

# ATUC Business Session

16 June 2005.

Chair: Steven Tingay

Secretary: Jim Lovell

Meeting opened at: 09.35

## 1. Apologies and attendance

Apologies: Joss Bland-Hawthorn, Helmut Jerjen, Juergen Ott, Elaine Sadler, Chris Wright, Simon Johnston

Attendance: Aidan Hotan, Mark Wardle, Kate Brooks, Maria Cunningham, Steven Tingay, Jim Lovell

## 2. ATUC Business

### 2a. Welcome to new members. Thanks to retiring members. (raised by ATUC)

The Chair welcomed new regular ATUC member Dr Kate Brooks.

The Chair thanked retiring members Dr Maria Hunt, Mr Aidan Hotan, and Dr Simon Johnston for their efforts during their terms.

#### *ATNF response optional*

### 2b. Seconds for members unable to attend ATUC meetings (raised by ATUC)

Following the large number of apologies for this meeting, it was proposed that ATUC members should be able to nominate seconds from their institutions to take their places if they cannot attend a meeting. ATUC discussed this proposition.

ATUC concluded that the number of apologies at this meeting was highly unusual, due to a series of unfortunate coincidences, and not likely to be repeated in the future. As such, ATUC do not see a need to alter the status quo. ATUC note that potential ATUC members should give some sort of assurance that they will make a commitment to attend at least the majority of the meetings held during their term. ATUC suggest that this requirement of a commitment from potential ATUC members be mention in the new ATUC invitation letters that the Steering Committee send out.

#### *ATNF response required:*

1. *Will the new ATUC membership invitation letters emphasise that a certain level of commitment is required from ATUC members with regard to meeting attendance?*

## **2c. ATUC vice-chair (raised by ATUC)**

The Chair raised for discussion the possible appointment of an ATUC Vice-Chair. The duties of the Vice-Chair would be to assist the Chair in writing the bi-annual ATUC reports, in setting ATUC agenda, and in Chairing ATUC meetings in the absence of the Chair. The Vice-Chair could also be appointed with a view to succeeding to the position of Chair. This succession would assist in the continuity of ATUC processes over time.

If the ATNF Director and Steering Committee support the appointment of a Vice-Chair, ATUC will make a nomination for the position at the December meeting, for the consideration of the Director and Steering Committee at the next Steering Committee meeting in 2006.

*ATNF response required:*

- 1. Does the Director support the appointment of an ATUC Vice-Chair?*
- 2. If so, does the Director have any advice on what the appointment procedure should be?*

## **2d. A user noted that the ATUC online feedback form has the wrong title (raised by user)**

This has now been fixed

*ATNF response optional*

## **2e. Change ATUC term dates on web page (raised by ATUC)**

With the change to common start dates for new ATUC members, the ATUC webpage will now specify the months of the first and last meetings for each member, to make explicit when the member's terms expire.

*ATNF response optional*

## **2f. ATUC overseas member (raised by ATUC)**

ATUC would like to move the meeting for which an overseas member is appointed to the June meeting, rather than the December meeting, from 2006. The overseas member then has a chance of being a mm observer and giving valuable feedback on the new mm systems. In this case, ATUC will not require an overseas member for the December 2005 meeting but will nominate an overseas member for the June 2006 meeting.

*ATNF response required:*

- 1. Would the Director support moving the overseas member to the June meeting, from 2006?*

## **2g. Dates for next meeting (raised by ATUC)**

7/8 December 2005

*ATNF response required:*

- 1. Are the nominated dates suitable for the ATNF?*

## **3. Report from last meeting**

### **3a. Motion (raised by ATUC)**

That the ATUC report from the December 2004 meeting be accepted

Moved: Mark Wardle

Seconded: Aidan Hotan

*ATNF response optional*

## **4. Matters arising from Director's response**

**4a. Suggest changing item 9a in response from red to green as ATUC and the Director are in agreement over the future of the SETI receiver. (raised by ATUC)**

