

Report of Gemini's Science and Technology Advisory Committee (STAC)

May 2016

The STAC held its tenth meeting on 5-6 May 2016 in Hilo, Hawaii.

STAC Membership

Alberto Ardila (remote)	Paulina Lira (remote)
Thomas Barnes	Paul Martini - Chair
Jacob Bean	Laura Parker
Guillermo Bosch (remote)	Abhijit Saha
Fabio Bresolin	Eric Steinbring
Marc Buie	Gillian Wilson
Inese Ivans	

10.1 The STAC recommends the following development priorities, which in order are: GHOST, Gen4#3, GMOS-N, LGSF, Small/Medium Projects, NGS2, A&G, Altair RTC, DM0, GNIRS. We have switched the order of GMOS-N and LGSF compared to our previous priorities.

10.2 The STAC is pleased to note that the Gen4#3 Request for Proposals was released, and we reemphasize that our goal is for this instrument to be available when LSST begins operations.

10.3 The STAC is disappointed and frustrated by the further delay with the GMOS-N upgrade. While the reasons for this delay have been clearly explained, we reiterate the concern expressed in our previous report that many short-term, high priority items are not completed in a timely manner, and our suggestion that this is because development milestones are not accurately forecast. We do appreciate that the latest development report includes a list of milestones. We request that future reports contain more information about resources, more detailed project timelines, and risks. We also strongly encourage the allocation of more personnel to instrument development, as the availability of key personnel appears to limit many of these projects.

10.4 The STAC commends the Observatory for issuing the LGSF contract.

10.5 The STAC is pleased that a Small Project was awarded. We endorse the plan to solicit Small Project and Medium Project proposals in October 2016, and the plan to maintain an annual Call for Proposals for Small Projects and a biannual Call for Proposals for Medium Projects. We also encourage the Observatory to not draw sharp monetary boundaries between Small and Medium Projects.

10.6 The STAC encourages the Observatory to provide a list of potential categories for Small and Medium projects with examples, rather than a large list of projects. Our concern is that a very long list may stifle creative ideas. The categories we have discussed include procurement

and commissioning of a new grating or filter (e.g. a low-resolution grating for GMOS), contributions to detector software (e.g. implementation of the frame-transfer mode for GMOS), and commissioning a new mode (e.g. GPOL, GPI's LOWFS, or GMOS plus AO).

10.7 The STAC is pleased to see that the Observatory and the VLT have comparable rates of program completion and paper production, as well as commends their continual efforts to further optimize scientific output. The STAC supports the Observatory's plans to adjust the queue algorithm to increase the number of programs that achieve at least 80% completion. If implemented, we would like reports on the impact of this change on programs at future meetings.

10.8 The STAC has the following comments with regard to the strategic vision: 1) We emphasize the broad, diverse community that uses the Observatory and stresses the importance of maintaining at least 50% of the time for PI-driven science with a range of instrumentation; 2) The STAC encourages a possible increase in time allocation for very large, very high impact projects that use up to 50% of all telescope time; 3) The STAC highlights the importance of access to the latest technology through new instrumentation, upgrades to current instrumentation, and a visitor instrumentation program; 4) It is important to build on current strengths, such as the operational agility of queue observations throughout the semester, and the technical investment in AO.

10.9 The STAC prioritizes the integration of the new laser over support of GeMS operations.

10.10 The STAC endorses the observatory's goal for science time in 2017A: 91% for the South, 94% for the North.

STAC Points of Contact

GHOST: Inese Ivans

GRACES: Fabio Bresolin

GMOS: Laura Parker

F2: Alberto Rodriguez Ardila

GeMS: Eric Steinbring

GPI: Jacob Bean -> TBD

ALTAIR & Gemini North AO: Eric Steinbring

Gen4#3: Tom Barnes

Archive: Paulina Lira

Small Projects: Guillermo Bosch

Default for other issues: Chair

Future STAC Meetings

The 2016B meeting will be November 10-11 in La Serena, Chile.

Acknowledgement

The STAC is grateful to Jacob Bean for his service to the committee.