

## Director's response to ATUC Report – March 2023

ATUC Recommendation	Impact	Urgency	Director's Response	Traffic Light
<p><b>2. Commendations for S&amp;A</b></p> <ul style="list-style-type: none"> <li>• First fringes on Setonix from LBA correlation</li> <li>• First successful tests of BIGCAT beta version</li> <li>• Commencement of Survey Science Projects for ASKAP</li> <li>• Transition to the full anonymization of the proposal review process</li> <li>• Retention and progression of postdocs within the Science group</li> <li>• Timely repair of ATCA antenna 6 after unfortunate cable wrap breaking</li> </ul>				
<p><b>3. Diversity and Inclusion</b></p> <p>3.1 ATNF appoints a non-CSIRO user of the ATNF to the S&amp;A Diversity and Equity committee.</p> <p>3.2 ATNF advertise D&amp;I feedback form to users (<a href="https://www.surveymonkey.com/r/CASS_DI_feedback">https://www.surveymonkey.com/r/CASS_DI_feedback</a>).</p>	<p>1.5</p> <p>1.8</p>	<p>1.4</p> <p>1.6</p>	<p>We select D&amp;I committee members intentionally, with the aim to cover a broad range of perspectives, experiences, and functional roles. Our current membership includes an ATNF student representative, as well as two non-CSIRO staff members, one of which has substantial experience in the ATNF user community.</p> <p>We will be retiring this survey monkey form for compliance with CSIRO policy, but we have recently introduced the ATNF anonymous suggestion box: <a href="https://forms.office.com/r/jYe2DZjG46">https://forms.office.com/r/jYe2DZjG46</a> which can be used to submit matters concerning D&amp;I and/or accessibility for our consideration. This</p>	<p></p> <p></p>

			new form is accessible externally and submitter identities are not recorded. This was announced at the ASA meeting in July 2023 at the ATNF Town Hall, and we will continue to advertise the form.	
3.3 ATNF report on staff demographics at next ATUC meeting.	1.9	2.1	We have arranged for this report to be included in the next ATUC open session agenda.	
3.4 ATNF brief ATUC on results of the study at the next ATUC meeting.	1.8	1.8	We have arranged for this report to be included in the next ATUC open session agenda.	
<b>4. Students and training</b>				
4.1 ATNF to survey both ATNF and university supervisors on the success of the ATNF student programme. ATUC is willing to help facilitate this survey to ensure the questions asked are relevant.	2.0	2.1	Whilst the student survey has been completed, the CSIRO and university supervisor survey is under development. We would welcome suggestions from ATUC as to key questions and areas of focus for inclusion in the survey.	
4.2 ATNF to develop extended placements for HDR students to maximise on the opportunities provided by amendments to the Commonwealth Scholarships Guidelines (Research) 2017 Act.	2.1	1.8	The ATNF internal review to our postgraduate student program is underway but subsequently CSIRO has initiated a broader, higher-level review into our student programs for postgraduate students including HDRs. Our Student Coordinator and other ATNF staff have provided initial input into this review during their information gathering phase. We expect to be involved in the next phase of the review. As the organisation-wide policies and possible changes resulting from this review will likely impact ATNF initiatives our internal review has been paused whilst we await the outcomes from the CSIRO review.  We note that an offer is forthcoming to a successful applicant for one of the new CSIRO Indigenous	

<p>4.3 A report on the postgraduate program review be presented at the next ATUC meeting in October 2023 which includes an overview of the feedback received from surveying students and supervisors.</p>	2.0	2.1	<p>Research Fellowships for a student to undertake a PhD with us commencing in February 2024.</p> <p>An update on the status of our postgraduate program review, including an overview of the student feedback will be presented as part of the student update at the ATUC meeting in October 2023.</p>	●
<b>5. ATNF communications</b>				
<p>5.1 ATNF advertise support that CSIRO communications team can provide for university-led ATNF-user projects.</p>	1.9	1.5	<p>We have recently established an ATNF newsletter, to be distributed approximately quarterly. We will include this information in our next edition and will also share a summary at the next ATUC open session as well.</p>	●
<p>5.2 ATNF website is updated at a basic level to ensure no incorrect information is present while the longer-term website refresh project is underway.</p>	2.5	2..5	<p>We have appointed a website content monitor, teamed with a member of the ATNF comms team, to cover this important task during the period of the major website upgrade.</p>	●
<b>6. TAC updates and new proposal categories</b>				
<p>6.1 ATNF to consider polling users in advance of the 2024APRS semester call for proposals to gauge the community interest and demand for ASKAP guest science.</p>	1.8	1.6	<p>Now that we have been through an initial round of Guest Science Proposals and plan to continue offering GSP time every semester, we will monitor the subscription rate and make this information available in future reports to ATUC in line with the other national facilities.</p>	●
<p>6.2 ATNF develop a policy for commensal projects on ASKAP during open time.</p>	2.1	2.0	<p>The next call for ASKAP GSP time will include advice to PIs that commensal use of their observing time is approved by default for existing Survey Science Projects that are commensal in nature, including CRAFT and VAST. If the nature of the science goals related to these commensal projects</p>	●

