

# Chilean Telescope Time Allocation Committee

## Semester 2017A Call for Proposals

The Chilean Telescope Time Allocation Committee (CNTAC) invites the Chilean community to submit proposals for observations during the 2017A semester at the following facilities that have signed agreements with Universidad de Chile:

- **CTIO:** BLANCO, SOAR, SMARTS, PROMPT, SARA, LCOGTN, KASI and the URAT Astrograph.
- **LCO:** Baade, Clay, du Pont and Swope. Warsaw.

In addition, and following a petition of the ESO-Chile Committee, the CNTAC also invites the community to submit proposals for the following ESO National Telescopes:

- EULER, Danish, MPG 2.2m, REM, TAROT.
- **Radio-telescopes:** ASTE and NANTEN2.

The submission deadline is:

**Friday OCTOBER 14, 2016 (noon, Chilean continental time)**

We would like to remind the community that different facilities finish their respective telescope schedules at different times. For example, LCO will have their schedule ready by early December. CTIO (Blanco, SOAR) finalizes their A semester calendars typically by mid-December. The MPG2.2m will probably finish their schedule at some point in January (their term runs from April through September), etc.

The CNTAC will make its best effort to communicate the final results as soon as they become available.

# 1. Policies

The CNTAC has established specific rules regarding eligibility, duration of the projects, and telescope assignment.

1. **Eligibility:** Starting with the 2016B Call, the CNTAC has chosen to follow the eligibility rules approved by SOCHIAS during his 2015 meeting. According to these, eligible principal investigators (PIs) are the following individuals:

Chilean astronomers: For the purpose of applying for observing time at the international observatories located in Chile, a Chilean astronomer is defined as a resident scientist working in a Chilean institution.

Faculty: As defined by the institution. No restriction.

Postdoc: Maintain a continuous residence for at least 9 months after the call for proposals.

Visitor: As postdoc plus a co-PI faculty.

Graduate Students: A Chilean graduate student is defined as a student enrolled in a local graduate program. ***The student must attach to the proposal a letter from his/her supervisor (holding the status of Chilean astronomer).***

If the PI will no longer be working in Chile at the time the requested observations are allocated, she/he may still be eligible for the semester following her/his departure, only in the case of proposals clearly demonstrating the need to be completed during such semester and the participation of a Chilean co-investigator in the project.

SOCHIAS will maintain a “white-list” of eligible PIs. This white-list is created with the help of all department Chairs, so we encourage you to verify with your respective one if you have been included.

The current list can be found at:

<http://www.sochias.cl/tiempo-de-observacion/lista-blanca>

2. **Duration of projects:** The proposals are reviewed by the CNTAC on a semester by semester basis (except for the du Pont, Swope, and Warsaw telescopes which are assigned on a yearly basis). The CNTAC can give special attention to proposals specifying their long-term nature (more than one semester). In the case of long-term programs

it is **required** that the applicants indicate the long-term nature of the program and the total duration. A summary of the need for long-term status is also required (1-page limit).

In case long-term status is granted, a status report must be submitted each subsequent semester to inform the TAC of the progress being made. The CNTAC reserves the right to terminate long-term status if progress is deemed insufficient or if the PI fails to send a report.

In addition, special attention will be given to proposals requesting 50% or more of the available time in any semester on the following telescopes: Clay, Baade, Blanco, SOAR and MPG2.2m. These proposals will be considered large-programs. Approved programs will need to submit a work plan (1-page limit) specifying the contributions of all Co-Is and a data management plan and will commit to make their data public after one year (through ChiVO).

A proposal can be both long-term and large. If the proposed project fulfills the criteria for both it must include the additional page justifying the need for long term status and the page describing the Co-I's responsibility and data management plan, as well as the commitment to make the data public after one year.

3. **“Fast track” CfP:** In past semesters, occasionally some telescopes have been under-subscribed. In the event that time cannot be fully allocated, and in order to optimize Chilean resources and avoid late-time requests, a second "fast track" call will be issued soon after the CNTAC process, including all telescopes with remaining time. Fast-track proposals will be handled directly by the CNTAC Chair. Ideally, fast-track proposals should include new and short programs.
4. **Acknowledgments:** Since 2011B the CNTAC is asking PIs to include the identification number of the program in any publication that makes use of data obtained through a CNTAC proposal.
5. **PI commitment:** Through her/his application the PI is fully committed to carry out such observations. The PI or one of the Co-investigators listed on the proposal is expected to be present at the telescopes on the assigned nights (unless service or remote mode was assigned). In the event that the PI cannot make use of such nights for the scientific program approved, she/he must immediately communicate the problem to the Chairman of the CNTAC who will reassign such time to another applicant based on the ranking previously established by the CNTAC.