*ATNF response required:*

- 1. Does the Director agree that this should be green?*

**4b. Item 6a from response. ATUC will revisit the new DA support scheme at the December 2005 meeting to ensure that users are happy with how it is working. (raised by ATUC)**

*ATNF response optional*

**4c. Item 7a from response. The future developments page still appears on the web site: [http://www.atnf.csiro.au/technology/future/overall\\_plan.html](http://www.atnf.csiro.au/technology/future/overall_plan.html). These pages should be removed (noted in the December 2004 ATUC report), as the new project management system has made them obsolete. Also there is no link to the project management page provided from non-internal pages. (raised by ATUC)**

*ATNF response required:*

- 1. Will the future developments page be removed and a link to the project management page provided from the public pages?*

**4d. Item 4d from response. Email to ATCA PIs happened quite quickly, Parkes somewhat slower. However VLBI and Tid letters were not sent until PIs started asking about them. (raised by ATUC)**

*ATNF response optional*

**4e. Acceptance of Director's response to ATUC report of December 2004 (raised by ATUC)**

Motion: That the Director's response to the ATUC report of December 2004 be accepted

Moved: Kate Brooks

Seconded: Mark Wardle

## **5. Celebrating Success**

**5a.** ATUC congratulate the ATNF on bringing the ATCA 3mm system into its first full winter season and wish it great early success. ATUC note that the new web tools for the 3mm system are very useful.

**5b.** ATUC congratulate the team that has developed the linux version of CAOBS for the ATCA. The new software appears to work very well and will be a welcome improvement to the ATCA observing software when in full use.

**5c.** ATUC were very impressed by the scope and success of the Huygens VLBI observations and results, as part of a large international effort. Congratulations go to the ATNF Huygens team.

**5d.** ATUC were also impressed by the equipment deployed for the RFI testing measurements at Mileura, for the SKA site proposal process. The ATNF SKA team and the team responsible for putting together the testing hardware are to be commended.

**5e.** Congratulations to Dr David McConnell on his appointment to the position of Assistant Director of Operations.

**5f.** Congratulations to Dr Lewis Ball on his appointment to the position of Deputy Director

**5g.** Congratulations to the Parkes staff for bringing the historical observation database online.

**5h.** Congratulations of Prof. Ron Ekers on being elected a member of the Royal Society.

*ATNF response optional*

## **6. High Priority Items for ATUC Discussion**

### **6a. Cancellation of the 2005 ATNF Synthesis Imaging workshop (raised by users/ATUC)**

ATUC are very disappointed to learn that the 7th ATNF Synthesis Imaging School to be held at the ATCA in October 2005 will be cancelled. The workshop is a mainstay of ATNF's commitment to training new generations of radio astronomers, particularly in new aspects of radio interferometry that are implemented at the Australia Telescope Compact Array.

While ATUC understands the reasons for the cancellation of the workshop, we note that a large gap between workshops will hinder the progress of some Ph.D. students, who are traditionally the greatest benefactors of the workshop.

The School that was planned for October 2005 had a special emphasis on millimetre interferometry in order to highlight the recent upgrade of the ATCA, ahead of the December 2005 call for proposals for the 2006 winter semester. Having a large delay between workshops at this point may diminish the uptake of the new 3mm system.

ATUC therefore have a number of specific questions they would like to ask regarding the workshop.

#### *ATNF responses required:*

- 1. If cancelled in October 2005, when will the next ATNF synthesis imaging workshop be held?*
- 2. Will subsequent workshops continue to be held at the rate of once every two years?*
- 3. Will subsequent workshops continue to be held at the ATCA?*
- 4. Will the budget and scope of subsequent workshops remain the same as for previous workshops?*

## **7. Director's report**

### **7a. ToO criteria (raised by ATNF)**

The Director raised the possibility that the new Assistant Director of Operations could review the current Target of Opportunity proposal assessment criteria. ATUC would like to see a review of policy and would appreciate it if the Assistant Director will undertake the review.

