

## Q & A Session (LMT Community Meeting on September 30, 2020)

**Q1. Will those accepted projects for the 2018 Call for Proposals that have not yet received any data have to assume that their projects are lost and will they have to re-submit to next Call for Proposals in October 2020? Will there be any special consideration for those projects?**

A1. The situation depends on the evolution of the COVID-19 pandemic. If we are able to return the telescope and perform the necessary maintenance and recommission the telescope and instruments before the end of the year 2020, then then we will make our best effort to continue the 2018 scientific program according to the allocated priorities until the new semester begins in mid-March 2021. Once the new 2021 science program begin, all projects from the previous call will be cancelled.

We encourage you to resubmit your proposal to the upcoming call. It will be reviewed in competition with other proposals, and no special consideration will be given.

**Q2. Will all of the science data from the previous observing season become available?**

A2. Yes. We have a responsibility to support the LMT user-community and make all LMT data publicly available after a proprietary period. We are working to create the data-archive and the software tools that will be necessary to enable a search of the archive and extract the raw data (if required) and also the standard calibrated data-reduction products for the LMT facility-class instruments.

**Q3. What will be typical size (in hours) of a regular proposal in the next Call for Proposals?**

A3. There will be no restrictions placed on the number of hours that can be requested in a single proposal. However in practice the pressure on the flexibly-scheduled observing time will depend on competitive demand for the individual instruments, the relative priorities assigned to the successful projects, and the seasonal weather conditions that will influence the likelihood that any given project can be completed.

At the moment it is difficult to predict the total number of observing hours that will be available for scientific projects in the next full observing season given the current uncertainty on the future schedule to return to scientific operations. It may be necessary to allocate additional time to telescope engineering projects and the installation and commissioning of new scientific instruments (for example TolTEC, the new 3-band continuum camera with polarization-sensitive large-format arrays).

**Q4. How about proprietary rights? How long do you plan they last?**

A4. The proprietary period will be 12 months after the observing project has been completed and the standard calibrated data-reduction products have been delivered to the Principal Investigator.

**Q5. Are you going to accept Target of Opportunity programs for 2021?**

A5. The LMT intends to accept Target of Opportunity (ToO) proposals for review during an on-going observing season. Currently we have not defined the ToO proposal process or how much time may be made available for ToO proposals.

It is important that ToO proposals are submitted only for those high-priority projects that require urgent scientific observations that could not have been anticipated at the time of the open-time Call for Proposals. Alternatively in the case of a project that requires a more rapid response, for example the need to obtain telescope time to observe a class of transient objects (AGN flares, Gravitational Wave counterparts, variable stars, ...), then a normal proposal should be submitted to an open-time call requesting over-ride status to respond to an announcement of such an event.

**Q6. What about the SEQUOIA data reduction package? I have data taken in January this year, but haven't got the data yet.**

A6. [Schloerb] The experience with the Sequoia data reduction package is a good example of how basically we've been under-resourced. In terms of number of people working on the problem and the ability to support the users, that package is going to receive a lot of attention. Under the new grant we are trying to develop a pipeline that can be used to reduce most standard kinds of observations with Sequoia into a useful scientific data product. It's going to take us some time to accomplish that. I'm hopeful that we'll make good progress on that over these initial months that we are getting started under the newly funded program from NSF. This is one of these things that will be a big improvement in the future, but it's something that's going to take us some time to implement. [Yun] There are some real challenges in terms of the amount of data being produced and amount of computing you need to analyze these data. We will have a targeted webinar on data reduction pipelines and data handling later on.

**Q7. A call for proposals was released for the commissioning of TOLTEC. There was no feedback, so will these proposals still considered/valid?**

A7. [Wilson] The quick answer is yes, we have looked through those, and we actually got really nice proposals for commissioning targets. As you can imagine, what targets we're going to be able to observe depends on when TolTEC is at the Telescope and in what state, and what time of the year the commissioning takes place. COVID-19 pandemic has really thrown a big wrench

into that. We will keep those proposals and we will be reassessing them as we get closer to commissioning. So, the quick answer is yes, those are the proposals from which we intend to choose the commissioning targets.

**Q8. Is the exchange of observing time between LMT and the Gran Telescopio Canarias going to happen?**

A8. Yes. Under the signed agreement to exchange observing time between the LMT and the GTC, we will invite the Spanish astronomy community to apply for LMT observing time in the next Call for Proposals. The time assigned to proposals led by by P.I.'s from the Spanish astronomy community will be deducted from the Mexican allocation of LMT observing time.

**Q9. Assuming a scenario in which security problems are solved, and the pandemic closure is over, is the personnel at INAOE sufficient for the science and engineering operations? Are the actions described moving towards a model where the LMT becomes a national observatory?**

A9. [Schlerb] My answer to that would be no it's not sufficient, as it exists today. We need to add quite a number of people. We have to add telescope operators. We've got to add support scientists with various responsibilities. We also have to add some more staff at the site doing technical support necessary to keep the telescope running efficiently. So, there is quite a lot of new people to be hired and trained in order to bring about the national Observatory class operation that we seek to provide.

In order to provide the full technical and scientific support to the LMT user-communities at the level expected of a national Observatory we will require the contribution of the current LMT personnel at both INAOE and UMASS, as well as the need to hire additional staff in certain critical operational areas. The joint Mexican and U.S. funds together provide the resources to support this future operational model.

**Q10. Is the telescope going to be upgraded for daytime operations?**

A10. Yes. There is an approved and funded engineering program to improve the telescope performance during daylight hours over the next few years. This engineering project includes the installation of hardware systems that will reduce the thermal gradients and enable the more precise measurement of the temperature distribution within the telescope structure, as well as the development of software control systems to correct the thermally-induced deformations of the primary reflector.