Semester 2013B Call For Proposals

Gemini Observatory invites its community to propose scientific investigations for the 2013B semester, 1 August 2013 - 31 January 2014. The submission deadline varies with partner and ranges from THURSDAY MARCH 28 TO MONDAY APRIL 1 2013. 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. An overview of the Gemini proposal submission process is available.

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.

Jump to:

Summary of 2013B Gemini Capabilities

Gemini North

Target are limited to 17 < RA hours < 13.5 and -37 < dec degrees < +90. In some cases there are additional constraints as described below and in the target and instrument accessability page.

Facility instruments offered in 2013B, in queue or classical mode, are:

- **GMOS North (0.36-0.98 micron imager and spectrometer):** available throughout the semester.
- **GNIRS (1-5 micron spectrometer):** available in all modes from mid-August, targets are therefore limited to RA 18h to 13.5h.
- **NIFS (0.95-2.40 micron integral field unit spectrometer):** available throughout the semester.
- **NIRI (1-5 micron imager):** available throughout the semester.
- **Altair (facility Adaptive Optics system):** with GNIRS, NIFS and NIRI (except M-band), limited to RA 18h to 12.5h and Dec -27d to +68d. Laser guide star AO is available in queue mode only.

Visitor instruments offered in 2013B (subject to demand), in queue mode only, are:

- **DSSI Speckle camera:** a dual-channel visual-wavelength camera giving simultaneous diffraction-limited images in two filters over a 2.8 - 5.6 arcsecond field of view. Up to 110 hours are available during July and August bright time, limiting RAs to 15.5h to 3h.
- **TEXES:** a high resolution (R ~ 4,000-100,000) mid-infrared (5-25 micron) spectrometer. Up to 110 hours are available during October bright time, limiting RAs to 20h to 7.5h.

Gemini South

Target are limited to 16 < RA hours < 12 and -90 < dec degrees < +28. In some cases there are additional constraints as described below and in the target and instrument accessability page.

Facility instruments offered in 2013B are:

- **FLAMINGOS-2 (0.9-2.4 micron wide-field imager and spectrometer):** offered on a shared-risk basis through the semester in imaging and long-slit modes, in queue mode only. MOS mode is not offered at this time. Targets with RA 23h to 6h are particularly encouraged to cover a period when GMOS South may not be available.
  At the time of this Call, the instrument is not yet delivering the expected image quality in the lab. The point spread function, which excludes the effect of seeing, has a full-width half-maximum of 0.48 arcsec on-axis and 0.55 arcsec off-axis; for spectroscopy, a smaller degradation of the spectral resolution is expected. Before submitting proposals investigators should refer to the instrument's Status and Availability page for updated information. The instrument will return to the telescope for re-commissioning in April 2013.
- **GMOS-South (0.36-0.93 micron imager and spectrometer):** available in queue or classical mode, although likely to not be available between October and November 2013, for an upgrade to the CCDs and other maintenance work. The amount of time at RA 23h to 6h will therefore be limited, and investigators should state in the technical case of their proposal if alternate targets are available. Investigators should assume the performance of the current EEV detectors for planning purposes.
- **GSAOI (0.9-2.4 micron adaptive optics imager)** with the **GeMS Adaptive Optics system:** up to 150 hours available. Targets are restricted to RA 19h to 11h and Dec -75d to +15d, and there are important guide star limitations. Investigators must check the availability of Guide Star constellations using the Observing Tool before submitting a proposal. Observations in IQ85 are possible and are encouraged for semester 2013B, for programs that can use delivered images with full-width half-maximum ~0.2 arcseconds as opposed to the ≤0.1 arcseconds delivered in IQ70 or IQ20 conditions. Laser guide star Adaptive Optics is available in queue mode only.
  During 2013B Gemini Director's Discretionary Time will be allocated to use GSAOI to obtain non-proprietary data on two galaxy clusters that are part of the Hubble Space Telescope Frontier Fields program. Investigators who require deeper or different observations of these fields are welcome to submit such proposals.