#### *ATNF response required:*

1. *Will the Assistant Director undertake a review of ToO proposal assessment criteria?*

#### **7b. Increase in lodge revenue. (raised by ATNF)**

ATUC would like to know the level of the increase in lodge fees and any other cost increases associated with observing at the National Facility telescopes.

*ATNF responses required:*

1. *What is the expected new cost structure for the ATNF lodges?*
2. *Will ATNF students continue to stay at the lodges for free and other students half price?*
3. *Are there any other associated cost increases for observers?*

#### **7c. Comments on SKA roadmap. (raised by ATNF)**

ATUC recognise that this is one plausible model under the expectation that the SKA will be built in the timeframe currently envisaged.

*ATNF responses required:*

1. *Is there a contingency plan in the case that before 2010 it is clear that the SKA will not be built in the timeframe expected?*
2. *Does the fact that the Mopra budget goes to zero mean that Mopra will be closed in 2009?*

### **8 ATCA and Mopra report**

#### **8a. Better L-band LNAs for ATCA (raised by user)**

As part of the ATCA broadband front-end project, will ATNF look at early replacement of L-band LNAs rather than waiting for the CABB to come along? The currently used L-band LNAs at the ATCA exhibit system temperatures of ~40K. Other ATNF L-band receivers such as the Parkes multibeam are down to ~20K. Early replacement of the L-band LNAs would improve the sensitivity by up to a factor of 2, corresponding to a reduction in required observing time or bandwidth by up to a factor of 4. When will the scope of the broadband front-end be finalised and what is the timeline for the frontend upgrade?

*ATNF responses required:*

1. *When will the scope of the broadband front-end be finalised?*
2. *What is the timeline for the frontend upgrade?*

**3. *Can the L-band LNAs be replaced before completion of the CABB upgrade, to give improved L-band sensitivity?***

**8b. ATCA hybrid arrays in the summer (raised by user)**

ATNF might consider offering H75 for next summer if demand (via wild-card array requests) is high for this summer.

*ATNF response optional*

**8c. Suggestions to help optimise the DA and remote observing schemes, to maximise interaction between astronomers and observatory staff, and to assist in encouraging OS observers to visit Australia. (raised by ATNF).**

The new DA scheme for the ATCA works well with the notable exception that some potential DAs outside ATNF did not get any response when they tried to get permission from the Director to be DA. This happened at least in three cases; the requests and up to two reminders were set by email. As, under the new regulations, only the Director can approve non-ATNF DAs, this led to major uncertainties in the scheduling of the DA roster and the individual timetables of the DA applicants.

ATUC note that the Synthesis Imaging Workshop greatly increases the level of interaction between the Observatory and the radio astronomy community, in particular the student community. After the cancellation of the October 2005 meeting, ATUC urge the ATNF to return as quickly as possible to a two year cycle of workshops.

*ATNF responses required:*

- 1. *Will the ATNF reply to DA requests made by non-ATNF astronomers as quickly as possible? ATUC note that this should now be the responsibility of the Assistant Director of Operations.***
- 2. *Will the ATNF return to a two year schedule of Synthesis Imaging Workshops held at the ATCA?***

**8d. ATUC is invited to comment on further measures to help maximise the science coming from the 3mm systems (raised by ATNF)**

Indications so far are that the 3mm is working exceedingly well. ATUC will endeavour to obtain specific user feedback on the 3mm system to help the ATNF assess its productivity. The ATNF should continue to collect statistics, in particular during this first season of full mm operations, and attempt to ensure that the highest-ranked science is done by the end of the season.

