## **Semester 2011B Call For Proposals**

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Gemini Observatory invites its community to propose scientific investigations for the 2011B semester, 1 August 2011 - 31 January 2012. The Call is open to all partners.

The submission deadline is THURSDAY MARCH 31 2011. Submission times and other details vary by partner; please consult your <u>National Gemini Office pages</u> for more information. Multi-partner joint proposals should be submitted by the deadline of the partner country to which the Principal Investigator is affiliated.

The purpose of this page is to highlight the most relevant information for the Call. Significant additional information is contained on supporting pages; users should follow the links for more information. If hardcopy is preferred, the primary pages are available as a single <u>pdf document</u>.

# **Highlights for 2011B**

#### General

Relevant milestones for 2011B can be found in the 2011B schedule. The deadline for Phase I submission is March 31 2011 (Poor weather and Director's Discretionary Time proposals are accepted at any time via the Phase I Tool), and for successful proposals the Phase II submission deadline is July 15 2011. Both queue and classical Phase IIs must be submitted by this deadline.

<u>Target accessibility</u> limits will be imposed, so as not to bias the queue at the start or end of the semester. <u>The target accessibility</u> limits for 2011B are, for <u>Gemini North 17 < RA < 13.5 and -37 < dec < +79, and for <u>Gemini South 16 < RA < 12 and -89 < dec < +28.</u> There are <u>additional constraints</u> if a program requires unrestricted access (e.g. MOS observations requiring pre-imaging, long observations or observations with strict constraints), and also for <u>LGS programs</u> at Gemini North. For 2011B, access to <u>GMOS-N</u> at Gemini North, as well as <u>NICI and T-ReCS</u> at Gemini South have <u>further restrictions</u>. Targets for GMOS-N are restricted to 20.5 < RA < 13.5, targets for NICI to 21 < RA < 12, and targets for T-ReCS to 16 < RA < 5.</u>

Starting in 2011B, all proposals for Rapid Target of Opportunity (RToO) followup must submit a separate proposal for Standard Target of Opportunity followup (SToO) in conditions better than SB/CC/IQ Any, if such followup is planned. Upgrades to good conditions will not be approved for RToO programs, and the SToO proposal is required if such conditions are necessary for later followup. This change is necessary for accurate filling of the queue, as ToO programs now make up a significant fraction of the Observatory band 1 time.

Starting in 2011B, **fewer queue proposals will be scheduled in band 3**. Each <u>partner's queue time</u> will be filled to 80% with <u>band 1, 2 and 3 programs</u>. The band boundaries will be drawn as before at 30% and 60% of the total available queue time. A new <u>cloud cover constraint of CC 80</u> has been defined, corresponding to one magnitude of extinction, or 40% transmission. The Observatory continues to welcome <u>Poor weather proposals</u> to use CC Any and IQ Any conditions; these can be submitted at any time via the <u>Phase I Tool</u>.

The **Phase I Tool (PIT) is updated for 2011B**; see the <u>PIT page</u> for downloads and further information.

**Notice regarding future instrument availability:** As new instrumentation comes online at Gemini South, it is likely that <u>T-ReCS</u> will no longer be offered, perhaps as early as 2012B. In 2012B or 2013A, <u>NICI</u> is expected to be replaced by <u>GPI</u>. On Gemini North, <u>NIRI</u> is aging and may no longer be offered, on similar timescales. The Observatory is actively working with the <u>Gemini Science Committee</u> (GSC) to determine the optimum instrument suite that can be maintained at each telescope. A possible instrument

line up that is under discussion is given in the Table at the end of Section 9, starting on <u>page 9 of the October 2010 Observatory response to the GSC Report</u>. Users are encouraged to send comments to their GSC representatives.

#### Gemini North

It is expected that 88% of the semester will be available for science. This amounts to 162 nights and includes 1.5 nights for <u>GMOS-N CCD</u> demonstration science. These nights are <u>distributed across the partnership</u>. A list of instruments and capabilities is given <u>below</u>. Given the unavailability of GMOS-N between August and September, programs using GNIRS, NIFS or NIRI with targets at 17 < RA < 5 are encouraged.

