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Anglo Australian Telescope Time Allocation Policies and Procedures

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Astronomy Australia Limited

Anglo-Australian Telescope Time Allocation Policies and Procedures

Preface

This document describes principles of access to Anglo-Australian Telescope (AAT) at Siding Spring Observatory (SSO) under the renewed AAT Consortium Agreement signed on 01 Dec 2021 between 11 Australian Universities. The document defines time allocation policies and procedures on the AAT and other optical telescopes available to the Australian astronomical community, as directed by Astronomy Australia Limited (AAL) from time to time. The document includes the policies and procedure of the Australian Time Allocation Committee's (ATAC), that were originally developed by the Australian Astronomical Observatory (AAO) but are now maintained by AAL. From 1 July 2018, ATAC has operated as an AAL committee.

The document is designed to assist ATAC members and observatory staff.

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1 Background

- 1.1 In 2017, the Commonwealth of Australia entered into a 10-year strategic partnership with the European Southern Observatory. The Commonwealth subsequently repealed the Australian Astronomical Observatory Act 2010¹ (the Act) and disestablished the AAO, effective 1 July 2018.
- 1.2 From 1 July 2018, an AAT Consortium has overseen AAT funding, operations and access, where:
 - a) the Consortium is an unincorporated collaborative joint venture, comprising AAL and several Australian universities;
 - b) AAL is a not-for-profit company limited by guarantee, whose members comprise Australian universities and research organisations with a significant astronomical research capability;
 - c) the Consortium is governed by an AAT Council comprising Consortium member representatives;
 - d) the Consortium is managed by AAL on their behalf;
 - e) the Australian National University (ANU) operates the AAT for the Consortium, under a research services agreement with AAL.
- 1.3 Also from 1 July 2018, the time allocation functions described by Section 11 of the Act [items 11(2)(d) and 11(2)(k)], namely facilitating access to optical astronomy facilities and implementing Australia's international obligations in relation to optical astronomy, became the responsibility of AAL's Australian Time Allocation Committee (hereafter, ATAC).
- 1.4 From 01 July 2022, under the renewed AAT Consortium agreement, the AAT time is available only to the AAT Consortium members or others paying for access.
- 1.5 The AAT Consortium Partners receive base² allotments commensurate with the level of their funding contributions.
- 1.6 The AAT Consortium Partners can reserve their allotments for projects of their choice, or pool some or all of their allotment for the AAT Shared time allocation managed by ATAC.
- 1.7 ATAC manages time allocation for the following telescopes:
 - a) The AAT, governed by the AAT Council on behalf of the AAT Consortium;
 - b) other optical telescopes for which national access agreements for Australian astronomers exist and are governed by AAL.
- 1.8 AAL will solicit nominations for ATAC as and when required and may seek the advice of the AAT Council or an AAL advisory committee (as appropriate) in making new appointments to ATAC.
- 1.9 ATAC ranks the proposals submitted via the ATAC Call for Proposals based on scientific merit and assigns each one an appropriate number of nights or hours.

¹ Itself preceded by the repealed *Anglo-Australian Telescope Agreement Act 1970*.

² Terms explained in Appendix A: AAT Time Allocation Model

2 Types of Telescope Time

- 2.1 Each telescope may have specified fractions of Open time, Shared time, Paid time, Reserved/Guaranteed time and Director's time, which will be set by the governing entity for the telescope. These fractions will be advertised in the Call for Proposals for each telescope.
- 2.2 From time to time Astronomy Australia Limited (AAL) may enter agreements on behalf of the Australian astronomical community for use of optical telescopes via Open time that is available to Australian proposals as defined in terms and conditions specific to these agreements.
- 2.3 The terms and conditions for Paid time, including the nightly or hourly rate, are determined by the relevant governing entity for each telescope. These terms and conditions (or the contact for negotiating them) will be advertised in the Call for Proposals for each telescope. Note that Paid time may include time obtained in exchange for either cash or some other consideration (such as time on another telescope or access to a visiting instrument), at the discretion of the relevant governing entity.
- 2.4 Director's discretionary time is used for a variety of purposes determined by the governing entity for each telescope, but typically includes telescope maintenance, mirror aluminising, compensation of time lost due to technical issues, instrument commissioning, technology development, and exceptional time-critical observing programs.
- 2.5 The AAT offers the following types of time³:
 - Shared time is available only to astronomers/researchers affiliated with the AAT Consortium universities (Partners). Shared Nights are contributed by Partners from their Partner Allotment to a common pool of nights allocated on merit by ATAC. The eligibility of the proposals for Shared time is determined by the principle described in §2.6.
 - Reserved time is contributed by Partners from their Partner Allotment and it is available only to astronomers/researchers affiliated with the AAT Partners. All Partners can choose to reserve all or a portion of time from their base allotments.
 - Paid time is available to both Australian and non-Australian proposals. Australian based researchers affiliated with Partners may apply for Partner Paid time if any unfunded nights are available for a given semester; all other researchers may only apply for Third Party Paid time.
 - Director's discretionary time (see §2.4) will be decided by the Director with the guidance of the AAT Council representing the AAT Consortium.
- 2.6 Eligibility to Apply for Shared time:
 - I. Partner institutions will be considered "Shared Time Eligible" if:
 - (a) their Partner Allotment of time (after any exchanges with other Partners) is 5n or less in the semester, or;

