and 0.8m telescopes.

While not offered through this Call for Proposals, please note that the 0.9 m telescope is out of service for the foreseeable future.

For the 2.7m Harlan J. Smith Telescope, all currently active instruments are available: DIAFI, George and Cynthia Mitchell Spectrograph (GCMS), VIRUS-W, the Cross-Dispersed Echelle Spectrograph (TS2; both foci), and IGRINS.

For the 2.1m Otto Struve Telescope, ProEM, SQUEAN, and eyepieces are available.
The Texas A&M, Exoplanet Transmission Spectroscopy Imager (ETSI; PI: D. DePoy) is also available in collaboration with the instrument PI team.

For the 0.8m, the Prime Focus Corrector (PFC) is available

Note that proposals for IGRINS and ETSI must include an instrument team member as co-I.

For contact information and details about proposing for IGRINS time, see:
https://sites.google.com/view/igrinsatmcdonald/home

If you are interested in proposing for ETSI observations, please contact Prof. DePoy.

For questions about instruments, policies, etc., send to me and I will find the person who can answer them.

2. Updates and Highlights

- The McDonald Observatory TS23 **data reduction pipeline** ("*TSDRP*") is available in β-test format. The GCMS/VIRUS-W pipeline ("*ANIGEN*") is under active development. A β-test version is expected to be available by the start of T26-1.

- McDonald Observatory now has three **"Remote Observing Assistants"** (ROAs). For trimester 26-1, only the 2.7m telescope is available for remote observing. This mode is limited to UT Austin observing programs only.

- A number of the **scripts used to set up and control TS2 observations** (including ts2cfg, ts2foc, & ts2cals) have been updated to enhance capabilities and/or robustness. The current versions, including installation instructions, are available from a library directory on atlas (/home/hjst/ice_scripts). A sub-manual page covering the library location and the procedure for updating these scripts in your account can also be found on the TS2 web pages. For questions and help (active observers), please contact Phillip MacQueen.

- Several **hardware upgrades being worked for the Tull spectrograph** will be installed in the next 3-8 months, including the replacement of the M5 assembly. These will enhance remote observing and/or instrument performance. Observers will be informed about any observing procedural changes.

3. Proposal writing reminders – especially for new proposers:

- Write your proposal such that it is understandable to non-experts. The TAC members may work in different areas of astronomy than you do.
- Clearly justify your requirements (dark/bright time, Signal-to-noise ratio, spectral resolution, scheduling/timing requirements and accuracy, etc.). Don't just state requirements without explanation and justification.
- If you are requesting non-standard observing modes, explain why and how these modes are required to reach your science goals, and how you will reduce the data.

Further tips and advice for writing successful proposals can be found at:

Hints for Writing Successful Observing Proposals

4. Observing Time Requests

The proposal ingest system has a size-limit for the uploaded .pdf files (page 4 of the proposal form) of ≈8MB. If the software "kicks you back" to page 1 when you try to upload the science justification

(.pdf file) you have likely tried uploading a file that exceeds this size. In most cases this is due to figures with too high resolution (or otherwise too big files)

4.1 HET - University of Texas' share

Proposals for The University of Texas' share on the HET are due on Tuesday October 7 at 5pm Central Time. **The PI for the proposal MUST be at UT Austin.** We have an electronic submission form, which you MUST use.

There is a question on the current form of whether you can use priority 4 time. If you do not see this question, you are probably editing an old form and MUST start with a new proposal to get this question (and Pr 4 time). We will assume you cannot use Pr 4 time if this is not answered.

The site is password controlled. You can create an account for yourself the first time you use it. If you have forgotten your password, the system can send you a new one. If you encounter problems, send them to me.

The proposal website may be found at:

HET Proposals start page

You must submit your science justification as pdf. A LaTeX template and style files are available at the proposal website (under the "Phase I" pages) or you may use a word processor of your choice. Details of the needed format are given at the web site (p. 4). **If using a different word processor, please put a section heading on each section.**

PAGE LIMITS: You may include 1 page of science justification, and 2 pages for figures, tables and references.

For HET proposals continuing, or extending, approved Long-Term Programs, or programs that have been awarded more than 100 h total, **one extra page** – for description the of scientific progress of the program – is allowed. **This should not be used for additional justification for the current proposal.**

Use minimum 11pt. fonts, and 1" margins on all sides. The references and figure captions must obey the same minimum font size as the text. You will need to include an Object Table and an Exposure Table but NO setup table because there are no user-definable options. Put into the text or a note in the exposure table whether you want LRS2-B or LRS2-R if asking for LRS2.

