Gemini Observatory: Exploring The Universe From Both Hemispheres

Semester 2013A Call For Proposals

Gemini Observatory invites its community to propose scientific investigations for the 2013A semester, 1 February 2013 - 31 July 2013. The submission deadline varies with partner and ranges from THURSDAY SEPTEMBER 27 TO TUESDAY OCTOBER 2 2012. Multi-partner joint proposals should be submitted by the deadline of the partner country to which the Principal Investigator is affiliated. Proposals for exchange time on Gemini from the Japanese community should be submitted by the Gemini Staff proposal deadline.

The Call is open to all partners and host institutions : Argentina, Australia, Brazil, Canada, the US, Chile and the University of Hawaii. US time is open to all astronomers including those at non-US institutions, although in that case the proposal must explain why U.S. national facilities are needed. The distribution of time across the partners is shown in the time distribution Table.

Hardcopy of the primary Call pages is available as a pdf document. An overview of the Gemini proposal submission process is available.

Highlights for 2013A

General
The deadline for Phase I submission varies with partner and ranges from THURSDAY SEPTEMBER 27 TO TUESDAY OCTOBER 2 2012. Poor weather and Director's Discretionary Time proposals are accepted at any time via the Phase I Tool. For successful proposals, both queue and classical, the Phase II submission deadline is January 16 2013. More information is available in the 2013A schedule.
Target accessibility limits for 2013A are, for **Gemini North 4 < RA < 1 and -37 < dec < +90, and for Gemini South 5 < RA < 2 and -90 < dec < +28**. **There are additional constraints** if a program requires unrestricted access (e.g. MOS pre-imaging, long observations or observations with strict constraints), or the laser AO system at Gemini North or South. **GSAOI+GeMS is restricted to RA 6.5h to 19h and declinations -70 to +10**.
A new Phase I Tool (PIT) has been released for 2013A; see the PIT page for installation information and the help pages for the PIT for assistance. Latex and Word templates are available to create a pdf attachment which includes the science and technical cases, and these should be used.
The UK has withdrawn from the Gemini partnership, effective January 2013. The partner time distribution has been revised.
Gemini North
It is expected that 88% of the semester will be available for science. This amounts to 160 nights distributed across the partnership. These nights include a 7% Director's Discretionary Time allocation, 1 night for instrument performance monitoring, and 4 nights for GRACES commissioning using community targets. A separate Call will be made for GRACES targets. A list of instruments and capabilities is given below.
GNIRS is available in all modes except those requiring the short red camera. This will exclude science at wavelengths 2.9 to 5.5 μm with the 0.15 arcsecond/pixel scale. Some of this science can be done using the long red camera with the smaller pixel scale (or higher resolution for spectroscopy). GNIRS will be removed at the end of the semester for a lens replacement; although the exact date will be driven by demand, applicants with targets at RA 22h to 1h are advised to have backup targets available at earlier RA.

Michelle is not offered in 2013A and is not expected to be offered as a facility instrument in the future.

The "Super seeing" LGS + PWFS1 capability is available in 2013A with NIRI, NIFS and GNIRS, for up to 100 hours of time. PWFS1 provides tip/tilt/focus correction, improving the delivered image quality from effectively IQ70 to IQ20. Prospective users should refer to the LGS + PWFS1 page for more information.

Gemini South

It is expected that 81% of the semester will be available for science. This amounts to 146 nights distributed across the partnership. These nights include 12 nights of System Verification for FLAMINGOS-2, a 7% Director's Discretionary Time allocation, and 1 night for instrument performance monitoring. A list of instruments and capabilities is given below.

The commissioning of FLAMINGOS-2 will take highest priority and is likely to impact queue and classical run scheduling. A separate Call will be made for FLAMINGOS-2 System Verification proposals after successful re-commissioning.

GSAOI with GeMS is expected to be available for early science from February to April 2013, limiting RAs to 6.5h - 19h, and declination to -70 to +10 degrees. Availability is dependent on successful System Verification (SV) during 2012B. An SV call for 2012B has been issued. 60 hours are available via the 2012B SV call, for targets with an RA range of 1 to 12 hours. The SV data have a 2 month proprietary period. 80 to 100 hours are available via this 2013A call, for targets with a later range in RA. The 2013A data will have the normal 18 month proprietary period. **The 2013A early science is shared risk as instrument availability and data quality cannot be guaranteed, and reduced observing efficiency is expected.** 2013A GSAOI band 1 early science programs will not be eligible for rollover status.