³ See Appendix A for explanation of terms and more details.

(b) they provide 30% or more of their Base Allotment of time to the Shared Pool. The 30% threshold nights must be split in lunation pro rata with the Base Allotment, (modulo rounding to the nearest integer number of nights), and must total to 30% of the Base Allotment (modulo rounding to the nearest integer number of nights). Nights added to the pool above the 30% threshold are not required to match the lunation distribution.

- II. Each proposal requesting Shared time will be evaluated for eligibility as follows.
- (i) "Night Contribution number" calculation: Partners with more than 5n in their Base Allotment for the semester will have a "Night Contribution number" equal to the number of nights put into the pool in the semester. Other Partners will have a "Night Contribution number" equal to either the number of nights in their Base Allotment for that semester or 4 nights, whichever is larger.
 - (ii) The "Night Contribution number" of each institution on the proposal that is "Shared time Eligible" will be summed. Partners that are not "Shared time Eligible" have a "Night Contribution number" of 0.
 - (iii) The proposal will be considered eligible to apply for Shared time and will be considered by ATAC, if the number of Shared time nights requested by the proposal does not exceed the sum of the "Night Contribution numbers" for each institution listed on that proposal.

2.7 Service time may be offered on a telescope under terms and conditions specified by the governing entity. Service time is typically made available for short-duration proposals where observations are carried out on behalf of the proposers and may be either Open time or Paid time. Service time is not offered for the AAT.

2.8 The amounts of Director's, Open, Shared, Reserved, and Paid time per semester on the AAT are as follows:

Period	Director's Nights	Open Nights	Reserved Nights	Shared (ATAC) Nights	Paid Nights	Paid Rate	Service Time?
2018B	15	≥ 119	No	≥ 119	≤ 50	On inquiry ¹	Yes
2019A-2022A	15	≥ 119	No	≥ 119	≤ 50	On inquiry ¹	No
2022B-2025A	15	No	< 142	< 142	< 50	Two-tier ^{1,2}	No

¹Enquires regarding the price of paid time should be directed to AAL.

²There are two rates: set Partner Paid Rate and negotiable Third-Party Rate (on inquiry)

3 ATAC Membership

3.1 ATAC has 7 members, including at least 1 international member. A substitute member will also be appointed by AAL in the event of an ATAC member being unavailable for a meeting of the committee.

- 3.2 ATAC appointments are usually 3-year terms. Appointments may be staggered to ensure a steady turnover in membership.
- 3.3 AAL will appoint ATAC members. New members will be drawn from a nominee pool AAL solicits via an open call to the community. AAL will seek committee representation encompassing a broad spread of specialisation, seniority, gender and institutional diversity. In particular, ATAC should be comprised of at least 40% female and 40% male members.
- 3.4 AAL will appoint a Chair and Deputy Chair from among the committee members.
- 3.5 AAL will appoint a Technical Secretary. The Technical Secretary is not a member of the committee.
- 3.6 The AAT Operator will provide secretarial support to ATAC. This support may be coordinated with the ATAC Technical Secretary and AAT Scheduler position.

