

Minutes of ATUC Business Session, 04/11/03

Held at ATNF headquarters, Marsfield

Chair: Steven Tingay

Secretary: Jim Lovell

Meeting open: 9:37 am

1. Apologies and attendance

Attendance: Brad Gibson, Aidan Hotan, Maria Hunt, Helmut Jerjen, Simon Johnston, Naomi McClure-Griffiths, Steven Tingay, Mark Wardle, Brad Warren, Tony Wong

Apologies: Joss Bland-Hawthorn, Simon Ellingsen, Chris Wright

2. Minutes from last meeting

Maria Hunt moved that the minutes from the last meeting be accepted. Brad Gibson seconded the motion and the members passed it.

3. ATUC Organisational matters

The Chair outlined his views on how ATUC can better communicate with users and the ATNF. The ATUC members endorsed actions in order to make some changes to how ATUC interact with the wide user community and provide feedback to the ATNF.

3.1 - The ATUC Secretary will ask for access to the email list that is used in the ATNF call for proposals, in order to better access all users, especially overseas users who are currently not well represented by ATUC. ATUC will send 4 emails to this list every year, one before each ATUC meeting asking for issues that users wish to raise to ATUC, and one following each ATUC meeting, providing users with feedback on the meeting and perhaps polling users on particular matters that arise from the meeting. It was thought by ATUC that 4 emails per year is an acceptable level to this list. ATUC particularly wish to avoid being considered a source of junk email. Also, ATUC will set up a web-based form that will allow users to submit feedback to the ATUC at any time, on any issue.

3.2 - ATUC will aim to provide more detailed feedback to the ATNF than in the past. For complex issues that come before ATUC for consideration, or issues for which not enough information is available for ATUC to fully discuss during the Business Session, the Chair will delegate the task of information gathering and detailed report drafting to ATUC members. Reports generated in this way will be made available following the meeting, for submission to the ATNF Director. Reports are expected to be between half a page and a page in length and should give the ATNF better advice than the traditional

two or three sentence statement generated during the Business Session itself. An excellent recent example of such a report is the short description of the problems with the SPC software.

3.3 - ATUC will now require members to submit short written reports ahead of the ATUC meetings, describing the consultations they have made with users between meetings, highlighting the demographics of the users consulted and any issues to be raised at ATUC meetings. This will allow members who cannot attend the meeting itself to have significant input into the meeting agenda. The written reports should be submitted to the ATUC Secretary for compilation.

3.4 - The ATNF Director has proposed that the membership of ATUC should be reduced, in response to the ATNF Steering Committee's concern that a committee of 14 members may be unwieldy. ATUC discussed this proposal and decided that the ATUC membership should remain between 10 and 13 voting members plus the Secretary. ATUC also decided that student membership of ATUC should remain at 2. The reasons for an unchanged membership were: ATUC did not think that the size of the committee was unwieldy since discussions were well managed and input from members was balanced; at each meeting generally approximately 3 voting members were unable to attend, reducing the size of each meeting somewhat anyway; the current size of the committee assured a good geographical distribution of institutions in the ATUC membership and users of all facilities; student representation on the ATUC was felt to be essential at the current level since students are a heavy and important component of the user community; it was also felt that it was good for students to be involved in the organisational structure of the ATNF, for their own experience.

3.5 - Prior to the meeting the ATNF Director provided draft ATUC Terms of Reference for consideration by ATUC. ATUC endorsed the draft Terms of Reference with a few minor alterations and an additional item outlining the membership structure of the committee. The revised suggested ATUC Terms of Reference follow:

- To provide advice to the Director on operational and developmental issues relating to the facilities provided by the ATNF. These include the Australia Telescope Compact Array, the Parkes radio telescope, the Mopra radio telescope, the Long Baseline Array, the Tidbinbilla radio telescopes, and all aspects of National Facility support.
- To make recommendations to the Director that seek to maximise the scientific productivity and maintain the international competitiveness of the ATNF, taking into account the likely resource availability.
- To consult widely with the national and international community, liaising where necessary with the national time assignment groups, to make informed recommendations to the Director on priorities for both operations and future developments.