The upgrade of <u>GMOS-N</u> to use the new Hamamatsu CCDs is expected to occur during the first two months of 2011B. Two red-sensitive CCDs will be combined with one blue-sensitive CCD so that the instrument is expected to be <u>more sensitive at both the blue and red ends of the detector</u>. Prospective users should assume the performance of the Hamamatsu detectors when calculating exposure times with the <u>Integration Time Calculator</u>.

GNIRS is offered with laser guide star adaptive optics in 2011B.

Michelle is not offered in polarimetry mode, either imaging polarimetry or spectropolarimetry, in 2011B.

#### **Gemini South**

It is expected that 78% of the semester will be available for science. This amounts to 144 nights, and includes 90 hours of NICI campaign science, which are distributed across the partners that participate in the campaign. The final distribution of nights across the partnership is shown on the time distribution page. A list of instruments and capabilities is given below. Given the available instrument suite, bright-time programs with relaxed observing condition constraints (e.g., SB Any, CC 70, IQ 85) are encouraged.

NICI is expected to have <u>additional filters</u> available. Please see the instrument's <u>Status and Availability</u> <u>page</u> for more information. The number of <u>restricted campaign targets</u> is likely to be reduced, as 2011B is the final semester for the campaign. A revised list will be posted by March 15 2011.

Phoenix is no longer offered by the Observatory.

In Semester 2011B <u>GEMS</u> commissioning will take highest priority, reducing the availability of bright photometric nights with good seeing, and possibly impacting the scheduling of classical runs.

#### **Keck and Subaru Exchange**

Up to 5 bright/gray nights of classical time are available with the <u>HIRES</u> optical spectrograph on Keck. More information is available on the <u>Keck time application page</u>. The requested nights must be within the following windows with a minimum of 1 and a maximum of 2 nights in any one window: September 4 - 18, November 2 - 17 and January 1 - 14. Proposals should be submitted via the normal Gemini process. All proposers for Keck time must also complete the <u>Keck cover page</u>. Email this page to your <u>NTAC chair</u>. <u>[more information]</u>

4 to 8 classical nights are available on Subaru with <a href="COMICS">COMICS</a> (mid-infrared camera and spectrograph), <a href="FMOS on a shared-risk basis for both high- and low-resolution mode with IRS1">FMOS on a shared-risk basis for both high- and low-resolution mode with IRS1</a>, <a href="mailto:and-low-resolution only for IRS2">and low-resolution only for IRS2</a> (near-infrared fiber-fed multi-object spectrograph), <a href="FOCAS">FOCAS</a> (optical camera and spectrograph), <a href="mailto:approximate">HDS</a> (optical high dispersion spectrograph), <a href="mailto:IRCS">IRCS</a> (infrared camera and spectrograph, with Natural Guide Star Adaptive Optics capability), <a href="mailto:MOIRCS">MOIRCS</a> (near-infrared imager and multi-object spectrograph) and <a href="mailto:Suprime-Cam">Suprime-Cam</a> (wide field optical imager).

Subaru is expected to have <u>extensive downtime in the 11B semester</u> for Hyper Suprime Cam commissioning, but the dates are yet to be determined. Therefore proposers must be as flexible as possible with their scheduling requirements. Explicit windows are not set for 2011B. Runs will be scheduled around the shutdown, such that the number of dark, gray and bright nights is one-third of the total number of nights allocated. Proposals should be submitted via the normal Gemini process. *[more information]* 