4 ATAC Meetings

- 4.1 Observing time is allocated by semester, namely:
 - A. February – July (the 'A' semester), with nominal proposal deadlines of 5pm AEST on 15 October (AAT); and
 - B. August – January (the 'B' semester) with nominal proposal deadlines of 5pm ADST on 15 April (AAT).
- 4.2 The committee meets twice each year, usually in the first or second weeks of May and November, to assess and rank proposals for the following semester.
- 4.3 Prior to accessing the submitted proposals each semester, the committee will meet for approximately 30 minutes via videoconference to discuss the topic of unconscious bias in the review process, including reviewing the gender-based application and success statistics for ATAC-allocated facilities.
- 4.4 Four members constitute a quorum. At the meeting the Chair (or in their absence, the Deputy Chair) presides.
- 4.5 Allocations are made by a grading system (described below) carried out by the members present.
- 4.6 ATAC members may be required to vote on procedural or allocation matters. In the event of an equality of votes, the Chair (or Deputy Chair, if presiding) has a casting as well as a deliberative vote.
- 4.7 ATAC will meet either in person in Australia or via videoconference.
- 4.8 The following are guidelines for managing issues related to remote participation:
 - a) Remote participants must provide the ATAC Secretary with their pre-grades at least 24 hours in advance of the ATAC meeting.
 - b) Remote participants should aim to secure a backup option to connect to the meeting. If needed, AAL will support reasonable expenses for a high-bandwidth and reliable internet connection and its backup.

- c) The first two times a remote member is disconnected within any approximately 2-hour window, the panel will wait up to five minutes before resuming the live discussion without the remote member.
- d) For any additional disconnections within this window, at the Chair's discretion the panel will not suspend the discussion.
- e) Remote members whose participation in a proposal discussion has been affected by connectivity issues will not provide a grade for the proposal being discussed unless participation of the remote member was judged adequate by the Chair.
- f) For any proposal affected by connectivity issues, and for which the remote participant is lead reviewer, every attempt will be made to consider the proposal in full later in the meeting when the lead reviewer has re-connected. If that is not possible, the proposal will be considered by the remaining members, and the lead reviewer's pre-grade will be included in the final ATAC grade.

5 Time Allocation Process

ATAC's fundamental role is to rank proposals by scientific merit. For each telescope where time is allocated by ATAC, the following process will apply:

- 5.1 Committee members should grade each proposal based on scientific merit, using the following scale:
 - 5 = outstanding proposal;
 - 4 = above average proposal;
 - 3 = good proposal (i.e. average standard);
 - 2 = below average proposal;
 - 1 = technically or scientifically defective proposal.
- 5.2 ATAC can reject proposals not meeting an acceptable threshold of scientific merit and technical feasibility. Using the grading scale defined above, this means proposals with an ATAC-average grade ≤ 2.0 .
- 5.3 ATAC will be notified of the details of all Reserved time programs, such as abstracts, number of nights requested, lunation, instrument type and setup, before assessment of the Shared time proposals.
- 5.4 Paid time programs can be assessed on a case-by-case basis, as inquiries are made to AAL. Their scientific value will be assessed at the time of negotiation by the Chair of the AAT Council, SSO Director Chair and the Chair of ATAC. Paid time program proposals will be made available to ATAC where possible.
- 5.5 Proposals for observing time will only be accepted via the relevant online proposal form/tool and must be submitted before the announced deadline. Applications received after the deadline will only be considered by ATAC if the Chair and Deputy Chair judge that there are sufficient extenuating circumstances.
- 5.6 The proposals accessible and reviewed by ATAC are anonymised via online proposal submission tool to help to mitigate unconscious biases in the assessment process.

