NOAO Call for Standard Proposals: Semester 2019A

This document covers the observing time period from 1 February 2019 – 31 July 2019.

Proposal Deadline: 1 October 2018 at 11:59 pm Mountain Standard Time. This document is also available as a downloadable PDF file: http://ast.noao.edu/sites/default/files/NOAOCallForProposals.pdf

1. General Information on NOAO Observing Proposals

Proposals for standard observing programs at all ground-based facilities coordinated by NOAO, which include US time on the telescopes of Gemini, CTIO, and KPNO, as well as community-access time with private observatories, can be submitted twice per year. For the 2019A semester, the deadline is:

**Standard Programs**: 1 October 2018 at 11:59pm MST (=Tucson time) deadline for the 1 February 2019 – 31 July 2019 observing period (2019A)

This Call is for Standard Observing propsoals only, but below we give a short description of the different NOAO proposal types.

**Standard Programs** are traditional proposals for observing time allocated on a semester basis. Standard proposals generally request modest amounts of time, although requests for long runs are also considered. Standard programs are judged by one of seven TAC panels, each with five members plus a non-voting Chair. The Chairs present the proposal rankings made by the panel members at the meeting where the proposals are merged into a single ranked list.

**Long Term Status for Standard Programs** are for scientific programs that, by their design, need to extend beyond a single semester. Long-term status may be granted to a proposal for which the principal science goal of the proposal cannot be achieved without the full allocation of time. An investigator who wishes to request long-term status should include a summary of the request (e.g., "six nights per semester for four semesters") in the appropriate section of the proposal form.

If long-term status is granted, a progress report must be submitted each subsequent semester to inform the TAC that appropriate progress is being made. Progress reports should briefly summarize the scientific justification, provide a detailed discussion of progress to date, restate the number of observing runs still needed to complete the project, and give details needed for scheduling the proposal in the next semester.

Although the granting of long-term status by the TAC does carry with it a commitment for observing time in future semesters, NOAO reserves the right to terminate long-term status on the advice of the TAC if insufficient information concerning the progress of the project has been supplied by the Principal Investigator or in the event of telescope closures.

**NOAO Survey Programs** have been carried out in the past using the telescopes at KPNO and CTIO. Up to 20% of the observing time available through NOAO-operated telescopes may be allocated to Survey Programs.
Survey programs are judged by a dedicated Survey TAC panel, which uses a wider range of criteria than does the regular TAC. The scientific bar for acceptance of Survey programs is thus considerably higher than for Standard proposals.

**Gemini Large or Long Programs (LP)** are those that require either significantly more time than a partner typically approves for a single program, or extend over 2 to 6 semesters, or both. The participating partners (US and Canada) will make up to 20% of their time at each telescope available for LPs. Gemini LPs are judged by a dedicated LP TAC, with representatives from the participating partners. Further information on LPs and the LP proposal process can be found at [http://www.gemini.edu/sciops/observing-gemini/proposal-routes-and-observing-modes/large-and-long-programs](http://www.gemini.edu/sciops/observing-gemini/proposal-routes-and-observing-modes/large-and-long-programs).

**Who can apply?** Applications for telescope time at NOAO facilities are welcome from all astronomers and students. Applications from astronomers and students who are affiliated with non-US institutions should indicate why the project cannot be done using other facilities that might be available to the investigators and why US national facilities are needed. Proposals from graduate students who are conducting observations as part of their Ph.D. thesis work will have their travel and on-site expenses paid for by NOAO. Please select “Graduate student, and THIS proposal is part of thesis” ONLY if the requested observations are essential for the Graduate Thesis. For all other cases, please simply select “Graduate Student” (e.g. if the student is in fact working toward a thesis, but this proposal is not essential to that effort). Thesis Advisors should be aware that a Thesis Student Information Form should be completed and submitted within two business days after the proposal deadline. This form is required for the student to be considered for NOAO travel support. Lacking the Advisor’s submission by the deadline, the proposal will be considered as any other non-thesis proposal, and travel support will not be granted.

