Director's response to ATUC Report – October 2012

ATUC recommendation	Director's response	Traffic light
Commendations and successes		
• ATUC wishes to commend ATNF staff on their great progress on the ASKAP telescope. The closure phase between three PAFs is an excellent demonstration of phase coherence and the feasibility of the aperture synthesis with PAF systems. In addition the committee congratulates CSIRO on the opening ceremony at the MRO. • The new ATCA 4cm receivers show excellent performance across the very broad band of the CABB system. In addition, the new feed design looks promising as a way to extend this system to the critical 12.2 GHz spectral lines. The user community looks forward to having the full complement of six receivers operational on the CA antennas • The CABB backend system has now full capability for zoom bands with widths of 64 MHz as well as 1 MHz. This is an important step toward the full capability of the CABB system. • At Parkes there have been several improvements to the infrastructure, notably a new maser/timing distribution system, and a significant upgrade to the backup power system, including UPS for the antenna drive motors.	Noted and thanks	

Recommendations and questions		
1. ASKAP		
a. Continued dialog with the SSTs on the progress of BETA and the initial 12-18 station ASKAP is needed.	We currently provide regular progress updates to the SST PIs through the ASKAP SST Co-ordination and management meetings, which are held every two months. Additional updates are provided at the meetings of the ASKAP-wide working groups. However, we acknowledge that some members of the community may miss these updates, and their frequency has not always been adequate as the project has evolved. A regular (monthly or more frequently as material dictates) informal, more "applied" news letter on ASKAP with significant detail on specific technical developments relevant to the engaged astronomer will be produced starting in January	Green
b. Further clarity and timelines on the impact of SKA phase-I construction on ASKAP operation is needed.	The SKA Organisation, CSIRO, MRO stakeholders and the Commonwealth are currently discussing models for the growth of SKA Phase 1 from ASKAP and the current activities at the MRO. The details will not be agreed for some time. Under the current plan, the pre-construction phase of SKA will not be complete before 2017.The timeline for the commencement of Phase 1 SKA construction will depend on a number of factors such as the timely completion of the pre-construction phase, the siting agreement and the availability of funding.	Yellow
2. Mopra		
The committee feels ordinary TAC scheduling for Mopra is the best model for allocation of the remaining CASS share of telescope time. Some flexibility is needed on the allowed size of accepted projects. There is no demand for a special Expression of Interest process and we do not want the ATNF to discourage small projects on Mopra.	We will allocate this time under the ordinary TAC process. As observing support is limited under the new operating model, the need for teams to be largely self-supporting has been emphasised in the Call for Proposals, with no limitation imposed upon the size of projects.	Green
3. ATCA		
The committee supports the deliberate pace of bringing up the zoom modes with different bandwidths. The success of the 64 MHz zoom modes has been good, and we agree the continued process of debugging and streamlining the	We appreciate your advice on, and support for, the direction we are taking. A planning session prior to the launch into the 16 MHz zoom modes will give greater clarity on delivery milestones.	Green

changing between the existing 1 MHz and 64 MHz zooms takes priority over implementing the 16 MHz mode. We are also looking forward to the completion of 16 MHz modes.		
The CA has developed many new and world-leading technical capabilities, and we expect a broad range of applications from the user community will be proposed in the next year or two. Therefore we do not see a need for the ATNF to specifically seek out large projects at this time.	Noted	
4. Parkes		
a. ATUC recommends CASS encourage more meetings and workshops to be held at Parkes to increase the interaction between Parkes operational staff and the astronomy community.	Facilities are available for holding meetings at Parkes and we will encourage this practice.	Green
b. ATUC is concerned that the Parkes observing model based on a Project Expert collaborator may effectively reduce access to the telescope for novice observers. This model could work as a means of training new observers and to increase operations efficiency, but it will need careful adjustment. The responsibility of the Experts for guiding novice users through the proposal process, and through preparing for and conducting observations, will be critical.	There is no requirement for a team to have a Project Expert to propose for observations. The Call for Proposals makes clear that novice users will be required to send observer(s) several days in advance so they can receive training to become the required Project Expert, to be the first point of contact outside work hours for questions concerning the observations.	
5. Future Operations		
a. In the ASKAP/MeerKAT era, the scale of radio astronomy will jump by orders of magnitude. As training and experience are essential in understanding the basis of the field, observatories like Parkes and Narrabri will remain important as training facilities. Hence, the UC strongly recommends that the option of operating the telescopes on site should be preserved.	For the ATCA the option of observing on-site remains for all projects. For Parkes, the option of observing on-site remains in certain cases (described in the Call for Proposals). We believe the SOC offers some advantages over observing from the telescope, but also acknowledge the benefits to students in particular of visiting the observatories. CASS Radio Schools and observing at the ATCA will provide opportunities.	Green
b. The UC anticipates that future observers at Parkes will use local hotels and restaurants, doing their observing from inside the tower. We will minimise the inconvenience to the local staff, but we still want to feel	The Quarters will remain open until at least September 2013. We agree that the Observatory will benefit from having visitors, just as visitors will benefit from visiting the site.	

