

Policies for ToO observations in 2026B

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Background

AAT Council has resolved to restart Target of Opportunity (ToO) observations as a mode on the AAT in 2026B. This is because **2026B is expected to be scientifically exceptional for transient science**. For example, the Rubin Observatory data stream is already live and is expected to produce extremely high-impact science. It will also allow trials of commercial activities such as Space Domain Awareness.

The following procedures will be used in 2026B. Noting that 2026B is a pilot semester for this and procedures will be revised in the light of practical experience.

We would like to also note that for brighter targets the 2.3m telescope at SSO is better optimised for ToO observations (robot operations, queue observations and automatic spectroscopic data reduction) and is openly available to the Australian community. AAT proposals should address the unique science made possible by a 4m telescope and/or the special capability of AAT instruments.

Procedure

Note that because this is a pilot of ToO, while SSO undertakes to follow these procedures in good faith, the Directors reserve the right to vary any of them at short notice due to operational requirements.

1. The Amount of ToO Time available

ToO time in 2026B **will be limited to 15 hours in the trial phase with maximum 10 overrides of 1–2 hours each throughout the entire semester**.

ToO proposals are to be submitted via the Lens system, with a note that this is a ToO proposal, and time will be allocated by ATAC up to the agreed time cap for any successful proposals.

2. Structure of ToO Requests

- Proposals request a set number of hours overrides.
- Multiple instruments can be requested (e.g., Hector, KOALA, AGU).
- No instrument changes are permitted on the telescope during the observing night. Requests for changes to instrument settings require the Director's approval and must demonstrate that the proposed change will not significantly compromise observing efficiency and is justified by the associated scientific benefit. Observers should refer to the instrument configuration details provided

in the schedule when planning any such request, to support informed decision making.

- The minimum duration of any override must consider realistic time requirements for instrument configuration changes and the acquisition of any necessary calibrations, which are to be obtained during the ToO event.
- No more than 1 override in a single night in 2026B.
- ToO data is proprietary to the ToO team following regular AAT proprietary period rules. Proposals can waive this explicitly if they wish.

3. Compensation for Overridden Programs

- Large Surveys affected by ToOs will receive 2:1 compensation at a later date, drawn from the Open Time pool.
- Because of the structure of the Hector Galaxy Survey any override will be taken as a minimum of half a night lost.
- Open Time proposals will be compensated at a 2:1 ratio, contingent on the submission of a new proposal with justification demonstrating that the science remains relevant. They may also submit a special request to the SSO Director for Discretionary Director Time compensation in the same semester which will be considered on a best-efforts basis.
- Compensation will only be made once it accumulates to an integer night.
- Overridden observers will not by default be co-authors on any publication that results; ToO observers may do this at their own discretion and should always include an acknowledgement.
- Once a notification is formally activated, any observation that is subsequently not carried out due to a deterioration in weather conditions will not be compensated. ToO teams are encouraged to use all [available web resources](#) to check weather conditions before triggering an override.

4. Notification Requirements

- Overriders must issue a notification email¹ addressed to the SSO Director **by 4:00 pm** on the night in question. The notification must include full override details, including the proposed start and end times and any operational flexibility.
- If there are multiple requests for the same ToO the SSO Director (or Delegate) will select which one to execute based on timeliness and the request including sufficient details.

¹ The email address will be provided to all successful ToO proposals.

- Observers cannot veto the override; SSO Director retain the authority to decline it if necessary.
- Extremely urgent cases may use shorter notice (e.g. in the middle of the night) at Director discretion. These should be flagged in the science case of the original ToO proposal (e.g. super-fast transients). This will be on a best-efforts basis by the SSO Director.
- For predictable events (e.g. spacecraft imaging or Deep Space Optical Communication tests), observers are encouraged to give notice weeks in advance.

5. Observer Expertise Requirements

- Each ToO proposal **must include at least one experienced observer for the requested instrument who is ready to dial in and execute the observations.**
- **If that person is unavailable, no ToO trigger is issued.** ToO teams are encouraged to have more than one expert.
- Hector overrides will require a ToO team member familiar with the mode of doing single target spectroscopy with a IFU bundle via offsetting.
- AAT will maintain a list of experienced observers who may be interested in collaboration on ToO proposals (noting there is no obligation implied in being registered on this list). Please use the following form to indicate your interest in such collaborations: <https://forms.gle/WYrCqutcxYPysPup9>

6. Protected Programs and Technical Limitations

- Paid Time observations are excluded from override.
- Some programs, such as planetary transit observations, cannot accommodate interruptions and may be designated as exempt from overrides. Such requirements should be noted in the proposal.
- Any necessary calibrations that are essential for the ToO should be taken during the ToO event. The ToO team and the regular observers should communicate on what standard calibrations have or will be taken during twilight.
- Protected programs will be clearly identified in the published observing schedule.

7. Logistic considerations

The ToO observers will need to connect to the existing VNC session, and to the Zoom, and 'take over'. SSO will issue them with their own visitor account at the start of the semester once their program is approved.

This access will allow them to access their data in real time; it will also be available from Data Central in the normal way by program ID.

ToO observers are responsible for obtaining their own calibrations or arranging access to any calibrations acquired by the primary observers (e.g. during twilight).