You must check the availability of tracks using the feasibility tool at https://hydra.as.utexas.edu/hetweb/ProgramPrep/hetdexcalendar.html. Be sure to choose "No_HETDEX" when you run this tool. You are required to put in the text something more informative than "I have enough tracks". If you have a large number of objects scattered over RA, you may include a statement to that effect. In such cases, for the benefit of the TAC and review process, please include an *example target* discussing track availability. If you have few objects, you must run the tool with your required conditions and indicate the number of available tracks for each

target in your proposal. Note that the number you want is the number in the **(GREEN)** line, after all conditions have been applied, not the total possibly available in any condition. Be sure to use the availability tool listed above and not any other you might find. If you need 10 tracks and there are 10 available, the TAC may deem that insufficient as there are other users who may require the same time of night. Simply wanting to complete your observations in "this trimester" is usually not a very strong argument for requesting all, or almost all, available tracks.

Note that there is no such thing a "gray time" on the HET. Since observations are scheduled individually, the Moon is either up or not.

Note that HET **Phase II inputs will be due one week before the start of the trimester.**

4.2 Mt. Locke Telescopes

All proposals are to be submitted using the on-line web submission form, located at:

Mt. Locke Proposals start page

(the same place as for the HET proposals; it is similar to but not the same as the HET form). Proposals are due Tuesday, September 30 at 5pm (CDT).

As for HET you may create your own account if it does not already exist (it is a different program than for HET, so needs its own account, though they may be the same).

Note that IGRINS proposals must include a member of the instrument team, or an experienced observer listed on the IGRINS webpage. (https://sites.google.com/view/igrinsatmcdonald/home) Similarly, ETSI proposals must include an instrument team member. Please contact Prof. D. DePoy (depoy@tamu.edu) for suggestions.

The Mt. Locke cover sheets asks whether your time can be split to more than 1 run. ***The default is that you CAN accept a split run for any telescope time***. Please provide clear information about any observing cadence needed for your observations (such as "Two nights every two weeks, or one long run").

In the web form, some of the routine items are menu selectable. The long text portions (e.g. Scientific Justification) should be uploaded in PDF format. You may prepare them in any text processor you wish, as long as you upload a pdf. A very simple LaTeX template (different than the HET one) is available. It does not require a .sty file to compile. You may upload the text sections either as a single document or as a separate document for each section. **Please put a section heading on each section.**

PAGE LIMITS AND FONTS: As for HET proposals, your scientific justification can be 1 page of text and 2 pages for references and figures/tables. Use minimum 11pt. fonts, and 1" margins on all sides. The references and figure captions must obey the same minimum font size as the text. Note that the TAC takes a dim view of people who ignore the margins and font rules.

CONSTRAINTS: Please be clear and as flexible as possible with your dates and moon constraints. The more flexible you are, the more likely I will be able to schedule you for some time! **Please do not bury your constraints in the text** - make sure there is something to flag them on the cover page. Use the preferred months field, for example.

FOR REQUESTING PARTIAL NIGHTS: If you are requesting partial nights, put the actual sum of partial nights in the "nights requested" box (e.g. for 3 half nights the sum is 1.5 nights - do NOT put 3x0.5). Do put something like "3x0.5 nights" in the "Preferred Months" box. If you ask for 1/2 nights, the form will request which half is needed. Be creative with this, e.g. "second half in April, May or first half in June, July."

4.2.1. Remote and Service Observing (Mt. Locke)

Remote observing is restricted to proposals with UT PIs, and currently only for the 2.7m telescope. *Requests for remote observing must be made on the cover sheets.* Approval is not guaranteed and will depend on availability of remote observing assistants. **New users of all telescopes are required to observe in person at McDonald, including going out for at least 2 nights of apprenticeship with an experienced observer.** Users who have only observed remotely are encouraged to observe at McDonald at least once.

4.2.2. Data Reduction Pipelines

Pipeline software for the HJST spectrographs are in final development (see: https://mcdonald.utexas.edu/observing/pipelines)

The β-testing release of the **Tull Spectrograph Data Reduction Pipeline ("TSDRP")**, is now available on GitHub: https://github.com/grzeimann/TSDRP.

TSDRP is specifically designed to process spectral data from the Tull Coudé Echelle Spectrograph (specifically in the TS23 setup). It offers a single script (one line command) to streamline and automate data reduction for the instrument.

Key Features:

- **Flat-Field Correction**: Corrects for pixel-to-pixel sensitivity variations.
- **Wavelength Calibration**: Provides precise calibration (air)
- **Cosmic Ray Rejection**: Identifies and removes cosmic ray artifacts.
- **Spectral Extraction**: Extracts spectral orders from the 2D frame.
- **Full Aperture Extraction**: Allows for comprehensive data analysis across the entire aperture.