### Additional Information

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

### **Gemini North: Facilities**

- All instruments are offered in <u>queue</u> and <u>classical</u> mode, except for Laser Guide Star AO which is queue mode only.
- Facility instruments:
  - GMOS North 0.36-0.95 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 (applicants should refer to the instrument web pages for updated sensitivities as the detector upgrade is ongoing). Due to the installation and commissioning of the new Hamamatsu CCDs, GMOS-N will most likely be available between October 2011 to January 2012, and targets for GMOS-N should be limited to 20.5 < RA < 13.5.</li>
  - 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 (applicants should refer to the <u>instrument web pages</u> for updated sensitivities as the instrument performance is still being evaluated).
  - Michelle 7-26 micron spectrograph and imager: imaging and R=100-3000 and echelle spectroscopy. 5σ one hour point source sensitivities are approximately N=11 for imaging and N=6-9 for spectroscopy. Michelle will most likely only be available for two short periods at the start and end of the semester, depending on demand. Neither imaging polarimetry nor spectropolarimetry will be offered with Michelle in 2011B.
  - 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 NIRI (except M band imaging and L & M band spectroscopy) and NIFS.
    - Natural Guide Star AO: Traditional adaptive optics guiding on a nearby star.
    - See the <u>Laser Guide Star AO</u> web pages for important performance information and restrictions. Note that LGS observations must specify "Laser guide star" in the AO resources section in the PIT, and must request CC 50 and IQ 70. Faint tip tilt stars will also require darker skies: 17.5 < R < 18 needs SB 80, 18 < R < 18.5 needs SB 50.
- See the <u>target accessibility page</u> for important information regarding instrument availability and a plot of accessible RA and Dec. For Semester 2011B targets must be limited to 17 < RA < 13.5 and -37 < dec < +79, and targets for GMOS-N are further restricted to 20.5 < RA < 13.5.; the LGS system has a stricter <u>elevation constraint</u> of >40 degrees.

## **Gemini South: Facilities**

- All instruments are offered in <u>queue</u> and <u>classical</u> mode.
- Facility instruments:
  - GMOS South 0.36-0.95 micron imager and spectrograph: imaging and long-slit, multiobject and integral field spectroscopy. 5σ one hour point source sensitivities are approximately R=26 for imaging and R=21-23 for spectroscopy.
  - NICI 1-5 micron dual-channel coronagraphic imager: The <u>Campaign Targets</u> are not available for community NICI observations. <u>Additional filters</u> may be <u>available in 2011B</u>. 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. T-ReCS and NICI will share the up-looking port in semester 2011B. Due to NICI's good weather requirement, NICI will most likely be mounted from October 2011 to January 2012, and targets for NICI should be limited to 21 < RA < 12.</li>
  - T-ReCS 8-26 micron imager and spectrograph: imaging and moderate resolution (R=100 and R=1000) spectroscopy. 5σ one hour point source sensitivities are approximately N=11 for imaging and N=8 for spectroscopy. T-ReCS and NICI will share the up-looking port in semester 2011B. T-ReCS will most likely be mounted from August to September and targets for T-ReCS should be limited to 16 < RA < 5.</li>
- See the <u>target accessibility page</u> for important information regarding instrument availability and a plot of accessible RA and Dec. For Semester 2011B targets must be limited to 16 < RA < 12 and -89 < dec < +28; targets for NICI are further restricted to 21 < RA < 12, and targets for T-ReCS to 16 < RA < 5.</li>

### **Questions and Answers**

All questions concerning proposals, or any other subject, should be made using the <u>Gemini HelpDesk</u>. This webbased 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 <u>Sandy Leggett</u>.

Last Modified: February 28, 2011, sleggett

# 2011B Instrument Availability and Target Accessibility

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This page provides best estimates, at the time of the Call for Proposals, of instrument availability and target (RA, dec) restrictions for 2011B.

## **Instrument Changes**

As there are more instruments than the number of available ports on each telescope, instrument swaps will be required. Therefore 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. Hence the final schedule will not be made until after the semester programs are known. 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. During classical runs, no instrument changes on the Instrument Support Structure are permitted.

