

ATUC Report to the Director, October 2006

This meeting of the AT Users Committee was held at ATNF Headquarters, Marsfield, on 24 October 2006. The meeting began at 10:30 and finished at 16:00. During this meeting ATUC members also visited the AT receiver lab and the range where a tour of the NTD antennas and the THEA tiles was given by Colin Jacka.

Attendance: Elaine Sadler (Chair), Michael Dahlem (Secretary), Stuart Ryder, Melanie Johnston-Hollitt, George Hobbs, Jürgen Ott, Sarah Maddison, Cliff Senkbeil, Deanna Matthews (substitute for Steven Longmore)

Apologies: Kate Brooks, Michael Drinkwater, Rachel Webster, Steven Longmore

The Chair welcomed the new members of ATUC, George Hobbs, Sarah Maddison, Cliff Senkbeil (Student), Michael Dahlem (Secretary).

The Chair thanked the former members of ATUC, Jim Lovell (Secretary), Helmut Jerjen, Mark Wardle, Chris Wright, Alyson Ford (Student) and Katherine Newton-McGee (Student), for their contributions to ATUC.

The members of ATUC accepted the minutes of the last meeting, with one minor change - a note is to be added thanking the former student members, Katherine Newton-McGee and Alyson Ford, for their contributions.

Date and format of the next meeting:

The next ATUC meeting will be held in conjunction with a full-day science symposium. An additional one or two days will be devoted to AT reports and ATUC's business session. The next meeting is to be held around the 3rd week of April 2007.

Actions on ATUC:

- 1. Millimetre White Paper:** Release mm white paper to the public and announce its availability to the community at large.
- 2. Communication with the user community:** The ATUC Chair will prepare a short report for the next ATNF newsletter, with the aim of clarifying some issues raised in user feedback: These include parts of items 4, 8(c), 8(e), 12 and 13(a) in the list of recommendations below.

Commendations and successes:

- ATUC was pleased to hear of the success of the Narrabri synthesis workshop in September.
- ATUC commends the ATNF for the success of MOPS and Mopra remote observing.
- ATUC congratulates the ATNF, as the leader of Australia's bid for hosting the SKA, for the short-listing of Australia for the SKA site.
- ATUC congratulates the ATNF on the first successful demonstration of eVLBI fringes during a video conference to Canberra.

At the end of the meeting the Chair thanked the outgoing member, Jürgen Ott, for his many contributions to ATUC, and wished him well in his new position in the USA.

Elaine Sadler (ATUC Chair)

ATUC Recommendations [ATNF response requested]

Matters arising from the Director's Response to the June 2006 ATUC report

1. There are still ongoing issues regarding items 1 and 2a of the previous Director's report (regarding documentation and keeping it up-to-date). Phil Edwards has notified ATUC that a new release of the ATCA Users Guide (scheduled for October 2006) should be available soon. ATUC welcomes the impending release of the latest version of the Users Guide, but recommends that consideration be given to future versions being maintained by a wiki to which experienced observers could also contribute. This could be done not only for the ATCA Users Guide (incorporating the currently separate 3 mm and 12 mm documents), but also other observing-related documents at Narrabri and elsewhere. Sarah Maddison and George Hobbs would be happy to consult with ATNF staff on ways to implement this.
2. ATUC notes that the situation re item 2b from the last report (i.e. 3 mm calibrator flux monitoring) is now very good, and recommends that a reference set of 3 mm calibrator observations should again be undertaken at the start of the 2007 mm season.
3. ATUC notes that item 6 (eVLBI demonstration datasets) has not been addressed yet and reiterates the desirability of releasing such datasets.
4. Regarding item 7 (unanswered emails regarding green time requests at Parkes): the proposed use of the recommended email distribution lists sounds reasonable, though this is not stated on the "Use of Director's Time" web page at Narrabri, or anywhere at all on the Parkes web pages (except as a "catch all" at the top of the User Guide). It should be documented on the web, where users can find it. We ask the ATNF to announce the change in an email to make it prominent to users.
5. The Director's reply to our last report did not respond to the comment: *Regarding IM, PT/VC (Skype, Googletalk) access for visitors. These are important tools for users and ATUC would like to see them available on the pink cables. Visitors use a variety of software types and versions (and configurations) so access from personal laptops would be preferable.* ATUC still considers this an issue of interest to users, and would welcome a response.

New recommendations:

6. ATUC would like to see more information at our next meeting about several of the proposed development projects (e.g. ATCA 115 GHz upgrade, ATCA 3 mm polarisation capability and noise diode installation, building combined 20/13 cm and 6/3 cm receivers for Mopra, WVR etc.) so as to be able to rank them against each other. We seek guidance on whether software projects should be included in such a review. We would welcome a clearer idea on the available resources related to project development and operations in the future, once this is known.
7. ATUC sees the Tidbinbilla 12 mm upgrade project proposed by Jim Lovell as a useful future project, but did not think it was urgent that this be implemented by the start of the winter 2007 observing season.
8. ATCA/Mopra issues
 - (a) *Mopra support scientist*

ATUC sees a strong need to have the position of Mopra support scientist refilled with high priority, and ideally with continuity over several years to retain experience. We also note the

recent loss of several mm experts from the ATNF scientific staff, and encourage hiring another astronomer with millimetre expertise, if possible.