## 2. Proposal submission

1. **CNTAC form:** Starting in the 2016B semester, the CNTAC has moved to a new web form.

***IMPORTANT: Both PIs and Co-Is will need to be registered in the new web system. PIs will need to wait for confirmation of eligibility before being able to submit proposals. You will receive an e-mail with the confirmation.***

***\*\*PLEASE REGISTER NOW RATHER THAN WAITING TO THE LAST MINUTE\*\****

As part of this new system, PIs will need to enter directly into the web form information such as Abstract, Co-Is, Telescope, Instrument, Time requested, Preferred Dates, Moon requirements, etc.

In addition, the PI will be asked to upload a free-format pdf file that includes:

- Scientific aim and rationale (3 page limit including figures/tables and references).
- A description of the current status of the project including publications (1 page limit).
- Technical description (1 page limit).
- Justification of long-term status if applicable (1 page limit).
- Work plan for large programs, if applicable (1 page limit).

While the format is free, we ask that arial or verdana fonts are used, with font size between 10 and 12 pt. In addition, regular page margins should be used. ***A complete proposal will then consist of no more than five pages of text (including figures, tables and references)***, seven for large programs that are also long-term. While the website will accept longer pdf files, the Telescope Assignment Committee will not be under any obligation to read additional text.

***Students must also upload a letter from his/her supervisor (holding the status of Chilean astronomer). Without this letter the system will not allow submission of the proposal.***

The website will be accessible through the CNTAC webpage at:

[http://www.das.uchile.cl/das\\_cntac.html](http://www.das.uchile.cl/das_cntac.html)

or directly through:

<http://www.cntac.cl>

### 3. General Information

- **Questions:** Questions regarding the submission process should be sent to [webappcntac@gmail.com](mailto:webappcntac@gmail.com). Please include the keyword "CNTAC" in the subject of the message.

### 4. Instrumentation available in the semester 2017A

A description of the instrumentation available can be found through the following web pages or contact person:

- CTIO (incl. SOAR): <http://www.ctio.noao.edu/telescopes/telescopes.html>
- CTIO/PROMPT: <http://www.physics.unc.edu/~reichart/prompt.html>
- CTIO/SARA: Contact person: William Keel ([wkeel@bama.ua.edu](mailto:wkeel@bama.ua.edu))
- CTIO/LCOGTN: <http://lcogt.net>
- LCO : <http://www.lco.cl>
- Danish Contact person: Uffe Gråe Jørgensen ([uffegj@nbi.dk](mailto:uffegj@nbi.dk))
- EULER: Contact person: Stephane Udry ([Stephane.Udry@unige.ch](mailto:Stephane.Udry@unige.ch))
- TAROT Contact person: Michel Boer ([Michel.Boer@unice.fr](mailto:Michel.Boer@unice.fr))
- REM: <http://www.rem.inaf.it>
- MPG 2.2m: <http://www.eso.org/sci/facilities/lasilla/telescopes/2p2/index.html>

**Specific guidelines for CNTAC proposals are described in what follows.**

## 4.1 CTIO Facilities

### CTIO

The observing period covered at the CTIO telescopes is from February 1, 2017, through July 31, 2017.

### Blanco 4-m Telescope

The equivalent of 21 nights will be available for allocation by the CNTAC.

The first half of the nights of February 1-8 and 15-18 have been pre-allocated to DES, and the nights of Feb 28, March 1-5, March 26-31, April 18-21 and May 18-23 have been pre-allocated to the DECals survey. However, should the CNTAC approve a time-critical proposal that needs observations during these periods every effort will be made to accommodate it by adjusting the pre-allocated nights.

It is possible that the primary mirror of the Blanco telescope will be re-coated towards the end of 2017A, which will require a 3-4 week engineering block; whether this happens and exactly when will not be finally decided until the telescope is scheduled in November.

