

# ATUC Report (May 2018)

## **1. ATUC members in attendance:**

James Miller-Jones (chair), Stefan Osłowski, Shari Breen, Cormac Reynolds (secretary), Stuart Ryder, Tieghe McCarthy, Maria Rioja, Shivani Bhandari, Jo Dawson

## **2. Commendations for CASS:**

ATUC commends CASS on:

- Ron Ekers being elected as a foreign associate of the National Academy of Sciences
- Adrian Rispler's award for the PMI Project Professional of the Year
- Karen Lee-Waddell's URSI Young Scientist Award
- Installation of the 36th PAF on ASKAP
- Installation of the UWB-Low receiver on Parkes

## **3. Prioritisation of technology development**

It was requested that ATUC provide a priority ordering for future technology development, particularly in cases for which significant financial contributions from the community will be required. The committee were unanimous that if vital equipment (e.g. CABB) is believed to be at imminent risk of failure, then its replacement/upgrade should be prioritised to ensure continued operations. Beyond that, ATUC requests additional information from CASS, which can then form the basis of meaningful community consultation. As well as the scientific and technical benefits, an informed decision would require estimates of costs, timelines, feasibilities, required cash input by universities/ARC, as well as other possible funding avenues. Once ATUC membership is brought back to historical levels (10-13 members) with representation from the all major institutes, the committee would be prepared to lead an information gathering exercise at our respective institutions. Any more formal consultation (Town Halls etc) would need to be run by CASS.

***Recommendation:*** *The first priority should be to ensure the long-term viability of all ATNF's telescope facilities. Beyond that, wider consultation will be required (with full details) to develop a list of priorities. ATUC stands ready to assist with community consultation, although more formal processes (such as Town Halls) would need to be organised by CASS.*

## **4. Culture report**

CASS requested feedback on the implementation of mandated reporting of workplace relationships. It is ATUC's opinion that the requirement to report should (in most cases) apply

only when there is a potential conflict of interest (negative or positive) arising from the relationship. Where no conflict exists, mandated reporting of romantic relationships does not seem appropriate, and mandated *third party* reporting of relationships even less so.

While ATUC recognises the difficulty in getting this balance right, the committee generally felt that a less prescriptive system is better, and that common sense should be deployed above all. In any case, great care is needed before any fixed set of prescriptions is introduced, and any new requirements should be subject to wide consultation with staff well ahead of any introduction.

ATUC commends CASS on the introduction of the buddy system for new starters and a formal mentoring system for staff, the latter of which is likely to catch those for whom an existing mentor-mentee relationship has not arisen naturally.

***Recommendation:*** *That the potential for conflicts of interest continue to be reported where it exists, but that in other cases, the introduction of any new reporting requirements be guided by common sense and the right to privacy. Any new reporting requirements that are felt necessary should be subject to consultation with staff well ahead of any implementation.*

***Recommendation:*** *That the Buddy system be continued, being assessed over time to determine what practices work well and add maximum value to the process.*

## **5. LBA**

ATUC is very pleased to see the Business Unit Review having recognised the high value and unique capability of the LBA, and strongly backs the continued support for the LBA as part of the National Facility. The community has raised some questions about the availability of Mopra in the LBA going forward, and appreciate its participation as and when possible, on a best-efforts basis, subject to the approval of the current operating consortium. However, they appreciate that since CASS no longer funds Mopra operations, instrumentation upgrades are unlikely to be possible without external funding and the permission of the current consortium.

Regarding the participation of LBA telescopes as an element of other VLBI networks outside the National Facility, ATUC realises that LBA is a very lean operation and does not have the resources to undertake the full level of support for the entire scope of possible projects that PIs might wish to undertake. It should be made clear that any requests falling outside the scope of the offered National Facility capabilities (capabilities which could in future be redefined to include LBA participation in global projects co-ordinated by the EVN PC - see point 6 below) require the PI to play an active role in coordination to ensure the success of the project.

***Recommendation:*** *The LBA Call for Proposals should make clear that the onus for co-ordination of non-National Facility VLBI time (i.e. outside the remit of standard LBA*

*operations, excepting any agreement made with the EVN PC) rests squarely with the PIs proposing the observations.*

## **6. LBA time award by other TACs**

ATUC was asked to consider whether the EVN PC should be able to award LBA time for global VLBI projects. The EVN PC process is thorough, with up to a dozen reviewers, and ATUC sees no problem with accepting the EVN PC grading of proposals for joint EVN and LBA observations. A benefit of this is to reduce the review pressure on the ATNF TAC, as well as removing the risks associated with double jeopardy for the proposers. However, as is currently the case with NRAO technical review of global VLBI proposals submitted to the EVN PC, this process should involve a technical review for the LBA telescopes to make sure the observations are technically feasible.