- To meet twice a year in both open and closed sessions, with appropriate input on developments/responses to issues from the ATNF.
- To provide an annual written report to the Director for communication to the AT Steering Committee in March/April of each year.
- To maintain a membership of 10 to 13 voting members, two of which will be students, plus a non-voting Secretary. The membership will reflect the geographical distribution of users and include users of the full range of facilities.

4. Celebrating Success

First ATUC would like to express a warm welcome to the new ATNF Director, Brian Boyle, and express thanks to the outgoing ATUC Chair, Carole Jackson, and the outgoing ATUC Secretary, Vince McIntyre. Second, an important function of ATUC is to recognise the outstanding technical and scientific achievements that the ATNF staff and management make, for the benefit of users of its facilities. These efforts are highly appreciated by ATUC and we would like to offer congratulations to the following individuals and groups for their successes.

4.1 - Ray Norris, Michelle Storey, Peter Hall, and the LOFAR/SKA team for their success in promoting Australia as a site for SKA/LOFAR and in particular for the success of the International SKA Workshop, held in August in Geraldton.

4.2 - To the ATNF engineering group and the ATCA 12 mm upgrade team for completion of the 12 mm upgrade at the ATCA. This is a very positive and welcome new facility for the ATNF user community. Also, congratulations on the development of the 12 mm 8 GHz system at the ATCA.

4.3 - To the ATNF Director for ensuring a high level of documentation ahead of this ATUC meeting. A number of people have commented to ATUC that this meeting has been one of the best presented and most balanced ATUC meetings. Undoubtedly this is due to the significant preparation by both ATNF and ATUC ahead of the meeting.

4.4 - To the Director and Dave McConnell for the moves to the new project management system. ATUC look forward to updates on the progress of this system at future ATUC meetings.

4.5 - To the ATNF engineering group and the Narrabri Observatory staff for the completion of the new ACC system for the ATCA, also the completion of the LO/IF/comms system via optical fibre.

4.6 - To the organisers, particularly the Narrabri Observatory staff and Tony Wong, for the organisation of another successful synthesis imaging workshop in Narrabri. This

workshop continues to be an important focal point for Australian PhD students in radio astronomy.

4.7 - To the group who have recently undertaken a good deal of work to improve the performance of the Mopra telescope, in particular mitigation of the coma lobe.

4.8 - To the engineering group for the successful completion of the Mars tracking receiver for the Parkes Observatory and to the Observatory staff for the success thus far in providing Mars tracking for NASA.

4.9 - To Jim Lovell for efforts to support usage of the Tidbinbilla antennas as part of the National Facility.

4.10 - To Jessica Chapman and the National Facility support team on their outstanding efforts in public outreach since the last ATUC meeting.

4.11 - To Dave McConnell, the ICT team, and the Narrabri Observatory for progress on the ATCA data archive and development of a user interface to the archive. ATUC look forward to the completion of this great resource for users.

4.12 - To the many ATNF staff involved in the successful organisation of the recent IAU General Assembly in Sydney.

4.13 - To the ATNF engineering group and the Parkes Observatory staff for the completion and installation of the 10/50 receiver at Parkes and the commissioning of the wide band pulsar correlator at Parkes.

5. Director's response to previous ATUC reports

In the ATNF Director's response to previous ATUC reports, ATUC were asked to endorse various components of the Director's response and additional information provided to ATUC.

5.1 - ATUC were asked by the Director to endorse the ATNF 03-04 Operational Plan and provide advice on the key goals for the 04-05 Operational Plan. ATUC endorses the 03-04 Operational plan. ATUC will compile advice on the 04-05 Operational Plan and make it available to the Director.

5.2 - ATUC were asked to endorse the Director's response to the March 03 meeting, noting any outstanding items ATUC endorse the Director's response to the ATUC March 03 meeting and are happy with the responses to each point raised by ATUC. No significant outstanding items were identified.