It is anticipated that the majority of nights in 2017A will be scheduled with DECam at prime focus. The f/8 instruments COSMOS and ARCoIRIS will be scheduled during two or three f/8 blocks. When scheduling these f/8 blocks we will try to satisfy the optimum date range and lunar phase requested in proposals but proposals should be as flexible as possible when specifying these, and equally be sure to clearly and explicitly indicate if scheduling your proposal is time critical.

General information:

<http://www.ctio.noao.edu/noao/content/Victor-Blanco-4-m-Telescope>

*Instruments available:*

Dark Energy Camera (DECam)

<http://www.ctio.noao.edu/noao/content/dark-energy-camera-decam>

Cerro Tololo Ohio-State Multi-Object Spectrograph (COSMOS)

<http://www.ctio.noao.edu/noao/content/COSMOS>

TS4 ARCoIRIS Infrared Spectrograph

<http://www.ctio.noao.edu/noao/content/Arcoiris/>

## SOAR 4.1-m Telescope

Approximately 16 nights will be available for allocation by the CNTAC. Starting in 2017A there will be a change in the way half nights are scheduled at SOAR. Half nights can still be requested, but nights will not be split between partners. So if the CNTAC allocates a half night to a proposal the other half of the night must be used by another CNTAC proposal.

General information: <http://www.ctio.noao.edu/soar/>

OSIRIS has been retired. For near IR spectroscopy, users should consider TS4 on Blanco, which offers similar capabilities with better performance. For near IR imaging consider SPARTAN on SOAR.

A second camera for the Goodman spectrograph will be available, which incorporates a deep-depletion e2v CCD with better red performance (but somewhat inferior UV performance). We expect to post final results from commissioning before the end of September (see the Goodman page at SOAR, or the SOAR home page, for further details). Our expectation is that this will be 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.

The restricted use speckle camera, HRCam, can be proposed for.

We also hope to have another observing run with the Fabry Perot mode of SAM, but if this happens it would be through a special call for proposals. A decision will be made around mid-semester; please check the SOAR news page or contact one of the SAM F-P team members. See <http://www.ctio.noao.edu/soar/content/access-visitor-instruments> for details on both of these capabilities.

The grating complement on the Goodman spectrograph has evolved somewhat over the past few years; for 2017A it will be the same as for 2016B. See the web site for the current grating complement.

### *Instruments available:*

Goodman Spectrograph

<http://www.ctio.noao.edu/soar/content/goodman-high-throughput-spectrograph>

SOAR Optical Imager (SOI)

<http://www.ctio.noao.edu/soar/content/soar-optical-imager-soi>

Spartan IR Imager

<http://www.ctio.noao.edu/soar/content/spartan-near-ir-camera>

SOAR Adaptive Module (SAM)

<http://www.ctio.noao.edu/soar/content/soar-adaptive-optics-module-sam>

## **SMARTS**

The SMARTS3 Consortium is continuing to operate two of the small telescopes at CTIO.

In semester 2017A, 146 hours will be available through the CNTAC on the 1.3-m telescope, which is operated in queue/service mode, and 14 nights will be available on the 0.9-m telescope which is only offered in user mode. Due to funding constraints, the 1.5-m and 1.0-m telescopes will not operate in 2017A.

The 1.3-m telescope is primarily used 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. The conversion from nights to hours might thus lead to inaccuracies in time requests.

Instruments available:

1.3m - ANDICAM (dual channel optical / IR imager) <http://www.ctio.noao.edu/noao/content/andicam>

0.9m – CFCCD <http://www.ctio.noao.edu/noao/content/SMARTS-09-m-Telescope>

For more information about the 1.3m, please contact [charles.bailyn@yale.edu](mailto:charles.bailyn@yale.edu) and [victoria.misenti@yale.edu](mailto:victoria.misenti@yale.edu).

For more information about the 0.9m, please contact [thenry@astro.gsu.edu](mailto:thenry@astro.gsu.edu).