GMOS-South may be removed at the end of the semester for replacement of the CCDs; although the exact date will be driven by demand, applicants with targets at RA 0h to 2h are advised to have backup targets available.

NICI has no restrictions on RA, however availability will be impacted by the commissioning of FLAMINGOS-2, which will have priority. Note that 2013A is likely to be the last A semester, and probably the last semester, that NICI will be offered.

T-ReCS is not offered in 2013A and is not expected to be offered as a facility instrument in the future.

Keck and Subaru Exchange

No Gemini-Keck exchange time is offered in Semester 2013A.

4 to 10 classical nights are available on Subaru in Semester 2013A. PIs in the Gemini community who intend to use the Subaru telescope are encouraged to apply through the time-exchange program and not through the open use Subaru Call. Similarly, Subaru request that Japanese PIs with direct access to Gemini not request time on Gemini via the Subaru exchange program. Time must be requested in integer nights, and runs will be evenly distributed across dark, gray and bright nights. Proposals should be submitted via the normal Gemini process *[more information]* Instrument availability is as follows:

- **COMICS** (mid-infrared camera and spectrograph) available throughout 13A, including use with the repaired auto-guider in shared-risk mode.
- **FMOS** (near-infrared fiber-fed multi-object spectrograph) available in both high- and low-resolution mode with IRS1 and IRS2. Changes have been made in the wavelength coverage for the high-resolution mode.
- **FOCAS** (optical camera and spectrograph) available throughout 13A, including use with the repaired auto-guider in shared-risk mode.
- **HDS** (optical high dispersion spectrograph) is available. A new image slicer is available in shared-risk mode.
- **IRCS** (infrared camera and spectrograph, with Natural and Laser Guide Star Adaptive Optics capability) is available from February to May 2013 only.
- **MOIRCS** (near-infrared imager and multi-object spectrograph) available throughout 13A, including use with the repaired auto-guider in shared-risk mode.

- **Suprime-Cam** (wide field optical imager) is available.

Additional Information

Details of the capabilities available at each Gemini telescope are given below. Please see the page of supporting information for additional general information.

Gemini North: Facilities

- All instruments are offered in queue and classical mode, except for Laser Guide Star AO which is queue mode only.
- Facility instruments:
  - **GMOS North - 0.36-0.98 micron imager and spectrograph:** imaging and long-slit, multi-object and integral field spectroscopy. 5σ one hour point source sensitivities are approximately R=26 for imaging and R=21-23 for spectroscopy.
  - **GNIRS - 1-5 micron spectrograph:** fed with the direct or AO-corrected beam. 5σ one hour point source sensitivities are approximately K=18.5 to K=14.5 depending on the resolution used. Imaging with GNIRS is also possible, although the field of view and filter selection is limited, and the optics do not give diffraction-limited image quality. The short red camera is not available in 13A. This excludes science at wavelengths 2.9 to 5.5 μm with the 0.15 arcsecond/pixel scale.
  - **NIRI - 1-5 micron imager:** imaging fed with the direct or AO-corrected beam. 5σ one hour point source sensitivities are approximately K=23 for imaging. NIRI is no longer offered for spectroscopy.
  - **NIFS - 0.95-2.40 micron integral field unit spectrograph:** IFU spectroscopy fed with the direct or AO-corrected beam. 5σ one hour point source sensitivities are approximately K=18.7.
  - **Altair - facility AO system:** for use with GNIRS, NIFS and NIRI (except at M-band).
    - Natural Guide Star AO: Traditional adaptive optics guiding on a nearby star.
    - See the Laser Guide Star AO web pages for important performance information and restrictions. A "Super seeing LGS + PWFS1 mode is also available.

- See the target accessibility page for important information regarding instrument availability and a plot of accessible RA and Dec.

