# **Semester 2012A Call For Proposals**

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Gemini Observatory invites its community to propose scientific investigations for the 2012A semester, 1 February 2012 - 31 July 2012. The Call is open to all partners. The distribution of time across the partners is shown in the time distribution Table.

The submission deadline is FRIDAY SEPTEMBER 30 2011. Submission times and other details vary by partner; please consult your <u>National Gemini Office</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 2012A**

#### General

Relevant milestones for 2012A can be found in the 2012A schedule. The deadline for Phase I submission is September 30 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 January 17 2012. 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 2012A are, for <u>Gemini North 4 < RA < 1 and -37 < dec < +90, and for <u>Gemini South 5 < RA < 2 and -90 < 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 2012A, access to <u>NICI and T-ReCS</u> at Gemini South have <u>further restrictions</u>. Targets for NICI are restricted to 7 < RA < 0, and targets for T-ReCS to 9 < RA < 2.</u>

The **Phase I Tool (PIT) is updated for 2012A**; 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 is expected not to be offered after 2012B, or possibly earlier if it fails. The Observatory is actively working with the new Science and Technology Advisory Committee (STAC) that is replacing 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 STAC representatives.

#### **Gemini North**

It is expected that 92% of the semester will be available for science. This amounts to 166 nights and includes 1.5 nights for <u>GMOS-N Hamamatsu CCD</u> demonstration science. These nights are <u>distributed</u> <u>across the partnership</u>. A list of instruments and capabilities is given <u>below</u>.

Installation of the Hamamatsu CCDs in <u>GMOS-N has been delayed</u>. As an interim solution Gemini has purchased <u>deep depletion devices from e2v (e2vDD)</u> which are expected to be installed in <u>October to November 2011</u>. These CCDs have improved sensitivity in the blue and the red compared to the original detectors, and extend the sensitivity to 0.98 µm (where the QE is 20%). The fringing with these detectors

is also much improved. While we expect the e2vDD CCDs to be available for 2012A, investigators should use the existing EEV CCDs characteristics to define their investigation, and add a brief statement describing how the program will change if the e2vDD devices are used instead.

#### **Gemini South**

It is expected that 73% of the semester will be available for science. This amounts to 132 nights, and includes the final 30 hours of <a href="NICI">NICI</a> campaign science, which are distributed across the partners that participate in the campaign, and 13 nights of <a href="FLAMINGOS-2">FLAMINGOS-2</a> and <a href="GSAOI">GSAOI</a> science verification. The final distribution of nights across the partnership is shown on the <a href="time distribution">time distribution</a> page. A list of instruments and capabilities is given <a href="below">below</a>. Given the available instrument suite, bright-time programs with relaxed observing condition constraints (e.g., SB Any, CC 70, IQ 85) are encouraged.

A separate Call is expected to be made in January 2012 for science verification proposals for <u>FLAMINGOS-2</u> and <u>GSAOI</u>.

In Semester 2012A the commissioning of <u>FLAMINGOS-2</u> and <u>GSAOI</u> will take highest priority. This will occur during February and March 2012; only GMOS-South will be available during this time, and the queue will be executed primarily during the two dark weeks of each month. Also, the scheduling of classical runs will be impacted.

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

No Gemini-Keck exchange time is offered for semester 2012A.

4 to 8 classical nights are available on Subaru in semester 2012A. Due to the <u>cooling system</u> <u>incident</u> the availability of Suprime-Cam and the Cassegrain instruments is limited. Availability is as follows:

- **COMICS** (mid-infrared camera and spectrograph) available throughout 12A without the auto-guider, available in the latter half of the 2012A semester only if the guider is required, in shared-risk mode.
- <u>FMOS</u> (near-infrared fiber-fed multi-object spectrograph) available on a shared-risk basis for both high- and low-resolution mode with IRS1 and IRS2, although IRS2 has additional noise which is being investigated.
- FOCAS (optical camera and spectrograph) unavailable in semester 2012A.
- HDS (optical high dispersion spectrograph) is available.
- IRCS (infrared camera and spectrograph, with Natural and Laser Guide Star Adaptive Optics capability) is available.
- MOIRCS (near-infrared imager and multi-object spectrograph) available throughout 12A without the
  auto-guider, available in the latter half of the 2012A semester only if the guider is required, in
  shared-risk mode. Spectroscopy with MOIRCS requires the autoguider.
- <u>Suprime-Cam</u> (wide field optical imager) available in the latter half of the 2012A semester only, in shared-risk mode.

