Director's response to ATUC Report – April 2022

UC	Recommendation	Dire	ctor's Response	Traffic Light
2.	Commendations for S&A			
•	Keith Bannister for winning the 2022 Pawsey medal.			
٠	3C273 Lunar occultation			
	commemoration event.			
٠	Participation and presentations by two ATNF students at the "RFI2022"			
	meeting.			
•	Hosting a successful online conference "VLBI in the SKA Era".			
	nmendations			
3.	ATNF Strategy			
•	Continue (if not grow) investment and support (inclusive of financial & career) in training student & ECR researchers, particularly in the specialised areas of engineering and synthesis observations.	l t	We will continue to value our ole in the community for training of students and ECRs.	
•	In an effort to cater to a larger demographic base of users, short non- radio expert training for the greater community in the access of the large survey data products is also encouraged. Such programmes should be in addition to existing expert student training programmes, and not as a replacement.	1	We are exploring new training opportunities as part of a review of our education and training program. Training for non-radio experts is being ncluded.	
•	The ATNF continues with vibrant student programmes (both for summer vacation and Ph.D. students). The ATNF should ensure diversity in its Ph.D. cohort. This can be accomplished through ensuring diversity in the summer vacation student programme.	s r g a t t a r r a t s f t v u s s t u u s t u u s t u u s t u u t	Ve will continue to provide our student programmes and nonitor the diversity (including gender where we seek to adhere to CSIRO's 40:40:20 arget, as well as institution and State). Students in the ecent 2021-2022 vacation programme included 9 women and 5 men, from 8 universities, and 5 different states and territories. The orthcoming 2022-2023 vacation student cohort ncludes 6 women (plus one Women in Engineering" student) and 8 men, from 10 universities and 5 different states and territories.	

•	ATNF consider pursuing joint appointments. Appointments should be considered in places where the appointee can make <i>meaningful</i> <i>contributions to both ATNF and their</i> <i>University.</i>	•	ATNF will consider adjunct and joint appointments (with both CSIRO and the University as primary employer) on their strategic merit and with an eye toward following this path when it can deliver increased value to all parties. Also to note we will continue co-supervision, secondments and short term visiting schemes.	
•	ATNF continues to support future Centres of Excellence (CoEs). Future CoEs could be strengthened through strategic recruitments of co-supervised students and CSIRO postdoctoral fellows.	•	ATNF will continue to support CoEs where they are aligned with core ATNF capability and priorities, and examine aligned students and postdoctoral positions.	•
4.	Diversity & Inclusion (D&I)	L		
•	D&I Committee continues dialogue with the ATUC (and other S&A committees) about inclusivity to help identify aspects that need improvement.	•	The D&I Committee will continue its dialogue, and will be benefitted with a new D&I manager role which has been recently appointed.	•
•	D&I Committee to suggest actions related to Users of the ATNF and specifically in relation to the Users and Time Assignment Committees.	•	Through our existing D&I Action Plan, the D&I Committee is addressing accessibility and inclusivity of our procedures as related to interactions with ATNF Users. The D&I Action Plan specifies actions in relation to ATUC and TAC.	•
•	ATNF to provide an update on business unit demographics at the next ATUC meeting.	•	This will be included in the Open Session reporting.	•
5.	Data Archives			
•	ATNF to confirm that the existing ATOA system would be able to cope with the expected data rates, and consider further data archiving requirements.	•	The doubling of ATCA bandwidth from 4 to 8 GHz is expected in 2024 with the BIGCAT RF upgrade. The plan is for ATOA to be migrated to CASDA in 2023, before this doubling of bandwidth. Current ATOA growth is 80 TB per year, which can be accommodated with additional storage to current ATOA.	

