ATNF Director's Response
ATUC meeting 27 and 28 October 2008

ATUC Recommendations	Director's Response	Traffic light	Progress (April 09 update)	Status (May 09)
Commendations and successes				
ATUC Recommendations [ATNF response requested]				
Matters arising from the May 2008 ATUC report and the Directors response.				
1. The issue of providing a minimal-level, quick-look display tool for ASAP was mentioned in the last ATUC report (point 5) and has yet to be addressed. ATUC have become aware such a GUI exists (the ASAP Online Monitor) but note this is absent from ASAP binaries provided by the ATNF. ATUC urges the ATNF to have this feature made available with high priority.	The ATNF will, if it is feasible, include the On-line Monitor for ASAP with the binary distribution of ASAP.	Green	The ASAP Online Monitor was available in 2008 but appeared to get little or no use. It is not easily packaged with ASAP. However, it can be hosted on an observatory server and we will reinstate this facility. We will further investigate options for including this functionality in the binary distribution. Note also that ASAP now has the ability to export data in a format that can be accepted by the other spectral reduction packages GILDAS and XSPEC.	complete
2. ATUC is encouraged by the assignment of Phil Edwards as Project Scientist for WVRs (point 8, May 08). ATUC would appreciate feedback on the feasibility of having both hardware and software components (including MIRIAD incorporation of opacities) completed and available for the beginning of the 2009 millimetre season.	The WVR project project plan is for the hardware to be delivered in the first half of next year, and for the integration and software development required for a fully operational system to take place over the winter months, finishing in September 2009. We expect the WVRs to be operationally ready and available for the 2010 winter season.	Red	No change	ongoing
3. Following on from item 14 from the last report, ATUC seeks clarification on whom the ATNF-Tidbinbilla liaison is. In addition, ATUC thanks the ATNF for updating the Tidbinbilla project status pages.	James Green has taken on the role of ATNF-Tid liaison.	Green	James (Jimi) Green is now the ATNF Tidbinbilla 'friend' and is regularly updating the Tidbinbilla web pages.	complete
4. Following on from the issue of the new TAC model outlined in the last ATUC report (point 21); ATUC would like outcomes of discussions between ATNF and ATSC on the new model to be made available.	As discussed with ATUC, the only change to date has been to expand the membership of the TAC to reduce the workload on individual members. A proposal for more significant changes may be prepared for consideration by the Steering Committee in the latter part of 2009 and the ATNF will seek ATUC input as part of preparing any such proposal.	Green	Some proposed changes to the TAC process will be discussed with ATUC in May 2009 and at the next ATSC meeting. A paper describing the TAC and the proposed changes to the process for reviewing proposals will be provided for ATUC prior to the May meeting.	ongoing

5. ATUC notes the request to have international representation on ATUC (item 30) has been given a red flag. Discussions between the ATUC chair and members of the ATNF Steering Committee suggest this idea could be explored further. ATUC notes the use of video or tele-conferencing facilities are acceptable alternatives to flying and accommodation costs associated with internationals physically attending meetings.	The ATNF will explore cost and time-effective options for international representation on ATUC.	Green	To be considered following the May 09 ATUC meeting.	ongoing
New recommendations				
General				
Software/Computing				
8. The installation of ASAP on newer Linux installations such as Fedora Core 9 is currently not possible. Although this has been earmarked for v2.3, ATUC would like version 2.3 of ASAP be released with some urgency as some students have been waiting on this feature for some months.	The ATNF support for ASAP is currently limited to 1/5 of Malte Marquarding's time (the remainder of his time being allocated to ASKAP).He reports he is making an effort to make a release of the requested version before the end of 2008, but he is overseas on ASKAP work until Jan 2009. As an alternative students can request an ATNF account and use the ATNF data reduction servers in Marsfield to process their data. See http://www.atnf.csiro.au/cgi-bin/atnfres/ident_request.pl/	Yellow	ASAP v2.3 has been released.	complete
9 ATUC makes the comment the suite of pulsar online software is not fully supported from within the ATNF. ATUC would like clarification on who is directly responsible for items such as bug fixes, upgrades and requests for help by "non-expert" users.	This item was touched on in the software talk in the open session of the last ATUC meeting. A first point of call for "non-expert" users is the observatory support staff. George Hobbs is effectively the maintainer of pulsar software within the ATNF and can forward requests to other developers. First time pulsar observers should request an ATNF friend on their proposal, see http://www.atnf.csiro.au/observers/Friends.html	Green	No change	ongoing
Instrumentation - CABB low-frequency upgrade				
10. ATUC expresses concern about the lack of funding to simultaneously complete the L/S and C/X CABB upgrades to the ATCA. ATUC feels this project should be completed as originally conceived. ATUC	Even without the C/X upgrade CABB will greatly increase the capability of the Compact Array at both C and X bands. A short document from the Project Scientist (attached) provides useful background.	Yellow	Stage 1 is progressing toward completion in August 2009. Stage 2 is currently expected to be completed around 18 months after the completion of stage 1.	ongoing

