Report of Gemini's Science and Technology Advisory Committee (STAC) November 2016

The STAC held its tenth meeting on 10-11 November 2016 in La Serena, Chile.

STAC Membership

Alberto Rodriguez Ardila Thomas Barnes Guillermo Bosch (remote) Fabio Bresolin (not attending) Marc Buie Inese Ivans (not attending) Paulina Lira Paul Martini - Chair Laura Parker – Deputy Chair Abhijit Saha Andrew Skemer Eric Steinbring (remote) Gillian Wilson (not attending)

11.1 The STAC recommends the following development priorities, which in order are: GHOST, Gen4#3, GMOS-N CCDs, LGSF-S, Small/Medium Projects, NGS2, A&G, LGSF-N, Altair RTC, GNIRS, DM0.

11.2 The STAC is pleased that the Gen4#3 selection process is nearly complete.

11.3 The STAC appreciates the level of detail in the latest development report, which provided us with sufficient information to assess the state of development efforts. We request similar detail in future reports.

11.4 The STAC heard a proposal from the Observatory to increase the fraction of time in the Fast Turnaround Program relative to the Standard Program. The primary motivations are to allow for larger Fast Turnaround Programs and to encourage proposers to not ask for less time than they need in the Standard Program. We remain excited about the Fast Turnaround Program, which is a superb example of the Observatory's flexibility and innovation. Before we recommend a redistribution between these programs, we would like to see more data on the output of the Fast Turnaround Program relative to the Standard Program, as well as an analysis of the potential impact of an increase on time allocation as a function of RA range and weather conditions. We note also that in principle different partners can allocate different fractions of their time to the Fast Turnaround and Standard Programs, although the distribution of time in RA and weather conditions remains an important consideration in that case.

11.5 The STAC learned that most or all of the time set aside for the Large/Long Program has already been allocated in some future semesters. We encourage the Observatory to retain on order a third of the Large/Long Program time allocation for new Large projects that would request a substantial amount of data in their first year.

11.6 The STAC is pleased to see continued, strong interest in GRACES. We encourage the Observatory to pursue a sufficiently long-term agreement for access to GRACES so that the instrument may be offered in the next call for Large/Long Programs.

11.7 The STAC encourages the Observatory to offer F2MOS as shared risk in 2017A via the Fast Turnaround Program, and in 2017B via the regular Call for Proposals.

11.8 The STAC is excited about the significant interest in both the use of visitor instruments, and groups that want to bring new visitor instruments to the Observatory. We encourage the Observatory to continue to invite and support visitor instruments, as they are an important component of the Observatory's great strengths in flexibility and innovation. We are happy to express our support for the GIRMOS and TIKI proposals. We are enthusiastic about the scientific opportunities for IGRINS, are happy that they have an approved Large/Long Program, and that they will make their instrument available to the community. While we encourage the proposal to re-commission NICI, we do not rank their request for Gemini resources higher than our development priorities. Finally, we are enthusiastic about MAROON-X as a future visitor instrument at Gemini North. We note the potentially significant impact of this instrument, if it can contribute to timely TESS follow-up observations.

11.9 Given the number of potential visitor instruments on the horizon, we encourage the Observatory to plan to support more observing time with visitor instruments in the future. With regard to visitor instruments that request Observatory resources, we encourage the Observatory to set up a process so that these requests can be evaluated relative to other priorities. Finally, we note that some visitor instruments could become facility instruments. We propose that this decision be made after the visitor instrument has been operated at the Observatory and demonstrated significant demand from the community.

11.10 The STAC encourages the Observatory to host high-level data products upon request by the Large/Long Program teams, as well as establish a central portal for these programs. The legacy value of these programs will be enhanced by easier access to their data products.

11.11 The STAC endorses the observatory's adjustment of science time in 2017A to 96% for the South, 81% for the North and the goal in 2017B of 84% for the South, 83% for the North. We note that the 2017 science time for the North is unusually low due to plans for some critical repairs.

Redistribute STAC Points of Contact

GHOST: Inese Ivans GRACES: Fabio Bresolin GMOS: Laura Parker F2: Alberto Rodriguez Ardila GeMS: Eric Steinbring GPI: Andy Skemer 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 2017A meeting will be 4-5 May in Hilo, Hawai'i and the 2017B meeting will be 9-10 November in La Serena, Chile.