## **PROMPT**

Please see details at: <http://www.physics.unc.edu/~reichart/prompt2.html>

The contact person is Dan Reichart, [dan.reichart@gmail.com](mailto:dan.reichart@gmail.com)

## **SARA**

Contact: William Keel, [wkeel@bama.ua.edu](mailto:wkeel@bama.ua.edu)

SARA-South is a remotely-operated 0.6m telescope sited at Cerro Tololo. Its imager uses a Kodak 230-42 chip, giving 0.37" pixels over a 12.5-arcminute field. Thermoelectrically cooled to -110 C, the device has dark current which is negligible for most purposes. Filters are currently SDSS ugriz, Bessel UBVRI, "white-light", and an old set of stepped H-alpha filters about 70 Å wide with 6563, 6600, 6675, 6825, 6900, 6975 Å center wavelengths (replacement of old, deteriorating filters from these is in progress). Operation uses the RAdmin



remote-management software or VNC protocol (RAdmin for Windows; so far security requires that Macs use Chicken of the VNC) via the NOAO VPN (which needs a Cisco client that can be downloaded from NOAO; access from within Chile might have a more direct path into the CTIO local network). Our remote-operation rules require new observers to eavesdrop for parts of three nights to become familiar with the system. The telescope has its own weather station and all-sky camera. A single-fiber echelle spectrograph with  $R \sim 25,000$  is on site, but the camera cooling system was defective and awaits a site visit to replace parts. The SARA scheduling semesters (November-April, May-October) do not match the NOAO/CNTAC ones. The CNTAC therefore often allocates time for programs running into the following SARA semester.

**LCOGTN:** Projects are only executed in service mode. Rapid-response (RR) observations are possible. RR observations are made in response to external triggers (e.g. a GRB detection) and can be executed in <12 minutes after the time of submission.

Given that LCOGTN includes telescopes across the globe, targets can be observed through most of the 24h period at the correct season. More information about the instrumentation can be found at <http://lcogt.net/observatory/>. Several tools are available to the user for planning observations. These are all linked to <http://lcogt.net/observatory/tools/>

A few notes:

1. Now that there is a 0.4m telescope observing full-time at CTIO, the Chilean community has access to the 0.4m network every semester.
2. For next year, the observing semesters will be shifted by 2 months. The 2017A semester will begin on April 1, as in past years, but it will be 8 months long rather than the usual 6 months. (The next semester, 2018A, will begin on December 1.) As a result, the Chilean time for 2017A will be 400 hours on the 1m telescopes and 133 hours on the 0.4m telescopes.
3. The exchange rate between the different telescope diameters is as follows: 1 hour (2m) = 2 hours (1m) = 4 hours (0.4m). Requests to swap time have to be approved by the director, because we have to balance the distribution of time among the different types of telescopes.

**KASI:**

KASI will not be offered during the 2017A semester.

## **URAT Astrograph**

Contact: Norbert Zacharias, [norbert.zacharias@usno.navy.mil](mailto:norbert.zacharias@usno.navy.mil)  
Charlie Finch, [charlie.finch@usno.navy.mil](mailto:charlie.finch@usno.navy.mil)

Now that the URAT Astrograph is operational on Cerro Tololo, we are offering 10% of the time to the Chilean community for astrometric observations. The time will be scheduled in regular blocks of 2-3 nights per month for the 2017A semester, but the exact scheduling will be flexible depending on the proposals and the current astrometric survey parameters.

The URAT telescope is a 5-element astrograph with 200 mm aperture and about 9 degree diameter field of view. The focal plane consists of 4 big CCDs (STA1600 with 10,560 by 10,560 pixels, 9 micron square). The CCDs are arranged in a 2 by 2 pattern with about 1200 arcsec gaps. The scale is 0.905 arcsec/pixel, providing 2.65 by 2.65 deg field of view per CCD, thus a total of 28 sq.deg per exposure. Guiding is done automatically using 3 smaller CCDs mounted at the edge of the focal plane inside the dewar. Guiding is performed only for exposures longer than 30 sec. Focus is followed automatically utilizing the guider image data. Typical FWHM is 1.8 to 2.5 pixel, limited by the combination of diffraction limit of the optics, guiding and seeing.

The bandpass (680 to 760 nm, i.e. between R and I) is fixed due to a filter serving as dewar window. The main purpose of this instrument is astrometry, no photometric capability has been explored yet. On top of the lens a diffraction grating is permanently mounted which will produce grating images of every bright star in the field of view. The 1<sup>st</sup> order diffraction images are almost round and about 5 mag fainter than the central image. Higher order diffraction images are a bit fainter and getting more elongated with order, overlapping other stars in the field of view.

