

Notes on Chilean Access to use the GROND instrument at the 2.2m telescope at La Silla

Preamble:

- As of October 2013 ESO ceased the operation of the MPG 2.2m telescope and does not offer observing time on it to its community. ESO continues to support the operation of the MPG 2.2m telescope by providing the required infrastructure and operational and technical support to MPIA as defined by those parties.
- The Max Planck Society continues the operation of the 2.2m telescope under its own responsibility at least until September 2016. MPE and MPIA share the available observing time on the 2.2m telescope.
- The Chilean community has access to 10% of the available telescope time on the 2.2m telescope. The time allocation for the Chilean observing time is performed by the Chile-CNTAC, an entity of the Universidad de Chile.
- There are three scientific instruments available at the telescope. Chilean access to FEROS and WFI is defined through an agreement between MPIA and the Chilean community. The following agreement describes access to the GROND instrument for the Chilean Community, the regulations for the MPE ToO observing program and the exchange of observing time in compensation for MPE ToO observations during the Chilean observing nights.

It is agreed as follows:

Article 1 – Exchange of observing time

One of the prime GROND science interests of MPE is the observation of gamma-ray burst (GRB) afterglows and other transients as soon as they are discovered. This requires a target-of-opportunity (ToO) observing mode. To allow GROND ToO observations during the 10% Chilean allocation, the following regulations will apply:

1. MPE is granted ToO override permission during the Chilean time at the 2.2m telescope for up to 15% of the Chilean time, under the conditions detailed below.
2. The Chilean community is compensated by up to 5 nights per year additional time at the 2.2m telescope from the MPE contingent of regularly scheduled observing time. The compensation time will be adapted according to the time used by MPE ToO observations in the previous semesters, unless by mutual consent MPE and CNTAC agree to a carry-over of unused time to the next semester.

3. There is no a priori restriction on the number of nights available to the Chilean community on GROND other than the limits set by the 10% of total 2.2m time plus compensatory nights.

1.1 Details of the time allocation

The time accounting is based on the corresponding ESO procedure that is also used during MPG time, i.e. the length of a night is counted as the time during which the Sun is less than 18degrees below horizon.

Even numbered ESO periods (P96, ...) have 1428hr total observing time, odd periods 1887hr, corresponding to a mean 9.08 hr/night. The 5 additional nights for Chile, corresponding to 45.5 hr, will be split into 2 nights during even periods and 3 nights during odd periods.

The total of 15% of ToO override time is computed after taking into account weather losses, i.e. shall be 15% of the actual Chilean observing time. Also, it shall include Chilean observing time that has been rendered useless due to an MPE-ToO trigger. The 15% share shall be the average per semester, rather than per Chilean observing period or observing run of each individual observer. Every attempt will be made not to penalize individual Chilean observers.

MPE is also awarded up to 15% of the twilight time (Sun between -12 and -18 deg) for calibration purposes or exceptionally bright events. If the Chilean observer explicitly does not use twilight time, this time could also be used by MPE after mutual agreement.

The following maximum MPE ToO time during Chilean nights is set in order to not jeopardize short Chilean programs.

- 1 night run: maximum ToO time = 15% of that night
- 2 night run: maximum ToO time = 15% of both nights, can all be taken in one night, by mutual consent between the observer and MPE
- >2 night run: maximum ToO time per night = 30% of a given night, provided that the total time per run does not exceed 15%, by mutual consent between the observer and MPE

1.2 Execution of MPE ToO observations during Chilean observing periods

MPE ToO observations during Chilean time will, in general, be executed in service or "remote observing" mode. The MPE observer (typically in Garching) and the Chilean visiting astronomer (VA) will coordinate to find the best compromise of observing time. The observation will be executed by the MPG-TiO at La Silla or remotely by an MPE observer. When done, the telescope will be returned to the VA.

No compensation for weather losses is foreseen.

Except for the rare occurrences of nighttime GRB triggers (of order 15% of all triggers) MPE will notify the TiO and the Chilean visiting astronomer in advance of the upcoming GROND ToO observation. This is typically done in the late afternoon local (La Silla) time. In the case of a planned ToO observation shorter than the visibility period of the target, MPE will coordinate the time of the ToO observation with the VA at the start of the night. A dedicated GROND laptop has been setup in the NOB that allows a Skype communication between La Silla and the remote MPE observer.

On a total of approximately 5-7 nights per year (so possibly on 1 Chilean night per year), a GRB trigger will occur during nighttime. These are the most precious triggers for MPE and ToO observations will start automatically without a human in the loop in a so-called Rapid Response Mode (RRM). Such occurrences cannot be predicted and thus communicated in advance – but these are rare events. In order to be prepared for such occasions, the RRM should always be online during nighttime (weather permitting).

In cases of time sensitive observations, the Chilean visiting observer can block up to 50% of his/her time from interruptions due to RRM triggers as “time critical”. These periods shall be agreed between the Chilean observer and MPE at least 1 night prior to the start of the corresponding observing run.

MPE will maintain a commonly accessible Web- or Wiki-Page that shall show the status of the ToO override time (and fraction) by MPE. MPE will also set up a separate webpage on the internal La Silla server, which describes the above scheme. This is intended as information for Chilean VA and the MPG TiOs.

1.3 Regulations for Chilean Programs

The Chilean observing programs shall be compatible with the technical and scientific operation of the telescope as agreed between ESO and MPIA.

The Chilean observations shall not deviate from the programs approved by the CNTAC.

After proposal assessment, CNTAC provides to MPE a list of ranked proposals for use of Chilean time on GROND. The final allocation of the programs is made in coordination between MPE, MPIA, and the CNTAC chair.

Article 2 – MPE and CNTAC Commitments

MPE is fully responsible for the operation and maintenance of the GROND instrument and its associated control systems.

CNTAC will duly inform the successful Chilean PIs that potential problems with the instrument or related software, recognized during Chilean time slots, should be immediately communicated to MPE (specifically to grondobs@mpe.mpg.de),

and that Chilean observers should not deviate from the operational instructions as laid down in the “Operations at the La Silla 2.2m telescope” document available in the GROND wiki as well as at <http://www.astro.puc.cl/2.2m> . Failure by the PI to do so may result in a ban for future GROND runs. No compensation will be provided to CNTAC for time losses related to technical problems with the instrument.

Article 4 – Entry into force and termination

The agreement enters into force on April 1st, 2016, and expires on September 30th, 2016. It can be renewed by exchange of notes between MPE and CNTAC. The Chile-ESO Committee will be duly informed.

MPE will inform the CNTAC in writing if GROND operation has to be terminated or if the rules need to be modified and normally with anticipation and on the basis of important and justified reasons.

Article 5 – Data handling and distribution

According to the ESO-MPG agreement, ESO transfers all GROND, WFI, and FEROS data automatically to the ESO Science Archive in Garching. The Chilean VA shall obtain the data from this archive. MPE does not provide separate data access. Chilean VAs are solely and fully responsible for obtaining the appropriate calibration data. GROND data obtained by Chilean observers will have a standard proprietary period of 1 year, except otherwise agreed upon.

Publications based on data obtained with GROND as part of this agreement shall make reference to the GROND instrument paper (Greiner et al. 2008, PASP, 120, 405) and include the following statement:

“Based on data collected with the MPE GROND PI-instrument at the MPG 2.2m telescope at the ESO La Silla Paranal Observatory.”

Points of Contact

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