**Criteria for the evaluation of telescope proposals** to NOAO facilities will be based on scientific merit. The criteria for evaluating scientific merit of proposals for time on NOAO facilities are:

- The relevance and importance of the proposal within the area of specialization.
- The relevance and importance of the proposal in the larger context of astronomical research.
- The suitability of the experimental design to achieve the scientific goals (including sample size, required S/N, approach to deal with difficult data reduction problems, etc.).
- The significance of the proposed observations for the completion of the project.
- The likelihood that the researchers will complete the project and publish their results and the adequacy of the resources available to them in order to do this.
- The broader impacts of the proposed research, for example, in education and public awareness of science.

In addition, the value of the proposed research to the educational and career development of the investigators may be considered in exceptional circumstances.

For CTIO proposals, preference may be given to proposals which can only be carried out in the southern hemisphere.

NOAO is committed to maximizing the accessibility of astronomy to all qualified proposers. Many of the telescopes available through NOAO support remote observing, and we are happy to discuss ways in which this mode can be employed to address specific issues of accessibility. To enquire about remote observing and other forms of access, and to request specific accommodation, please contact any of the following individuals:

- Dr. Verne Smith, NOAO TAC Program Head and acting Head of U.S. National Gemini Office ([vsmith@noao.edu](mailto:vsmith@noao.edu))
- Dr. Lori Allen, NOAO Associate Director for KPNO ([lallen@noao.edu](mailto:lallen@noao.edu))
- Dr. Steve Heathcote, NOAO Associate Director for CTIO ([sheathcote@ctio.noao.edu](mailto:sheathcote@ctio.noao.edu))
- Dr. Adam Bolton, NOAO Associate Director for System Science and Data ([bolton@noao.edu](mailto:bolton@noao.edu))
2. Instructions for Submitting Semester 2019A Proposals

The 2019A Call for Proposals covers proposals for observing programs at all ground-based facilities on which NOAO manages open-access observing time. Observing proposals for all telescopes, other than Gemini and LBT, must be submitted using the NOAO Proposal Form, which is found at

http://www.noao.edu/noaoprop/noaoprop.html

The NOAO proposal can either be prepared and submitted completely online or a LaTeX template can be completed locally and submitted via a web upload.

*Gemini Proposal Investigators* who are applying for time on the Gemini telescopes must use *Gemini Observatory's Phase I Tool (PIT)* to prepare their observing proposals. The PIT is available from the Gemini Observatory at:

http://software.gemini.edu/phase1/2019A/

*Classical observers using US time on the Gemini telescopes* should be prepared to fund their own travel for their observing trips. NOAO encourages classical observing for the benefits that the on-site experience provides, and will attempt to fund, at least in part, the cost of travel for one Gemini classical observer per run. However, because of tight funding constraints, NOAO cannot guarantee such support. NOAO will continue to support graduate students traveling to Gemini for observations that are part of their PhD thesis work.

*LBT Proposal Investigators* who are applying for community time with the Large Binocular Telescope Observatory must use their version of the Phase I Tool (PIT) to prepare their observing proposals. The LBTO PIT is available from the LBT Observatory at

https://sites.google.com/a/lbto.org/proposal-submission/pit-instructions/installation

The text sections of LBTO PIT proposals will need to be attached as a PDF document. Please use the NOAO LBT Latex or Word template provided at our website to write your NOAO LBTO PIT proposal.

*AAT Proposals*: The Australian Astronomical Observatory (AAO) and NOAO/CTIO are continuing a time exchange arrangement, to allow our respective communities to maximize the scientific facilities and opportunities to which we have access. In 2018A, five classically-scheduled nights on the Anglo-Australian Telescope will be available to the NOAO community. All AAT facility instruments are available.