# Gemini North Instrument Availability and Target Accessibility

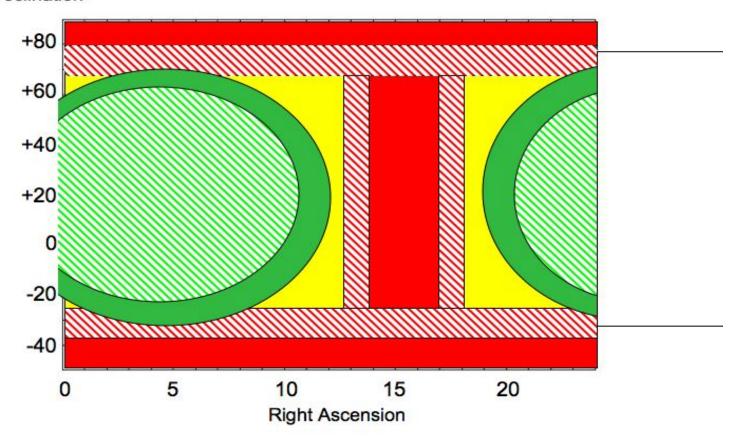
All instruments are restricted for sky visibility as described in the Table and Figure below. Observations requiring the Laser Guide Star (LGS) system are further restricted by the limitation that the LGS must be used at or above 40 degrees elevation. How this translates into RA and dec restrictions is indicated in the Table. GMOS-N will not be available until October 10 2011 due to the installation and commissioning of the Hamamatsu CCDs. Hence targets for GMOS-N should be limited to 20.5 < RA < 13.5. Classical nights with GMOS-N will most likely not be scheduled before November 1 2011, to give some flexibility in the event of a schedule slip. Any updates to the GMOS-N commissioning will be considered at the ITAC meeting. At Gemini North, Michelle, NIFS and NIRI will share the uplooking port. Michelle will most likely only be available for two short periods at the start and end of the semester, depending on demand. It is expected that NIFS and NIRI will each be on for about half of the semester. Scheduling will be driven by demand, with a maximum of three instrument swaps.

	Accessible	Restricted**	Inaccessible
Declination, non-LGS	-30d to +73d	-37d to -30d, +73d to +79d	< -37d and > +79d
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
GMOS-N Right Ascension	22.5h to 11h	20.5h to 22.5, 11h to 13.5h	13.5h to 22.5h

<sup>\*\*</sup>GMOS MOS programs requiring pre-imaging should not have targets in this region. Programs with targets in this

# Gemini North: Semester B Visibility

### Declination



<u>Figure 1:</u> Schematic representation of target accessibility at Gemini North during semester 2011B. 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. At Gemini South, T-ReCS and NICI will share the up-looking port. Due to NICI's good weather requirement, NICI will most likely be mounted from October 2011 to January 2012, and T-ReCS from August to September. Hence targets for  $\underline{\text{NICI}}$  should be limited to 21 < RA < 12, and targets for  $\underline{\text{T-ReCS}}$  to 16 < RA < 5.

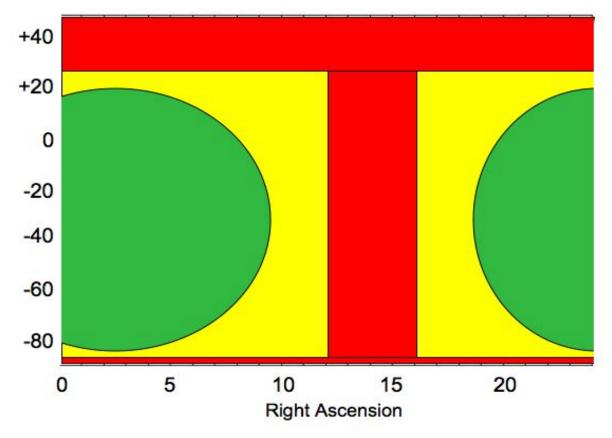
	Accessible	Restricted**	Inaccessible
Declination	-87d to +22d	-89d to -87d, +22d to +28d	< -89d and > +28d

Right Ascension	19h to 9h	16h to 19h, 9h to 12h	12h to 16h
NICI Right Ascension	23h to 9h	21h to 23h, 9h to 12h	12h to 21h
T-ReCS Right Ascension	18h to 3.5h	16h to 18h, 3.5h to 5h	5h to 16h

<sup>\*\*</sup>GMOS MOS programs requiring pre-imaging should not have targets in this region. Programs with targets in this region should not require a large amount of time, or have strict timing or observing constraints.