- 5.7 No applicant or institution will receive special consideration by ATAC. For proposals near the cut-off for scheduling, some priority may be given to those deemed essential for completion of a student's PhD thesis, if such a case has been made in the proposal.
- 5.8 Any Director's time is taken off the top of the total available time.
- 5.9 Proposals are circulated to committee members as soon as possible after each telescope's deadline. Proposal materials are distributed electronically. Each proposal is allocated to a specific committee member ('lead reviewer') by the Chair, for more careful consideration and for presentation at the meeting. The lead reviewer presenting the proposal cannot be one of the investigators on that proposal.
- 5.10 In general, ATAC will review proposals without recourse to external referees. However, the ATAC Chair has the discretion to call for referee reports where appropriate (e.g. for requests of large time allocation, or for highly specialised or contentious proposals). The Technical Secretary and ATAC Chair will be responsible for soliciting up to 3 referees per proposal, with each referee typically asked to review 2 or 3 such proposals. Lead proposers will have the right of reply to matters raised by the referees, but the referee's identity should remain anonymous (except to the Technical Secretary and ATAC Chair).
- 5.11 In order to save time at the meeting, each panel member does a full science pre-grading of all the proposals beforehand, abstaining for those proposals in which they are taking part or are otherwise conflicted. These pre-grades are submitted to the ATAC Secretary before the meeting. Panel members are free to change their votes at the meeting, as subsequent discussions may change opinions.
- 5.12 At the meeting, a number of proposals with the lowest pre-grades may be omitted from further discussion unless there is a sufficient dispersion in the pre-grades to warrant more investigation. For each remaining proposal:
 - a) the proposal's lead reviewer gives a brief summary of it, concluding with their scientific opinion of the application;
 - b) the committee discusses the proposal;
 - c) each ATAC member submits their final grade to the Technical Secretary;
 - d) fractional grades are permitted;
 - e) the Technical Secretary calculates the final average grade.
- 5.13 When a committee member (or Technical Secretary) is included in the list of applicants on a proposal, or otherwise feels they may have a conflict of interest, they must excuse themselves from the meeting during discussion and voting on that proposal.
- 5.14 Grades should be given on the scientific merit of the proposal, irrespective of whether dark, grey, or bright time is requested.
- 5.15 Proposals are graded scientifically for the maximum number of nights/hours requested, unless panel members feel the goals can be met in less time. In such cases, voting may be conducted on the minimum request specified in the proposal, and this will be folded into the overall ranking.

- 5.16 The grades for each application are indicative only, and are just one of several considerations in the allocation of time. They are strictly confidential and should not be circulated outside the meeting.
- 5.17 Allocations made at the meeting are provisional only, and strictly confidential. Immediately following the ATAC meeting, proposals that are scientifically ranked as viable for scheduling will be distributed to the Technical Secretary to assess the technical feasibility of the observations. The Technical Secretary may delegate this task to technical assessors, who will remain anonymous. Technical assessments should not include any comments regarding the scientific merit of proposals. Assessors should not make guesses if the necessary information is not clear from the application. If there is a serious technical problem, the lead proposer should be contacted for a response. The Technical Secretary will have the final say on whether a proposal is feasible and indicate an appropriate number of nights to be allocated if the proposal is awarded time (where for technical reasons this differs from the submitted request).
- 5.18 The Technical Secretary will collate a list of all programs considered for time allocation, which included proposals submitted under Reserved time, Paid time and Shared time, the latter graded by ATAC. The list will be shared with the Scheduler.
- 5.19 The Scheduler with a support from the Technical Secretary undertakes to construct draft telescope schedules within one week of the ATAC meeting. After approval by the ATAC Chair, the Scheduler or ATAC Technical Secretary will e-mail the lead proposer on all successful proposals with details of their scheduling and guidelines for observing.
- 5.20 Immediately before or in conjunction with the release of the telescope schedules, the Scheduler or ATAC Technical Secretary e-mails all applicants giving the committee's reasons for the non-allocation of time, or for the number of allocated nights, and general feedback. The feedback can indicate the relative position of the application in relation to the others, but should not reveal the grade given by ATAC to the proposal.

6 Responsibilities – ATAC Members

Each ATAC member is expected to:

- 6.1 Declare any conflict of interest that may affect their objective assessment of proposals.
- 6.2 Strictly respect the confidentiality and intellectual property of proposal contents, including any unpublished research and/or proprietary information, and to not disclose it in any form to any third party (including to any persons or party of their employer, including research colleagues, graduate students, postdoctoral or research associates) without prior written consent from the lead proposer.
- 6.3 Keep confidential all discussions within ATAC regarding proposals.
- 6.4 Assess and grade each proposal prior to the meeting.
- 6.5 Prepare a summary of the proposals allocated for presentation at the meeting.
- 6.6 Prepare a brief feedback statement for each proposal, based on discussion during the meeting.

- 6.7 Provide a point of contact for telescope users to communicate general issues with ATAC, although any potential matter of dispute arising from the meeting should be directed to the Chair.
- 6.8 Undertake other tasks as directed by the ATAC Chair.