Proposals for this time should be submitted through the NOAO proposal form. The proposals will be reviewed by the NOAO TAC, and the successful proposals submitted to the AAO for scheduling. Note also that proposals for AAT time through the regular AAT open call, submitted by the AAO deadline of 15 September 2018 at 17:00 (AEDT) using the AAO form, are also encouraged by the AAO. These will be assessed only by the Australian Time Assignment Committee.

3. General Information about Facilities Available through NOAO

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Facility | Telescope  | Approximate nights available for new standard 2018B programs | Additional Information
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and 2m |  |  | 

### 3.2 Telescope and Instrument Lists (with Instrument Proposal Code and Web-link)

**Gemini–North**

GMOS–N: Gemini Optical Imager, Multi-Object Spectrograph and IFU
[https://www.gemini.edu/sciops/instruments/gmos/](https://www.gemini.edu/sciops/instruments/gmos/)

GNIRS: Gemini Near Infra–Red Spectrograph
[http://www.gemini.edu/sciops/instruments/gnirs/](http://www.gemini.edu/sciops/instruments/gnirs/)

GNIRS + Altair: Gemini Near Infra–Red Spectrograph with NGS, LGS, or LGS+PWFS1 AO systems (Altair)
[http://www.gemini.edu/sciops/instruments/altair/](http://www.gemini.edu/sciops/instruments/altair/)
[http://www.gemini.edu/sciops/instruments/gnirs/](http://www.gemini.edu/sciops/instruments/gnirs/)

NIFS: Near–IR IFU Spectrograph
[https://www.gemini.edu/sciops/instruments/nifs/](https://www.gemini.edu/sciops/instruments/nifs/)

NIFS + Altair: Near–IR IFU Spectrograph with NGS, LGS, or LGS+PWFS1 AO systems (Altair)
[https://www.gemini.edu/sciops/instruments/nifs/](https://www.gemini.edu/sciops/instruments/nifs/)
[https://www.gemini.edu/sciops/instruments/altair/](https://www.gemini.edu/sciops/instruments/altair/)

NIRI: Near–Infrared Imager
[https://www.gemini.edu/sciops/instruments/niri/](https://www.gemini.edu/sciops/instruments/niri/)

NIRI + Altair: Near–IR Imager with NGS, LGS, LGS+PWFS1 AO systems
[https://www.gemini.edu/sciops/instruments/niri/](https://www.gemini.edu/sciops/instruments/niri/)
[https://www.gemini.edu/sciops/instruments/altair/](https://www.gemini.edu/sciops/instruments/altair/)

*Alopeke: Speckle Camera (visiting instrument)*
GRACES: Gemini Remote Access to CFHT ESPaDOnS Spectrograph (visiting instrument)  
[http://www.gemini.edu/sciops/instruments/visiting/graces](http://www.gemini.edu/sciops/instruments/visiting/graces)

POLISH-2: High-precision optical polarimeter (visiting instrument)  
[http://adsabs.harvard.edu/abs/2008PASP..120..1282W](http://adsabs.harvard.edu/abs/2008PASP..120..1282W)

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**Gemini-South**

FLAMINGOS-2: Near-Infrared Wide Field Imager and Spectrometer (imaging and longslit modes only)  
[https://www.gemini.edu/sciops/instruments/flamingos2/](https://www.gemini.edu/sciops/instruments/flamingos2/)

GMOS-S: Gemini Optical Imager, Multi-Object Spectrograph and IFU  
[https://www.gemini.edu/sciops/instruments/gmos/](https://www.gemini.edu/sciops/instruments/gmos/)

GPI: Gemini Planet Imager  
[https://www.gemini.edu/sciops/instruments/gpi/](https://www.gemini.edu/sciops/instruments/gpi/)

GSAOI/GeMS: Gemini Adaptive Optics Imager with Multi-Conjugate AO System  
[https://www.gemini.edu/sciops/instruments/gsaoi/](https://www.gemini.edu/sciops/instruments/gsaoi/)