The logistics for the global observations should be finalised ahead of time, with decisions needed, for example, on the maximum number of projects, the maximum amount of time committed, and the available blocks of observing time, as agreed by both EVN and LBA. The expected number of joint proposals is small, and therefore should be easy to accommodate.

***Recommendation:*** *That ATNF continue to pursue the possibility of global VLBI proposals including the LBA being subjected to scientific evaluation only by the EVN PC, with ATNF only providing an LBA technical and feasibility review.*

## **7. ASKAP**

ATUC was very pleased to see the range of early science presented by the SSPs at the Science Day. It was fantastic to see the new results being enabled by the unique capabilities of the telescope, and the committee looks forward to the science to come once ASKAP reaches full operations mode.

Since the SSPs are shortly to undergo scientific reviews, the need for them to know the final telescope capabilities (or at least a common set of reasonable assumptions) is becoming more pressing, to enable them to calculate sensitivities and time requests. ATUC is aware that not all SSP teams have had (or will have had) the same opportunity to test out pipelines and feasibility with pilot surveys, particularly those requiring more complex modes, such as zooms. ATUC's view is therefore that the review should focus most strongly on the science. If new modes are required for highly-ranked science projects, they could then be prioritised appropriately.

While ATUC commends the ASKAP schedulers for their flexibility in getting early science onto the telescope (SSP-related or otherwise), the committee feels that some communications regarding plans for open time would be appreciated. To give the wider community time to start

thinking of ideas for projects, it would be useful to see some statements regarding ATNF's thoughts as to when and how a call for proposals might be held, what fraction of time might be made available, and what the timeline for that might be.

**Recommendation:** Ensure that the science review of SSP projects is not unduly affected by the different opportunities different teams have had to test their strategies and pipelines with pilot surveys.

**Recommendation:** CASS should consider setting expectations within the community regarding their plans for open time on ASKAP.

## **8. Parkes FRB Search Proposal**

ATUC supports the general idea of maximizing Parkes multibeam time to search for FRBs, but with some caveats, as outlined below. This project is likely to keep Parkes in the FRB game, with the recent advent of CHIME, FAST, ASKAP etc. Also, the unallocated time that would have been used for dedicated FRB searches could be allocated to small/student projects. ATUC requests that CASS consider the appropriate acknowledgement/policy for publications, and supports the data being made public for maximum science output. We note that the proposal implies Swinburne's willingness to both maintain the search software and ensure correct data handling which, while mostly automated, does require regular human intervention.

The committee noted that there might be cases of conflicting interests such as proposals for FRB follow-up to search for repeating bursts. ATUC therefore recommends an option to allow authors to opt out of the proposed FRB search project, with no justification required. A check box on the OPAL cover sheet would be one possible way of handling this. Under such circumstances, in the event of an detection, the data would continue to be owned by the PI of the respective project.

Finally, it is ATUC's view that the implementation of an automated FRB detection mode should not impact the system setup for the primary project at the telescope. ATUC recommends that the FRB team liaise with the observer in case of a detection, to organise a calibration observation in a way that is least disruptive to the observer. ATUC also suggests that CASS should monitor the project for first few semesters, to see how it is going and whether any amendments to the policy are required.

**Recommendation:** *That the proposal be accepted, but with an opt-out clause on all future Parkes proposals, to allow teams who want to pursue their own FRB science, or do not want to be overridden, to continue to do so. Events picked up through the new commensal system would be made public after the ~1-hour verification period, including publishing a VOEvent to facilitate follow-up. However, in the case of opt-outs, events discovered would remain proprietary to the PIs for the standard Parkes proprietary period.*

## **9. Small projects**

There has been some concern in the community that the scheduling of a number of smaller projects (and therefore possibly student projects) has been impacted by the combination of highly ranked large projects and the reduction of available time through the selling of telescope time. ATUC would like to see the statistics about small projects and student projects and see if that concern is warranted. If so, this would be a matter that should be addressed at future ATUC meetings.