Subaru is expected to have <u>extensive downtime in the 12A 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 2012A. 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. The minimum request is 1 night - partial nights cannot be supported. 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, multiobject 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 <u>instrument web pages</u> for updated sensitivities and wavelength response range as the detector upgrade is ongoing.
  - <u>GNIRS</u> 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. <u>Imaging with GNIRS</u> is also possible, although the field of view and filter selection is limited, and the optics do not give diffraction-limited image quality.
  - 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 one or two short periods during the semester, depending on demand. Neither imaging polarimetry nor spectropolarimetry will be offered with Michelle in 2012A.
  - NIRI 1-5 micron imager: imaging fed with the direct or AO-corrected beam. 50 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 <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 2012A targets must be limited to 4 < RA < 1 and -37 < dec < +90, and targets for the LGS system have an additional <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. 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. NICI will most likely be mounted from mid-March to June 2012, and targets for NICI should be limited to 7 < RA < 0.</li>
  - <u>T-ReCS</u> **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 will most likely be mounted from May to July 2012 and **targets for T-ReCS should be limited to 9 < RA < 2**.

See the <u>target accessibility page</u> for important information regarding instrument availability and a
plot of accessible RA and Dec. For Semester 2012A GMOS-S targets must be limited to 5 < RA < 2
and -90 < dec < +28; targets for NICI and T-ReCS are further restricted. During February and
March 2012, only GMOS-S is expected to be available for use.</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>.

# 2012A 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 2012A.

## **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

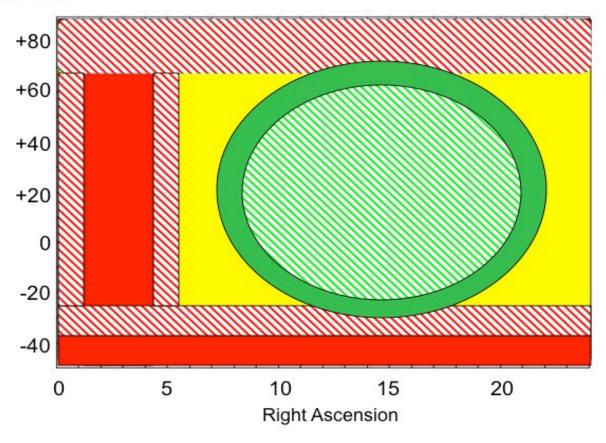
All instruments are restricted for sky visibility as described in the Table and Figure below. Observations requiring the Laser Guide Star (LGS) system are further restricted by the limitation that the LGS must be used at or above 40 degrees elevation. How this translates into RA and dec restrictions is indicated in the Table. At Gemini North, Michelle, NIFS and NIRI will share the up-looking port. Michelle will most likely only be available for one or two short periods, 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 +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

<sup>\*\*</sup>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 North: Semester A Visibility

#### Declination



<u>Figure 1:</u> Schematic representation of target accessibility at Gemini North during semester 2012A. 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, <u>T-ReCS</u> and <u>GSAOI</u> will share the up-looking port. <u>NICI</u> and <u>FLAMINGOS-2</u> will share a side port, during the semester. Due to <u>FLAMINGOS-2</u> and <u>GSAOI</u> commissioning, T-ReCS will most likely be available from late April through July 2012, and NICI between mid-March and late June 2012. Targets for <u>NICI</u> should be limited to 7 < RA < 0, and targets for <u>T-ReCS</u> to 9 < RA < 2. **Note that semester 2012A may be the last semester when T-ReCS is available at Gemini South.** 

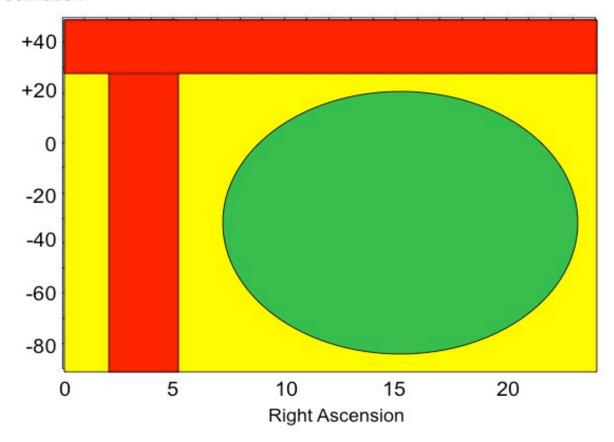
	Restricted	Inaccessible
-87d to +22d	-90d to -87d, +22d to +28d	> +28d
7h to 23h	5h to 7h, 23h to 2h	2h to 5h
_		+22d to +28d 7h to 23h 5h to 7h,

