TIPS FOR SUCESSFUL CNTAC PROPOSALS

The CNTAC has the impression that the Chilean proposals, although mostly scientifically very interesting, could often be improved in style. Below we therefore present some criteria that are used by the CNTAC to evaluate the proposals and compiled a list of hints that may be helpful for the Chilean astrophysical community.

Criteria for Selection of CNTAC proposals

Evaluation of CNTAC observing proposals are based on the following selection criteria, which are in general order of importance:

1. Scientific merit of the project and the expected impact of the observations
2. Importance to astronomy in general
3. Expertise of the applicants
4. Demonstration of truly Chilean involvement of the project (or, alternatively, importance to Chilean community) and participation of Chilean graduate students (whenever the main institution has a graduate program)
5. Demonstration of how the results will be made public
6. Demonstration of timely publication of these results and productivity of applicant(s)
7 Technical feasibility and justification for requested time/instrumentation

Tips for a Successful Proposal

Your proposal should take into account the above mentioned CNTAC criteria, have a clear structure, and should be written straight to the point. The science case of a good proposal could have the following structure:

Astrophysical context
The introduction should answer the "so what?" question and have one single direction: towards the problem(s) you wish to address. Start with the big picture, end with your particular question(s) and describe the impact of the latter on the first in between. Introduce the reader to the field in a way that can be **easily understood by non-experts** and make very clear just what (important) scientific question(s) will be addressed by the proposed observations. This section is essential because the CNTAC is rather small and must cover a wide range of astrophysical expertise.

Science goal
In this section we expect you to answer: **what hypothesis will be tested?** This section should only address the problem(s) outlined in the previous section. Please do not answer any question you did not introduce the reader to. More concrete, if you outlined three problems in the first section, you should describe how you expect to obtain answers/constraints to exactly these three problems. Explain in detail **to what extent the important problems will be solved by performing the proposed observations.** Do they already contain the complete answer(s) or will they just provide first constraints? How many additional observations are needed?

Specific goal
Provide criteria for the selection of the sample. **Why do you need this number of targets?** Explain in detail how you will analyze the data and what information will be directly extracted from the data. Describe how this information will be used to obtain the scientific goal.

Technical case
The technical sections should contain detailed answers to the following questions: **Why this telescope (or these telescopes)?** What are the required (and expected) spatial and/or spectral resolutions? What is the required (and expected) signal-to-noise? What are the required weather/moon/seeing conditions? **What is the justification for the number of nights requested (for the proposed run AND the entire program)?** If new or unusual techniques are to be used, how will the observations be calibrated, reduced, and analyzed? Are the observers experienced in the required techniques? The applicants should **avoid proposals which are difficult to schedule** such as half nights in visitor model or too many scheduling constraints.

Figures
The inclusion of figures is highly recommended. However, please only add figures that help the CNTAC to understand the proposal. Also, the figures themselves should be easy to understand and read. If observations that are related to the proposed observations have been performed in the past, please show the results (reduced spectra, obtained light curves etc...) - this is usually quite convincing.

General rules for scientific writing

Finally we wish to emphasize the two most important ingredients for high-quality scientific writing.

1) Brevity: Don't be wordy, don't not repeat yourself, don't add anything that does not matter in the context of your proposal. To write a concise proposal requires critical and exhaustive draft-reading. We refer to the famous mathematician Pascal who mentioned in a letter to a friend: "I am writing a longer letter today because there is not enough time to write a shorter one".

2) Simplicity: If you write simple, it does not mean that you are addressing a simple problem. Conversely, it just reflects your profound understanding and your ability to deal with complexity.