*ATNF response optional*

## **8e. What is bad weather? ATUC invited to provide guidelines (raised by ATNF)**

Bob Sault has suggested the following criteria for bad weather, when 3mm observations are degraded to the point that the user should consider moving to a cm backup program:

- Doubling of above atm Tsys
- Atmospheric phase instability resulting in 50% decorrelation in 5 min
- RMS tracking errors resulting from wind resulting in 50% loss of signal

If these conditions are met and no swap is available, observations are cancelled. Time reverts to Director's time. Observers must re-apply for time lost to weather.

ATUC feel that this is a reasonable definition of bad weather and we expect that ATCA staff will perhaps have a better indication of the definition by the end of this term. ATUC request a clarification on who decides whether the weather is bad enough and the observations shouldn't continue. Is it ultimately the observer's decision (excluding wind stows, storms, fire etc) or the Observatory's?

ATUC, via Dr Kate Brooks, will follow up the first full mm season around October 2005 for user feedback.

*ATNF response required:*

1. *With the above criteria as a guide, is the final decision to stop observing the responsibility of the observer or the Observatory OIC?*

## **9. Parkes report**

### **9a. 20cm MB off March 2006, 3-4 month turnaround. Feedback from ATUC? (raised by ATNF)**

ATUC think that this is very reasonable

*ATNF response optional*

### **9b. 2<sup>nd</sup> IF chain from Jodrell for methanol multibeam (raised by user)**

There may exist significant user support for early installation of the 2<sup>nd</sup> IF chain for the methanol multibeam from users. Could installation occur earlier than planned, e.g October 2005, before the end of the 2005OCTS semester, if the components arrive at ATNF before then?

*ATNF responses required:*

1. *When will the 2<sup>nd</sup> IF chain for the methanol multibeam receiver arrive at ATNF?*



- 2. When will the 2<sup>nd</sup> IF chain for the methanol multibeam receiver be installed? Could the second chain be installed for the OCT2005 term if it arrives at ATNF by October 2005?*

### **9c. ASAP feedback from users (raised by ATNF)**

The Parkes OiC noted that no user feedback had been obtained for the new ASAP package. ATUC notes that the software is not in general release yet, with an announcement of the software release only to the ATNF astrophysics exploder and installation of the software only at the ATNF at this point. As yet, users have not had a good chance to assess the package. The package will apparently be in more general release soon.

ATUC will compile (via Dr Maria Hunt) user feedback on ASAP and pass it to the ATNF. ATUC also note that there is still significant user demand for ASAP.

*ATNF response optional*

### **9d. Parkes 12mm upgrade.**

ATUC notes that a concept plan for the upgrade of the Parkes 12 mm system now exists. ATUC continues to strongly endorse the 12mm upgrade. The expected 5dB improvement is impressive and will greatly boost 12 mm observations at Parkes, in particular for high frequency VLBI and for obtaining single dish measurements to complement ATCA 12 mm mosaicing observations. ATUC hope that this project will likewise be endorsed by the ATNF Projects Committee.

*ATNF response optional.*

## **10. Tidbinbilla report**

### **10a. High level web link to Tidbinbilla facilities (raised by ATUC)**

ATUC would like to see a link to the Tidbinbilla web page (graphical button and text link in the banner) from <http://www.atnf.csiro.au>, along-side Parkes, Mopra, ATCA, MNRF, VLBI, and SKA. The National Facility operation offered at Tidbinbilla is significant and should be recognised at the highest level on the ATNF web pages.

*ATNF response required:*

- 1. Will the ATNF add a high level link to the ATNF Tidbinbilla web pages from the ATNF home page?*

### **10b. User interest in DSS34 X-Ka system (raised by ATNF)**

ATUC could identify moderate scientific interest in this narrow band 7mm system. ATUC encourage ATNF to provide support for this system, depending on the level of resources required. This system could be mentioned in call for proposals, with users advised to be prepared for shared risk operation.