Instruments and Modes Not Offered in 2013B

The following instruments are not offered in 2013B (and have been retired or are expected to be retired during 2013B):

- Michelle
- NICI
- T-ReCS

Also, as in past semesters, NIRI is no longer available for spectroscopy.

Important Dates for 2013B

The deadline for Phase I submission varies with partner and ranges from THURSDAY MARCH 28 TO MONDAY APRIL 1 2013. 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 July 15 2013. More information is available in the 2013B schedule.

Phase I Tool for 2013B

Proposals for time on Gemini, and for time on Subaru via the Gemini-Subaru exchange program, must use the Gemini Phase I Tool (PIT). The 2013B PIT has been updated to include the Gemini North visitor instruments DSSI/Speckle and TEXES. The requested time for the visitor instruments should include all required calibrations (unlike the facilty instruments where the time required for a specified set of baseline calibrations should not be included). 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.

Time Available in 2013B

The science time available for each partner and host institution in 2013B is shown on the time distribution page. The science time available at each telescope includes a 7% 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. At Gemini North 155.5 nights are expected to be available for science. At Gemini South 138 nights are expected to be available for science, which include 3 nights of guaranteed time for the GSAOI instrument team, and 1.5 nights for GMOS-S CCD upgrade demonstration science.

Exchange Time in 2013B

A minimum of 5 classical nights are available on Subaru in Semester 2013B.

- Proposals should be submitted via the normal Gemini Phase I process. 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. Subaru Observatory staff request that any 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.
- See the Subaru Call for Proposals for important information. Notes on capabilities follow:
  - **The telescope will be unavailable until around September 20 2013**, due to mirror recoating.
  - **COMICS (mid-infrared camera and spectrometer)** is available.
  - **FMOS (near-infrared fiber-fed multi-object spectrometer)** is available in shared-risk mode only. Both high- and low-resolution modes with IRS1 and IRS2 are available.
  - **FOCAS (optical camera and spectrograph)** is available. The Cassegrain Atmospheric Dispersion Corrector is expected to be available in shared-risk mode.
  - **HDS (optical high dispersion spectrometer)** is available.
  - **IRCS (infrared camera and spectrometer, with Natural and Laser Guide Star Adaptive Optics capability)** is available.
  - **MOIRCS (near-infrared imager and multi-object spectrometer)** is available. The number of MOS masks must be specified in the proposal. Note that access to MOIRCS during 2014 will be very limited due to planned upgrades.
  - **Suprime-Cam (wide field optical imager)** is available. The required filters must be explicitly stated in the proposal.

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

Additional Information

Please see the page of supporting information for additional general information. Prospective users should also refer to the the target and instrument accessability page, and the instrument pages for detailed and up to date information on instrumentation.

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.

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2013B 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 2013B. Jump to:

Instrument and Instrument Configuration Restrictions

At each Gemini telescope, instruments are mounted at the Cassegrain focus on the instrument support structure (ISS). A science fold mirror mounted inside the ISS can be rotated to send the light from the telescope to any of four side-looking ports, or can be retracted so that the light goes to the up-looking port. At each site, the calibration unit and the Adaptive Optics system use two of the side ports, leaving two side-looking and one uplooking port for other instrumentation. As more than three instruments are offered each semester, instrument swaps will be required and not all instruments will be available for the entire semester. Instrument swaps will be driven by demand and scheduled to minimize impact on the queue. Certain targets or entire programs may not be feasible once the final schedule is determined, at ITAC or thereafter. Changes to the instrument mounting are not permitted during classical runs.

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. Similarly, the Observatory may choose to limit available configurations, such as the little used R600 grating in GMOS. Investigators applying for low-demand configurations should indicate if the science can be achieved with an alternate configuration.

Non-Sidereal Targets

Non-sidereal targets can have a broader range in RA than indicated in the Tables below due to, for example, the need to observe comets relatively close to the Sun. The ephemeris for any submitted target however must include a position that is accessible between evening and morning twilight at some point in the semester. For rapidly moving targets PIs should specify in the proposal when the target is accessible, and the coordinates of the target at that time, so that the observation can be checked for feasibility.