6.3 ATNF to develop a policy for the proprietary period in advance of the first open call for ASKAP guest science.

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conflicts with the GSP or there are other compelling reason not to allow commensal use of the data, the GSP PIs can indicate a desire to opt out when submitting their proposal. This request will be assessed alongside the scientific merit and technical feasibility of the proposal and a decision communicated along with the TAC comments.

ASKAP is an open-skies national facility, and our expectation is that all GSP data will be made public after validation using the same process developed for the Survey Science Projects. We acknowledge that some GSPs may have unique constraints that require data to be kept out of the public archive for a longer period of time. In such cases, the PI can request a proprietary period of up to 12 months. However, the request must be accompanied by a compelling justification (such as policy requirements related to data from other facilities as part of a multi-wavelength experiment). The TAC and ASKAP operations team will assess the nature of the request and communicate whether or not we are willing to grant the proprietary period as part of our response to the proposal.

6.4 ATNF provides further instructions on proposal templates that match expectations from the ATNF TAC.

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We have implemented a proposal template, available to all prospective proposal teams in overleaf:  
<https://www.overleaf.com/read/cggpmvqjdrhq>  
The purpose of this template is twofold. First, it provides guidance around correct formatting and references for compliance with our rules, including anonymisation. Second, elements of the TAC scoring rubric are included in the template to guide



6.5 ATNF to hold a workshop on long-term projects.	2.0	1.8	proposers to include information sought by the TAC. Due to resourcing constraints we were unable to organise and rollout a workshop on this topic.	
6.6 After the workshop ATNF solicits expressions of interest for long- term projects to assess interest and identify overlapping projects that could be consolidated into stronger cohesive projects.	2.0	1.5	See above.	
6.7 ATNF proposes a transparent review process to ensure that long term projects are fairly assessed, and TAC advice can be used to revise large project allocations in the case a project is missing deadlines for key deliverables.	2.6	1.9	This is being developed in consultation with TAC.	
<b>7. ATCA and BIGCAT</b>				
7.1 ATNF to prioritise shared risk GW follow-up observations during BIGCAT commissioning.	2.5	2.1	ATNF will consider shared-risk observations during BIGCAT commissioning if a strong scientific justification is provided, clearly stating why the observations need to be carried out during commissioning. Our priority is to get BIGCAT commissioned as quickly as possible so cannot guarantee that the full array or full bandwidth will be available. However, we will not prioritise any specific science area as allocations are made on the basis of scientific merit as assessed by the independent ATNF TAC.	
7.2 ATNF to update the community on upgrade at the next ATUC meeting.	1.8	1.8	Accepted. We will include this update report in the October 2023 Open Session.	
<b>8. Parkes (Murriyang) and CryoPAF</b>				