Gemini South: Facilities

- All instruments are offered in queue and classical mode, except for GeMS AO which is queue mode only.
- Facility instruments:
  - **GMOS South - 0.36-0.93 micron imager and spectrograph**: imaging and long-slit, multi-object and integral field spectroscopy. 5σ one hour point source sensitivities are approximately R=26 for imaging and R=21-23 for spectroscopy.
  - **GSAOI near-infrared adaptive optics imager for use with the GeMS system** : available for early science in 2013A. Prospective users should refer to the instrument web pages for updates as commissioning is ongoing.

- **NICI - 1-4 micron dual-channel coronagraphic imager:** Constraints must be at least as good as CC 70 and IQ 70. CC 70 programs need to have brighter guide stars and less demanding sensitivity requirements.
- **GeMS - facility AO system:** for use with GSAOI. Multi-Conjugate Adaptive Optics compensates for the atmospheric turbulence in a 3-D fashion, using multiple guide stars and deformable mirrors. Diffraction-limited near-IR images can be obtained over a wider field than regular AO.
- **FLAMINGOS-2 - near-Infrared wide field imager and multi-object spectrometer**: expected to be available for System Verification only in 2013A.

- See the target accessibility page for important information regarding instrument availability and a plot of accessible RA and Dec.

Questions and Answers

All questions concerning proposals, or any other subject, should be made using the Gemini HelpDesk. This web-based system will send the request to your National Gemini Office staff in the first instance who will then escalate it to Gemini staff if necessary.

Comments and suggestions on the format and content of this page and supporting pages are welcome, and should be sent to Sandy Leggett.

Last Modified: August 30, 2012, sleggett

Semester 2013A Important Dates

Key dates and events in the proposal process are shown below. The Phase I and Phase II deadlines are highlighted.

Date	*Event*	*Comments*
27 September to October 2 2012 (varies by partner)	**Proposal deadline**	**Proposals received by National Gemini Offices (NGOs).**
Early November (set by partner)	NTAC meetings	Scientific assessments by each Gemini partner ("National TAC").
14 November 2012	E-transmission	Goal for electronic transmission of proposals to Gemini from NTACs (earlier submission is encouraged).
29 November 2012	ITAC	International Time Allocation Committee meets to resolve issues and recommend programs.
7 December 2012	Final queue/schedule, and ITAC & Gemini feedback to NGOs	After approval by Gemini Director.
17 December 2012	**13A schedule and Phase IIs available**	**2013A OT templates available to PIs.**
2 January 2013	Phase II reviews start	The response time is 7 days for checking by NGOs (from "For Review") and by Gemini CSs (from "For Activation").
16 January 2013	**Phase II deadline**	**PI deadline for submission of completed Phase II Programs to National Offices (earlier submission is encouraged).**
30 January 2013	**"For Activation" deadline**	**NGO deadline for submission of completed Phase II Programs to Gemini.**
1 February 2013	Start of semester 2013A	2013A programs may be observed earlier to fill queue nights.

Last Modified: August 28, 2012, sleggett

2013A Instrument Availability and Target Accessibility

This page provides best estimates, at the time of the Call for Proposals, of instrument availability and target (RA, dec) restrictions for 2013A.

Instrument Changes

As there are more instruments than the number of ports on each telescope, instrument swaps will be required and not all instruments will be available for the entire semester. When possible instrument swaps will be scheduled to minimize impact on the queue and instrument swaps will be driven by demand. It may be the case that certain targets or entire programs will not be feasible once the final schedule is determined, at ITAC or thereafter. If an instrument is requested for less than 6% of the Bands 1+2 time, the Observatory reserves the right to limit the RA range available to programs, or to not schedule the instrument. Instrument changes are not permitted during classical runs.

Gemini North Instrument Availability and Target Accessibility

All instruments are restricted for sky visibility as described in the Table and Figure below. GNIRS will be removed at the end of the semester for a lens replacement; although the exact date will be driven by demand, applicants with targets at RA 22h to 1h are advised to have backup targets available at earlier RA. Observations requiring the Laser Guide Star (LGS) system are further restricted by the limitation that the LGS must be used at or above 40 degrees elevation. How this translates into RA and dec restrictions is indicated in the Table. Michelle is not offered in 2013A.