Standard exposure times are used (with mean dark frames on file) for 5 to 240 sec, reaching about magnitude 18. The typical hour angle for observations is +/- 0.5 hours. The system currently has a strict hour angle limit of +/-1.5 hours.

Successful proposals will need to prepare a list of targets (with relatively narrow RA range, and within Dec = -88 to +20 deg) in a fixed text file format. There can be several lists per night and those lists will be summarized on another file for the night. Automatic processing is performed including bias, dark and flat corrections. Output image (per CCD) can be provided of these corrected images in simple FITS format plus observing log data like exposure number, time, RA, Dec pointing, temperatures. Object detection and centroiding is performed with magnitudes derived from Gaussian image profile fits. Those x,y data files and the processed and raw images is all what can be provided. The user will have to reduce the data further, no RA,Dec results or calibrated magnitudes are provided. Sorting out the various diffraction images may be another challenge.

## 4.2. LCO Facilities

### General guidelines:

All observers at Las Campanas are expected to be experienced and self-sufficient.

All observers on LCO telescopes should follow the Observer guidelines described at:

<http://www.lco.cl/observer-information/visiting-observer/visiting-observer-guide>  
<http://www.lco.cl/observer-information/visiting-observer/guidelines-for-observers>

All Magellan observers should read the Magellan Telescopes Observer Guidelines found at:

<http://www.lco.cl/lco/observer-information/visiting-observer>.

All observers at the Swope and du Pont telescopes should read the Small Telescopes Guidelines found at:

<http://www.lco.cl/lco/observer-information/visiting-observer>.

For the Baade and Clay telescopes, this proposal round will cover the first semester of 2017 running from January 20 through July 15.

The 2017 observing year for the du Pont and Swope telescopes runs from January 20, 2017 through January 8, 2018.

This proposal round will also cover ancillary programs on APOGEE on the du Pont telescope in the 2017B semester.

In the 2017A semester there will be 326 science nights and 28 engineering nights.

Chile will get a total of 33 nights in 2017A. The draft block schedule has the following:

Baade, 17 nights:

January 20

March 1 - 2

March 17 - 18

March 24

April 8 - 9

April 26 - 27

May 14 - 15

May 20 - 21

June 1 - 2

June 29

Clay, 16 nights:

January 25 - 26

February 14

March 10 - 11

March 27 - 29

April 15 - 16

April 19

June 15 - 16

June 19 - 20

July 15

Note that the night of February 14 is in the proposed (short) MagAO run.

Instrumentation

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A description of the instrumentation available for use on the Baade, Clay, du Pont and Swope telescopes can be found at <http://www.lco.cl>.

- + Baade: IMACS (including GISMO and MMTF modules), FIRE, FourStar and MagE.
- + Clay f/11: LDSS3 and MIKE. The new CCD for LDSS3 has been commissioned. The new CCD has an extended red response, the performance is described in the paper to be found at [http://snap.lbl.gov/ccdweb/estrada\\_et\\_al\\_proc\\_spie\\_7735\\_77351R\\_2010.pdf](http://snap.lbl.gov/ccdweb/estrada_et_al_proc_spie_7735_77351R_2010.pdf)

The new CCD has become the default detector for LDSS3. If you are interested in using the old CCD please note this in your proposal.

- + Clay f/11 PFS: PFS is a high resolution echelle spectrograph optimized for precision radial velocity measurements. PFS is a PI instrument and will only be available via collaborative arrangement with the instrument team. If you are interested in applying for time on PFS in the 2017A semester contact Steve Shectman ([shect@obs.carnegiescience.edu](mailto:shect@obs.carnegiescience.edu)) before submitting a proposal. PFS will not be available during the second half of the 2017A semester to allow for upgrades to the CCD camera and spectrograph optics.
- + Clay f/11 M2FS: M2FS is a multifiber spectrograph with both high ( $20K < R < 34K$ ) and low ( $1.5K < R < 2.7K$ ) resolution modes. M2FSS is a PI instrument and will only be available via collaborative arrangement with the instrument team. If you are interested in using M2FS, please contact Mario Mateo ([mmateo@umich.edu](mailto:mmateo@umich.edu)) for further details before submitting a proposal.