Gemini Frontier Fields Observations

During 2013B, Gemini Director's Discretionary Time will be allocated to use GSAOI and GeMS to observe two galaxy clusters that are part of the Hubble Space Telescope Frontier Fields program. We will obtain images of Abell 2744 and MACSJ0416.1-2403 in the K(short) filter. We plan to obtain approximately 5 hours on-source of each field, reaching an estimated (point-source) sensitivity of 26.3 AB magnitudes (24.4 Vega). The available guide stars constrain the pointings, which will be centered on RA=00:14:18.9, DEC=-30:22:38.1 (Abell 2744) and RA=04:16:06.9, DEC=-24:05:38.1 (MACSJ0416.1-2403) and cover the GSAOI 85 arcsecond field of view. These data will be immediately accessible in the Gemini Science Archive with no proprietary period, and we will also produce reduced images for the community after the

observations are complete. We are providing this information now to avoid duplication of proposers' effort. Investigators who require deeper or different but related observations should not hesitate to propose for them.

Gemini North Instrument Availability and Target Accessibility

All instruments are restricted for sky visibility as described in the Table and Figure below. In addition:

- GNIRS will return to the telescope in mid-August following a lens replacement; targets are therefore limited to RA 18h to 13.5h.
- Depending on demand, we expect to offer the visitor instruments
  - the DSSI Speckle camera during July and August bright time, limiting RAs to 15.5h to 3h.
  - TEXES during October bright time, limiting RAs to 20h to 7.5h.
- The Laser Guide Star (LGS) system must be used at or above 40 degrees elevation. How this translates into RA and dec restrictions is indicated in the Table.
- Michelle has been retired and is not offered in 2013B.

	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	19h to 11h	17h to 19h, 11h to 13.5h	13.5h to 17h
Right Ascension, LGS	20h to 10h	18h to 20h, 10h to 12.5h	12.5h to 18h
Right Ascension, GNIRS	19.5h to 11h	18h to 19.5h, 11h to 13.5h	13.5h to 18h
Right Ascension, DSSI Speckle	16.5h to 2h	15.5h to 16.5h, 2h to 3h	3h to 15.5h
Right Ascension, TEXES	21h to 6.5h	20h to 21h, 6.5h to 7.5h	7.5h to 20h

**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.

Gemini South Instrument Availability and Target Accessibility

All instruments are restricted for sky visibility as described in the Table and Figure below. In addition:

- FLAMINGOS-2 will be available throughout the semester on a shared-risk basis, in imaging and long-slit modes only. **Targets with RAs 23h to 6h are particularly encouraged**, to cover the period October to November when GMOS-South may be unavailable.
- GMOS may not be available during October and November while the CCDs are upgraded and other maintenance work is performed. **The amount of time at RA 23h to 6h will therefore be limited, and investigators should indicate in the technical case of their proposal if alternate targets are available.**

- GSAOI + GeMS is expected to be available between September and January, limiting RAs to 19h to 11h. Observations using GeMS are restricted to greater than 45 degrees elevation. How this translates into RA and dec restrictions is indicated in the Table.
- Neither NICI or T-ReCS are offered in 2013B.

	Accessible	Restricted**	Inaccessible
Declination	-87d to +22d	-90d to -87d, +22d to +28d	> +28d
Declination, GSAOI + GeMS	-70d to +10d	-75d to -70d, +10d to +15d	< -75d and > +15d
Right Ascension	19h to 9h	16h to 19h, 9h to 12h	12h to 16h
Right Ascension, GSAOI + GeMS	21h to 8h	19h to 21h, 8 to 11	11h to 19h