	Accessible	Restricted**	Inaccessible
Declination, non-LGS	-30d to +73d	-37d to -30d, +73d to +90d	< -37d
Declination, LGS	-22d to +65d	-27d to -22d, +65d to +68d	< -27d and > +68d
Right Ascension, non-LGS	7h to 22h	4h to 7h, 22h to 1h	1h to 4h
Right Ascension, LGS	8h to 21h	5h to 8h, 21h to 0h	0h to 5h

**Due to limited sky availability during the semester, GMOS MOS programs requiring pre-imaging should not have targets in this region, and other programs with targets in this region should not require a large amount of time, or have strict timing or observing constraints.

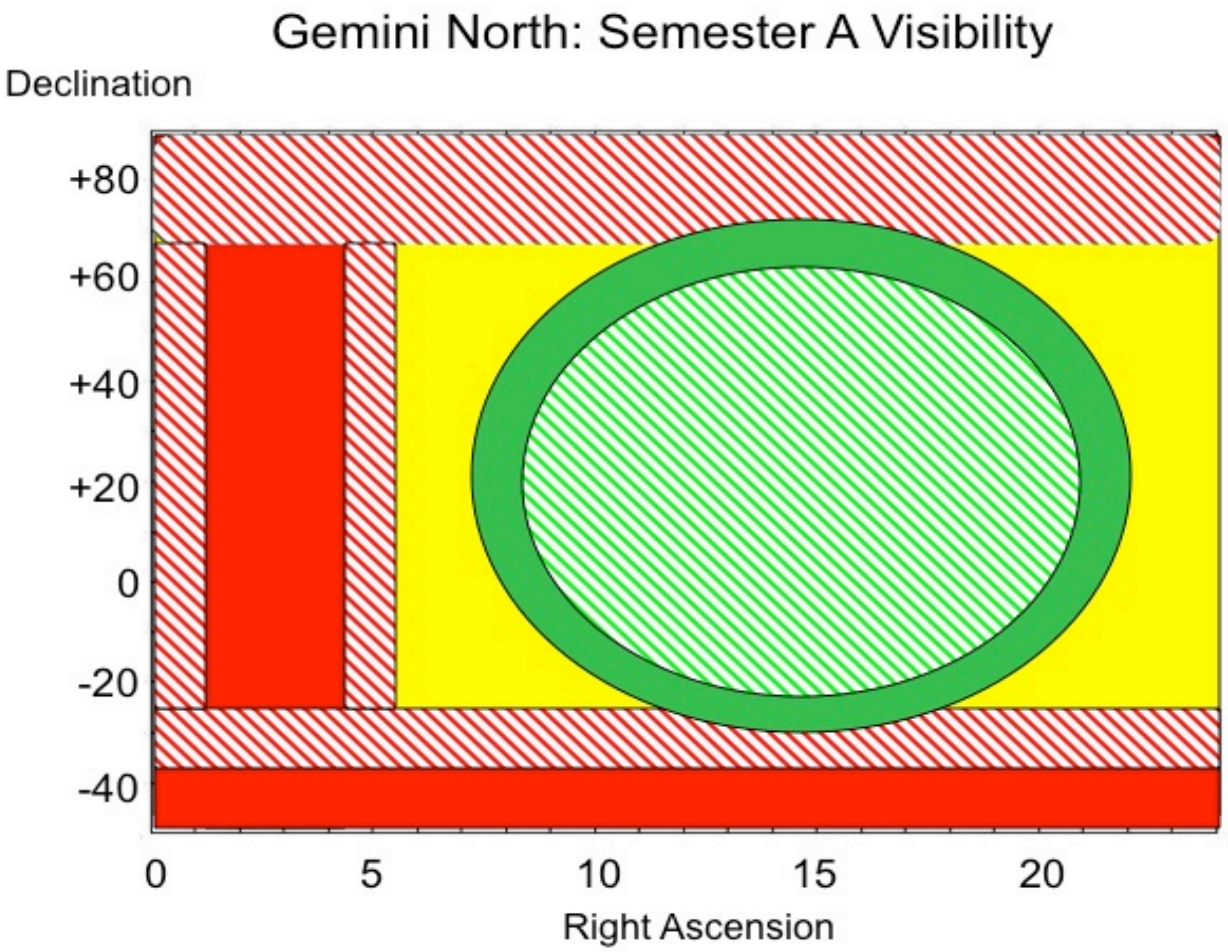

Figure 1: Schematic representation of target accessibility at Gemini North during semester 2013A. Green regions offer unrestricted access, red regions are inaccessible. Hatched areas indicate the more restricted LGS regions. The yellow region is possible, but restricted. See text, and values in the Table above.