*ATNF response required:*

1. *Could the DSS34 7mm system be added to the ATNF call for proposals, subject to an assessment by the Tidbinbilla support staff?*

## **11. LBA report**

### **11a. Move of LBA archive to disk (raised by ATNF)**

ATUC strongly encourage the online archiving of LBA data to make it more accessible to the user community.

*ATNF response optional*

### **11b. VLBI proposals involving Tidbinbilla (raised by ATUC)**

Given the move to make Tidbinbilla single-dish proposals active for 18 months rather than 12 months, because of the shutdown of the 70m antenna in the second half of 2005, ATUC suggest that 2005APRS VLBI proposals requesting Tidbinbilla also remain active for 18 months.

*ATNF response required:*

1. *Will the ATNF make VLBI proposals that request the use of Tidbinbilla submitted for the 2005APR term active for 18 months rather than 12 months, to recognise the impact of the Tidbinbilla shutdown?*

## **12. National Facility Office report**

### **12a. Delays in proposal rounds (raised by a user).**

ATUC thanks the ATNF for reducing the delay between proposal submission and notification by 2 weeks by altering the proposal deadline dates. There are still concerns from users on the timeliness of notification of TAC results and some indication of scheduling. We look forward to the online proposal tools (OPAL) making this process more streamlined, allowing more rapid TAC emails to proposers with feedback.

*ATNF response optional*

### **12b. Results of six-month term survey results (raised by ATUC).**

Following the first full six month term, ATUC surveyed users for their impression of six month terms. Several questions were asked of users and a variety of textual responses were received, some very positive, some negative. Users were also asked to give a numerical ranking for their preference of 4 month or 6 month terms, on a scale from 1 to 9 with the ranks arranged as follows:

1 = strongly favour 4 month terms  
5 = no preference for 4 or 6 month terms  
9 = strongly favour 6 month terms

The survey had 17 respondents, giving the following ranks.

1: 2  
2: 2  
3: 0  
4: 3  
5: 2  
6: 1  
7: 4  
8: 0  
9: 3

The average score from the survey was thus: 5.25 (no preference for 4 or 6 month terms).

*ATNF response optional*

**12c. Number of Australian university PIs for ATNF still appears to be an issue (raised by user).**

ATUC are still concerned about the relatively low number of PIs on ATNF proposals from non-ATNF Australian institutions. ATUC would like to obtain statistics on the number of proposals from Australian non-ATNF proposals vs ATNF, and statistics on the total number of hours requested and approved by proposals with non-ATNF Australian PIs, in an attempt to determine if the problem is quality or quantity of proposal.

*ATNF responses required:*

- 1. Will the ATNF pass on to ATUC the number of proposals submitted and accepted where the PI is from a non-ATNF Australian institution?*
- 2. Will the ATNF pass on to ATUC the total number of hours requested and approved as part of proposals where the PI is from a non-ATNF Australian institution?*

**12d. How are VLBI publications counted in publication statistics? (raised by ATUC)**

Do VLBI papers involving Mopra/ATCA/Parkes/Tidbinbilla get counted as Mopra/ATCA/Parkes/Tidbinbilla publications? ATUC suggest that the contributions to VLBI papers of individual antennas are somewhat lost under the tabulation of current publication statistics. ATUC suggest that VLBI papers should be at least be partially counted under the statistics for individual antennas, as well in the VLBI category.

For example, are VLBI papers treated the same or differently as papers that use a combination of say Parkes and ATCA data e.g. for mosaiced ATCA observations that use Parkes for total power measurements? In this case would a paper be counted as a full paper for both Parkes and the ATCA, or pro rated in some sense. However cases like this are accounted for, something similar could be considered for VLBI papers, to acknowledge the contribution of the individual antennas.