The pipeline processes one night of data at a time, organizing both the reduction products and the associated calibration files.

This beta release is a crucial step in refining the pipeline to meet the community's requirements. We invite you to explore TSDRP, test its capabilities, and provide feedback. Your insights will be

invaluable as we work towards the full release. Please address questions, and communicate any issue to Greg Zeimann (gregz@astro.as.utexas.edu)

The **GCMS and VIRUS-W pipeline ("ANTIGEN")** is under active development with an expected β-testing release in time for T26-1 observations.

Information about all McDonald Observatory data reduction pipelines can be found at https://mcdonald.utexas.edu/observing/pipelines .

Proposers are encouraged to take advantage of these developments. To ensure compatibility of the acquired observations with the requirements of the pipelines, please discuss your set-up and observing methods/procedures with Greg Z.

These pipelines are provided as a service to users. Use of these pipelines is **not** required.

4.3. LONG-TERM STATUS:

Long-term status can be conferred on projects for periods of 1 year for Mt. Locke and HET. Only UT-led proposals are eligible for long-term status. Only a fraction of the telescope time will be allocated for long-term projects (probably no more than 25% of the time). Simply needing a large allocation is not generally a justification. The TAC is looking for a reason such as the science requiring multiple epochs, or direct comparison of targets only available in consecutive trimesters.

Generally, the TAC does not approve long-term status on the first trimester of a new program - they would like some proof-of-concept. The web forms have a place to upload the request for long-term status and it must be submitted as part of your normal proposal. Note that this extra page is ONLY FOR JUSTIFICATION OF THE NEED FOR LONG-TERM STATUS. The request must indicate why your project needs long-term status, what milestones you expect to achieve by the end of the 1 year period and details of the numbers of nights/hours you need in the current and following two trimesters. Only 1 page is allowed.

ON THE COVER PAGE, for number of nights/hours requested, put the request for the CURRENT trimester. For Mt. Locke it will ask your needs for the rest of the year, once long term is checked. For HET, put your requirements, by priority, in the extra 1 page of text (instructions in the upload information).

5. Las Cumbres Observatory Global Telescope, McDonald Observatory Time

This section is included in this Call for Proposals for visibility. ***You cannot propose for LCO time through the McDonald 26-1 call****. A separate CfP will be issued early next year for LCO time.*

McDonald observatory hosts one of the nodes of the Las Cumbres Observatory Global Telescope (LCOGT), and therefore receives telescope time on the global network (currently 300 hours for 1m and 150 hours for 0.4m per 6-month semester).

The PI for proposals for this time MUST be at UT Austin. UT researchers can also participate in the LCOGT key projects.

UT scientists are also entitled to join existing or proposed key projects to which they are able to contribute. UT scientists are also eligible to propose to form or to lead new LCOGT key projects (solicited directly by the LCOGT).

LCOGT nodes exist at McDonald (two 1-m and one 0.4m telescopes currently), Cerro Tololo, South African Astronomical Observatory, Siding Springs, Tiede (Teneriffe), Haleakala, and two sites in Israel (see https://lco.global/observatory/sites/). Time is allocated globally, and you cannot request a specific telescope.

The main instrumentation available is:

- The QHY 600 CMOS cameras on the 0.4m telescopes, and
- The Sinistro camera on the 1m telescopes, both with a wide range of available filters.
- The LCO's Network of Robotic Echelle Spectrographs (NRES), mounted on the 1m telescopes consists of four identical high-resolution (R~53,000), precise (≤ 3 m/s design goal), fiber-fed optical (3800-8600 Å) echelle spectrographs.

Proposals for the McDonald Observatory share of LCOGT time are solicited though a separate Call for Proposals twice a year – because of the semester cadence of LCOGT observing. The LCOGT semesters span February 1 – July 31 and August 1 – January 31. Proposals for the McDonald Observatory LCOGT time are due Mid-January and Mid-July. Notifications about the proposal opportunities, with any needed updates, are sent out about 6 weeks prior to the deadlines.

6. SUMMARY

The upcoming Mt. Locke and HET trimester will cover the 1 December 2025, through 31 March 2026 period. Proposal deadlines are

HET proposals:
Web submission by 5pm central time on7 October 2025.

Mt Locke proposals:
Web submission by 5pm central time on 30 September 2025.

These deadlines are FIRM and the proposal ingest will close shortly after the stated deadline.

HET and Mt. Locke proposals will not be accepted via e-mail, and you do not need to submit any hard copies.

If you have problems with the web submission system, send email to:
bgandersson@austin.utexas.edu

Updated Mt. Locke Operations Schedules are available at:

https://mcdonald.utexas.edu/for-researchers/observer-tools/observing-schedules