

# Report of Gemini's Science and Technology Advisory Committee (STAC) November 2017

The STAC held its thirteenth meeting on 9-10 November 2017 in La Serena Chile

## STAC Membership

Alberto Rodríguez Ardila

Thomas Barnes

Guillermo Bosch

Fabio Bresolin (not attending)

Marc Buie

Inese Ivans (not attending)

Marcelo Mora

Laura Parker – Chair

Abhijit Saha

Andrew Skemer (not attending)

Eric Steinbring

Marsha Wolf

**13.1** The STAC recommends the following development priorities, which in order are: OCTOCAM, GHOST, GS Laser, GN Laser, IUP, NGS2, GNIRS Controller, Altair RTC, GMOS improvements, DM0, A&G.

**13.2** The STAC congratulates the Observatory staff on a successful installation and commissioning run of the new laser at Gemini South as well as the dome shutter repair at Gemini North.

**13.3** The STAC encourages the Observatory to include a development plan for the GeMS RTC at the next meeting.

**13.4** The STAC continues to be very supportive of the Visiting Instrument Program. We look forward to reviewing the draft process for converting visitor instruments into facility instruments.

**13.5** The STAC congratulates the Observatory on successfully managing the complicated follow-up observations of GW-170817. The STAC endorses the Observatory's new data access policy for target of opportunity programs, and we encourage the Observatory to display this new policy prominently on the Gemini website. We recommend that the policy be reviewed in two years when there has been an opportunity to test the implementation more thoroughly.

**13.6** The STAC recognizes the important role that Gemini South has to play in the coming decade as a premier follow-up facility for targets identified by LSST, and we see the need to identify a clear mission for Gemini North. A world-class adaptive optics system at Gemini North would take advantage of the excellent

atmospheric conditions afforded by Mauna Kea and would be attractive for future visiting instruments. Given the limited instrument development funding and the high cost of advanced AO systems, we encourage the Observatory to explore the possibility of moving GeMS to Gemini North. We ask that the Observatory prepare a report outlining the implications (for cost, scheduling, scientific productivity, visiting instruments) of moving GeMS. If the preparation of this report creates a resource conflict with the scheduled GeMS upgrades (NGS2 and DM0), the upgrades should take priority.

**13.7** The STAC endorses the IUP evaluation panel's funding recommendations. We suggest that the Observatory provide helpful feedback to unsuccessful proposers, and encourage them to note specific technical comments by the evaluation panel.

**13.8** The STAC looks forward to seeing the GPI relocation study at the next meeting.

**13.9** In the event that GPI moves to Gemini North AND a high-resolution mode GNIRS IFU is operational, the STAC endorses the Observatory's plan to remove NIFS, since the IFU capabilities will be largely covered by new GNIRS capabilities.

**13.10** The STAC endorses the Observatory's plan to temporarily remove NIRI from Gemini North if an exciting visitor instrument opportunity arises.

**13.11** A high level of completeness is needed to maximize the scientific return of Large and Long Programs. For future LLPs the STAC recommends a new policy on guaranteed completeness: we propose that Band 1 LLPs that reach the end of their term with <80 per cent of their allocated observations completed be automatically extended into future semesters until they reach at least 80 per cent completeness, provided the annual progress reports are satisfactory. The current policy that Band 2 programs and Band 1 programs with 80 per cent or more completeness may ask the LPTAC for extensions should be continued.

**13.12** For future Large and Long Programs the STAC recommends that teams be required to supply reduced data within one year of the end of a program and these data should be ingested into the Gemini archive. The STAC further recommends that a data release plan be part of LLP proposals.

**13.13** The STAC endorses the Observatory's recommendation to replace the current rollover policy with flexible semester boundaries, starting in 2018A.

**13.14** At the next meeting the STAC would like to see an update on plans for LSST follow-up observations by Gemini, with attention paid to how PI science will be protected in an era of many more rapid target of opportunity observations, as well as details on how all Gemini users can benefit from the Observatory's capabilities, including participation in LSST follow-up campaigns.

**13.15** The STAC endorses the Observatory's adjustment of science time in 2018A to 92% for the South, 94% for the North and the goal in 2018B of 87% for the South, 90% for the North.

**STAC Points of Contact:**

ALTAIR & Gemini North AO: Eric Steinbring

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GeMS: Eric Steinbring

GHOST: Inese Ivans

GMOS: Marcelo Mora

GNIRS: Marsha Wolf

GRACES: Fabio Bresolin

GPI: Andy Skemer

Instrument Upgrade Program: Guillermo Bosch

OCTOCAM: Thomas Barnes

Visiting Instruments: Abhijit Saha

Default for other issues: Chair

**Future STAC Meetings:**

The 2018A meeting will be May 14-15 in Hilo, Hawaii