Gemini South Instrument Availability and Target Accessibility

All instruments are restricted for sky visibility as described in the Table and Figure below. FLAMINGOS-2 will be available for System Verification only, via a separate call. Observations using GeMS are restricted to greater than 45 degrees elevation. GSAOI + GeMS is expected to be available for early science from February to April 2013, pending successful System Verification during 2012B. The RA and dec restrictions for GSAOI + GeMS are indicated in the Table. GMOS-South may be removed at the end of the semester for replacement of the CCDs; although the exact date will be driven by demand, applicants with targets at RA 0h to 2h are advised to have backup targets available. No restrictions have been placed on the availability of NICI , however this will be impacted by the commissioning of FLAMINGOS-2 , which will have priority. Note that 2013A is likely to be the last A semester, and probably the last semester, that NICI will be offered. T-ReCS is not offered in 2013A.

	Accessible	Restricted**	Inaccessible
Declination	-87d to +22d	-90d to -87d, +22d to +28d	> +28d

Declination, GSAOI + GeMS	-65d to +5d	-70d to -65d, +5d to +10d	< -70d and > +10d
Right Ascension	7h to 23h	5h to 7h, 23h to 2h	2h to 5h
Right Ascension, GSAOI + GeMS	8.5h to 16.5h	6.5h to 8.5h, 16.5 to 19	19h to 6.5h

**Due to limited sky availability during the semester, GMOS MOS programs requiring pre-imaging should not have targets in this region, and other programs with targets in this region should not require a large amount of time, or have strict timing or observing constraints.