# Gemini South: Semester B Visibility

## Declination



<u>Figure 2:</u> Schematic representation of target accessibility at Gemini South during semester 2011B. Green regions offer unrestricted access, red regions are inaccessible. The yellow region is possible, but restricted. See text, and values in the Table above.

## **Semester 2011B Time Distribution**

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## **Gemini North: Time Availability and Distribution**

A minimum of 88% of the time will be available for science use on Gemini North in 2011B. This amounts to 162 nights and includes 1.5 nights for <a href="MOS-N CCD">GMOS-N CCD</a> demonstration science. The remaining time will be used for observatory maintenance tasks and commissioning of GMOS with the new CCDs. 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 allocated to each partner in 2011B is given in the following table.

Partner	Estimated Hours Available
US	613
UK	278
Canada	200
Australia	102
Argentina	19
Brazil	54
Univ. of Hawaii (host)	176
Gemini Staff	162
Total	1604 (=160.5n)

## Gemini South: Time Availability and Distribution

A minimum of 78% of the time will be available for science use on Gemini South in 2011B. This amounts to 144 nights, and includes 90 hours of NICI campaign science, which are distributed across the partners that participate in the campaign. The remaining time will be used for observatory maintenance tasks, and Flamingos-2 and GSAOI commissioning activities. 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 allocated to each partner in 2011B is given in the following table.

Partner	Estimated Hours Available
US	493
UK	217
Canada	162
Australia	92
Argentina	15

Brazil	50
Chile (host)	179
Gemini Staff	137
Total	1345 (=135n)

## **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 2010B. The time allocations also include a purchase by Brazil of 35 hours of UK time at each telescope. The values shown in the tables above were recommended by the Operations Working Group in February 2011. The number of nights is approximated by int(hours/10).

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# **Semester 2011B Important Dates**

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

Date	Event	Comments
31 March 2011	Proposal deadline	Proposals received by National Gemini Offices (NGOs) - see <u>partner pages.</u>
Set by partner	NTAC meetings	Scientific assessments by each Gemini partner ("National TAC").
On or before 11 May 2011	E-transmission	<u>Electronic transmission</u> of proposals to Gemini from NTACs.
24-25 May 2011	ITAC	International Time Allocation Committee meets to resolve issues and recommend programs.
8 June 2011	Final queue/schedule, and ITAC & Gemini feedback to NGOs	After approval by Gemini Director.
16 June 2011	11A schedule and Phase Ils available	2011A OT "skeletons" available.
5 July 2011	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 2011	Phase II deadline	PI deadline for submission of completed Phase II Programs to National Offices (earlier submission is encouraged).
29 July 2011	"For Activation" deadline	NGO deadline for submission of completed Phase II Programs to Gemini.
1 August 2011	Start of semester 2011B	2011B programs may be observed earlier to fill queue nights.

Last Modified: February 28, 2011, sleggett

# **Call for Proposals Supporting Information**

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- The menu item *Call for Proposals Supporting Information* has been updated.
- The Story has been updated.

This page contains information on the following topics relevant to applying for time on Gemini. The information is general in nature, for details specific to the upcoming semester, please see the <u>current call for proposals</u>.

- <u>Time Allocation Process</u> (National and International Time Allocation Committees)
- Submitting for time on both telescopes
- Queue Rollover
- Electronic PIT Submission
- Joint Proposals
- <u>Under-utilized Instruments</u>
- Rapid Response or Target of Opportunity
- GMOS Mask definitions
- Poor Weather Programs
- Exchange Time
- <u>Target information</u> (guide stars, non-sidereal objects, time-specific observations)
- Duplicate Observations

#### **Time Allocation Process**

An overview of the proposal submission and time allocation process is given <a href="here">here</a>. The assessment and ranking of proposals within each partner country will be via National Time Allocation Committees (NTACs) supported by the National Gemini Offices. Assembly of the final semester schedule and queue, definition of scientific ranking bands and resolution of conflicts and joint proposals between partners is done by the International Time Allocation Committee (ITAC).