DSSI: Speckle Camera (visiting Instrument)  
[http://www.gemini.edu/sciops/instruments/dssi-speckle-camera](http://www.gemini.edu/sciops/instruments/dssi-speckle-camera)

Phoenix: High-Resolution Near-IR Echelle Spectrometer (visiting instrument)  
[http://ast.noao.edu/nssc/usngo/phoenix](http://ast.noao.edu/nssc/usngo/phoenix)

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**Subaru (Gemini Exchange time)**

COMICS: Cooled Mid-IR Camera and Spectrometer  

FOCAS: Faint Object Camera and Spectrograph  

HDS: High Dispersion Spectrograph  

HSC: Hyper Suprime-Cam Wide-Field Optical Imager  

IRCS: IR Camera and Spectrograph  

IRCS+AO188: IRCS + Natural and Laser Guide Star AO  

MOIRCS: Multi-Object IR Camera and Spectrograph  
**CTIO 4m Blanco**
DECam: Wide-Field Optical Imager
http://www.ctio.noao.edu/noao/content/dark-energy-camera-decam

COSMOS: CTIO Ohio State Multi-Object Spectrograph
http://www.ctio.noao.edu/noao/content/COSMOS/

**SOAR 4m**
Goodman: Goodman Spectrograph
http://www.ctio.noao.edu/soar/content/goodman-high-throughput-spectrograph

SOI: SOAR Optical Imager
http://www.ctio.noao.edu/soar/content/soar-optical-imager-soi

Spartan: Spartan IR Imager
http://www.ctio.noao.edu/soar/content/spartan-near Ir-camera

SAM: SOAR Adaptive Module
http://www.ctio.noao.edu/soar/content/soar-adaptive-optics-module-sam

HRCAM: High-Resolution Camera
http://www.ctio.noao.edu/~atokovin/speckle/index.html

SAMHR: SAM + HRCAM
http://www.ctio.noao.edu/soar/content/soar-adaptive-optics-module-sam
http://www.ctio.noao.edu/~atokovin/speckle/index.html

SIFS: SOAR Integral Field Spectrograph
http://www.ctio.noao.edu/soar/content/soar-integral-field-spectrograph-sifs

**WIYN 3.5m**
ODI: One Degree Imager (40' x 48' focal plane)
http://www.wiyn.org/odi/wiynodi.html

HYDRB: Hydra + Bench Spectrograph + STA1 CCD, Blue camera
http://www.wiyn.org/instruments/wiynhydra.html

HYDRR: Hydra + Bench Spectrograph + STA1 CCD, Red camera
http://www.wiyn.org/instruments/wiynhydra.html

SPSPKB: SparsePak Fiber Array + Bench Spectrograph + STA1 CCD, Blue camera
http://www.wiyn.org/instruments/wiynpsk.html
http://www.wiyn.org/instruments/wiynbench.html

SPSKKR: SparsePak Fiber Array + Bench Spectrograph + STA1 CCD, Red camera
http://www.wiyn.org/instruments/wiynpsk.html
http://www.wiyn.org/instruments/wiynbench.html

WHIRC: WIYN High Resolution IR Camera
https://www.noao.edu/kpno/WHIRC_instrument.htm

GRDPK: GradPak IFU
http://www.wiyn.org/instruments/wiynhexgrad.html

HEXPK: HexPak IFU
NESSI: NASA Exoplanet Star (and) Speckle Imager
http://www.wiyn.org/Instruments/wiynnessi.html

Large Binocular Telescope
LBC: Large Binocular Cameras, Red and Blue
https://sites.google.com/a/lbto.org/lbc/

LUCI: LBT Utility Cameras in the Infrared
https://sites.google.com/a/lbto.org/luci/

MODS: Multi–Object Double Spectrographs
https://sites.google.com/a/lbto.org/mods/