notes in Robert Braun's presentation the ATCA during 2010-2015 was to be used for "cutting edge" Star Formation studies, for which the C/X upgrade is essential. ATUC understands funding has been provided by University groups towards the completion of this project and as such suggests the Project Scientist (Naomi McClure-Griffiths) organise a half-day meeting with these and other interested parties to discuss the issue in more detail.	The cost of this upgrade significantly exceeds the early estimates and this has required a reassessment of the ATNF's ability to complete the full project. ATNF is currently committed to completing stage 1 of the project (L/S interface boxes, to completing stage 2 (L/S LNA upgrades) if it can be can be done without negatively impacting on ASKAP, and has not committed to completing stage 3 (C/X LNA upgrades). ATUC may like to assist in communicating this information to the user community. ATUC may also like to consider facilitating a short workshop on using ATCA in the CABB era prior to the next call for proposals for the 15 Jul – 30 Sep sub-semester. Such a workshop would naturally include discussion of the LSCX upgrade.		ATNF does not expect to have the resources to complete Stage 3 though some preliminary work has been done, and this stage may proceed if additional resources can be secured. There are several components to stage 2 (and stage 3 if it were to proceed) that involve far more than just creating a suite of broadband amplifiers. A broadband RF module is required for each receiver as well as electronics control and monitor circuit boards. Modifications to the cryostat internals are needed and there is little doubt that some maintenance tasks will be identified and undertaken on the cryostats when they are being refitted with the new amplifiers, RF cabling and bias wiring. Prototyping of a new system will be part of the process and the refit of the suite of the receivers will entail a significant effort. The proposed "ATUC in the CABB Era" workshop will take place on 13 May 2009, immediately preceding the ATUC meeting.	
Compact Array and Mopra				
11 Based on feedback from mm-wave observers, the provision of a millimetre calibrator flux database via C007 has not been made available for the start of the 2008 season. The observations and reduction of high-frequency calibrators are an essential service to astronomers and so ATUC recommends the calibrator flux database be updated at the start of each millimetre season.	Noted. A research assistant has been employed on a casual basis to catch up on the backlog of calibrator reduction. It is expected that the new System Scientist will have a prominent role in ensuring the availability of ATCA calibration information.	Green	Since CABB was installed last month, a series of calibrator observations have been made and reduced. The results will be available on the web within a week.	ongoing
12 ATUC notes provision for mm/cm swap scheduling was not provided in the APR08 and OCT08 semesters. ATUC recommends the ATNF look into re-introducing cm/mm swap scheduling.	The scheduling of mm/cm swap scheduling requires mm and cm proposals for the same array and comparable LST ranges, and last year that was not the case. If there are suitable swap partners for next winter's term, they will be scheduled as such.	Green	Again, for the 2009April ATCA term, there are no mm/cm wave proposal pairs that are conducive to being scheduled as swaps.	complete
13 Some members of the millimetre community have been very nervous about the mention in the ATNF Science Priorities Document v1.0 about the future decommissioning the 3mm system - which is now an excellent and stable	Noted. The community will continue to be consulted extensively regarding such changes to ATNF operations.	Green	No change.	complete