**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.

Graphical Illustration

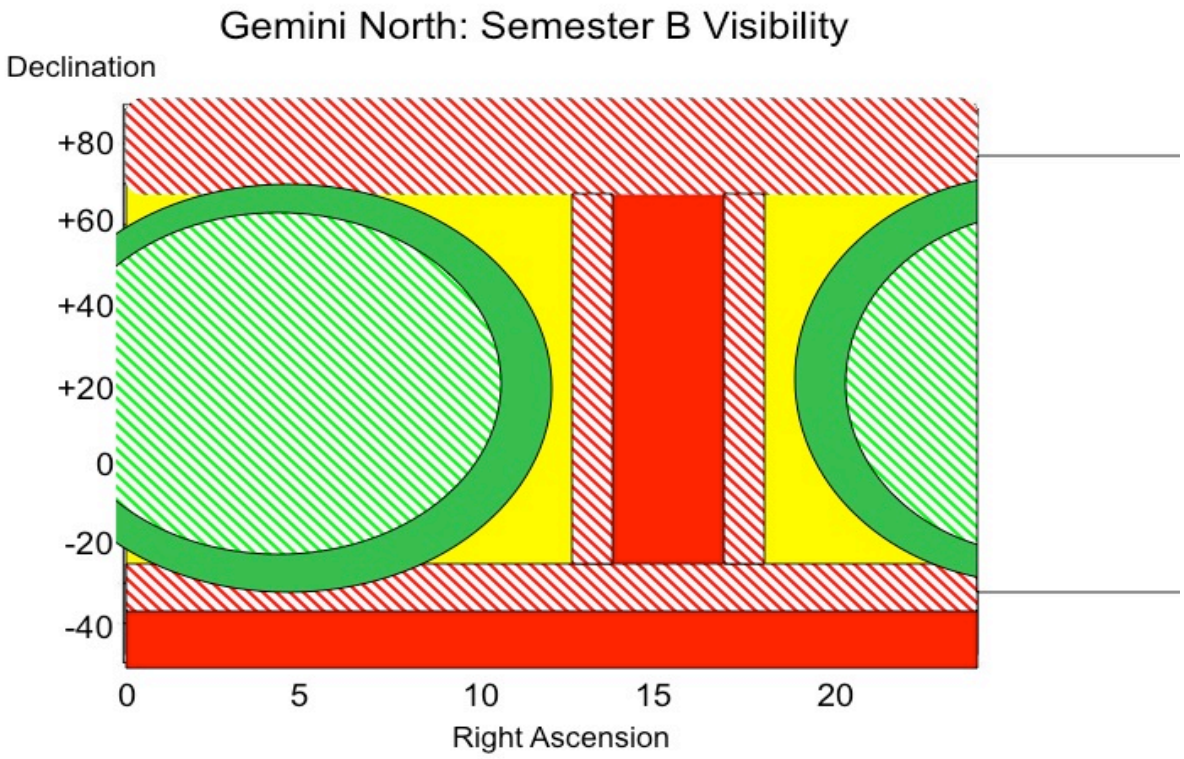

Figure 1: Schematic representation of target accessibility at Gemini North during semester 2013B. Green regions offer unrestricted access, red regions are inaccessible. Hatched areas indicate the more restricted LGS regions. The yellow region is possible, but restricted. See text, and values in the Gemini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