CHARA
CLASSIC: IR (H or K) Imaging
https://www.noao.edu/gateway/chara/

CLIMB: IR (H or K) Imaging
https://www.noao.edu/gateway/chara/

JouFLU: K–band Imaging
https://www.noao.edu/gateway/chara/

MIRC: Low–resolution H–band Spectroscopy
https://www.noao.edu/gateway/chara/

PAVO: Low–resolution Optical Spectroscopy
https://www.noao.edu/gateway/chara/

VEGA: Medium–resolution and High–resolution Optical Spectroscopy
https://www.noao.edu/gateway/chara/

LCO–2m Global Network
Spectral: Optical Imager
https://lco.global/observatory/instruments/spectral/

FLOYDS: Cross–dispersed Low–resolution Spectrograph
https://lco.global/observatory/instruments/floyds/

LCO–1m Global Network
Sinistro: Optical Imager
https://lco.global/observatory/instruments/sinistro/

NRES: High–resolution Fiber–fed Echelle Spectrograph
https://lco.global/observatory/instruments/nres/nres-status-update/
4. News and Updates for Semester 2019A

The following updates to instrumentation at all facilities available through NOAO are noted here to alert investigators preparing proposals.

Gemini North and South

The Gemini Observatory has released a Call for Proposals for 2019A at:
http://www.gemini.edu/sciops/observing-gemini/2019a-call-proposals

The Gemini Call contains all of the information necessary to submit a Gemini proposal.
Proposers requesting Gemini time must use the Gemini Phase–I Tool (PIT): http://software.gemini.edu/phase1/2019A/

The Gemini Phase I Tool (PIT) will automatically add the time for the baseline partner calibrations to the total time requested for each target in the proposal.

Gemini-Subaru Exchange

Gemini and Subaru are continuing their time–exchange program. A desired minimum of five classically-scheduled nights will be available to the Gemini community, providing that there is sufficient demand from both sides of the exchange. Please see the Gemini call for proposals for more information. Proposers requesting Subaru time must use the Gemini Phase–I Tool (PIT).

Zwicky Transient Facility and shared-risk ANTARES event brokering

The NSF MSIP–funded Zwicky Transient Facility (ZTF) is currently planning to begin issuing public transient alerts sometime in advance of the start of the 2018B observing semester. The two ZTF public surveys (https://www.ptf.caltech.edu/page/ztf_msip) are (1) an all-sky survey with a three–night cadence and (2) a Galactic–plane survey with a nightly cadence. Both these surveys are expected to reach approximate point-source depths of $r = 20.4$ and $g = 21.0$. Further information can be found through the ZTF project website (https://www.ptf.caltech.edu/ztf).

For 2018B, NOAO encourages submission of proposals for “target–of–opportunity” (ToO) follow-up observing triggered by ZTF alerts. Proposals should plan to use the current ToO policies and mechanisms for the facilities allocated through the NOAO TAC. More information about current ToO policies and procedures at available open-access facilities can be found here:

- CTIO Target of Opportunity observing: http://www.ctio.noao.edu/noao/content/too-policy
- Las Cumbres Observatory scheduling (including ToO) https://lco.global/observatory/scheduling/

NOAO plans to offer limited filtering of ZTF alerts through the ANTARES event broker system (https://www.noao.edu/ANTARES/documents.php) in a shared–risk/science–verification mode of operation. For 2018B, ANTARES capabilities are likely to be limited to positional and/or catalog-based filters with associated delta–magnitude thresholds. Proposers interested in employing these ANTARES capabilities within their programs during 2018B are encouraged to contact Dr. Tom Matheson (matheson@noao.edu) in advance of the proposal deadline. Support for ANTARES science verification programs will be subject to availability of resources; depending on demand during this initial call, it is possible that only a subset of programs will be chosen for use with ANTARES.
KPNO  
Mayall 4-m  
The Mayall 4-m telescope has been taken out of service for installation of the Dark Energy Spectroscopic Instrument (DESI). No time will be available through the NOAO TAC.