## **Submissions to Use Multiple Telescopes**

Each observing proposal may request resources from a single telescope only (Gemini North, Gemini South, Keck or Subaru). Proposals for multiple telescopes are not permitted, and the Phase I tool will not allow resources from multiple telescopes to be selected. Proposals may include the use of multiple instruments on the same telescope. If a program requires resources from multiple telescopes, separate proposals must be submitted for each telescope; in this case, each proposal should clearly reference the other(s). The proposals will be ranked and scheduled independently. Proposals that can be carried out with either GMOS (note that they have different capabilities) must nevertheless specify one of them; the NTACs or ITAC may make changes.

#### **Queue Rollover**

Programs assigned by the ITAC into Band 1 are eligible for rollover into the next semester, for no more than two consecutive semesters, in order to increase the likelihood of program completion. Rollover status will be assigned by the ITAC. Programs with rollover status will automatically be carried forward for up to 2 semesters until their time allocation is exhausted, i.e. Pls need not re-apply if the currently approved allocation is sufficient to reach the science goals of the program. Target of Opportunity programs are not given rollover status. National policies that affect eligibility are defined by the relevant NTAC.

### **Electronic Submission**

All partners support electronic submission of proposals from within the Gemini Phase I Tool (PIT). In the US, submission of non-joint proposals using the NOAO web form continues to be supported. <u>Versions of the PIT</u> are created for each semester, including new features described in <u>PIT Hot News</u>.

## **Joint Proposals**

If you submit the same proposal to several partner countries a "joint proposal" you must do so using PIT. The PIT software, and backend servers installed at each National Office, allow automatic ("one-click") submission of the same proposal to multiple partners. Joint proposals should be submitted by the deadline of the partner country to which the Principal Investigator is affiliated.

#### **Under-Utilized Instruments**

Community demand is a critical factor in determining instrument availability. Each instrument introduces significant overhead to the Observatory, and access to instrument ports is at a premium. 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.

## Rapid Response or Target of Opportunity programs

We continue to encourage <u>Target of Opportunity</u> (ToO) programs (formerly called "Quick Response"), intended to allow observation of targets that cannot be specified in advance but which have a well defined **external trigger** (e.g., Supernovae or Gamma Ray Bursts which will be identified throughout the observing semester by non-Gemini programs). "<u>ToO</u>" mode may be requested with any facility instrument. Proposals for ToO mode should be made via the normal proposal process and must select the type of trigger in the PIT and summarise the *trigger event* (e.g. identification of a target brighter than a pre-determined threshold) in the proposal abstract. *ToO covers trigger types from several months to minutes in response time*. Two types of ToO triggers are defined: "Rapid Response" and "Standard" which differ by <u>response time</u>. Rapid response programs must be allocated time in Band 1. ToO programs will not be given rollover status.

Starting in 2011B, all proposals for Rapid Target of Opportunity (RToO) followup must submit a separate proposal for Standard Target of Opportunity followup (SToO) in conditions better than SB/CC/IQ=Any, if such followup is planned. Upgrades to good conditions will not be approved for RToO programs, and the SToO proposal is required if such conditions are necessary for later followup. This change is necessary for accurate filling of the queue, as ToO programs now make up a significant fraction of the Observatory band 1 time. See the <u>Target of Opportunity (ToO)</u> web page for further information.

Gamma Ray Burst (GRB) programs: in previous semesters many separate proposals for Gamma Ray Burst follow-up studies were submitted to the NTACs and a subset were forwarded to ITAC. As in those semesters, the ITAC and Observatory will seek to combine or otherwise substitute such proposals, e.g. by forming partnerships or time-division strategies, so that only one proposal is active on each telescope at any time. Applicants for GRB studies are strongly encouraged to coordinate their proposals before submission. The Observatory and ITAC reserve the right to form umbrella programs based on the proposals forwarded by the NTACs.