8.1 ATNF seeks prospective university partners well in advance of LIEF deadlines.	2.6	2.5	We agree that in future circumstances where LIEF is identified as the best available path to support instrumentation upgrade projects, our university engagements are best identified and discussed well before relevant deadlines.	
8.2 ATNF to consider the secondment of appropriately skilled ECRs and PhD students that may help address the current resource constraints in commissioning CryoPAF.	2.4	2.0	Currently, constraints are in the engineering context where domain expertise is essential. We will update ATUC on CryoPAF installation progress and will seek commissioning support when and as suitable.	
<b>9. LBA</b>				
9.1 ATNF to implement the proposed receiver changes per year at Parkes for continued support of high frequency VLBI, while pursuing the development of the UWH receiver.	2.4	2.0	We will adopt this approach if it is possible within operational constraints and always taking into account availability of required staff.	
<b>10. Observing and new support model</b>				
10.1 ATNF to create a transparent training pathway/structured body of training materials for developing new OEs within the community.	1.9	1.8	Agreed, this is our intent. Our first priority is delivering basic observer training, and this is currently underway. The next stage will be to build on this foundation to provide OE training. This second stage is desired but resource limited. We will keep ATUC informed.	
10.2 ATNF to consider student training aspects under the new OE model, and ensure that is integral to the training program.	2.0	1.6	We will identify appropriate training as informed by the student survey feedback. We note that students are keen for specific, useful training and we are motivated to provide unique value through our postgraduate program.	
10.3 ATNF to devise support/training models that will benefit ATNF students to undertake travel to Marsfield or Perth and to interact with their supervisors alongside availing themselves of hands-on training opportunities.	1.8	1.3	Our first priority is to provide training solutions relevant to our whole user and student communities, and in the light of resource constraints. It would be useful to discuss this further.	

<p>10.4 ATNF to consider incorporating student training statements into proposals, and additional ways to incentivise student training through projects.</p>	1.9	1.5	<p>We will take this into consideration and can discuss with the TAC at the next meeting. However, it would be useful if ATUC could provide more detail on what benefits are expected to come from this. The TAC's remit is to assess the scientific merit of the proposed observations; aspects such as student training are not taken into account when grading proposals.</p>	●
<p><b>11. ASKAP</b></p>				
<p>11.1 ATNF poll the ASKAP community (both SSTs and general potential users) on the significance of a much improved absolute astrometric accuracy of ASKAP data products on different science cases.</p>	1.8	1.3	<p>We understand the need to ensure ASKAP's astrometry is as accurate as possible. The current processing scheme does not use independent phase referencing due to the prohibitive overheads this would involve with multiple beams. Self-calibration is therefore not locked to an external reference and we have observed this can cause source positions to shift by up to about 2 arcseconds. Many observations are more accurate, and a rare few exhibit even larger offsets, but these are typically rejected during validation efforts. Improving the astrometry scale will require implementing sky-model calibration, which relies on completing the processing of all three RACS bands and synthesising the result into a final combined data product. These efforts are ongoing.</p>	●
<p>11.2 ATNF &amp; ATUC members to discuss the exact roles of the ATUC in representing ASKAP users, and clarify, or explicitly outline more effective approaches to fulfil those roles.</p>	1.6	1.3	<p>ATUC members could be playing a more active role in existing ASKAP communications channels such as the ASKAP Operations Forum. Our starting view is that ATUC members consider attending such events, and encourage the user community to attend. In line with other ATNF telescopes and the ATUC Terms of Reference, ATUC can usefully relay feedback and concerns about our science support of the ASKAP Guest Science Proposal process. We will continue to discuss with ATUC.</p>	●

<p>11.3 ATUC recommends that filler observations (e.g. CRAFT or other projects) be considered to fill the gaps in the dynamic schedule.</p>	1.8	1.1	<p>CRAFT filler observations have been re-worked into a mode compatible with ongoing survey operations by tuning the timescale and priority. We do not anticipate having as much filler time available now that full survey operations are underway, but we acknowledge that the mode helps maximise ASKAP's science output and will support it where possible, without impacting the other SSPs.</p>	
<p>11.4 ATNF to undertake a detailed feasibility study of an ASKAP LNA upgrade, including a timeline for prompt initiation or progression.</p>	2.0	1.9	<p>Options for upgrading the ASKAP LNAs and PAFs are currently being evaluated, including a relatively rapid option to replace just the LNAs and a longer-term option to upgrade the PAFs. We envisage including a presentation of these options at the April 2024 ATUC meeting.</p>	
<p><b>12. Data, archives, ATOA</b></p>				
<p>12.1 ATNF to consider priority data transfer for time-critical projects (e.g. some ToO/NAPA projects).</p>	2.0	1.5	<p>The need to prioritise data transfer and ingest for time critical projects is noted, and addressing this is certainly possible. We note that this discussion is around the time to ingest to ATOA. Users can currently access data files before ingest to ATOA via direct access to computing resources at Narrabri, and we intend to retain that capability for now.</p>	
<p>12.2 Investigate and test best available data transfer protocols, benchmark download speeds for data download from CASDA to various locations, and document expected speeds for community use.</p>	1.6	1.3	<p>This is a piece of work that is already logged with CSIRO's central computing service team. ATUC could usefully advise what the community feels appropriate test/benchmark domestic and international locations would be.</p>	
<p>12.3 All pulsar timing data sets be archived by Parkes.</p>	2.1	1.0	<p>The recent move to S3/object storage for the Data Access Portal has increased the ingest speeds of Pulsar data (early indications are that this is up to a factor of 10 faster but remains TBC since the</p>	