- + Clay f/5: MegaCam. There will be one f/5 run on Clay in 2017A. During the f/5 run none of the other Clay instruments will be available.
- + Clay AO: There will be a 14 night shared risk science run in early 2017. The new CLIO detector will be installed in time for this run.
- + Clay PISCO: PISCO is a simultaneous griz-band imager, covering a 7.3 by 5.4 arcmin field with 0.11 arcsec/pixel sampling. PISCO is a PI instrument, those interested in using it should contact Tony Stark ([aas@cfa.harvard.edu](mailto:aas@cfa.harvard.edu)) before submitting a proposal.
- + du Pont: B&C, CAPSCam, CCD-Direct, Echelle, RetroCam, WFCCD.
- + du Pont APOGEE: The APOGEE survey is scheduled to begin early in 2017. A limited number of nights are planned to be available for ancillary programs beyond the survey. A draft summary of the procedures and technical aspects involved in conducting external APOGEE-2S observing programs will be made available soon.

Because of the lead time in preparing the plug plates used in the observations, this proposal round will also cover ancillary program observations for the second semester of 2017 running from July 16, 2017 through January 8, 2018.

A file with details about APOGEE proposals is attached to this CfP. For technical questions not addressed in this document please contact Kevin Covey at [kevin.covey@wwu.edu](mailto:kevin.covey@wwu.edu).

- + Swope: The Site#3 CCD camera has been replaced with a 4K x 4K x 15 micron pixel CCD from E2V.

### 4.3. ESO National telescopes

**1. EULER:** The instruments on EULER are still the same: the CORALIE high-resolution spectrograph in the visible (R=50,000) and a CCD camera. To comply with the operational and safety requirements of the EULER operation (the telescope and instrumentation is operated by the observer himself, without telescope operator, and the documentation is mostly in French), a minimum number of training nights are required for new observers (2-3). Even trained observers are required to arrive on the mountain at least 1 night before the start of her/his observing run. Dr. Andres Jordan (PUC) has developed an automated pipeline for CORALIE (when used in the simultaneous ThAr mode, OBTH) and is offering to reduce the data taken on Chilean time using this pipeline as a service to the community. Interested researchers please contact him at [ajordan@astro.puc.cl](mailto:ajordan@astro.puc.cl). The time allocation for 2016B will be 17 nights.

**2. REM** is a 60 cm robotic telescope that can observe simultaneously with a visible and an infrared camera. The observation will be carried out in unmanned, service mode. Allocation for the 2017A semester is 112 hours.

- 2.1 Time for REM should be expressed in terms of hours. Also, different hours must be given for the two instruments (REMIR and ROS2, which can be used simultaneously, and this is in fact encouraged to not waste time) and the greater of the two counts as the requested time.
- 2.2 Applicants can have a look at the REM web site ([www.rem.inaf.it](http://www.rem.inaf.it)) and follow the ->Instruments ->REMIR ->ROS2 links to have data on the filter pass-bands and the limiting magnitude for both instruments.
- 2.3 The ROS2 visible camera is equipped with set of filters Sloan/SDSS g', r', i', z' and is capable of obtaining the 4 images in the 4 different filters at the same time, using dichroics.

**4. TRAPPIST:** TRAPPIST-South is a 60 cm telescope installed in la Silla by Liège University and Geneva Observatory and operated remotely from Belgium. It is exclusively devoted to photometry of exoplanets, comets and other solar system minor bodies. TRAPPIST is equipped with a 2Kx2K CCD camera with pixels of 0.65" and two filter wheels. One is loaded with B,V,R,exoBB,z,I+z filters and a clear slot and the other one with special NASA narrow band cometary filters (Jehin et al., The ESO Messenger, 145, 2, 2011). Three full nights per month are offered and will be allocated depending on the TRAPPIST observing schedule. If the CNTAC approves a time-critical proposal that needs observation during specific nights, the TRAPPIST team will do its best to accommodate it. Note that due to the time critical and ToO nature of many TRAPPIST programs (that cannot be known 6 months in advance) the allocated nights might be shifted by one or more nights (PI will be informed). Targets brighter than V mag 9 are not allowed as they saturate the detector and

minimum exposure time is 10 seconds until a better shutter is installed. With a defocus (of +300 steps or a 5" psf) the mag limits are (exptime of 5 s): B (9.5 mag), V (9.5mag), R (10 mag), ExoBB (11), z (8.5), I+Z (10), Clear (11.5). To avoid mechanical failure the filter wheel cannot be moved at a frequency higher than 1x per 4 minutes for long series. The PI will prepare a sequence of observations by filling in a template that the TRAPPIST team will provide and execute.