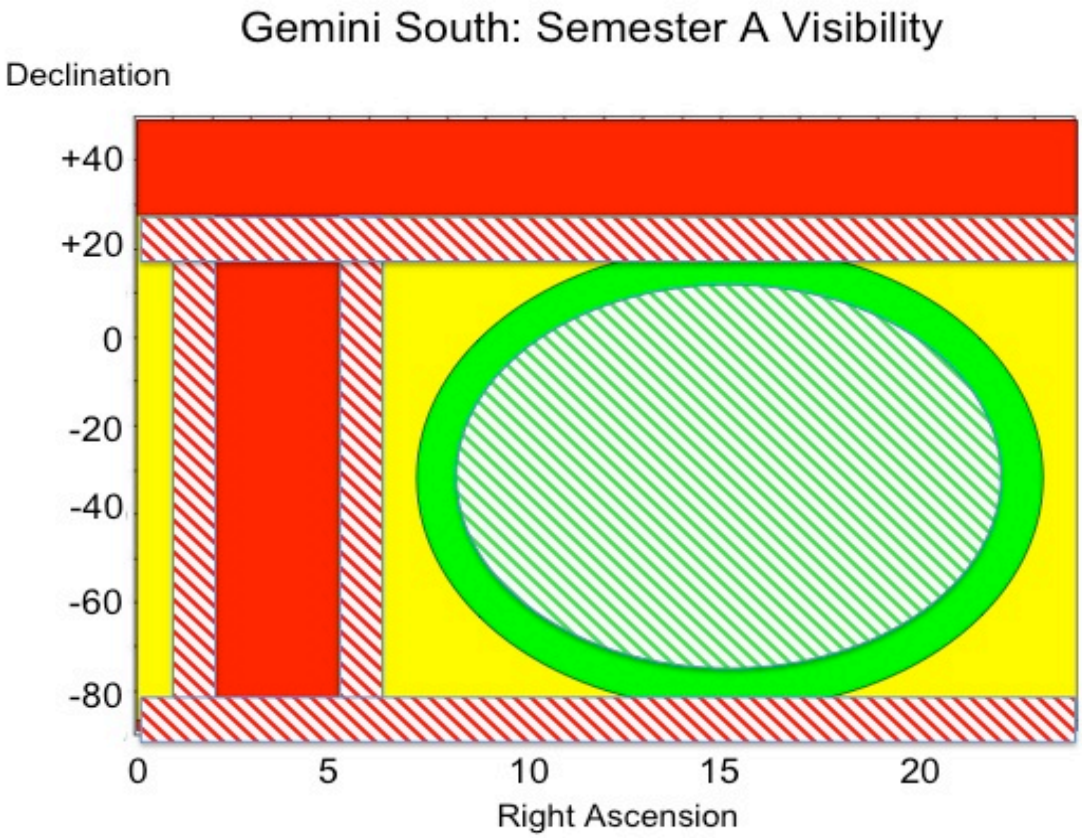

Figure 2: Schematic representation of target accessibility at Gemini South during semester 2013A. Green regions offer unrestricted access, red regions are inaccessible. Hatched areas indicate the more restricted GeMS regions (note that the limited availability of GSAOI in 13A further restricts the GSAOI + GeMS combination). The yellow region is possible, but restricted. See text, and values in the Table above.

Semester 2013A Time Distribution

Gemini North: Time Availability and Distribution

A minimum of 88% of the time will be available for science use on Gemini North in 2013A. This amounts to 160 nights and includes a 7% Director's Discretionary Time allocation, 1 night for instrument performance monitoring, and 4 nights for GRACES commissioning using community targets. The Director's Discretionary Time is divided into a maximum 5% share for use by staff (which is open for joint proposals with the partners), and a minimum 2% share available to all astronomers through the Director's Discretionary Time proposal process throughout the semester. The non-science time will be used for observatory maintenance tasks and commissioning of GRACES. Any unused engineering time will be returned to science. Note that historically around 5% of each semester's science time is used to complete highly ranked programs from the previous two semesters to which the ITAC granted rollover status. The number of hours available to each partner and the host in 2013A is given in the following table. The numbers take into account corrections for prior imbalances.

Partner	Estimated Hours Available
US	840
Canada	259
Australia	107
Brazil	87
Argentina	49
Univ. of Hawaii (host)	126

Gemini South: Time Availability and Distribution

A minimum of 81% of the time will be available for science use on Gemini South in 2013A. This amounts to 146 nights, which include 12 nights of System Verification for FLAMINGOS-2, a 7% of Director's Discretionary Time allocation and 1 night for instrument performance monitoring. The Director's Discretionary Time is divided into a maximum 5% share for use by staff (which is open for joint proposals with the partners), and a minimum 2% share available to all astronomers through the Director's Discretionary Time proposal process throughout the semester. The non-science time will be used for observatory maintenance tasks, FLAMINGOS-2 re-commissioning, GeMS laser engineering and possibly GPI early commissioning. Any unused engineering time will be returned to science. Note that historically around 5% of each semester's science time is used to complete highly ranked programs from the previous two semesters to which the ITAC granted rollover status. The number of hours available to each partner and the host in 2013A is given in the following table. The numbers take into account corrections for prior imbalances.

Partner	Estimated Hours Available
US	707
Canada	218
Australia	91
Brazil	73

Argentina	42
Chile (host)	127

Time Adjustments

To maintain overall balance amongst the partnership, the values shown above for both Gemini North and South have been adjusted from the nominal partner shares as a result of actual time charged through 2012A. The values shown in the tables above were recommended by the Operations Working Group in August 2012. The number of nights is approximated by int(hours/10).

Last Modified: August 30, 2012, sleggett

Overview of Gemini Proposal Submission Process

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Call for Proposals

Every 6 months, around March 1 and September 1, Gemini will issue a Call for Observing Proposals. The Call will contain information such as the time distribution across the Gemini Partners and the instrument availability. The deadline for proposal submission varies with partner but is typically around April 1 and October 1. Make sure you read the Call prior to writing your proposal. Requests for Director's Discretionary time or Poor Weather time may be submitted at any time, using the Gemini Phase I Tool.

Proposal Submission

Investigators should use the Gemini Phase I Tool for creating and submitting proposals. Investigators applying for NOAO time using multiple NOAO telescopes for a single program may instead use the NOAO submission form. However, any proposal that requests time from multiple partners, known as a joint proposals, must use the Gemini Phase I Tool.

A new Phase I Tool is released for each semester. Information on how to download and install the Tool is given on the semester's installation page. Differences from previous versions are described on the hot news page.

Help on the Tool is available via the PIT help page and video tutorials.