*ATNF response required:*

1. *Will the ATNF take account of VLBI publications within the categories of individual antennas? This would give a fairer indication of the publication output of Mopra, for example.*

### **13. Software/computing report**

#### **13a. "Pink cable" problems (raised by users).**

The pink network cables provided for external visitors' laptops are quite restricted in their capabilities. While ATUC acknowledge that security is a concern, we feel that allowing outgoing access to POP servers without the need for an external VPN connection is essential. Several users have also reported problems connecting to lab printers from the pink cables in Marsfield. These problems do not extend to laptop connections provided by the observatories and it seems like a coherent policy is lacking. If there is documentation on-line, perhaps it should be made easier to locate for people not familiar with the internal web pages. It also appears that laptops registered to ATNF staff can't be used with the pink cables, resulting in problems if all available blue cables are being used.

*ATNF responses required:*

1. *Can some current restrictions on outgoing traffic be lifted? (specifically with regard to POP access)?*
2. *Is printing from pink cables supported, and if so, who provides assistance?*

#### **13b. MIRIAD maintenance and support (raised by user)**

There is some user concern about MIRIAD maintenance as a package for future ATCA reduction. For example, the 8-bit display restrictions for tvflag, possible problems with 64-bit machine compatibility, support for Apple machines, support for upgraded ATCA ie. Broadband operation. ATUC suggest that the broad area of MIRIAD's future should be considered as a key element of ATNF strategic software development and a plan for MIRIAD's future generated by the Scientific Computing Group.

*ATNF response required:*

1. *Will ATNF develop and present a plan for the medium to long term development of MIRIAD to meet the challenges of the upgraded ATCA?*

**13c. What services do users require from the Scientific Computing Group, given that 10% of the group resources may be allocated to these activities? (raised by ATNF)**

ATUC feel that 10% seems too low given the past experience of the Scientific Computing Group. Maintaining network connections for laptops and good workstation facilities would be lowest level of support users would require. In the past, it appears that these types of activities have used up to 30% of the group's resources. ATUC suggest that rationalising unix/linux machines by moving from a mixture of solaris and linux to just linux would help this situation. The Solaris machines are less capable than modern desktop PCs running linux and having a single operating system and type of machine to maintain would reduce the overheads on user support. Some high end machines will be required on site for large data processing jobs. ATUC also suggest that as many routine IT tasks be passed to CSIRO IT as possible. It seems that a more efficient interaction with CSIRO IT will be necessary to achieve this.

***ATNF responses required:***

- 1. Will ATNF consider raising the percentage of Scientific Group Resources for general IT support from 10% to 20%, to recognise the historical level that this activity requires?***
- 2. Will the ATNF consider becoming a 100% linux site by gradually eliminating the Solaris machines on site and replacing them with PCs running a single version of linux?***
- 3. Will the Scientific Computing Group make more effort to pass routine IT maintenance tasks to CSIRO IT?***

**13d. What level of visitor support is appropriate for the Marsfield site? (raised by ATNF)**

ATUC were asked:

Are visitor workstations needed? ATUC responds with yes.

Would visitor workrooms with network access be enough? ATUC responds with no.

ATUC strongly support retaining workstations. ATUC suspect that (i) the same workstations would be needed in any case for ATNF summer students etc., (ii) the work needed to help large numbers of visitors (many of whom are only around for a few hours) connect their laptops to the printer, install programs etc. would actually be more effort than maintaining a small number of permanent workstations, (iii) visitors who didn't bring a laptop would end up having to bug ATNF staff members for access to the computers in their offices.

***ATNF responses required:***

1. *Will ATNF continue to support laptop connections for visitors at Marsfield?*
2. *Will ATNF continue to support permanent workstations for visitors at Marsfield?*

## **17. Technology development report**

### **17a. ALMA discussion forum and 115 GHz at the ATCA (raised by user)**

The ALMA discussion forum at the ATNF (9<sup>th</sup> June) raised a number of issues relevant to the ATCA 3mm upgrade project, including the merits of going to 115 GHz.

*ATNF response required:*

1. **Following the ALMA forum, will ATNF consider upgrading the ATCA to 115 GHz in the near future?**