7 Responsibilities – ATAC Chair

In addition, the ATAC Chair (or in their absence, the Deputy Chair) is expected to:

- 7.1 Ensure the operation of ATAC under the policies described in this document.
- 7.2 Oversee policy matters relating to ATAC.
- 7.3 Allocate lead reviewers to each proposal, avoiding known conflicts of interest
- 7.4 Conduct the business at each meeting.
- 7.5 Coordinate the allocation process at the meeting.
- 7.6 Liaise with the ATAC Secretary and Technical Secretary on any matters arising or on development of new policies.
- 7.7 After the meeting, oversee the dispatch of feedback to all applicants with assistance from the Technical Secretary.
- 7.8 Liaise with the Scheduler and Technical Secretary in the event of a scheduling conflict.
- 7.9 Provide a point of contact for the SSO Director, AAT Council, and AAL for issues pertaining to ATAC operations and responsibilities.
- 7.10 Approve the telescope schedule.

8 Responsibilities – ATAC Technical Secretary

The Technical Secretary is responsible for:

- 8.1 Supervising the receipt of ATAC applications via the online proposal form.
- 8.2 Coordination of technical assessments by suitably qualified astronomers. Such assessments are provided for the graded and some paid proposals as required by the funding entities.
- 8.3 Managing ATAC members' proposal pre-grades.
- 8.4 Liaison with lead proposers where there may be a serious technical problem with a proposal. An extract from the technical assessment should be forwarded to the lead proposer, edited for clarification if necessary. This intended to be a one-pass process and lengthy e-mail correspondence should not be entered into.
- 8.5 Providing a report to the AAT Council through the ATAC Chair on oversubscription history, telescope usage and updates on instrumentation status.
- 8.6 Any other matters as directed by the ATAC Chair, AAL or AAT Council.
- 8.7 The Technical Secretary may not comment on scientific issues, unless invited to do so by the ATAC Chair. The Technical Secretary, or a suitable substitute, should attend policy and scientific sessions of the ATAC meeting or at the very least be available for technical comment during the meeting.

8.8 All information accessible to the Technical Secretary remains confidential.

9 Responsibilities – External Roles

The SSO Director, though not part of the ATAC, is responsible for:

- 9.1 Managing telescope activities allocated to Director's time.
- 9.2 Confirming to ATAC any expected allocation of the lost time to be compensated in accordance with the Compensation Policy.

The Scheduler, though not part of the ATAC, is responsible for:

- 9.3 Providing the user community with an updated list of available instruments on each telescope in advance of the application deadline.
- 9.4 Developing telescope schedules, including integrating proposals submitted under agreed time exchange programs with international partners.
- 9.5 Managing scheduling conflicts.
- 9.6 Providing general secretarial support for ATAC, as directed by the ATAC Chair.
- 9.7 Arranging ATAC members' travel.
- 9.8 Informing proposers, in coordination with the ATAC Technical Secretary, of proposal results, feedback, applicable scheduling details and observing guidelines.

10 Scheduling Observing Time

- 10.1 The scheduling procedure starts from calculating base allotments for all consortium partners, including credits/debits from previous semesters, and an assessment of the number of unfunded nights.
- 10.2 The Calls for Reserved nights and Paid time are finalised before the ATAC reviews proposals for Shared time and ranks them.
- 10.3 ATAC provides ranking and recommended time allocation for each Shared time proposal. Scheduling is subject to a wide variety of practical constraints (instrument availability, lunar phase, accessibility of targets, and so on) – it is to be understood that the scheduling procedure described below works within the limits imposed by these practical constraints.
- 10.4 Shared time proposals from multiple Partners and/or when the same project has applied for Reserved time, should be submitted by the PI of the project to assist with tracking and scheduling such projects.
- 10.5 Director's time is taken off the top of the available nights, as are any prior commitments to programs.
- 10.6 Paid time proposals are allocated time in accordance with the requirements within any individual agreements negotiated with the paying party.
- 10.7 Reserved time is allocated in accordance with the following principles.

- a) The total reserved time for each project has to be approved by all partners before the proposal submission.
- b) Reserved time proposals that use base allotment from multiple Partners can only be submitted by a Principal Investigator (PI) of the project.
- c) The breakdown of time and its type that is allocated from all Partners, has to be provided in the proposal.
- d) All co-investigators (CoI) listed on the proposals have to be affiliated with the Partner institutions.

10.8 The ATAC Shared time proposals are allocated time in order of scientific merit until all remaining available nights are exhausted.

10.9 The Scheduler will, with guidance from the ATAC Chair, make minor adjustments to the allocations to allow for practical matters such as dark time, scheduled instrument blocks, Director's time and so on.