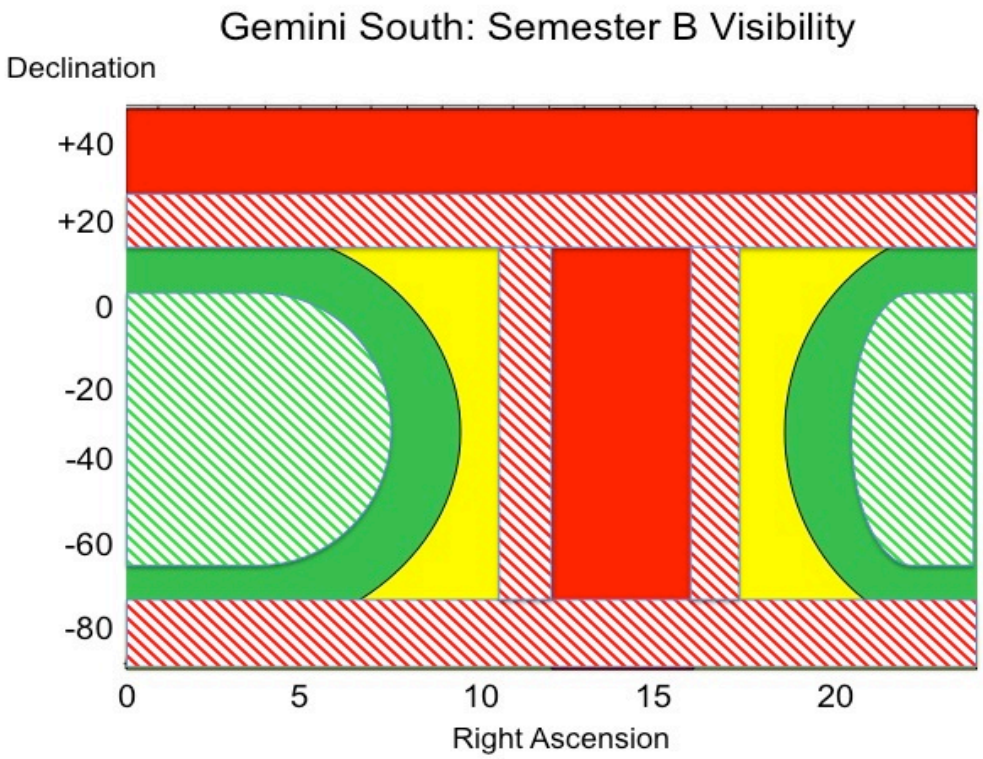

Figure 2: Schematic representation of target accessibility at Gemini South during semester 2013B. Green regions offer unrestricted access, red regions are inaccessible. Hatched areas indicate the more restricted GeMS regions (note that the limited availability of GSAOI in 13B further restricts the GSAOI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

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Semester 2013B Time Distribution

Overview

The time available on each of Gemini North and South is distributed according to the Observatory partners' shares. To maintain overall balance amongst the partnership, the allocations are adjusted each semester as a result of actual time charged in prior semesters. The allocations are approved at the Operations Working Group meeting prior to the Call. 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 science time available at each telescope includes a 7% 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. The time available for each partner and host institution in 2013B is shown in the Tables below. The number of nights is approximated by int(hours/10).

Gemini North: Time Availability and Distribution

A minimum of 84.5% of the time will be available for science use on Gemini North in 2013B, which amounts to 155.5 nights. The non-science time will be used for observatory maintenance tasks and commissioning of GMOS with Altair. Any unused engineering time will be returned to science.

Partner	Estimated Hours Available
US	816
Canada	241
Australia	98
Brazil	70
Argentina	39
Univ. of Hawaii (host)	195

Gemini South: Time Availability and Distribution

A minimum of 75% of the time will be available for science use on Gemini South in 2013B, which amounts to 138 nights and includes 3 nights of guaranteed time for the GSAOI instrument team and 1.5 nights for GMOS-S CCD upgrade demonstration science. The non-science time will be used for observatory maintenance tasks, GeMS commissioning, GPI on-sky acceptance tests and commissioning, and GMOS-S commissioning of the Hamamatsu CCDs. Any unused engineering time will be returned to science.

Partner	Estimated Hours Available
US	715
Canada	209

Australia	88
Brazil	60
Argentina	33
Chile (host)	145

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Semester 2013B 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*
28 March to 1 April 2013 (varies by partner)	**Proposal deadline**	**Proposals received by National Gemini Offices (NGOs).**
Early May (set by partner)	NTAC meetings	Scientific assessments by each Gemini partner ("National TAC").
13 to 15 May 2013	E-transmission	Electronic transmission of proposals to Gemini from NTACs.
28 May 2013	ITAC	International Time Allocation Committee meets to resolve issues and recommend programs.
5 June 2013	Final queue/schedule, and ITAC & Gemini feedback to NGOs	After approval by Gemini Director.
17 June 2013	**13B schedule and Phase IIs available**	**2013B OT templates available to PIs.**
1 July 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").
15 July 2013	**Phase II deadline**	**PI deadline for submission of completed Phase II Programs to National Offices (earlier submission is encouraged).**
29 July 2013	**"For Activation" deadline**	**NGO deadline for submission of completed Phase II Programs to Gemini.**
1 August 2013	Start of semester 2013B	2013B programs may be observed earlier to fill queue nights.

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