5.3 - ATUC were asked to discuss and approve the proposed annual timing of ATUC meetings, with any appropriate adjustment. ATUC endorse the general timing of ATUC meetings. ATUC prefer the December meeting to occur slightly earlier, e.g. in the first

week of December, so that there is time for ATUC to finalise its report before the Christmas/New Year break.

5.4 - ATUC were asked to discuss and endorse the ATNF's progress and plans for the implementation of co-ordinated PM practices across development projects. ATUC strongly endorses the implementation of co-ordinated project management practices and believes that they will add to the efficiency and success of ATNF projects, with benefits for the ATNF and users.

5.5 - ATUC were asked to provide advice on, and support for ATNF's role in the facilitation of a unified long-term strategy for Australian astronomy. ATUC would like to see the ATNF play a major role in a unified long-term strategy for Australian astronomy. However, any unified long term strategy for Australian astronomy should address the balance between new infrastructure and support for people. In particular, the erosion of the user base for Australian astronomy facilities, not radio facilities in particular but also the large optical facilities, within Australian universities should be of serious concern to the ATNF. We suggest that this issue be considered at a level higher and wider than the ATNF. In particular ATUC feel that this is an issue that needs to be addressed by the NCA. ATUC are happy to see a high degree of coordination between the LOFAR and SKA projects within the ATNF, since this will allow an efficient use of limited resources. However, ATUC will reserve discussion or comment on the level of ATNF participation in LOFAR until the LOFAR Options Paper becomes available. ATUC do not feel that they have sufficient information available to discuss this issue in an informed fashion at this time.

6. Six month semesters (raised via Director's report, National Facility report, and user feedback)

6.1 - ATUC does not support the ATNF decision to move to six month observing terms for ATNF facilities. [statement by ATUC] As ATUC have made clear in the past, there is no significant user support to move to six month observing terms. The vast majority of users polled by ATUC prefer 4 month terms to six month terms. Some of the users reasons for this preference have been challenged. However, the conclusion that substantial administrative savings can be made by the ATNF in going to six month terms is equally challengable, in the view of ATUC. In particular, no convincing evidence has been put forward to show that potential advantages to six month terms will outweigh potential disadvantages. Aside from the issues that impact on the scientific productivity of the ATNF facilities, ATUC is concerned by the process that has brought about the change to six month terms. In particular ATUC is concerned that this decision was made via the TAC, the Steering Committee, and the ATNF Senior Management, with consultation only with the users after the decision had been made. It is true that ATUC

represents user's views in an advisory role only and that the TAC and Steering Committee are significant stakeholders in the ATNF, and therefore deserve high consideration by the ATNF Management. However, many would argue that users are the prime customers of the ATNF, a view confirmed by a number of CSIRO surveys that consistently rank ATNF as one of the most customer-oriented divisions with the CSIRO. ATUC, in its advisory role should have been consulted on this issue before it was adopted as a decision. As it transpired, ATUC had a very short amount of time to a) assess the impact of six month terms on users and b) attempt to make some considered and constructive suggestions on how six month terms could be implemented so as to be more attractive to users. ATUC feel that we have produced a number of good suggestions in this vein and we hope that they will be useful to the ATNF in the move to six month observing terms. These suggestions are outlined below in items 6.2, 6.3, and 6.4. Users polled by the ATUC on the issue of six month terms have given reasons for their preference for four month terms as follows. These views came from ATNF users (both within the ATNF and from outside ATNF). Since users have given a substantial amount of feedback to ATUC on this issue, we feel compelled to summarise it here.