11 Proprietary Rights for AAT Data

11.1 AAT data will be available through the AAT archive after an initial proprietary period of 18 months.

11.2 ATAC and/or the AAT Council may choose to extend or shorten this proprietary period for any particular program (or a subset of the data).

Appendix A

AAT Time Allocation Model

Agreed by the AAT Consortium (29 Sep 2021)

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- A. Summary of Definitions
- B. Calculation of nights allotted to each Partner
- C. Converting allotted nights into allocated and scheduled observing nights

A. Summary of Definitions:

Partner: Signatory to the current AAT Consortium Agreement.

Base Allotment: Allotment of nights based on annual financial contribution.

Additional Allotment: Extra allotment for a given semester from an extra contribution by a Partner.

Initial Allotment = Base Allotment + Additional Allotment

Paid Time: Nights or half-nights (with specified lunations) paid for at commercial rates by either Partners or non-Partners.

Unfunded Nights: Nights remaining after *Partner Allotments*, *Partner Paid Time*, third-party *Paid Time*, Director's discretionary time, and any other time commitments agreed by the AAT Council are accounted for.

Partner Allotment = Initial Allotment + Unfunded Nights.

Allocated Nights: The numbers of dark, grey and bright nights assigned to the *Partner Allotment*.

Shared Nights: Nights contributed by Partners from their *Partner Allotment* to a common pool of nights allocated on merit by ATAC.

Reserved Nights: Nights specified by each Partner from their *Partner Allotment* as reserved and not to be allocated by ATAC as *Shared Nights*.

Call for Additional Allotment: Process for Partners to specify any *Additional Allotment* for the coming semester.

Call for Partner Paid Nights: Process for Partners to specify any *Paid Nights* for the coming semester.

Call for Reserved Nights: Process for Partners to specify how many of their *Allocated Nights* will be *Reserved Nights* in each lunation for the coming semester.

Call for Proposals: Process for Partners to submit proposals to ATAC for the *Shared Nights*.

Third-party Paid Time: Time requested by non-Partners and paid for at a higher rate. As with *Partner paid time*, the lunation can be specified.

PI/CI: PIs are Principal Investigators (lead investigators) named on observing proposals; CIs are the Co-Investigators named on observing proposals.

Proposer: A PI or CI on a proposal.

Observer: A person who carries out the observations.

B. Calculation of nights allotted to each Partner

- 1) In a given year, each Partner will receive a *Base Allotment* of AAT nights set by taking the Partner's annual contribution in that calendar year (CY) and dividing by the agreed cost of a night for Partners (initially, for Semester 2022B, \$10,000 per night; thereafter as agreed in advance for each CY by the AAT Council). The *Base Allotment* is divided evenly between the two semesters and in proportion to all nights per lunation in each semester. Any debit or credit in nights from the previous semester due to scheduling, rounding or other constraints will be subtracted or added to the *Base Allotment*. The *Base Allotment* is then rounded to the closest whole night, with the credit or debit from that rounding carried forward to the following semester (e.g. 2.49 nights will be allotted 2 nights but with a credit of 0.49 nights in the following semester).

- 2) Partners can choose to pay additional funds for *Paid Time*, at a negotiated higher rate and governed by the same rules as non-Partner *Paid Time* (i.e. a cap is set on the fraction of *Paid Time* in each lunation to ensure that nights required for the *Base Allotments* are available). The *Paid Time* option provides an advantage in that a Partner can specify purchased nights must be bright, grey or dark (within scheduling constraints). Paid time nights can only be purchased if they remain available after *Base Allotments* are distributed to lunations. Any *Paid Time* that cannot be scheduled will receive a credit in the following semester or a refund.

- 3) Partners may choose to pay for an *Additional Allotment* for a semester (or semesters) above their *Base Allotment* at the agreed cost per night (as specified in point 1). *Additional Allotments* cannot specify lunation and can only be requested if there are *Unfunded Nights* available (after *Paid Nights* for both Partners and non-Partners and *Base Allotments* for Partners). The *Additional Allotment* will be divided in the ratio of the lunations that are remaining.
Partners will be requested to contract for these *Additional Allotments* through a *Call for Additional Nights* in advance of the *Call for Proposals* being released. In that semester each Partner's *Initial Allotment* will be the sum of their *Base Allotment* and their *Additional Allotment*. If Partners request *Additional Allotments* totalling more than the number of nights available, then the *Additional Allotment* requests will be reduced in proportion to the Partners' contributions in that CY (or a Partner may withdraw their *Additional Allotment* request).