More information can be found at [http://arachnos.astro.ulg.ac.be/Sci/Trappist/Trappist\\_main/Home.html](http://arachnos.astro.ulg.ac.be/Sci/Trappist/Trappist_main/Home.html).

## 5. Danish telescope:

Observing time with the Danish 1.54m telescope is offered in 2017A in visitor (or possibly service) mode for the February-March nights and in visitor mode for the April nights. Proposal PIs must be aware that there is no technical assistance and no staff to introduce the telescope for new observers during the specified Chilean time slots. Observations in visitor mode can therefore be run only by observers having previous experience with using the telescope. In the Czech season at the telescope Chilean researchers unfamiliar with the new telescope system, can in exceptional cases get their observations run in service mode remotely. Chilean observers familiar with the new telescope system will have to run their observations themselves in visitor mode onsite.

During the Danish season only observations in visitor mode are possible, and only by observers with previous experience with the telescope.

During the Czech season at the telescope in 2017A the following 9 nights are offered to the Chilean community:

February 13/14 and 14/15 (2 nights)

March 8/9 to 14/15 (7 nights)

During the Danish season the slot offered is:

April 5/6 to 13/14 (9 nights).

The only instrument available at the Danish telescope during 2017A is a direct imaging 2k x 2k CCD camera with its main sensitivity in the red end of the spectrum and a 13.7' FOV with a pixel size of 0.39", equipped with Johnson-Cousins UBVRI, Stromgren uvby, Gunn z, g2, Hbeta and Halpha-r filters.

**6. Max-Planck-Gesellschaft 2.2m telescope:** The MPI 2.2m telescope hosts the following instruments: WFI: Wide Field Imager, a focal reducer-type camera at the Cassegrain focus and with a field of view of 34'x33' ; FEROS: A state-of-the-art bench-mounted, high-resolution, environmentally controlled, astronomical echelle spectrograph. GROND: An imaging instrument especially built to investigate Gamma-Ray Burst Afterglows and other transients simultaneously in

seven filter bands. Several dichroic beamsplitters feed light into three NIR channels and four visual channels, each equipped with its own detector. There is no service observing. Proposal PIs must be aware that there is only rudimentary support at the telescope.

**7. TAROT:** (Rapid Action Telescope for Transient Objects) is a set of three, very fast moving (1 second), optical robotic telescopes able to observe from the beginning a Gamma Ray Burst (GRB). One is located in Chile (TCH), another in France (TCA) and another (TRE) in La Réunion Island (France Overseas). Satellites detecting GRBs send timely signals to the TAROT network, which in turn is able to give a sub-arc second position to the community. The data from the TAROT telescopes are useful to study the evolution of GRBs, the physics of the fireball and of the surrounding material. The TAROTs are also used for the multimessenger follow-up of the Advanced Virgo and LIGO gravitational observatories, as well as the ANTARES high energy neutrino deep-sea facility. The TAROT network observes also other sources like SNs, RR Lyrae, occultation of solar system bodies, and more generally is adapted to the study of variable/rapid phenomena.

There is the possibility of asking for time on the 3 TAROTs through the CADOR server. The scheduling system of TAROT scan requests that are in form of several "scenes", each requiring a set of actual telescope configurations (exposure time, filter, coordinates, eventually time constraints). An interface on CADOR allows the user to build the requests. The TAROT web pages are at <http://tarot.obs-hp.fr/tarot/>.

**8. MiniTAO:** MiniTAO will not be operational during 2017A.



## **4.4 Radio Telescopes**

**1. NANTEN2:** Nanten 2 will no be operational during 2017A.

**2. ASTE:** The instruments available for next season will be exactly the same as this season, i.e., we will have DASH345 and ASTE Band 8 available for the receives. The receivers can be connected to either the MAC or WHSF spectrometer.

Please refer to the status report presented here

<http://alma.mtk.nao.ac.jp/aste/instruments/index.html>

for the status and specs of the instruments.

For the observing time available to the Chilean community, it will be 10 nights (120 hours).

*Ricardo R. Muñoz  
on behalf of the CNTAC, October 2017.*