welcome at the observatory. We will work within whatever budget constraints are required.		
c. The UC feels that a good use of the SOC could be as a base for students who are users of ATNF telescopes for training and interaction with CASS staff. All students, both ATNF co-supervised and external, could be based in the SOC visitor area.	The priority for desks in the SOC area will be for visiting observers, but certainly other visitors, including students, can be based there. We will retain desks in other rooms for visitors, with priority being given for these to longer-term visitors.	
d. To qualify for remote observing, the plan is to have a user come to Marsfield for training. The UC believes that the user should have the option of doing the training either in Marsfield or at the telescope. We recognise that there will be extra OH&S training required for visitors to the site. We prefer a two-stage training process, reflecting the different expertise of the staff at the observatories vs. the Marsfield scientific and technical staff. Neither is sufficient on its own to train new users.	For the ATCA, training is currently provided at the telescope. In the future we intend to offer the option of training in Marsfield. For Parkes, training will normally be provided at Marsfield using a combination of staff from both Parkes and Marsfield. The point-to-point video link from the SOC control room to the observatory will enhance interactions with Observatory staff during training.	Yellow
6. Parkes Science Day		
The Science Day discussion of the future priorities for the Parkes telescope was productive. The ATUC thanks the ATNF for support in organizing and hosting this workshop.	Noted and thanks	
7. Parkes receivers		
We want new receivers to improve the performance of Parkes, not to come at a price of worse sensitivity, polarization quality, interference suppression, field of view, or baseline stability. A goal that satisfies most or all the science drivers would be to have: - A wideband 4.5-25 GHz package; A wideband 700 - 3600 MHz receiver; optimised for pulsar observing; A wide-field L-band receiver optimised for spectral line surveys of Galactic and extragalactic HI and OH. The process for setting priorities among these options will involve the national community as well as the ATNF staff in a dialog with the technical experts. The possibility of collaborative proposals and joint development with university groups	Noted. We will continue to engage with ATUC and the community and are grateful for the ongoing role of ATUC in the dialog. Opportunities for collaborating with Australian universities will be explored.	Green

could enhance the funding and personnel available. Backend development is particularly strong in several Australian universities. The ATUC will be happy to play a role in the ongoing decision-making process. We will facilitate the dialog between the national community and the ATNF technical staff. We can be a sounding-board for design questions, report user ideas and preferences, and assist the ATNF scientific staff in determining the schedule and priority of different options.		
8. CASS radio school		
The radio school is essential for new PhD students and others interested in learning radio astronomy techniques and is still very popular. Given the split between single dish and interferometric focused meetings, yearly meetings are considered important. To ease the burden on CASS staff, the ATUC recommends sharing the responsibility for organising the meetings and increasing the pool of speakers from the wider radio astronomy community.	While we acknowledge the high interest in the radio schools, they consume significant CASS resources to staff and host. In the present financial environment we have decided to concentrate on holding a radio school each two years, from 2014, with a focus on interferometry. The schools will be out of phase with the VLA interferometry schools (also scheduled every two years) to provide a training opportunity every year. One possibility would be for the community to organise a more general radio astronomy school in the alternate years and this could be held at any of the East Coast sites including Parkes. CASS will consider funding part of the costs for affiliated PhD students to attend the VLA school where this takes place during their first PhD year.	Yellow
9. Other issues		
a. Some users have found reduced reliability in Miriad, particularly associated with the WCSlib and its compatibility with new versions of the Miriad package. On this subject, the ATCA forum has been very effective and widely used as a way to report and get help with Miriad issues.	The introduction of the full WCSLIB functionality in Miriad required some non-backwards-compatible changes. All sites building Miriad from source were required to update their version of WCSLIB to at least 4.12. Announcements to this effect were made on the atnf-data-reduction mailing list (21 March 2012) and the ATCA forum (26 March 2012). Unfortunately the people reading these announcements did not include all the people responsible for maintaining the Miriad distribution at each site and automatic Miriad updates continued at some sites. This caused broken installations until the appropriate WCSLIB version was installed and Miriad was rebuilt. We do not anticipate further	

	disruptions due to this change. Apart from the WCSLIB issue, there has not been a noticeable increase in Miriad bugs or issues reported since March. We would like to remind users of the email address miriad@atnf.csiro.au to report general Miriad issues. The command mirbug can be used from within Miriad to send a bug report on a specific task. The ATCA forum is a good place to get help on how to use Miriad and to report puzzling results. Thank you for the positive feedback on the forum. We find it an enjoyable way to interact with users.	
b. The interference surveys at both Narrabri and Parkes are very important. The users would like to have the results kept on a well-maintained webpage.	Agreed, characterising site RFI and maintaining up-to-date user information for the observatories is a recognised priority. As outlined to ATUC members at the last two meetings, CASS projects are under way that will streamline the conduct of RFI source surveys at all ATNF observatories. The results of such surveys, with regular updates, will be available to users.	Green
10. Matters arising		
a. “Service observing is not offered now, and there are no plans to introduce it”. The UC notes that some users have asked for a change in this policy.	The request is noted, but we do not have the resources to consider allowing service observing at present. We are able to help users find local collaborators if travel is not possible.	
b. “Remote observing requirements are under review and will be discussed with ATUC at the next meeting.” The ATUC requests further explanation of remote observing training requirements.	Weaknesses inherent in the current policy are recognised, and although the points-based qualification scheme presented at the July ATUC meeting addresses these to some extent, it also requires some optimisation. We will present revised plans to ATUC at the next meeting.	Green