	system that is much loved by its users. There was serious concern that a decision had already been made to decommission the 3 mm receivers by 2011. It was reassuring to hear from Robert Braun's presentation that no such decision has been made and no decision would be made until ALMA was online and successfully running at 3mm. ATUC certainly hopes that any plan to decommission would involve extensive community consultation.				
14	Given the success at Parkes of cycling the receiver position as a means of mitigating the effects of standing waves, ATUC encourage the ATNF to similarly examine whether such a method would also work at Mopra. The shifting of the entire sub-reflector may require looking at reliability of associated motor drives.	Indeed, the new technique demonstrated by John Reynolds looks like a major breakthrough on this long-standing problem. The ATNF is actively pursuing its applicability to Mopra – there maybe mechanical and control issues to be overcome for this to be practical at Mopra.	Green	Some tests have been conducted, but a reliable routine has not yet been developed. Work continues.	ongoing
15	ATUC would like the ATNF to determine whether "fast-mapping" can be undertaken with MOPS. This is mapping with a faster cycle time than currently used (possibly 0.2s rather than the current 2s), which would enable larger area maps to be made (in particular of CO line emission). If such "fast-mapping" is possible it significantly affects what kind of surveys might be conducted or proposed for the Mopra Milky-Way meeting.	ATNF acknowledges the demand from the community for fast mapping with Mopra to facilitate future large surveys in the 3 and 7-mm bands. Preliminary testing by Warwick Wilson and his team has indicated that fast mapping (with a reduced number of zoom bands) should be possible. However, the resource demands for the completion of CABB constraints mean that no further tests or guarantees can be made before the APR 2009 winter season. Observing proposals utilising fast mapping with Mopra will be accepted at the Dec08 deadline on a shared risk basis and those approved by the TAC may be scheduled towards the end of the 2009 winter season.	Yellow	The previous advice stands.	ongoing
16	ATUC wishes to advise the ATNF some users have commented on the lack of climate control in the Mopra control area.	The ATNF is (painfully, or at least uncomfortably) aware of the short comings of the air conditioning throughout the Narrabri control building. This was one of many issues to be addressed in the planned major refurbishment of the building that was withdrawn from the CSIRO capital works program due to a lack of funds. Narrabri staff will continue to seek feasible solutions to the problem. Mopra observers in	Green	No addition to the previous comment.	complete

	acute discomfort are encouraged to talk with local staff in case some specific and immediate measures are available.			
17 ATUC understands recent network, generator and power supply issues at Mopra have caused some concerns from observers. ATUC would like the ATNF to review procedures regarding loss of power to observatories. This will be particularly important in the realm of remote operations for ASKAP, Parkes and Mopra.	Mopra network issues appear to have been resolved by the addition of a dedicated local VNC server. Replacement of the main server, bigrock, in December 2008 should improve things further. Problems experienced during the winter season with the site UPS have been addressed by the addition of two smaller units to reduce the load (and dependence) on the main UPS. Work is continuing on understanding, and fixing, the underlying cause to the power problems.	Yellow	Computer BIGROCK was replaced in December 2008. Operational problems have declined in frequency, but a full understanding of the power related problems has not yet been gained. However, a new UPS unit has just been ordered; it will be used to isolate antenna electronics from power problems that are believed to originate in the antenna drive systems.	complete
Parkes				
18 The current FAO document (Section 2.3.2, "Consolidate Instrumentation") and Brett Dawson's ATUC presentation make mention of streamlining the Parkes receiver fleet. ATUC would like clarification on what receivers are being modified and/or removed from use and what is the estimated timeline for this process.	ATNF is reviewing the Parkes receiver fleet in the light of receiver development across other parts of the ATNF. The availability of very broadband systems opens the possibility of covering the spectrum used at Parkes with a smaller number of packages. That would result in fewer receiver changes; in general the overheads of receiver management would be reduced. If significant changes are found to be attractive and cost effective, the changes themselves are likely to take several years to complete, and ATUC will be consulted and informed during the specification and planning of the changes.	Green	A number of discussions on this topic have been held and a concrete proposal is now being investigated technically. This proposal will be described at the coming ATUC meeting.	ongoing
19 ATUC would like clarification on when the Methanol Multibeam receiver will be shipped back to either Jodrell or Effelsberg Observatories. Are there plans to upgrade the existing C-band receiver or incorporate C-band capability into the NASA X-band receiver?	Four amplifiers from the Methanol MB have just been repaired. A survey of the rest of the receiver is underway as there are doubts about the reliability of other components. Manchester does not have funds to install the receiver on Jodrell. A suggestion that the receiver could be installed Effelsburg is being investigated by Karl Menten's group. Plans to incorporate a C-band capability in the NASA X-band receiver are under development.	Green	Discussions between ATNF, Effelsburg and Jodrell continue, but no firm time-scale for the departure of the MMB has been set. The proposal for Parkes receivers (see 18) includes provision for retaining a methanol observing capacity at Parkes.	ongoing
20 ATUC seeks clarification on the use of a matrix switch for operations at Parkes. The matrix switch will be very useful for the majority of standard observations, but	It is the ATNF's intention to retain manual override options to allow non-standard signal paths to be established. Nonetheless, we expect to be able to construct the automatic switching	Green	No change	ongoing

