

# Australia Telescope National Facility - Time Assignment Committee Procedures and Responsibilities

November 2014

## Executive summary

The purpose of this document is to summarize TAC procedures for ATNF staff, TAC members, TAC readers and the user community. It also lists the responsibilities of all members of the TAC process and includes explicit statements around confidentiality and conflicts of interest.

The TAC Executive Officer in consultation with the ATNF Head of Science Operations, the ATNF Head of National Facility Science, the ATNF Assistant Director – Operations, and ATNF Director, has compiled it from information within current policy and user manuals.

# Australia Telescope National Facility - Time Assignment Committee Procedures and Responsibilities

This document describes the current procedures and responsibilities of the Australia Telescope National Facility (ATNF) Time Assignment Committee (TAC) in relation to the scientific ranking of proposals and subsequent allocation of telescope time on Parkes 64m telescope, Australia Telescope Compact Array (ATCA), Mopra 22m telescope, Tidbinbilla 70m and 34m telescopes, and the Long Baseline Array (LBA)<sup>1</sup>. The contents of this document have been collected from a number of policy and user manuals: its purpose is to summarize and provide a description of the TAC.

## Overview

The ATNF Steering Committee (ATSC) appoints an independent TAC to assess proposals for the scientific use of the facilities. The ATSC also advises the ATNF Director on the appropriate policy guidelines for the TAC. The TAC's primary responsibility is to review and grade proposals based on their scientific merit and technical feasibility. The subsequent scheduling of proposals on the facilities is consistent with the scientific priorities determined by the TAC, and is the responsibility of the ATNF Director through the ATNF Head of Science Operations. The ATNF Director is also responsible for the coordination of the TAC through the TAC Executive Officer.

The TAC is an advisory committee to the ATNF Director.

## Membership

The Committee is made up of nine members, who are appointed by the ATSC. Appointments to the TAC are usually for 3-year terms and aim to maintain a balance of scientific expertise, experience, gender, and institutional representation. TAC members are selected from the Australian community. In the event that a TAC member is unable to participate in the review process for a given semester, a substitute member, approved by the ATNF Director, may be appointed. The ATNF Director appoints the TAC Chair from the current TAC membership. The TAC Chair is not normally an employee of CSIRO.

The TAC is supported by a group of approximately 10 TAC readers who are appointed by the ATNF Director. TAC readers are appointed for 3-year terms and are drawn from both the national and international communities. TAC readers review a subset of the proposals. TAC readers do not attend the meeting. Their grades and comments are sent prior to the meeting and are combined with those from the TAC members to assist with the discussion. Unlike the TAC members, who have full access to all proposals, the TAC readers only have access to the subset of proposals that they review.

TAC members attend the meeting in person, along with the TAC Executive Officer and ATNF Head of Science Operations. As necessary, the ATNF Assistant Director – Operations, ATNF Head of National Facility Science, and ATNF Director also attend the meeting to discuss relevant policies, procedures, and to solicit input from the Committee.

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<sup>1</sup> The TAC will also have a role in the review of ASKAP projects, but the process has not yet been finalized.

## Responsibilities

### TAC member

- Confirm availability to review proposals and attend the TAC meeting
- Provide science keywords so that proposals can be matched to their expertise
- Report any conflict of interest when proposals are allocated for review
- Review assigned proposals, provide pre-grades/comments by the nominated deadline
- During the meeting, lead the discussion for those proposals for which they have been assigned as the primary reviewer. Contribute to other discussions as necessary
- Finalize each proposal grade after discussion with the committee
- Summarize the discussion, providing written feedback for the proposal team
- Undertake any additional tasks as directed by the TAC Chair during the meeting
- Maintain confidentiality about the proposals, TAC discussions and review outcomes

### TAC Chair

In addition to the responsibilities of a TAC member, the TAC chair also

- Conducts the business and outlines procedure for each meeting
- Liaises with the TAC Executive Officer and ATNF Head of Science Operations on matters arising from the meeting or on suggestions for policy/procedure updates
- Oversees all grades and feedback given to the proposal team

### TAC reader

- Confirm availability to review proposals
- Provide science keywords so that proposals can be matched to their expertise
- Report any conflict of interest when proposals are allocated for review
- Review assigned proposals, provide pre-grades/comments by the nominated deadline
- Maintain confidentiality about the proposals and review outcomes

### TAC Executive Officer

- Open OPAL for proposal submission, close OPAL at proposal deadline
- Assign proposals to TAC members and readers
- Reassign any proposals where reviewers have a conflict of interest
- Collate relevant information for large projects and pre-graded proposals
- Process the pre-grades and comments from TAC members and readers
- Set meeting agenda, distribute minutes from previous meeting
- Adjust grades as necessary during the meeting
- Document the discussion during the meeting, noting any suggestions for upgrades to OPAL or TAC processes
- Finalize grades, review comments; Release grades and comments to community
- Liaise with the TAC Chair on matters arising during the meeting
- Review TAC policy and TAC membership (via ATNF Director and ATSC)