 ATNF to consider (and implement) a process that involves project teams in dealing with high data rate observations. 	 Recommendation accepted. We will continue to consider how to address this e.g. with CryoPAF.
• ATNF to consider working with the project teams toward developing the techniques to 'decimate' the data products (for example converting from 8-bit depth to 2-bit) in order to make it feasible to archive large data and make them available to the wider community.	• Recommendation accepted, but note that the 80 TB/day number for a high data rate pulsar observation *already* assumes 2-bit data.
6. ASKAP	
6.1 RASSPNo recommendations	No response
 6.2 Split-band mode ATNF to provide further clarification on the decision regarding the split band mode, and if possible, provide a summary of the RASSP panel reports. 	 The RASSP panel felt, on balance, that despite the advantages of having the split-band mode, the start of the main surveys should not be delayed in order for this work to be done. A high-level RASSP summary has been provided separately to ATUC for their consideration.
6.3 Consolidation phaseNo recommendations	No response
 6.4 Guest science proposals Guest science proposals need to be assessed through the regular ATNF TAC process, who can advise on the science impact and assess the suitability of ASKAP for the proposed science objectives, as well as the resources required for data reduction. 	• This is the current plan. In the meantime we have established a mechanism for requesting ToO/NAPA style requests before guest science starts. This mechanism is public and will also be shared as part of the next call for ATNF proposals.
 6.5 Encouraging community awareness and uptake of observatory projects ATNF continues to promote RACS through timely publication of the source catalogues, intuitive data access portals, conference presentations in addition to hosting regular workshops to help promote the science data products being produced by RACS and the SSTs. 	• We'll continue these existing efforts. The RACS team meets regularly to maintain progress and attend to aspects like this.

 ATNF continues to improve the accuracy and reliability of the RACS data products such as the flux-scale and astrometric uncertainties. 	• We'll continue these existing efforts. Improvements to the telescope and processing software have enabled progressive improvements for each iteration of the RACS datasets.	
6.6 Helping the community with prompt and effective use of ASKAP data survey		
 Continued direct engagement between the ATNF and ASKAP user groups (both within and external to SSTs) in an effort to ensure timely communication of feedback relating to matters that impact the effective use of ASKAP data. 	• We'll continue these existing efforts. Primary avenues include the ASKAP Operations Forum (open to all), PIs Coordination Meetings, and CASDA info/feedback sessions.	
 ATNF pursue the suggested improvements to the CASDA interface to develop more efficient and effective tools for user access to the ASKAP science data products. 	• We are already planning UI/UX analysis and additional features to CASDA (as outlined in the Data Archives presentation), and a user feedback session with CASDA users has been held. The python astroquery module has been recently updated to include a cutout service, and a new cutout UI has been rolled out, see Data Archives presentation and update at next ATUC meeting.	
7. National Facility Support model		
 ATNF to consider and implement suitable measures to minimise the impact in the observing efficiency from project handovers, especially during the BIGCAT commissioning phase. 	 This will be taken into account. The intent of the new system is for handovers to occur in a very similar manner to the current DA model. Impacts of BIGCAT commissioning are still being assessed, but we expect a period of time when ATCA is offline. 	
• ATNF to develop additional training requirements and material for project experts, and ensure that there are dedicated resources (including financial and personnel) for effective training.	• This is being taken into account along with the development of the new support model. It is recognised that improved training and adequate resourcing will be essential for the success of	

	the new model, and the associated developments will be described in the next ATUC meeting.	
 ATUC suggests a suitable revision of the cookbook as one of the measures to facilitate a smoother transition from CABB to BIGCAT. 	 All observing manuals, including cookbook will be updated for BIGCAT 	•
 7.1 Student Programme ATNF to organise an in-person radio school for 2022, if permitted by pandemic regulations. 	 Organisational preparation for a 2022 "mini" Radio school is underway, likely to occur in conjunction with vacation student activities. 	•
 ATNF to consider (and provide) support for student travel to the observatories (Narrabri) or ATNF sites (Perth/Marsfield), in replacement of previous travel support that was offered as part of the duty astronomer program (for domestic students). 	• A standard budget for travel is allocated for all students and this can be used to visit the telescope sites and our metro office sites. We are also looking at implementing a broader visiting scientist program for our NSW observatory sites, which would serve to support all students (not just ATNF students).	•
 7.2 Observer Training and Qualification ATNF to consider investing in a more comprehensive online training programme that will allow international observers to qualify for observing without making a visit to the SOC. 	• This is being considered as part of our overall efforts to update the National Facility support model, and refresh our training program. This recommendation needs to also take into account resource implications to manage the scope.	•
• ATNF to investigate options to simulate the observing experiences (e.g. VR training modules) as part of the online training program.	• We are exploring various options to improve methods of training and educating the community on use of ATNF facilities, including simulated interfaces to archival data, development of online training modules and effective use of immersive reality platforms. Detailed development will depend on ability to allocate	•