- Six month terms will slow down the evolution of a pilot evaluation project to a final strategy.
- Proposals on the average will be submitted with information that is less-up-to-date, with regard to both the science and the equipment, in particular for observations ultimately scheduled close to the end of the semester.
- The above point is particularly important in the case of the new 3mm system for the ATCA which is scheduled to come online in the winter of 2004. If six month terms were implemented immediately, users would be faced with the prospect of proposing to use this system with a complete absence of information as to the capabilities of the system, or any assurance that the system will even exist in time to undertake observations. Since this is the first winter that the 3mm system is likely to be used, this would be a most unfortunate situation.
- The longer planning and turnaround time will be to the disadvantage of all users with a tight timetable, such as students and short term visitors and postdocs. This will be particularly true if proposal deadline dates for six month terms are chosen that fall near the traditional annual commencement of new PhD students at the start of the academic year.
- Some users with experience with Australian optical facilities thought that similar changes at optical facilities had been detrimental in that it affected the balance of work undertaken, favouring survey work at the expense of smaller focussed programs aimed at specific problems.
- With regard to PhD students, over the course of three years, a PhD program can alter significantly in its direction. Six month terms give students less opportunity

to respond to interesting new directions in their work, or attempt different strategies. The students polled by ATUC were concerned that the move to six month terms would encourage PhD projects where the students simply work on the data obtained by supervisors and lead to reduced opportunities for students to take the initiative in project direction. Such a trend may make PhDs in astronomy ultimately less attractive to students.

- A number of users identified the scheduling of ATNF facilities in coordination with outside facilities (such as X-ray satellites etc) as a problem that could be exacerbated by the move to six month terms. Even the problems involved with scheduling VLBI blocks in Australia, with restricted-resource facilities such as the Tidbinbilla antennas, would be adversely affected. To be fair, problems of this sort exist for four month terms but these problems are likely to be more severe with six month terms. Some support for six month terms was received by ATUC, although these respondents were in the minority.
- Higher quality proposals might be expected.
- There should be less pressure on the TAC members and reduced complexity in the scheduling process.

6.2 - What does ATUC think of a Triage system? [question from ATNF] ATUC sees little value in the triage process for the current level of over-subscription. ATUC request that users be fully informed of changes that are made to the proposal evaluation process.

6.3 - Does ATUC have any view as to when deadlines for six-month terms should fall? [question from ATNF] ATUC recommend the following dates for the new six-month semesters:

Proposals Due	TAC Meets	Sched Out	Start Term	End Term
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1 Dec	15 Jan	15 Feb	15 Mar	31 Aug
1 Jun	1 July	1 Aug	1 Sept	14 Mar

This schedule takes into account university semesters (proposal deadlines occur during term breaks and don't coincide with ARC deadlines), transition issues such as allowing users time to adjust and plan for six month terms, the ATNF meeting schedule and allowing TAC to meet and OICs to produce schedules. The September 1 start gives mm users opportunities in both semesters and provides flexibility in the important first mm season for the new system. Four month terms should remain until the September 1 semester, 2004. The last proposal deadline for four month terms will be 15 Feb 2004 and the first proposal deadline for six month terms will be June 1 2004. This also takes into account the usual student commencement (March). If the ATNF require any

additional user input, ATUC would be happy to consult further on the details and we strongly encourage ATNF to keep ATUC informed in the implementation of six month semesters.

6.4 - Does ATUC have any view on how six-month semesters should be implemented and scheduled? [question from ATNF] ATUC will compile suggestions on the implementation of six-month semesters and make them available to the Director.

7. Director's time (raised via Director's report and ATUC discussion)

7.1 - ATUC would like to see a clarification on the purpose of discretionary time. Time is already available on the ATCA and Parkes schedules for observers who lose time, for commissioning instruments and for testing purposes. Processes are in place for scheduling unallocated time and ATUC don't see any reason for discretionary time given the amount of unallocated time currently available. ATUC are unclear as to whether the idea of discretionary time applies to all facilities or just the ATCA. What would be the rules for allocating discretionary time? If these rules are substantially different and more restrictive than existing rules for unallocated time, ATUC are concerned that this might act as a disincentive for Duty Astronomers. [statement by ATUC]

8. ATCA/Mopra report

8.1 - Can ATUC suggest ways in which Mopra can be more heavily used by Australian users? [question from ATNF] ATUC suggest that ATNF facilitate some Key Science Projects. For example a multi-line targeted survey with the new wide band spectrometer that could be run using the very successful HIPASS project as a model. There will be a Millimetre Workshop in December and a session will be devoted to new large projects with Mopra. Also, it seems likely that the implementation of reliable remote observing for Mopra would increase usage. ATUC suggest that implementation of remote Mopra observing could be brought forward to the 2004 winter, so that Mopra can be utilised in conjunction with the first observations of the full 3 mm system at the ATCA. The ATNF could possibly find incentives for users to publish their existing Mopra data. ATUC felt that having more Mopra results in the published literature would stimulate interest in the facility.

