ATNF Director's Response
ATUC meeting - 28June 2011

ATUC Recommendations	Director's Response	Traffic Light
Commendations and successes		
● ATUC congratulates the VLBI team on their recent eVLBI success between the ASKAP and Warkworth antennas and the rest of the LBA. ● ATUC is impressed by the progress made with the ATOA upgrades and the interface to both the MALT90 data products and the Parkes pulsar data. ● ATUC congratulates the Narrabri staff for continuing to provide an excellent student experience. ● ATUC congratulates the AT staff for their efforts towards ensuring Parkes remote operations, particularly with the revamped MCP. ● ATUC is delighted to see the Mopra webcam installed on site! ● ATUC is also delighted to see the lecture theatre microphones have been installed.	Noted, with thanks.	
Matters arising from the May 2010 ATUC report		
1. Recommendation #12: A summer student project looking at on-the-fly (OTF) mapping at Tidbinbilla is currently continuing as an Honour thesis. ATUC encourages CASS to continue supporting the investigation OTF mapping at Tidbinbilla, which will be of value to users.	As noted, the CASS/ATNF vacation student who started on this project last summer continued this as an honours project, and some Tid time has been used for ongoing tests. However, more effort is required to make OTF mapping possible with the 70m, and the possibility of having a PhD student contribute to this is being investigated.	Green
2. Recommendation #14: ATUC strongly recommends that continued efforts be made by CASS to help users get their data, both locally at the telescope after an observing run (firewall issues and the pink cable are only 100 Mbps compared to the 1 Gbps blue cables) and remotely from their home institutes (where state-of-the-art network based data transfer protocols are needed to transfer large datasets).	As previously reported, we are continuing to monitor developments with fast transfer protocols. In the meantime, the normal way for users to obtain data off-site will be the ATOA. Special arrangements are in place for very high data rate applications (VLBI and some pulsar projects). The fastest way to obtain large datasets at the telescopes remains via portable hard drives. The current network hardware supports only 100 MB/s transfer to non-CSIRO machines, and we will pursue options to increase this rate at the ATCA. A large installation of RFI-compliant hardware at Parkes means that a 100Mb/s network (for nearly all devices) will be the standard for some time to come.	Green

Matters arising from the October 2010 ATUC report		
1. Recommendation #1: All three recommendations — (1a) that SOC trials continue and ensure that a wider range of observing modes are covered, (1b) that ATNF release a proposed operations plans for the SOC, and (1c) that ATNF carefully consider the student experience with the telescopes — remain. We would like to stress that the student experience at ATCA and Parkes be very carefully considered when planning for the Sydney-based SOC. While we appreciate that students involved in the MALT90 SOC trials really enjoyed their Marsfield experience, this is not the same as the hands-on experience gained at the telescopes.	More Mopra observing has been done from Marsfield this year and this is routine. Following the user feedback from the last winter semester, the direct point-to-point video connection has not been used pending upgrades so that the video system can be easily switched on and off, and changing the Mopra area at Narrabri into an enclosed room. Planning and engineering are continuing for Parkes remote observing from Marsfield and other locations, and we expect limited trials of Parkes remote observing to begin late this year. CASS is very conscious of the benefits of students gaining direct experience with the facilities and this is being taken into account with the planning. Plans for the Science Operations in Marsfield form part of the new strategy for ATNF operations and this will be announced shortly. A draft plan for ATNF Science Operations in the ASKAP era will be released prior to the next ATUC meeting.	Green
2. Recommendation #2: ATUC appreciates the review of data reduction software carried out over the past few months and reported on at this ATUC meeting. It is clear that some tasks cannot be done by with either Miriad or ASKAP reduction software, and some tasks are better served by CASA procedures. However, we argue that the scientific productivity promised of CABB cannot be fully realised until these issues are resolved. The level of Miriad support remains a concern. If CASS advises users that some tasks require CASA, then ATUC recommends that there be an allocated CASS-CASA “go to” person to assist users. The second recommendation — (2b) that ATNF advice users how to reduce their CABB polarisation data — remains. Users are unsure what polarisation data can be reduced and how to do it. .	We believe that for the majority of users, miriad will enable the data to be fully reduced. For a small number of users, the multi-scale multi-frequency capabilities of ASKAPsoft will offer improvements over miriad, and a data reduction path to make use of this will be established. ATNF staff are continuing to gain experience with CASA, and the possibility of designating a "go to" person will be investigated if it can be established that CASA offers improved data reduction capabilities that are beyond our resources to implement in miriad. An expanded section in the miriad user guide on CABB polarisation data reduction is in preparation. Nevertheless, this activity remains resource limited.	Green/Yellow
3. Recommendation #6: ATUC appreciates that there is now an Overseas Travel Application form for students in the CASS Graduate Student Program. There is, however, still confusion amongst students	All students, including top-up scholarship recipients, should complete the CASS Graduate Student Program travel form. Requests for	Green