NICI Right Ascension	9h to 22h	7h to 9h, 22h to 0h	0h to 7h
T-ReCS Right Ascension	11h to 0h	9h to 11h, 0h to 2h	2h to 9h

<sup>\*\*</sup>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: Semester A Visibility

#### Declination



<u>Figure 2:</u> Schematic representation of target accessibility at Gemini South during semester 2012A. Green regions offer unrestricted access (for GMOS-S only in 2012A), red regions are inaccessible. The yellow region is possible, but restricted. See text, and values in the Table above.

# **Semester 2012A Time Distribution**

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

A minimum of 92% of the time will be available for science use on Gemini North in 2012A. This amounts to 166 nights and includes 1.5 nights for GMOS-N Hamamatsu CCD demonstration science, and 7% of Director's Discretionary Time in agreement with Gemini Board resolution 2011.A.9. Of the Director's Discretionary Time, the Director has decided to make 5% available for staff use, while 2% will be available to all astronomers through the Director's Discretionary Time proposal process throughout the semester. Staff time remains open for joint proposals with the partners. The non-science time will be used for observatory maintenance tasks, commissioning of GMOS with the new CCDs, commissioning of GRACES, and on-sky tests of the P1 peripheral wavefront sensor with the LGS system. If the Hamamatsu detectors are not installed in GMOS-N then the demonstration science time returns to science. Similarly 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 2012A is given in the following table. The numbers take into account corrections for prior imbalances.

Partner	Estimated Hours Available
US	658
UK	315
Canada	199
Australia	78
Brazil	53
Argentina	31
Univ. of Hawaii (host)	204

# Gemini South: Time Availability and Distribution

A minimum of 73% of the time will be available for science use on Gemini South in 2012A. This amounts to 132 nights, and includes the final 30 hours of NICI campaign science, which are distributed across the partners that participate in the campaign, 13 nights of Science Verification for FLAMINGOS-2 and GSAOI, and 7% of Director's Discretionary Time in agreement with Gemini Board resolution 2011.A.9. Of the Director's Discretionary Time, the Director has decided to make 5% available for staff use, while 2% will be available to all astronomers through the Director's Discretionary Time proposal process throughout the semester. Staff time remains open for joint proposals with the partners. The non-science time will be used for observatory maintenance tasks, FLAMINGOS-2 commissioning, and GSAOI 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 2012A is given in the following table. The numbers take into account corrections for prior imbalances.

Partner	Estimated Hours Available
US	475

L UK	223
Canada	141
Australia	56
Brazil	44
Argentina	23
Chile (host)	107

# **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 2011A. 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 August 2011. The number of nights is approximated by int(hours/10).

# **Semester 2012A 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
30 September 2011	Proposal deadline	Proposals received by <u>National Gemini Offices</u> (NGOs).
Early November (set by partner)	NTAC meetings	Scientific assessments by each Gemini partner ("National TAC").
On or before 10 November 2011	E-transmission	<u>Electronic transmission</u> of proposals to Gemini from NTACs.
18-19 November 2011	ITAC	International Time Allocation Committee meets to resolve issues and recommend programs.
9 December 2011	Final queue/schedule, and ITAC & Gemini feedback to NGOs	After approval by Gemini Director.
19 December 2011	12A schedule and Phase Ils available	2012A OT "skeletons" available.
5 January 2012	Phase II reviews start	The response time is 7 days for checking by NGOs (from "For Review") and by Gemini CSs (from "For Activation").
17 January 2012	Phase II deadline	PI deadline for submission of completed Phase II Programs to National Offices (earlier submission is encouraged).
30 January 2012	"For Activation" deadline	NGO deadline for submission of completed Phase II Programs to Gemini.
1 February 2012	Start of semester 2012A	2012A programs may be observed earlier to fill queue nights.

# **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
- Under-utilized Instruments
- 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)
- <u>Duplicate Observations</u>

#### **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 <u>external trigger</u> (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.

Since semester 2011B, all proposals for Rapid Target of Opportunity (RToO) followup are required to 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 Target of Opportunity (ToO) 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 Queue" 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. In semester 2012A no Keck exchange time is offered, and the availability of Suprime-Cam and the Subaru Cassegrain instruments is limited.

### **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.