8.2 - ATUC noted a comment from one user that the ATCA Users guide on the ATCA web page is dated March 2002. [issue raised by users] ATUC ask, what is the status of the updated Users Guide that was recently being edited by Jess O'Brien?

9. Parkes report

9.1 - Does ATUC have any suggestions on how documentation and user feedback at Parkes can be improved? [question from ATNF] ATUC find the current Parkes documentation to be satisfactory. The current feedback form is also satisfactory.

9.2 - Can ATUC suggest how to organise extra space in the Opera House? [question from ATNF] ATUC would like to see the new areas converted to office space for observers and visitors, with computer facilities for data reduction, network connections for laptops etc.

9.3 - ATUC noted queries from users on the timescales for planned upgrades to Parkes receivers. [issue raised by users] ATUC are encouraged by the potential 4dB improvement to the 12 mm system at Parkes and still consider this to be the first priority receiver for serious upgrade at Parkes. Will this upgrade be possible before the start of the 2004 winter season? ATUC would also like see the H-OH receiver upgraded with the Arecibo LNA's in the near term. Apparently this is not considered to be a large job. Could ATNF comment on the possibility of performing this upgrade before the start of the January term?

10. Tidbinbilla report

10.1 - Does ATUC see the need for a mapping mode at Tidbinbilla? If so, when would they like to see it implemented? [question from ATNF] ATUC sees great value in a mapping mode at such a powerful telescope and a significant potential demand. ATUC recommend that a spectral-line mapping mode be implemented as soon as possible, since on the advice of Jim Lovell this seems to be not such an onerous task. ATUC also request that Jim Lovell look into options for total power mapping and beam switching and report back to ATUC with a realistic timescale for implementation of this additional mapping mode.

11. LBA report

11.1 - ATUC feel that access to New Norcia would improve the operation of the LBA and request that Tasso Tzioumis provide a more detailed plan for access to this antenna at the next meeting. For example, is the aim with New Norcia to negotiate an agreement with ESA for access? What work is required to get the antenna ready for astronomical observations, apart from the provision of a data recording system as outlined in item 17.4 below? [statement by ATUC]

12. National Facility report

12.1 - ATUC noted comments from users that express concern with a perceived lack of technical expertise on the TAC, as evidenced by the textual feedback on proposals from the TAC. Users were concerned that this was due to radio astronomers on the TAC being in the minority. [issue raised by users] ATUC realise that technical reviews of proposals are provided by some non-voting members of the TAC. ATUC will undertake to poll the user community on their satisfaction of the proposal review process, to determine if this is a widely held concern or isolated to a few cases, and report to the next ATUC meeting.

12.2 - ATUC request that the ATNF provide ATUC the same proposal statistics that the Steering Committee receive, as outlined under agenda item 3.4, action 8, of the Actions and Recommendations of the ATNF Steering Committee, July 2003. [request by ATUC] These statistics should ideally include a breakdown of proposals for overseas, ATNF, and other Australian proposers (by country for overseas proposals and by institute for other Australian), into the following categories, for each facility:

- proposals submitted;
- proposals allocated;
- time allocated;
- breakdown of mm usage for the ATCA;
- proposals involving students;
- breakdown on instrument (for Parkes)

13. Software report

13.1 - ATUC encourage the ATNF to pursue the MOU for aips++, potentially with a view to long-term maintenance of the project. [statement by ATUC]

13.2 - ATUC would like to reinforce their previous statements that they consider the planned SPC replacement a very high priority. ATUC are encouraged by the outlined plan for the SPC replacement and look forward to a report on the expected progress toward this goal at the next ATUC meeting. [statement by ATUC]

13.3 - ATUC notes comments from users that to be really useful, the ATCA data archive will need to record information from the observing system. [issue raised by users] ATUC recognise that the ATNF is well aware of this issue. ATUC suggest that on-line logging of ancillary data be implemented at the ATNF telescopes as part of any data archives. A

simple filtering of existing electronic logs might be a useful first step and should be incorporated into future observing software upgrades, especially as Linux becomes more pervasive throughout observing systems.