Overview of the Phase I Tool

The Gemini Gemini Phase I Tool provides an interface via which the Investigator can enter:

- title, abstract, TAC category, keywords, and the investigators' names and institutions.
- targets, either manually, or by catalog look-up.
- observations, which are defined by target, instrument and instrument configuration (a wizard will lead you through a decision tree of modes and their options), observing conditions and observing time. Investigators should use the integration time calculator to determine the integration time needed for your instrument configuration, conditions and required signal to noise. Overheads should be included in the observing time request in the Phase I Tool, as described in the "Overheads" section of each instrument's web page. Time required for calibration should not be included unless you require calibrations that are beyond the baseline calibrations offered for the instrument, described in the "Calibration" section of each instrument's web page.
- Band 3 observations should be defined if your program can be carried out in relatively poor conditions, or can be adjusted to make it viable in such conditions. Information on how to make your program viable for Band 3 is given on the advice for Band 3 page.
- Scheduling constraints if there are time-critical or synchronous observations involved, or impossible dates for classical programs.
- Time request - both your total and minimum time for useful science should be specified, and also the total and minimum Band 3 time if your program is viable in Band 3. You can also choose how to distribute the time across the partners, if this is a joint proposal. This tab also allows you to specify whether or not the proposal contains Targets of Opportunity (ToO) and if so whether these are rapid or standard ToO observations.
- There is a PDF attachment which is submitted with the proposal. This attachment contains the Scientific Justification, Technical Case, a description of how a queue program would be carried out in Band 3 or how a classical program would use poor conditions, justification of any duplicate observations, a publications list, and a description of the use of other facilities and previous Gemini use. More information is given below. Latex and word templates are available at the Tool download site to generate the attachment, and should be used.

- The Tool will highlight errors in your proposal. Incomplete sections or input errors will be described by text in the lower panel. If your targets have poor visibility, the configuration is such that guiding will be difficult, or if there are duplicate observations found in the Gemini Science Archive, then these will be flagged in the columns on the Observations tab.
- Once you are ready to submit a single click on the "Submit this Proposal" button will send the proposal and PDF attachment to the servers of your selected partner(s). Currently submissions cannot be overwritten. Submit your corrected proposal and contact your NGO office to let them know which proposal you want considered, and which omitted.

The PDF attachment

Latex and word templates and style files are available to generate the attachment, and should be used. Proposals requesting time via the NOAO with a US PI should use the US latex template or US word template and style file, others should use the Gemini default latex template or Gemini default word template and style file. Do not change the margins or font sizes, if you do you run the risk of annoying the TAC members! The attachment includes:

- The Scientific Justification, which is limited to one page excluding references. Up to two additional pages can be used for references, tables, figures (no more than three), and captions. This can be a high-level description of the observations and the fundamental problem that they will address. Make sure to include the overall significance to astronomy. The Technical Case can include details such as sample selection, data analysis, etc.
- The Technical Case is limited to one page with no additional figures. This should be a description of how the observations contribute toward the accomplishment of the goals outlined in the science justification. Include information such as why the specific targets were selected, the sample size, the analysis, etc. Also justify the instrument configuration, the exposure times and the constraints requested. Give the input to and the results from the Gemini Integration Time Calculator here. Justify the total and minimum time requested.
- Band 3 and Classical Backup Program descriptions should describe how a queue program would be carried out in Band 3 or how a classical program would use poor conditions.
- Duplicate observations justification. The Tool will automatically inform you of any duplicate observations in the Observations tab. You must justify why the proposed observations are still required.
- Publications by the PI or Co-I which support the proposal should be listed.
- Any applications to non-Gemini facilities that are related to the proposal should be listed. Also list allocations of Gemini telescope time to the PI during the past 2 years using the Table layout provided.

Other Information

Each instrument's page (in the "Observation Preparation" area) contains advice on how to prepare and check your observations. A brief guide to technically reviewing proposals written for the Time Allocation Committee may also be useful for applicants.

Please contact the Gemini help desk if you need assistance.

Successful PIs will be contacted via email around the middle of June and December, with important information regarding the completion of Phase II. Typically the PI deadline for completing Phase II is the middle of July and January. Successful PIs will find the What to expect once your observations are in the queue page helpful.

Last Modified: August 29, 2012, sleggett