			sufficient resources and relative priority should be determined in collaboration with ATUC.	
8. ATCA	& BIGCAT			
provi comp	ture calls for proposals, ATNF to de advice on the risk of successful pletion of spectral-line projects, if B reliability deteriorates.	•	The next call for proposals is currently being prepared and appropriate wording will be formulated for inclusion.	•
expe proje <i>regu</i> an ef	F and partners develop realistic ctations for timeline to complete cts like BIGCAT and maintain <i>lar channels of communication</i> in fort to ensure any delays are ed to stakeholders in a timely ner.	•	We have recently rolled out a community info session for CryoPAF and are planning to do similarly for BIGCAT.	•
9. Parke	es (Murriyang)			
 ATNI 	F consider a general policy of itting unattended observing at	•	We will scope a minimum viable scenario for this, as well as a scenario with more capability and present at a future ATUC meeting. In order to implement this model of observing fully we will require further development of alerts and the automated notifications thereof (potentially akin to the twitter alerts for ATCA), as well as wind park procedures.	•
work	F starts planning training shops as CryoPAF development es forward.	•	We will schedule a sequence of workshops as per the UWL (accommodating differing time zones). This will be scheduled once the CryoPAF is on dish (next year) and has been commissioned.	•
10. Tech	nologies			
10.1	RFI			
	nue RFI R&D projects and active nt engagements with Universities.	•	RFI R&D projects are continuing. 1 Ph.D. and 2 undergraduate students are currently involved. All major projects have an RFI mitigation component.	
10.2	Science and Instrumentation			
ATNF	(shop <i>To actively pursue</i> the plans to ise the proposed science and	•	We are planning a "Science and Technology Day" leading	

instrumentation workshop alongside the next ATUC meeting. ATUC will be happy to work closely with the ATNF in the related planning and organisation.	into the next ATUC meeting and have involved ATUC in the detailed planning.
11. ATUC & SST/Survey projects	
 Considering the importance of regular and active engagement between the ATNF and the user community, make this a priority moving forward. 	In line with this recommendation we have commenced additional community consultation and information sessions e.g. with CASDA and CryoPAF. We will continue to follow this approach where appropriate to supplement ATUC input.
• ATNF make a distinction between obtaining Community Feedback and ATUC Feedback depending on the use case (noting that ATUC is not necessarily a representative subset of the entire user community).	• See above, although we continue to rely on ATUC as our primary mechanism for user input and feedback, as per the ATUC Terms of Reference: "To consult widely with the national and international community".
 ATNF to provide a high-level summary of the updates from the two ASKAP SST PI meetings preceding the six- monthly ATUC meetings. 	• We have recently "rebooted" the series of PIs Coordination Meetings and will report on those discussions at forthcoming ATUC meetings.
12. User Feedback	
 ATNF to suitably update the requirements for ATCA remote observer training to match current (and constantly evolving) circumstances. 	• We are considering this aspect as part of the National Facility support model update, and expect the Observing Experts to play an important role here.
13. Date and format of next meeting	
 ATNF to consider similar break-out sessions on the topics of wider community interest in future ATUC meetings. 	We are planning similar breakout discussion sessions in the next ATUC meeting. We are intending to improve the logistics but retain the positive aspects.
 13.1 ATUC membership Recognising that ATUC members are appointed by the ATNF Steering Committee, ATUC requests the steering committee to consider appointing members with experience in ATCA or LBA. 	• New ATUC members have been invited with this recommendation in mind, and following a very positive set of responses, most of the new members will be joining the committee for the next ATUC meeting.

 ATNF to publish the main duties of members on the ATUC website. 	• We are looking at updating the ATUC terms of reference (currently available on the ATNF website) to articulate the role of the ATUC Secretary, and clarify the role of the members. This will need ATSC endorsement.	•
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