13.4 - ATUC notes comments from users that support for the MIRIAD software appears to have declined recently, in particular that the listed 0.2 FTE effort on MIRIAD support is difficult to identify. [issue raised by users] ATUC would like clarification on who is providing the 0.2 FTE support for MIRIAD. It appears that support for MIRIAD has decreased. Given that MIRIAD is a mission critical package for the ATNF, we encourage that it be continually supported at a reasonable level i.e. timely responses to bug reports, supported compatibility with new computers and new versions of Linux operating systems.

13.5 - ATUC notes comments from users that the lack of the ssh2 software on ATNF computers is making it difficult to connect to outside institutions. [issue raised by users] ATUC requests that ssh2 be installed on the ATNF Unix computers.

14. SKA/LOFAR report

14.1 - Does ATUC have any view on how \$6M of unspent MNRF-II Gemini money should be spent? [question from ATNF] ATUC recommend that the money be spent on an optical/IR facility that benefits the largest number of Australian users.

15. Technology development report

15.1 - Are delayed projects still useful scientifically? [question from ATNF] At this stage ATUC would like to see more detail in the project plans before commenting on overall priorities. ATUC propose to undertake a review of all projects before the next ATUC meeting. At this meeting ATUC will be willing to advise the ATNF on projects that have such a low priority, in the users view, that they can be dropped from this list. Would the ATNF consider this to be useful input from the ATUC?

16. New project proposals

16.1 - Wide-band correlator for Tidbinbilla ATUC suggest that ATNF explore the option of sharing the yet-to-be-constructed wide-band Mopra correlator between Mopra and Tidbinbilla, as an alternative to building two correlators, which will occupy a significant amount of precious time for key engineering personnel. It seems to ATUC that, if possible, sharing a wide-band correlator over the winter season between Mopra and Tidbinbilla may satisfy the demand for such an instrument on both antennas. ATUC would like to see an analysis of the shared correlator idea at its next meeting.

16.2 - EoR experiment

ATUC can see the value in such an instrument but feel that the scale of the project is more suited to a collaboration between the ATNF and a university department, funded possibly via the ARC. Regardless of the funding, this project could require a significant amount of ATNF engineering effort, which currently is the limiting factor in prioritising new projects. ATUC suggests that engineering support for this project could also be found outside the ATNF, through collaboration with a university department. This project should therefore be a low priority for the ATNF.

16.3 - SUSI delay line

ATUC also think that this is a very interesting and novel idea. However it appears that this project will be soon rivaled by the planned upgraded wide-band ATCA correlator and any resources would be better spent on this larger and higher priority project.

16.4 - Portable VLBI terminal

This project should be considered as part of a broader upgrade to LBA facilities. New hardware for New Norcia should only be considered after negotiation with ESA for access to the antenna.

16.5 - Pulsar digital filter bank

This project should have priority over the upgrade of the existing pulsar correlator to high time resolution. ATUC will review the overall priority of this project along with other existing projects, before the next ATUC meeting.

16.6 - FARADAY/PHAROS

ATNF should provide a project scientist to develop an initial science case, in the event that no especially interested person from the user community steps forward to provide a justification for these instruments. More information on the frequency range that these instruments might operate over would be useful. ATUC will review the overall priority of this project along with other existing projects, before the next ATUC meeting.

16.7 - HIFAR

This is a very large project. The scientific and technical case for HIFAR should be developed further, in particular how it aligns with LOFAR and the SKA. ATUC will review the overall priority of this project along with other existing projects, before the next ATUC meeting.

Meeting closed: 6:50 pm