<p>12.4 ATNF hosts decimated data products (polarisation, time, or frequency averaging).</p>	<p>1.8</p>	<p>0.9</p>	<p>migration is very recent). We anticipate being able to archive all pulsar timing data sets.</p> <p>This is interpreted as a 'cutout' mode for the ATOA data (BIGCAT ASDM, Parkes SDHDF and VLBI IDI-FITS), which is then implemented by the new ATOA/CASDA. This feature request is noted as highly desirable but requires development. For CryoPAF data this each beam could be a separate SDHDF file.</p>	
<p>12.5 ATNF to provide an update on the usage of the pulsar DAP at the next ATUC meeting.</p>	<p>1.3</p>	<p>1.5</p>	<p>We have some specific statistics on data volume, number of queries and downloads, and unique IPs as an estimate of users. Specific statistics on pulsar collections, e.g. the date of last access, will take some time to source from IM&amp;T. If there are other usage statistics that ATUC would like to know please advise.</p>	
<p><b>13. Technologies roadmap</b></p>				
<p>No recommendations.</p>				
<p><b>14. ATNF Science and Retreat</b></p>				
<p>No recommendations.</p>				
<p><b>15. ATNF of the future</b></p>				
<p>15.1 ATUC be briefed via an out-of-session meeting on ATNF of the future.</p>	<p>2.0</p>	<p>1.8</p>	<p>Accepted. The ATNF of the Future project has continued to evolve in a way that makes more sense to directly engage ATUC after the next Open Session.</p>	
<p><b>16. User feedback</b></p>				
<p>16.1 ATUC and ATNF consider providing an anonymous form to give users an opportunity to provide feedback and raise issues they may be otherwise uncomfortable to raise in person.</p>	<p>1.9</p>	<p>2.0</p>	<p>This has been implemented, and the link to the form was shared with the community at the ASA meeting in July 2023 at the ATNF Town Hall. We will continue to advertise this form.</p>	

<p>16.2 ATUC and ATNF solicit asynchronous feedback from users through CSIRO Mattermost and through ASA Slack channel that is being established.</p>	<p>1.8</p>	<p>1.5</p>	<p><a href="https://forms.office.com/r/jYe2DZjG46">https://forms.office.com/r/jYe2DZjG46</a></p> <p>We will continue to ensure that users have the ability to provide feedback, and we remind ATUC of their crucial role in this context.</p>	
<p><b>17. Date and format of next meeting</b></p>				
<p>17.1 ATNF to take steps to ensure value of an in-person ATUC is maximised.</p>	<p>2.3</p>	<p>2.1</p>	<p>ATNF welcomes this recommendation and is seeking to develop specific plans in consultation with ATUC. In particular, for the October 2023 ATUC meeting (in-person component in Perth) we are seeking to arrange a useful interaction around data/computing with staff at the Pawsey Supercomputing Research Centre.</p>	
<p>17.2 The next ATUC meeting be held in Perth to better connect with West Australian ATNF users.</p>	<p>2.0</p>	<p>2.0</p>	<p>Consistent with this ATUC recommendation, the next ATUC meeting has been organised to take place in Perth. We are working with the incoming ATUC Chair to identify ways to maximise the value of this arrangement as also described in our response to Recommendation 17.1.</p>	
<p>17.3 ATNF and ATUC to review the structure of ATUC meetings.</p>	<p>1.6</p>	<p>1.6</p>	<p>Accepted. We are discussing with the ATUC Chair to identify ways to improve our interaction for maximum benefit to the user community.</p>	
<p>17.4 ATNF to confirm and publicise the date and venue of the next meeting ~ 2 months in advance.</p>	<p>2.3</p>	<p>2.0</p>	<p>We agree that this is the ideal timing. For the October 2023 ATUC meeting, we advertised the dates and venue, and opened registration more than a month in advance. We will continually seek to optimise timing of organisation and announcements, in consultation with ATUC.</p>	