### Head of Science Operations

- Issue Call for Proposals, set proposal deadline
- Provide the Science Operations Report for each semester at the TAC meeting
- Brief the TAC on total time requests, array configurations, receiver requests etc
- Liaise with technical reviewers and provide any relevant technical/scheduling information to the TAC during the discussions
- Schedule the proposals once the grades have been finalized
- Release schedules to the community
- Provide input for OPAL on time allocation for each proposal
- Generate abstracts of scheduled proposals for ADS

## Conflicts of interest

Members and readers are expected to abstain from grading those proposals for which there is a significant conflict of interest. During the proposal review any person attending the meeting (as a TAC member or ATNF staff) that may have a conflict of interest is asked to leave the room.

In order to ensure that all proposals are treated fairly and without bias, any potential conflicts must be identified and declared. An individual is considered to have a potential conflict of interest if one or more of the following is true:

- They are a PI or a Co-I on a proposal under consideration
- They are a spouse, partner or other family member of a proposal author
- They are a current or recent close collaborator of a proposal author
- They are a former or current student or advisor of a proposal author
- They have any other reason to believe they cannot render a fair and impartial judgment on the scientific merit of the proposal.

Any TAC member or reader who is unsure about whether or not they have a conflict of interest for a particular proposal should consult with the TAC Executive Officer.

## Confidentiality

Both ATNF staff and external members of the scientific community participate in the proposal review process. They will regularly be exposed to confidential information and proprietary data and ideas. The information, data, and ideas discussed as part of the proposal review process must be held in confidence and not disclosed to others.

However, several exceptions apply according to the role of the individuals in question:

- Members of the TAC may disclose and discuss the contents of any proposal assigned to them with one another, consistent with the conflicts of interest policy
- ATNF staff serving as technical reviewers may need to consult with each other to ensure a fair and complete assessment of technical elements of a proposal. Hence, technical details may be disclosed and discussed internally by relevant staff as needed.

All proposals must be disposed of using secure destruction methods.

## Proposal submissions

ATNF accepts observing proposals twice a year to coincide with the APR and OCT semesters (covering April 1—September 30 and October 1—March 31 respectively). The Call for Proposals is released approximately one month before the proposal deadline.

The proposal deadline for the APR semester is nominally mid-December, and for the OCT semester is nominally mid-June (5pm Sydney local time). The exact date for each deadline is announced in the Call for Proposals and is selected to coincide with the latter half of the working week.

Proposals for observing time are only accepted via OPAL, the online proposal tool, and must be submitted before the proposal deadline.

## Proposal Assessment Criteria

Proposals are assessed on their scientific merit. All proposals should contain:

- A concise science abstract on the proposal cover sheet. This clearly states what the question is and what you plan to do to answer it.
- A clear and concise outreach statement on the proposal cover sheet that avoids technical jargon.
- A scientific justification that includes:
  - A summary of the background and any previous observations showing why the topic is important
  - Detailed and specific science goals - e.g. test a particular hypothesis
  - An explicit statement about how the proposed observations will address the science goal(s)
  - A clear description of the source selection criteria with a quantitative justification of the sample size
  - A quantitative estimate of expected flux density and required signal-to-noise
  - A clear justification for array and/or backend configuration, cadence of the observations etc

Any proposal that is a resubmission should also include:

- A report on observations to date, particularly from previous semesters which have not yet been published
- A detailed response describing how the TAC comments from previous semesters have been addressed.

All proposals should be written in clear English and aimed at an astronomer who is a non-expert in your particular field.

For standard proposals, and for NAPA proposals that do not meet the criteria for Large Projects, the scientific case must not exceed three pages in total including figures and references.

Projects requesting more than 400 hours of observing time over their lifetime fall into the category of Large Projects. In addition to the three-page scientific justification, an additional two pages are allowed and should define the mandatory data analysis and timeline plans, data release plans, and public outreach plan. Additional figures supporting the scientific justification can be included within the two additional pages if desired. Proprietary periods for Large Projects are the same as for other projects, but early data release plans and waivers of proprietary periods are looked upon favourably.

If appropriate, Large Projects can be given “pre-graded status” for the following semester. In these cases, the grade from the current semester will be carried over to the next semester and the PI need only submit a cover sheet and observations table (with revised dates). A full proposal, which includes a progress report, is required for any additional time request.

The TAC will use these guidelines to review proposals. The TAC may reduce a proposal grade where the scientific case is over the page limit.

## Proposal review

The TAC meeting is usually held 6 weeks after the proposal deadline. Proposals are allocated for review on a proposal-by-proposal basis using a scheme that makes use of science keywords. All proposal cover sheets include a selection of science keywords that best describe their proposals. The TAC members and readers identify their areas of expertise from the same set of keywords. Within OPAL an algorithm then solves the “combinatorial assignment problem” to assign a set of proposals to each reviewer. While this assignment follows as closely as possible the expertise of the reviewer and the science keywords given in the proposal, an expert reviewer should not be assumed when writing the proposal.