with CSIRO top-up funding about how they are to access their $10K per annum research support funds. Specifically, should CSIRO top-up scholarships recipients complete the same CASS Graduate Student Program travel form for their national and international travel requests? Does a separate form need to be completed for non-travel related research support requests (such as equipment and textbooks)? Clarification for CSIRO top-up scholarship students would be greatly appreciated.	other research support should be made through the student's CASS supervisor.	
4. Recommendation #7: ATUC was encouraged by the great work done importing the data products (datacubes and associated files) for the MALT90 project into the Australia Telescope Online Archive (ATOA), and their own project interface at http://atoa.atnf.csiro.au/MALT90. ATUC was asked at the open session to make recommendations to the ATOA group about the sort of projects they might tackle next, be it another Mopra large project, or one of the legacy HI projects. Given that the ATOA group worked with the MALT90 team from the outset of the project, designing a system for that specific survey, it would be worthwhile to (a) test how expendable the existing system is to other large Mopra surveys, and (b) to determine how much work is required to apply the same process to some historical/legacy non-Mopra large projects, such as HIPASS or GAS, as well as non-HI surveys like AT20G.	We thank ATUC for the comments. The experience gained with incorporating MALT-90 data cubes into ATOA has been invaluable in understanding and addressing the issues involved. We now plan to extend the ATOA to include other Mopra Large Surveys and expect to be able to include several other surveys within a time frame of 12 months. In addition, the CASS Astrophysics Group will also begin to look at the requirements of the data archives for the non-Mopra surveys. These requirements are less defined and further information on this will be provided to ATUC later.	Green
New Recommendations - ATNF Response Requested		
1. Mopra scheduler: ○ The Mopra scheduler currently only supports "square" maps, while it would be useful to users to be able to include rectangular maps. *Recommendation 1*: The Mopra scheduler is extended to support rectangular on-the-fly mapping.	This will be implemented shortly.	Green
2. TAC feedback: ○ There were concerns from some users that recent TAC feedback was not up to the expected standards. Specific complaints suggested that in some cases feedback received from the TAC appeared to be more focussed on the level of English and proposal formatting than on the scientific content. There were also concerns about the perceived preoccupation with what future instruments which are still under construction might do, and that this can potentially compromising the science that users can and want to do now. Specifically, it appears that some projects were	TAC readers and members are required to read, digest, grade and provide comments on a large number of proposals in a relatively short time frame. Considerable effort is made to provide constructive science feedback on the science cases to proposers. However, the OPAL user guide clearly lists a number of requirements for proposals regarding formatting, number of pages, font size, etc., that are intended to provide a level playing field for proposers and make the job of the reviewers a little easier. Proposers	Green

not being allocated time now due to the future arrival of instruments such as ASKAP. With ASKAP still a long way from completion, it seems somewhat unfair and short-sighted to "stall" viable projects which can be run now with the superb existing instruments such as the ATCA with its current CABB capabilities. *Recommendation 2a*: TAC feedback should focus on the scientific content of proposals, so that the feedback can help users understand the score they received (and ideally help them improve future proposals). *Recommendation 2b:* The TAC should also consider whether the proposed science can be done now with existing instruments rather than simply defer to future instruments that are still under construction.	who flaunt these rules should expect to be reminded of them! We accept that the full ASKAP is still some years away, and no project is downgraded simply because ASKAP will be able to do a similar job in the future – indeed, a number of ASKAP pathfinder projects with the ATCA have been allocated time where the scientific justification has, in the TAC's opinion, warranted a sufficiently high grade. However, the ATNF facilities are oversubscribed, and in general it is reasonable for the TAC to consider whether upcoming instrumentation could allow a much more efficient use of time. For example, several years ago the TAC had to consider whether an ATCA proposal for a large amount of time for 13 and 20 cm continuum studies should wait until it could be done much more efficiently with the new 16 cm wide-band system.	
3. Mid-week RFI: ● Users understand that "mid-week RFI" is causing some trouble (particularly for L-band observations at 1280 MHz) and that CASS is trying to help mitigate these problems. However, it appears that the "mid-week RFI" is not only a mid-week phenomenon, but can occur throughout the week including over the weekend. So far it appears to not occur overnight. *Recommendation 3*: ATUC recommends that CASS make clear to observers the known issues surrounding mid-week RFI, and where possible put in place scheduling constraints to assist in avoiding L-band users being affected where possible.	We are aware of the impact on observers, and their concern. Optimised scheduling is one of the ways we addressing the problem.	Yellow
4. LBA amplitude calibration: ● There are some concerns within the VLBI community about the ability to obtain calibration information for the LBA, which affects user satisfaction. Users would like to see improvements to the procedures to ensure that amplitude calibration information (i.e. system temperature measurements and gain curves) is easier to access and apply. Ideally the system gain and gain curves would be measured regularly for each telescope and also made	Time will explicitly be allocated for calibration of each receiver used in a VLBI session. There is an ongoing project to provide additional calibration information with the datasets from the correlator that is resource limited. In the meantime, documentation and advice to observers will be reviewed to ensure this information is readily available and able to be applied.	Green/Yellow

readily available to user. *Recommendation 4:* ATUC recommends that LBA observations start with the necessary calibration to ensure that amplitude calibration is conducted and that appropriate time (and human resources) should be allocated in all LBA runs for this calibration. The procedure by which users access calibration information should be reviewed to ensure that this information is easy for users to obtain and apply.		