WIYN  
As was the case in the 2018B semester, priority at the WIYN-3.5m will be given to qualifying proposals under the NN-EXPLORE program. More information on the NASA Guest Observer program can be found at [http://ast.noao.edu/observing/wiyn-exoplanets-2019a](http://ast.noao.edu/observing/wiyn-exoplanets-2019a).

Instruments offered at WIYN include the upgraded ODI, now with a 48’x40’ focal plane. Other facility instruments on offer are HYDRA, the IFUs (SparsePak, HexPak, and GradPak), WHIRC (with or without WTTM), and the queue-operated speckle imager NESSI. Observers wishing to use Hexpak or Gradpak in 2019A should contact the PI (Matthew Bershady) at [mab@astro.wisc.edu](mailto:mab@astro.wisc.edu) before submitting a proposal to use these IFUs.

*Note to ODI proposers:* the smaller Mosaic filters will no longer be available with ODI due to the full complement of permanently mounted, large ODI filters.

All WIYN proposers, please review the Proposal Information page ([http://www.wiyn.org/Observe/wiynproposalinfo.html](http://www.wiyn.org/Observe/wiynproposalinfo.html)) to ensure all the required information is submitted on your proposal.

Remote Observing: KPNO offers remote observing for selected programs in 2019A. If you are interested in this opportunity, please see the requirements for observing remotely at [http://www.noao.edu/kpno/remote.html](http://www.noao.edu/kpno/remote.html). If you are requesting remote observing, please make a note of this in the "Scheduling constraints and non-usable dates" section that appears at the bottom of the first page of the NOAO proposal form and include any additional details in the "Technical Description" text of your observing run.

CTIO  
Blanco 4-m  
Instruments available: In 2019A, CTIO will be offering the Dark Energy Camera (DECam) and the Cerro Tololo Ohio State Multi-Object Spectrograph (COSMOS).

Nights available in 2019A: 90.

SOAR  
The SOAR website is located at:

[http://www.ctio.noao.edu/soar/](http://www.ctio.noao.edu/soar/)
There are significant changes is what SOAR is offering, starting in 2018B; these are described below.

A second camera for the Goodman spectrograph is now available, which incorporates a deep-depletion e2v CCD with better red performance (but somewhat inferior UV performance). Please see the Goodman page at SOAR, or the SOAR home page, for further details. It is now considered the preferred configuration for anyone who does not worry about UV response. Users are restricted to one camera on a given night, but do not need to commit to a specific camera when writing the proposal. Observers should note that the Goodman red camera may be preferred to SOI for many imaging programs, especially those that rely on observations in the red/near-infrared, where the Goodman detector has much better fringing properties than SOI (or Goodman blue).

All instruments that were available in the previous semester are current available. There are additional constraints on two of them:

- The restricted use speckle camera, HRCam, can be proposed for. If the AO-assisted mode is desired, please request SAMHR on the proposal form. See the SOAR web pages (http://www.ctio.noao.edu/soar/content/access-visitor-instruments) for additional details.

- The SOAR Integral Field Spectrograph (SIFS) has passed through science verification. However, because calibrations and data reduction require direct support from Brazil, its use will be restricted to 2 runs of 6 nights each (assuming sufficient demand). The NOAO share of this time, assuming all SOAR partners request time, would be 3.6 nights. Requests for NOAO time should be made through the TAC. See the SOAR website (http://www.ctio.noao.edu/soar/content/soar-integral-field-spectrograph-sifs) for details on the available configurations and on instrument performance.

When in doubt, consult the SOAR webpages: http://www.ctio.noao.edu/soar/content/proposing-soar

Perspective users are reminded that:

- **SOAR does support target of opportunity proposals.** To make life easier for all involved, include "ToO Proposal" in your proposal title. See http://www.ctio.noao.edu/soar/content/proposing-soar for the overall SOAR ToO policy. The policy has been revised slightly for 2018B, to allow more interrupts to be allocated.