by its nature will be prescriptive. In cases of non-standard projects, ATUC would like to see Parkes retain some flexibility to continue the tradition of pushing the envelope of what can be done.	system to cater for almost all observations.			
Tidbinbilla				
21 ATUC would welcome regular reports from the (to be appointed) ATNF-Tidbinbilla liaison.	Noted		Both the ATNF-Tidbinbilla (Jimi Green) and the Tidbinbilla observer (Shinji Horiuchi) hope to be present at the ATUC meeting in May. However, as for all ATNF telescopes, the regular report will be delivered by Phil Edwards, Head of Science Operations.	complete
LBA/eVLBI				
23 ATUC notes the science priorities in relation to the LBA could be improved. These priorities have not been developed via community workshops as has been done for Mopra, Parkes and the ATCA. ATUC understands discussions with Steven Tingay are being planned. ATUC would encourage the ATNF to seek further community feedback on LBA priorities sometime in 2009.	Noted. Further input has been incorporated in version 2 of the Science Priorities, and feedback from the community	Green	No change	ongoing
Future instrumentation				
24 ATUC would like to obtain costings for the following five potential new developments listed in Robert Braun's presentation: a. Extend ATCA N-S baselines to ~400m b. Shift 6 km ATCA antenna to 3 km track c. FPA or MB receivers on Mopra for 3, 7, 12mm d. 12mm FPAs for ATCA e. 12mm FPA or Multibeam for Parkes f. Information relating to preference over Multibeam and FPA technologies needs to be clarified, as will the allocation of resources in terms of man-power. As the upcoming Mopra Milky-Way workshop may indeed request some of the items above, ATUC encourage the ATNF to hold a workshop to encourage feedback on	Consideration of these options is in the very early stages. Indicative costings will be provided when they are available.	Yellow	No change	ongoing

all items.				
National Facility Office				
26 Given the on-hold status of the auto-scheduling software project, ATUC understands once John Reynolds leaves Parkes, Phil Edwards will be the prime contact regarding scheduling for all observatories. ATUC would also like clarification on whom observers should contact about allocation of Green Time at all observatories.	The ATNF web page on unallocated time (http://www.atnf.csiro.au/observers/directors_time.html) directs all such requests to the Head of Science Operations, Phil Edwards.	Green	No change	complete
Students				
27 To encourage non-affiliated ATNF students to obtain access to announcements usually distributed via ATNF email exploders, ATUC request such information on how to subscribe to these lists be made more prominent on the ATNF web site.	ATNF will aim to make this information more accessable as it updates its website. ATNF aims to send all meeting and colloquium announcements to an email exploder that includes astro exploders at each Australian university involved in astronomy, so if students are on their appropriate university exploder they should receive such announcements. Specific requests to be added to an ATNF list should be forwarded to the ATNF Student Coordinator, Baerbel Koribalski (Baerbel.Koribalski@csiro.au)	Green	The ATNF will place advice on the web giving instructions on how to get added to the "astro" distribution list.	complete
ASKAP				
28 ATUC recommends there be at least one member in common on the EOI Evaluation Committee, Survey Project Assignment Committee, and the Survey Review Committee. This would allow some continuity through the selection process for ASKAP projects.	Agreed.	Green	SPAC membership is confirmed and comprises: Roy Booth (South Africa), Jim Condon (USA), Phil Diamond (UK), Ron Ekers (Australia), Tom Jarrett (USA), Joe Lazio (USA, Chair), Tom Oosterloo (Netherlands), Brian Schmidt (Australia). Joe Lazio was a member of the EOI Evaluation Committee.	complete
ATNF Steering Committee				
29 ATUC would like to suggest a change to the current ATUC terms of reference (Version 2.0, November 2004). Specifically, ATUC would like to add ASKAP to the list of ATNF facilities as listed in the first paragraph.	The ATNF Director supports the suggested change. The Terms of Reference will be updated accordingly once the Commonwealth Science Minister has responded to the proposed changes to the Steering Committee. Until then, advice from ATUC related to ASKAP is encouraged, and is consistent with the current ToR.	Green	The ATNF is working with DIISR and the CSIRO Executive with the aim of re-establishing the Steering Committee, and holding an ATSC meeting in mid-2009.	ongoing
Other Matters				

30	The issue on the effectiveness of ATUC was raised. How ATUC could be made more effective will be dealt with from input from ATUC members and a meeting between the incoming ATUC Chair (Sarah Maddison) and the ATNF-ATUC Liaison (Lewis Ball) in early 2009. ATUC agreed to provide the community with updates on action items contained in Director's response.	The incoming ATUC Chair and the ATNF-ATUC Contact (Lewis Ball, Deputy Director) have already agreed to meet in early 2009 to seek means of increasing the effectiveness of the interaction.	Green	The ATNF Acting Director is working directly with the ATUC Chair to maximise the effectiveness of the interaction.	complete