

# Australia Telescope National Facility

To: ATUC  
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Subject: **Proposed changes to the ATNF TAC**

## Summary

The ATNF Time Allocation Committee (TAC) has an essential role in the allocation of telescope time, through the scientific assessment of proposals. The current TAC has eight voting members. At present the reviewing work load on individual members is very high. Here, we discuss a proposal for the ATNF to appoint TAC ‘readers’ to assist the TAC members by providing comments and grades on proposals prior to a TAC meeting.

Following final revisions to this proposal, we recommend that the changes to the TAC processes be introduced from 2009 OCTS. Comments from ATUC are most welcome.

## 1. The current Time Assignment Committee

The ATNF TAC is advisory to the ATNF Director. Its members are appointed by the ATNF Steering Committee (ATSC) while the TAC Chair is selected by the ATNF Director from the current membership. No single institution has a majority of members on the TAC. Currently the TAC has eight voting members, with two from the ATNF, five from other Australian institutions and one overseas member. The TAC Chair is Andrew Hopkins (AAO). In addition to the voting members, the TAC meetings are attended by the Head of Science Operations (Phil Edwards), the Assistant Director for Operations (David McConnell) and the Operations Research Program Leader (Jessica Chapman). The technical assessment of proposals and their feasibility is largely provided by ATNF staff including Phil Edwards & John Reynolds.

Each semester the TAC reviews the proposals submitted through OPAL for observing time with the Australia Telescope Compact Array (ATCA), the Parkes radio telescope, the Mopra radio telescopes and the Long Baseline Array. Service proposals for the Tidbinbilla 70-m antenna are also assessed. Time is allocated on the basis of scientific merit. Typically 140 proposals are received for the summer semester, while 200 proposals are received for the winter semester when the millimetre facilities are available. The highest-ever number of proposals, 230, was received for the 2008 APRS.

Prior to a TAC meeting, each proposal is read by three or four TAC members who return preliminary grades and comments. The TAC pre-grades and comments are discussed at the TAC meeting and a proposal may be re-graded after the discussion. One TAC member is assigned as the primary reader who introduces the proposal at the TAC meeting and is responsible for the final comment that is sent back to proposers after a meeting. A triage system is used to allow more time for the discussion of middle-ranked proposals and less time for proposals with the highest and lowest ranks.

Shortly after a TAC meeting the final comments and the TAC grades are sent back to the proposers. The schedules for ATCA, Mopra & Parkes are prepared by the Head of Science Operations and made available on the web about one month prior to the start of a semester. Tidbinbilla and LBA proposals remain in a pool of active proposals for up to 12 months.

## **2. TAC issues**

The TAC processes have evolved since National Facility operations began in 1990 and generally work well. However, the number of proposals received has significantly increased over the last five years and the work load on individual TAC members is very high. Each semester, the TAC members are each asked to review 80 – 100 proposals and to provide detailed comments on a subset of these. A further concern is that, although the TAC members are selected to cover a broad range of expertise, it can be difficult for the TAC to have sufficient expertise to cover all of the many areas of scientific research discussed in the proposals. This can also apply in particular when a TAC member is included on a set of proposals (for example pulsar or star-formation proposals) and is therefore excluded from the discussion of those proposals.

Many changes are now taking place in the ATNF with the development of ASKAP and it is expected that from 2012 ASKAP will be a part of National Facility Operations. The TAC will then be responsible for the scientific assessment of ASKAP Guest Proposals. These are projects that will require up to 1500 hours of ASKAP time. ASKAP Guest proposals will be submitted through OPAL and assessed by the ATNF TAC together with the proposals for current ATNF facilities.

The TAC will not assess the large ASKAP Survey Science Projects. Following a call for Expressions of Interest, proposals for Survey Science Projects have been invited with a deadline on 15 June 2009. These will be reviewed by a separate Survey Science Project Assignment Committee.

## **3. Proposed changes to TAC processes**

The need to make some changes to the ATNF TAC was first discussed with ATUC at the meeting in May 2008. Since then further discussions have been held with the ATNF Director, the current TAC and individuals who serve on external time assignment committees (in particular NRAO). The original proposal has been revised with consideration of the input received.

We recommend that some changes be made to the ATNF TAC processes. The aims of these are to:

- reduce the work load for individual TAC members;
- broaden the scientific expertise and the number of reviewers available for the assessment of proposals.
- increase the involvement of overseas users in the TAC process; and
- introduce changes that will facilitate the scientific assessment of ASKAP Guest Proposals from around 2012.

To achieve these goals we propose that from 2009 OCTS:

- The TAC members will be supported by a pool of TAC ‘readers’.
- As at present, TAC members will be appointed by the ATNF Steering Committee. TAC members will have access (as they do now) to all proposals submitted for a semester.

- Approximately 20 ‘TAC readers’ will be appointed by the ATNF Director, usually for a term of three years, drawing in astronomers from Australian and overseas institutions. The TAC readers will not attend meetings but will send their grades and comments on a subset of the proposals as input to the meetings. TAC readers will have access only to the subset of proposals that they review.
- Proposals will be assigned using a scheme where science keywords are matched between proposals and the expertise of TAC members and readers. Each proposal will be assigned to at least one TAC member and two TAC readers. The TAC member assigned to the proposal will be responsible for the final comment that is sent back to the proposers, and for coordinating any discussion needed with the readers for that proposal.
- Prior to a TAC meeting, each member and reader will provide pre-grades and comments for a subset of the proposals. Where there is a significant difference of opinion on a proposal, or a large dispersion in the proposal grades, the responsible TAC member will discuss this with the relevant readers by phone or email prior to the TAC meeting.
- The TAC meetings will be held as at present. TAC members will attend the twice-yearly meetings to review the proposals, provide grades and comments for the proposers, and to ensure that the proposals have been graded consistently. Proposers will receive TAC comments and grades by email as they do at present.

### ***Discussion***

We note this proposal is somewhat different to the preliminary model discussed with ATUC in May 2008. Previously we considered restructuring the TAC to have six science panels with the panel Chairs attending the TAC meeting. The proposal discussed here does not have such panels and the TAC will continue to have a single Chair with discussion held at the meeting by the members.

The TAC member and readers assigned to a proposal will be on a proposal-by-proposal basis. After discussion of different options, including science panels, we consider that this allows the greatest flexibility in assigning proposals to the most appropriate reviewers on the basis of scientific expertise.

We note that there are similarities and differences between this proposal and the NRAO time assignment committee. NRAO send proposals out to many reviewers and returns the raw comments and a grade back to the proposers. A meeting is then held to see how time will be allocated but this is not attended by the proposal reviewers.

With the addition of TAC readers the work load for individuals will be significantly reduced to approximately 25 proposals for each individual. It will be important to ensure that each reader receives a sufficient number of proposals ( $\sim 10$ ) to assess their grading for consistency with other readers and members.

There will be some increase in the amount of ATNF administration required. To keep this to a minimum OPAL will be upgraded to provide tools for assigning proposals and coordinating the comments and grades received from TAC members and readers. TAC members and readers will be asked to declare any conflict of interest involving proposals assigned to them, and a tool will be provided in OPAL to facilitate this. When this occurs the proposal will be reassigned.