- SOAR supports allocations in half-night pieces, subject to scheduling constraints. Again, see the "Proposing for SOAR" page for a discussion.

- In addition, **NEW FOR 2019A**, SOAR is now supporting a limited amount of service observing for small proposals (total duration 2.5 hours or less). The NOAO allocation for such proposals will not exceed 1 night per month. Further details are outlined on the “Proposing for SOAR” page. Please include “Service Observing” in your proposal title. Initially, only a
limited subset of Goodman Spectrograph configurations are being offered through service observing.

Upcoming instrument commissioning and science verification. We currently expect to be performing science verification (SV) on both the STELES echelle spectrograph and TripleSpec 4.1 (ex–ARCoIRIS, transferred from Blanco). STELES SV is expected to occur first. We will announce SV opportunities on the SOAR website; if you are interested in either instrument you can also contact the local instrument scientist (Andrei Tokovinin for STELES, Sean Points for TSPec 4.1).

SMARTS

Time on the small telescopes at CTIO will be available to NOAO users in 2018A via the usual proposal process. The telescopes are operated by the SMARTS consortium with up to 15% of time available to the NOAO community.

The SMARTS web site is http://www.astro.yale.edu/smarts/

The 0.9m + CFCCD is available in user mode only. It is being operated on a part time basis (operating on up to 60% of nights), during the 2018B semester. As a result up to 18 nights will be available for allocation by the NOAO TAC. For more information on the 0.9m, please contact Dr. Todd Henry at thenry@astro.gsu.edu.

The 1.3m + ANDICAM (dual channel optical/IR imager) is available in queue/service mode only. The 1.3–m telescope is used primarily for monitoring projects; thus, programs are scheduled in non-contiguous segments of an hour or less with a limit of three hours total within any given night. For inquiries about scheduling or 1.3m + ANDICAM observing capabilities, please contact the SMARTS 1.3m queue manager Bryndis Cruz at bryndis.cruz@yale.edu. For any other inquiries about the 1.3m, please contact Charles Bailyn at charles.bailyn@yale.edu.

Non-sidereal tracking is no longer supported as service or queue observing. The only option for non-sidereal is user time on the 0.9m.

The 1.5m + CHIRON (fiber–fed cross–dispersed echelle). We anticipate that ~100 hrs will be available for scheduling by the NOAO TAC for non–NN–EXPLORE programs. For more information on the 1.5m, please contact Dr. Todd Henry at thenry@astro.gsu.edu.

5. How to Acknowledge Use of NOAO Facilities

There are a variety of credit lines which are appropriate for citing the use of data from one or more of the NOAO facilities. Please acknowledge the proper observatories by using the appropriate credit line as discussed below.

NOAO generic press release

The National Optical Astronomy Observatory (NOAO) consists of Kitt Peak National Observatory near Tucson, Arizona, Cerro Tololo Inter-American Observatory near La Serena, Chile, and the NOAO System Science Center. NOAO is operated by the Association of Universities for Research in Astronomy (AURA) under a cooperative agreement with the National Science Foundation.

Observers should also note their NOAO proposal ID and observing dates in their publications either in a footnote, or in the observations section or acknowledgments sections of their papers.

KPNO
Visitors are asked to add a Kitt Peak byline on the title page, as a footnote to the author, that reads:

Visiting Astronomer, Kitt Peak National Observatory, National Optical Astronomy Observatory, which is operated by the Association of Universities for Research in Astronomy (AURA) under cooperative agreement with the National Science Foundation.

NOAO staff members are asked to add a footnote after their names on the title page that reads: Kitt Peak National Observatory, National Optical Astronomy Observatory, which is operated by the Association of Universities for Research in Astronomy (AURA) under cooperative agreement with the National Science Foundation.