(b) Remote observing issues at ATCA

There is now an improved script which opens up all the required windows on a remote observer's machine. Most of the remaining issues relate to incompatibilities in software running on the machines connecting with one another. ATUC recommends that this script be documented and made available to all users. We would also like to know whether VNC can be used for remote observing.

ATUC welcomes the possibility of Mopra remote observing being made available from locations other than Narrabri in the future.

(c) 12 mm and 3 mm observing outside the official mm season

Both 12 mm and 3 mm observations with the ATCA are feasible (particularly at night-time) outside the nominal winter season. ATUC recommends that users be reminded of this, particularly in the context of the recent Narrabri Atmospheric Seeing Monitor statistics paper by Middelberg et al. (2006, PASA), which clarifies some of the phase-quality issues involved.

(d) Water Vapour Radiometer (WVR)

ATUC encourages the ATNF to consider reinstating a WVR project at Narrabri to improve phase tracking at 3 mm, and to develop links with IRAM, where such a system has recently been implemented.

(e) Accommodation for Mopra observers

ATUC notes that, as clarified by Phil Edwards at our meeting, remote observing from Narrabri is now the default for Mopra observing, but experienced observers who prefer to stay at Mopra can do so. We encourage ATNF to make self-catered accommodation available at Narrabri next winter for longer-stay Mopra observers.

9. Parkes issues

Pulsar observers appreciate the flexibility of instrumental setups available at Parkes, but have also raised concerns that only one person (John Reynolds) currently has full knowledge of how to perform the setup. ATUC strongly recommends that every standard observing mode be documented so that at least two staff members can perform the necessary tasks to set these up for observers.

10. Tidbinbilla

The topic of VLBI scheduling and the (lack of) availability of Tidbinbilla during VLBI observing weeks was discussed at length by ATUC. ATUC requests that the ATNF make a high-level approach to NASA to see if anything can be done to improve Australian access to the Tidbinbilla 70 m during scheduled VLBI weeks.

11. LBA/VLBI

ATUC sees the PAMELA (Parkes ATCA Mopra e Long-baseline Array) concept as an integral part of the future eVLBI developments, and suggests that the idea be publicised more widely in the community. It was noted during the meeting that this concept would benefit from the availability of CABB-type backends and 6/3 cm and 20/13 cm wideband receivers at all three observatories.

The lack of a central repository for system temperature values of telescopes participating in VLBI runs was mentioned. Can such a list be made available for VLBI observers?

12. National facility office/OPAL/TAC

A user raised concerns about the amount of ATCA time given to long-term projects under the lead of ATNF PIs. ATUC recommends placing a statement on the PI statistics page to the effect that ATNF staff have no guaranteed telescope time or priority in any way, as well as an explanation of what constitutes “continuing proposal” status and a list of proposals which have continuing status.

ATUC were impressed by the video conferencing facilities now available at Marsfield, and would like to see similar systems installed at Narrabri and Parkes.

13. Software & computing

(a) Miriad review & implementation

ATUC notes the points made in the Miriad review and points out the importance of their implementation.

(b) Support of AIPS ATLOD for disk-based VLBI

AIPS is the critical reduction package for VLBI, as it is the only package that contains essential VLBI-specific tasks, such as FRING. ATLOD has worked well for data out of the ATNF S2 correlator, but now we are moving to a disk-based VLBI system and a software correlator, run at Swinburne. The software correlator can produce datasets with:

- much shorter integration times than from the S2 correlator;
- many more frequency channels than from the S2 correlator;
- more IFs than from the S2 correlator;
- and, as a consequence, much larger data volumes than from the S2 correlator.

Each of these increases in capability breaks ATLOD in AIPS in one way or another, making reduction of the new software correlator datasets currently very difficult.

Given its importance to the newly upgraded VLBI systems and the high demand from users for the new VLBI facilities, ATUC recommends that ATLOD in AIPS become an officially supported ATNF suite of software, and that it is modified for use with the upgraded VLBI system as a matter of urgency.

(c) Software installation and documentation

ATUC requests that Miriad and other software for Mac computers is supported and documented, given the increasing number of astronomers using Macs.

(d) ATNF web page search facility – still an issue

ATUC members note that it remains extremely hard to locate information on the ATNF web pages, and almost impossible to find anything by using the search engine. The current layout and structure are unintuitive, and need improvement. This is an important issue, because an increasing fraction of the feedback received by ATUC relates to information which ATNF has actually made available, but which users have been unable to find.

14. ATNF Operations

ATUC would welcome more information about the ongoing operational review and would like to be involved in the review process (across all facilities).

15. Any other business

Please could we have (labelled) vegetarian meals at future ATUC meetings?