

Report of Gemini's Science and Technology Advisory Committee (STAC) May 2018

The STAC held its fourteenth meeting on 14-15 May 2018 in Hilo, Hawai'i.

STAC Membership

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| Thomas Barnes | Marcelo Mora (video) |
| Guillermo Bosch (video) | Laura Parker – Chair |
| Fabio Bresolin (not attending) | Abhijit Saha |
| Craig Heinke | Andrew Skemer |
| Elliott Horch | Eric Steinbring |
| Inese Ivans | Marsha Wolf |
| Eder Martioli (acting member, video) | |

14.1 The STAC recommends the following development priorities, which in order are: OCTOCAM, GHOST, GN Laser, IUP, NGS2, GNIRS Controller, Gemini AO RTCs, DM0.

14.2 The STAC is concerned about the noise issues in GMOS-S and encourages the observatory to explore remediation options.

14.3 The STAC asks that future completion statistic reports include information about triggered targets of opportunity.

14.4 The STAC endorses the observatory's plan to continue the current system which balances allocated time. We note, however, that this policy may need to be reconsidered in the era of LSST, when there are expected to be many more targets of opportunity.

14.5 The STAC reluctantly endorses the plan to move the blue wavelength limit of OCTOCAM from 370 nm to 385 nm. We note that this decision does have some impact on, e.g., key supernova science (see the Maximizing Science in the Era of LSST report). The STAC is concerned about possible future reductions in scope and requests to be informed immediately of any such considerations.

14.6 The STAC is disappointed to learn of difficulties encountered in issuing an open call for instrument upgrade proposals. The STAC strongly supports the IUP and thinks it offers a creative way for new instrument teams to become engaged

with Gemini and for new capabilities to be developed. We encourage Gemini to pursue all options that enable future open calls.

14.7 The STAC considered the options presented for possible uses of Gemini's H4RG detector. We encourage the observatory to explore the use of this detector in GIRMOS.

14.8 The STAC noted the strong proposal pressure for IGRINS. This is a capability which is clearly in demand, and we encourage the observatory to pursue options to bring IGRINS back to Gemini as a long-term or permanent capability. The STAC recommends that the observatory develop a plan to support IGRINS assuming demand at the 2018A level of 35% of the time requested.

14.9 The STAC thanks the observatory for implementing our prior recommendations concerning Large and Long Programs (LLPs). We were surprised to see the significant decline in the LLP demand. The STAC would like the observatory to investigate the possible reasons for this trend and report at the next STAC meeting.

14.10 The STAC congratulates the observatory on the steady demand for the fast turnaround (FTA) program. We are encouraged by the early evidence that FTA results are published quickly.

14.11 The STAC recommends that visitor instruments being built specifically for Gemini and/or that involve significant Gemini resources should involve Gemini in their design review processes. These instruments should also report on their lab performance and present commissioning reports as soon as possible after their initial deployment on Gemini.

14.12 The STAC thanks the observatory for providing us with the GeMS relocation study. We continue to advocate for a world-class adaptive optics facility at Gemini-N. We also feel it is important to maintain AO capabilities at both Gemini sites.

14.13 The STAC is impressed by the draft plan for LSST follow-up. We are supportive of the general direction of the plan and encourage the observatory to start discussions with other observatories. We ask that Gemini establish a focus group of ToO users to solicit feedback on the plan. The STAC can provide a list of possible participants. The STAC looks forward to hearing reactions from other observatories to the range of choices in the draft document.

14.14 The STAC recognizes that to optimize the science return in the era of LSST, it is critical that follow-up observations are processed rapidly with a well-maintained pipeline. The STAC would like to see pipeline production in the list of development priorities at our next meeting.

14.15 The STAC requests the GPI relocation study as soon as it is available, so that we can provide feedback.

14.16 The STAC endorses the Observatory's adjustment of science time in 2018B to 85% for the South, 89% for the North and the goal in 2019A of 93% for the South, 96% for the North.

STAC Points of Contact:

ALTAIR & Gemini North AO: Eric Steinbring

F2: Alberto Rodríguez Ardila

GeMS: Eric Steinbring

GHOST: Inese Ivans

GMOS: Marcelo Mora

GNIRS: Marsha Wolf

GRACES: Fabio Bresolin

GPI: Andy Skemer

Instrument Upgrade Program: Guillermo Bosch

ToOs: Craig Heinke

OCTOCAM: TBD

Visiting Instruments: Elliott Horch

Default for other issues: Chair

Future STAC Meetings:

The 2018B meeting will be November 12-13 in La Serena, Chile.