***Recommendation:*** *Investigate the statistics of small projects and student projects in semesters prior to and following the recent reduction of available National Facility telescope time, and present these numbers at the next ATUC meeting.*

## **10. ATCA**

ATUC was very impressed by the preliminary results of the Legacy surveys, as presented at the Science Day. Now that the Legacy Projects have all received several hundred hours of time, thought is being given to data releases and early science papers. ATUC seconds the Legacy PIs' request for clarity regarding what support could be made available from CASS regarding long-term hosting of data products and making them easily available to the community. CASDA might be one potential option to consider. On a related note, since the Legacy webpages state that Legacy teams are required to release value-added data or data products in a timely way, with the rate of delivery being assessed each year, ATUC suggests that CASS provide some clearer guidance as to the details of what is expected.

Further, storage of data during processing is becoming an issue for some of the projects, and ATUC suggests that CSIRO consider what resources they are able to provide for use by the Legacy teams, to help in timely delivery of science results from the Legacy surveys.

ATUC strongly supports the development of the chatbot by Jamie Stevens. This will alleviate a significant amount of DA and observer stress and hopefully result in a more efficient use of the telescope while reducing a significant support burden.

We appreciate the deployment of the updated ATCA portal and note that it is significantly easier to book green time and normal scheduled observations.

***Recommendation:*** *CASS to clarify support and data release opportunities and requirements to the Legacy survey teams.*

## **11. Observer training**

ATUC suggests that CASS consider the creation of a formal system allowing nominated Legacy and Large Projects to designate one or more experts to train their own observers. CASS should have control over the nature and requirements of this training, and the right to deny the privilege if not satisfied that procedure is followed. For remote qualification outside those projects, observers would in general be required to follow the normal CASS training procedures. Allowing Projects to train members could also widen the pool of possible DAs, and increase the number of those coming to the DA role with a baseline level of experience.

ATUC recommends that CASS reconsider observer requalification by videocon for geographically distant observers. It is ATUC's view that the arguments for requiring in-person visits need robust justification in an era when DAs may be based in Perth, and the technology for effective virtual meetings is readily available. Some of the perceived disadvantages of physical distance from the expertise at Marsfield could potentially be alleviated by the creation of an active online space for ATCA expertise, as described in more detail below.

***Recommendation:*** CASS should investigate a system whereby Legacy and Large Projects could designate CASS-approved experts from within their own project teams, who would be able to train up observers for their own projects, according to requirements set down by CASS.

***Recommendation:*** CASS consider whether a system of remote requalification might be acceptable.

## **12. DAs & Observing support**

There is a potential issue of stress affecting new observers' (and students') willingness to put their name forward for DA shifts. This stems from a requirement of CASS students to be DA, however, no requirement for them to have prior experience with the ATCA. Depending on the confidence/past experience of each individual in observing, the current amount of DA training may not be sufficient to provide new DAs with the required knowledge in order to feel like they have the ability to set up and troubleshoot ATCA observations.

Assuming the implementation of the system from the previous section, where Legacy/Large ATCA projects have nominated trainers, the number of students/new observers introduced to ATCA observations will hopefully increase. Having prior knowledge and experience with ATCA should increase both the effectiveness of the DA training, and the number of willing potential DAs. The hope would be that this would then result in increased numbers of proficient DAs entering the system.

Additionally, ATUC recommends setting up an online space (separate from the Portal), where ATCA observers can conveniently share knowledge. Slack (or similar) could be used to facilitate

discussion between community members across the world, with various channels dedicated to different discussion topics (spectral line, scheduling, telescope problem, etc.). ATNF staff along with the current DA could monitor the channels when available, however, assuming sufficient community critical mass is achieved, this would not require much additional time commitment. This could be a powerful tool for less experienced observers to get help with observing problems, scheduling, proposal writing and more. Combined with the ATCA bot, this will not only reduce pressure on the DAs, but also increase the general knowledge level of the wider community.

***Recommendation:*** CASS should consider implementing an online space for the ATCA community to gather, discuss ideas, and support each other through information sharing.

### **13. NAPA and ToO Overrides**

ATUC feels that the communication of NAPA and ToO overrides to the PI and the observer registered for the observation that will be overridden could be improved. This would foster goodwill between all parties and maintain the high regard of NAPA and ToO projects within the community.

***Recommendation:*** ATUC recommends that a standard email could be sent to PIs and the registered observer communicating that a NAPA or a ToO is going to override their observation and include the details of the override.