- 4) *Unfunded Nights* will be divided between Partners in proportion to their *Base Allotment* and added to their *initial Allotment* to give their *Partner Allotment* for that semester. Unfunded night allotments will be rounded to the nearest integer number of whole nights, but such rounding will not generate a debit or credit in subsequent semesters.

C. Converting allotted nights into allocated and scheduled observing nights

- 5) Partners may exchange allotments with another Partner before the *Reserved Nights* are specified by each Partner, in order to:
 - a) change the balance of their dark, grey and bright time within a semester, or
 - b) change the balance of their allotment throughout the year between semesters (e.g. more nights to one partner in semester A in exchange for more nights to another partner in semester B).

The AAT Consortium policy does not allow exchange or on-selling of nights outside the AAT Consortium.

- 6) Partners choose, in response to the *Call for Reserved Nights*, which of the observing nights in their *Partner Allocation* will be used in each of the following categories:
 - a) *Reserved Nights* are retained by the Partner and allocated as they wish, subject to the practical constraints of scheduling the telescope. No science assessment is carried out on *Reserved Nights* beyond a credibility check to ensure no reputational

damage to the Consortium. Requests for *Reserved Nights* will require a technical case for each program, information on the lunations required and the periods of the semester in which the time is required, and a very brief science case, sufficient to allow the Director to schedule the telescope and support the observing programs.

A Partner specifies the lunations required in the *Reserved Nights* program/s and returns their remaining nights to the pool. *Reserved Night* programs can have PI/CIs from multiple Partners, who can assign any of their allocate-able nights to that program, as agreed by those Partners and their proposing teams.

Reserved Night programs can have PIs/CIs from any Partner, irrespective of whether that Partner is contributing nights to that Reserved Night proposal.

- b) *Shared Nights* are those nights from each Partner Allotment remaining after the Reserved Nights are specified. Shared Nights are transferred by the Partner to a common pool and are allocated on merit by the Australian Time Allocation Committee (ATAC). For each Partner, the number of nights awarded from the *Shared Nights* pool may not be equal in number to the nights they transferred to the pool; the ATAC process may deliver more nights, or fewer nights, to each Partner than those contributed to the pool by that Partner. ATAC provides a competitive merit-based scheme for validating the significance and quality of *Shared Nights* proposals and a proven mechanism for effective collaboration across Australian institutions. Requests for nights from the *Shared Nights* pool require a proposal with a science case and a technical case to be submitted to ATAC for that semester. A long-term program request submitted to ATAC may be approved for multiple semesters (so as not to require identical proposals being submitted each semester), but that proposal's time allocation will be reassessed each semester.
- 7) The *Call for Reserved Nights* will precede the *Call for Proposals* so that the available nights in each lunation in the *Shared Nights* pool can be made known in the *Call for Proposals*.
- 8) Finally, scheduled allocations will be subject to the constraints of telescope scheduling. *Paid Time* nights will be scheduled first, followed by *Reserved Nights* and then *Shared Nights*. Telescope scheduling will be subject to the priorities and constraints outlined above as fairly as allowed by the practical constraints of telescope operations, instrument availability and the competing demands of users. Any issues with a semester's observing time schedule that cannot be resolved by discussion with the AAT scheduling officer shall be adjudicated by the AAT Council.
- 9) All proposers (PIs/CIs) named on a non-*Paid Time* observing proposal must be from Partner institutions, however observers may be from non-Partner institutions.

Order of process for each semester

Calculation of *nights available* [by lunation] = Total nights - (*Base allotments* + *Third-party paid time* + Director's discretionary time + previous credits + any other time commitments agreed by the AAT Council)

Call for *Additional allotment* and *Partner Paid nights*

Calculation of *unfunded nights* = *Nights available* - all *Additional allotment* and *Partner Paid nights*.
Calculation of *Partner Allotment* for the semester = *Unfunded allotment* + *Base allotment* + *Additional allotment*

Call for *Reserved night requests* and exchange of allotments

Calculation of pooled *shared nights* available in each lunation

Call for Proposals

ATAC meeting for *shared pool* proposals

Scheduling of all *Reserved, shared* and *paid time* nights. Calculation of credits/debits.