#### **GMOS Mask Definition**

Mask making from non-GMOS images for GMOS <u>multi-object spectroscopy (MOS)</u> observations is available, but GMOS pre-imaging is recommended for MOS programs using slits narrower than 1.0" and for programs requiring very long observations of faint targets. If pre-imaging is required, then sufficient pre-imaging time should be included in the proposal. For classical programs, pre-imaging will be scheduled in the queue. Any unused pre-imaging time will be returned to the program.

## **Poor Weather Proposals**

Often the queue contains insufficient proposals for the poorest conditions, despite the best efforts of the National TACs to pass on a balanced package of proposals to Gemini. Poor weather programs can be submitted to your

NTAC at the time of the regular Call for Proposals, or at any time in the semester. Use the <a href="Phase I tool">Phase I tool</a> to submit your proposal, selecting "Poor weather" from the drop down menu in the Submit tab. "Poor Weather <a href="Queue">Queue</a> programs are placed in Band 4, and neither the PI nor partner country will be charged for any time used. Note however that poor weather programs are lower in priority than scientific ranking band 3. Poor weather programs may be submitted for any facility instrument but the observing constraints *must* match one of the following:

- Image Quality of "any" and Cloud Cover of 70%-ile or worse (non-photometric)
- Cloud Cover of "any" (more than one magnitude of cloud cover and unusable in the mid-IR) and any other combination of conditions

Water Vapour constraints for all poor weather proposals need to be set to "any". The Sky Background constraint can be specified and it is acceptable for these programs to request dark time.

## **Exchange Time**

Gemini Observatory encourages fruitful exchanges with other major observatories in order to expand the instrument capabilities available to the Gemini community. At present, the Observatory has two exchange programs in place. The first agreement is an exchange of classical nights for HIRES time on the Keck I telescope in exchange for classical nights with GNIRS, NIRI and Michelle on Gemini North or T-ReCS on Gemini South. See the Keck time application page for information on applying for the Gemini time through Keck. The second agreement is for classical nights on Subaru in exchange for classical nights with Gemini. The Subaru instruments currently available to the Gemini community are COMICS, FMOS, FOCAS, HDS, IRCS, MOIRCS and Suprime-Cam. In exchange, the Subaru community has access to both GMOS instruments (North and South), GNIRS, Michelle, NICI, NIRI, NIFS and T-ReCS. See the Subaru call for proposals for more information on applying for Gemini time through Subaru. The details of the amount of time currently available and other restrictions are provided in the current call for proposals.

## **Target Information**

Time-specific (including periodic monitoring and follow-up) programs may be accepted on a best-efforts basis. Proposers should specify these time constraints in the PIT. Note that the instrument scheduling may impose additional restrictions on this class of programs.

All observations require the use of one wavefront sensor (WFS) star for fast guiding, primary mirror active optics control and/or as an adaptive optics wavefront reference source. The specific requirements for each instrument are given in the relevant science instrument web pages. As the technical feasibility of proposals relies in part on the availability of WFS stars, all proposals with well-defined targets must include suitable WFS stars. Proposals to observe non-sidereal objects should indicate the likely availability of WFS stars in the technical justification but are not required to supply specific stars. Target of Opportunity programs do not need to define WFS stars. Non-sidereal tracking is available for all instruments. Non-sidereal tracking with GMOS is fully supported with the peripheral wavefront sensors and partially supported with the OIWFS.

## **Duplicate Observations**

Proposers should check their observations against the Gemini Science Archive to ensure that similar or identical observations have not already been executed. The Phase I Tool includes a function to facilitate this. Any duplicate or seemingly duplicate observations should be well-justified in the proposal. The NTACs will consider duplication of existing observations as part of the proposal evaluation. The ITAC evaluates and resolves any duplication of targets (or potential duplication in the case of ToO observations) between proposals from different partner countries.