

# CATAC Report

June 7, 2019

## Membership

Michael Balogh (University of Waterloo), Chair  
Bob Abraham (University of Toronto; TIO SAC)  
Stefi Baum (University of Manitoba)  
Laura Ferrarese (NRC)  
David Lafrenière (Université de Montréal)  
Harvey Richer (UBC)  
Kristine Spekkens (Royal Military College of Canada)

Luc Simard (Director General of NRC-HAA, non-voting, ex-officio)  
Don Brooks (Executive Director of ACURA, non-voting, ex-officio)  
Rob Thacker (CASCA President, non-voting, ex-officio)  
Kim Venn (Science Governor for Canada on TIO Governing Board, non-voting, ex-officio)  
Stan Metchev (TIO SAC, non-voting, ex-officio)  
Tim Davidge (TIO SAC Canadian co-chair; NRC, observer)  
Greg Fahlman (NRC, observer)

## Meetings and Reports

CATAC has met approximately biweekly via telecon. A record of these meetings is on our web page [http://casca.ca/?page\\_id=8347](http://casca.ca/?page_id=8347) and, where possible, reports are shared publicly.

CATAC has published two reports in the last six months. The [first](#), described further below, is a summary and draft prioritization of future TMT instrumentation. The [second](#) is a recent history and current status of TMT, prepared for the LRP2020 panel. Both are available on our CASCA website.

## Construction update

While the TMT International Observatory (TIO) now has the legal right to begin construction on Maunakea, there is still preparation work to be done. This includes applying for various permits which have expired and, importantly, coordinating with stakeholders including other Observatory Directors, the local police force, politicians, and residents. We expect that construction will start sometime this summer; it must commence before September to satisfy various partner constraints.

Henry Yang is leading the Maunakea Site Access committee (which also includes Greg Fahlman); this group is providing very effective, top-level communications that complements what the project office is doing at the operations level. TIO has established a Hilo Office, at the site of the old CSO Headquarters that was vacated when CSO was decommissioned. Recently (May 30, 2019), TIO held an Open House at this office, providing an opportunity for people to meet with Hilo staff and a few members of the Pasadena team. Mike Sheenan has been appointed Associate Project Manager, and is resident in Hawai'i. Part of his mandate is to interface with other Maunakea Observatory Directors, and this has been instrumental in improving relations between them and TIO.

The [US Extremely Large Telescope Program \(ELTP\)](#) has a lot of momentum, and the project is now in a good position to aim for the top-ranked project in the US Decadal survey. For example, almost 60 white papers submitted to the Decadal process were related to ELTs.

## Instrumentation

A new science team has been assembled for the first light Wide Field Optical Spectrograph (WFOS) instrument, following the downselect in instrument concept. The team includes two Canadians (Balogh and Abraham). While this is good, it is a little disappointing that more Canadians did not respond to the call.

Most of CATAAC's activity in the past six months has been considering the plans for instrumentation after first light. These plans have not been revisited in detail since 2011, and with the US community becoming increasingly well organized it is important that we identify Canadian priorities and also help Canadians to get involved in instrumentation development.

This work resulted in a draft report that was circulated to the community for comment in March. Following feedback, a revised report was published. This will be presented for discussion at the upcoming CASCA meeting, following which we will make our recommendations. The full document is [available from our website](#).

## Operations

The next major focus for the TMT SAC, and also for CATAAC, will be on the observatory operations. The current Operations plan was put together in 2011; this needs to be updated and finalized in time for the construction proposal to be submitted later this year. Queue operations and data archiving are critical components of this plan, and ones that we will want to weigh in on.

# Community Engagement

CATAC has had some preliminary discussion of promoting ways for Canadians to get involved in TMT instrumentation, beyond those that we are actually participating in constructing. In particular, it would be good to have Canadians thinking about WFOS and doing some of the work to develop science cases, create simulated observations, etc. We have considered the possibility of hosting some kind of competition for work in this area. Another idea is to build on the instrumentation workshops that have been held (quite successfully) in conjunction with the TMT Science Forum, and do something similar here in Canada. However we do not yet have any recommendations to make on this topic.

## Upcoming meetings and events

- TMT Instrumentation session, ACURA lunch @ CASCA 2019
- TMT Science Forum, Nov 4-6. Xiamen, China