In addition to the Kitt Peak credit line, Case Western Reserve University has requested that a special acknowledgement be included on papers resulting from observations obtained with the Burrell Schmidt telescope:

Observations made with the Burrell Schmidt of the Warner and Swasey Observatory, Case Western Reserve University.

WIYN
In addition to the Kitt Peak Credit line, the WIYN Observatory Corporation has requested that the following acknowledgement be included in any paper using WIYN data. The acknowledgement should be included as a footnote on the title page. The WIYN Board also encourages the mention of WIYN in the title or abstract of the paper:

The WIYN Observatory is a joint facility of the University of Wisconsin–Madison, Indiana University, Yale University, and the National Optical Astronomy Observatory.

For publications resulting from NN-EXPLORE telescope time, please include this text: "Data presented herein were obtained at the WIYN Observatory from telescope time allocated to NN-EXPLORE through the scientific partnership of the National Aeronautics and Space Administration, the National Science Foundation, and the National Optical Astronomy Observatory."

CTIO
It is expected that visiting observers making use of CTIO facilities will utilize the observations they obtain for the preparation of a publication describing their research activity. Publications by visiting observers should carry the following credit lines:

Visiting astronomer, Cerro Tololo Inter-American Observatory, National Optical Astronomy Observatory, which are operated by the Association of Universities for Research in Astronomy, under contract with the National Science Foundation.

Visiting observers who use CTIO facilities for only a small part of a larger program should include suitable acknowledgement to the Observatory in their publication or dissertation.

SOAR
To properly acknowledge the use of data obtained with the SOAR telescope in publications, whether partially or entirely based on SOAR data, please include an asterisk by the paper title referring to a footnote stating:

"Based on observations obtained at the Southern Astrophysical Research (SOAR) telescope, which is a joint project of the Ministério da Ciência, Tecnologia, e Inovação (MCTI) da República Federativa do Brasil, the U.S. National Optical Astronomy Observatory (NOAO), the University of North Carolina at Chapel Hill (UNC), and Michigan State University (MSU)."

Gemini
Papers containing data from the Gemini telescopes (e.g., an ApJ paper) should include the following general acknowledgment as a footnote on the first page or in the last section before the references:
Based on observations obtained at the Gemini Observatory, which is operated by the Association of Universities for Research in Astronomy (AURA) under a cooperative agreement with the NSF on behalf of the Gemini partnership: the National Science Foundation (United States), the National Research Council (Canada), CONICYT (Chile), the Australian Research Council (Australia), Ministério da Ciência e Tecnologia (Brazil) and Ministerio de Ciencia, Tecnología e Innovación Productiva (Argentina).

If appropriate, please also acknowledge the provision of visiting instrument(s) as described in the relevant "documents" web pages for that instrument.

Authors are also asked to give the identification number (“Program ID”) of the program(s) under which their data were obtained, e.g. GN–2004A–Q–10, or GS–2003B–C–1, or GN–2002B–SV–78 or GS–2005A–DD–96. We recommend that this reference to the Program ID be made in the acknowledgement section at the end of the paper or in the Observations section of the paper.

**TSIP**

Please acknowledge NSF–TSIP support by including the following in all publications relating to TSIP observing time (preferably as a footnote on the title page): "[Keck, MMT, or Magellan] telescope time was granted by NOAO, through the Telescope System Instrumentation Program (TSIP). TSIP is funded by NSF." Observers should also note their NOAO proposal ID and observing dates in their publications either in the same footnote, or in the observations section or acknowledgments sections of their papers.

In addition for Keck time, please include the standard Keck acknowledgements at http://www2.keck.hawaii.edu/observing/keck_authors.html

**ReSTAR**

Any publication that results from NOAO–allocated time on the 200-inch Hale telescope should acknowledge the NSF/NOAO ReSTAR program, in addition to a Hale/Palomar acknowledgment. The requested wording for ReSTART acknowledgements is:

"This material is based upon work supported by AURA through the National Science Foundation under AURA Cooperative Agreement AST 0132798 as amended."