Typically at least four people, two TAC members and two TAC readers, review each proposal. For new Large Projects an additional TAC member may be assigned to review the proposal. Before each meeting, all TAC members and readers provide pre-grades and comments for their allocated proposals using the following guidelines:

- 5 = outstanding proposal
- 4 = well above average proposal
- 3 = reasonable proposal
- 2 = below average proposal
- 1 = technically/scientifically unfeasible proposal

Fractional grades are permitted. Members and readers are encouraged to spread their pre-grades over a broad range. These pre-grades are normalized before the meeting to a common mean and standard deviation.

The TAC meets early February and late July, to assess and grade proposals for the APR and OCT semesters respectively. The meeting is held at ATNF headquarters in Sydney.

During the meeting each proposal is discussed in turn: the order is determined by cycling through primary reviewers. A triage process is adopted whereby proposals with the lowest and highest normalized pre-grades are not discussed unless there is a considerable dispersion in the pre-grades. The TAC member who was assigned as primary reader leads the discussion for that proposal. They give a brief summary of the proposal, including their scientific opinion and those of the other reviewers. TAC members assigned to the proposal discuss it with the committee.

At any point during this discussion, the TAC members may adjust their grade in the light of the discussion. If, in extreme cases, the grade of a TAC reader is deemed to be in violation of TAC guidelines or based on incorrect information the TAC Executive Officer will assign an additional TAC member to review the proposal and provide a grade and comments. The TAC Executive Officer may ultimately elect to exclude the reader's grade from the final averaged grade after consultation with the TAC Chair.

After consultation with the TAC Executive Officer and TAC Chair, any TAC member may also add a grade and comment for any proposal for which they were not specifically assigned. When this occurs the committee defers the discussion and finalization of this grade until after the additional TAC member has sufficient time to review the proposal (but before the conclusion of the meeting).

The primary reviewer is responsible for compiling the final comments that are sent back to the proposers, based on the information provided prior to the meeting, together with any additional information discussed at the meeting.

Proposals are graded scientifically for the number of hours requested. However, the TAC may choose to recommend a reduction in the scope of a project and will provide an additional grade for this smaller allocation. This is often done in cases where a small pilot study would be beneficial to show success before a large project can be judged on its scientific and technical merits.

The proposals of PhD students typically do not receive special consideration. However, some priority may be given to those deemed essential for completion of a student's thesis, where such a case has been made in the proposal itself.

## Final grades and comments

After the meeting, the final grades and comments are reviewed by the TAC Chair, TAC Executive Officer, and Head of Science Operations. The final grades and comments are made available through OPAL to all members of the proposal team. An email notification is sent to all proposers when the grades and comments become available, typically within two weeks of the TAC meeting.

## Scheduling

Once the grades have been finalized, the scheduling process commences. Schedules are typically released one month before the beginning of the semester. An email is sent to all proposers when the schedules for the ATCA, Mopra and Parkes are released. Time is blocked out for LBA observations when the schedules for each semester are made, but detailed LBA schedules are determined closer to the time of each LBA block, and the PIs of scheduled observations are contacted at that time. Proposals for Tidbinbilla are conducted in service-mode: PIs are contacted by staff before they are executed.

When the schedules are released the cover sheets and observations table of proposals that were successfully allocated observing time are made publicly available through OPAL. Information on these proposals is also provided to the SAO/NASA Astrophysics Data System (ADS). The scientific justifications are not made publicly available.

Non A Priori Assignable (NAPA) proposals are those that describe a well-defined set of observations in response to a trigger, which is unpredictable in time. They are submitted as normal proposals and evaluated by the TAC and assigned a grade. If triggered they may displace any lower ranked proposal at the Head of Science Operations' discretion.

Time that remains unallocated after the scheduling process will be designated as Director's time. The ATNF Director will have overall authority for its allocation.

## Compliance

To ensure that all participants in the proposal evaluation process are aware of, understand, and agree to comply with observatory policy regarding procedure, their responsibilities, confidentiality and conflicts of interest, they will receive a copy of this document for review prior to participation in the process. They are required to acknowledge receipt of the policy and agree to comply with its terms.

FOR FURTHER INFORMATION

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Document updates

Version 1.0 January 2014 – PGE

Version 1.1 February 2014 – JMR

Version 1.2 April 2014 – PGE, JMR, NMCG

Version 1.3 May 2014 – PGE, JMR, NMCG, DB, LB

Version 1.4 November 2014 – JMR, PGE, DB, LB

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This document has drawn from a variety of sources, including an article in the ATNF News of Oct 2009 (pp 38-39), the Australian Time Allocation Committee (ATAC) Policies and Procedures, the NRAO Conflicts of Interest and Confidentiality Policies, and the previous compilation of TAC policies.