

Future of ATNF Operations

15 December 2011

On 10 October 2011, I wrote to users of the Australia Telescope National Facility (ATNF) to describe our proposed future operating strategy. I now wish to update users on the consultation process and feedback and to describe the decision that has been made.

Consultation Process

CSIRO Astronomy and Space Science (CASS) has briefed and consulted with the user community through a series of forums in Sydney, Melbourne, Canberra, Hobart, and Perth during the period 28 October to 23 November. Additional consultation sessions have been conducted with staff. Written input was solicited from the entire user community and is summarised briefly below.

CASS has also sought advice from the AT Users Committee (ATUC). An open ATUC meeting on the changes was held at the CASS HQ at Marsfield on 25 October. ATUC was provided with written background information and a draft of the Science Operations plan for the ATNF. ATUC in turn consulted the community in various ways. The ATUC report was provided on 30 November and is available on the ATNF website at:
www.atnf.csiro.au/management/atuc/2011oct/docs/ATUC_Report2Director_October2011.pdf

The ATNF Steering Committee endorsed the proposed strategy at its meeting on 13 December.

Summary of Feedback

Approximately 40 written responses were received on the proposed strategy. Three-quarters focussed mostly or entirely on the future of Mopra. There was strong support for continuing the operation of Mopra as part of the National Facility, from current users and from their international peers, particularly so that surveys of high scientific impact could be completed. There was also strong feedback that the proposed timescale for transition to a non-CSIRO-funded operational model for Mopra is unreasonably short given ongoing student projects and grant funding. As yet, no financially viable solutions for continued operation of Mopra beyond 2012 have been suggested.

There was broad support for retaining the current “user-operator” model for the Australia Telescope Compact Array (ATCA), and some support for expanding the availability of remote (or Sydney-based) observing. There were also suggestions that a strategy be developed for improving the millimetre capabilities at the Compact Array. It was suggested that this may include the transfer of some instrumentation from Mopra.

There was feedback supporting the move to remote observing with the Parkes telescope whilst other feedback expressed concern with aspects of the model. CASS wishes to clarify the following points for Parkes:

- *High-impact (vs large) projects.* The intention is to reduce observer and instrument support substantially and to take into account both the available support *and* the ability of the observing team to self-support when accepting projects. This will favour some large projects. However, small projects that use standard instrument setups and/or experienced observers will remain possible.

- *Instrumentation.* This decision does not specify the actual instrumentation to be offered at Parkes. A decision on Parkes instrumentation will be made following the February ATUC meeting, as described below.
- *Support for novel experiments.* As noted by some, it will remain important to conduct certain novel experiments in person at Parkes. CASS intends to retain this capability, although over time more of the support may be delivered from other sites, necessitating advance planning.

Decision

CASS has decided to implement “Scenario 1” as described in the document “Future information on proposed changes to Australia Telescope National Facility operations” (provided to ATUC on 18 October).

Under this plan:

1. CASS remains committed to finding the funds needed to complete ASKAP with 36 phased array feeds. ASKAP will be operated with new CSIRO funding and savings made at the other ATNF telescopes.
2. The Parkes Telescope will be reconfigured within approximately one year as a facility devoted primarily to remote observing with a limited suite of instruments. The actual instrumentation (receivers and back-ends) and support model will be determined in consultation with the community. Remaining instrumentation will be decommissioned or mothballed to reduce operating costs and system complexity. User support will be limited, with observing teams expected to be largely self-supporting. Although observing at the telescope will still be possible in some situations, on-site support will be more limited. Technical support for reconfigurations or instrumental problems will typically be available only during working hours. CSIRO anticipates that over several years the Parkes operating budget will be reduced by approximately 40%, or \$2m per annum.
3. The ATCA will continue to be operated approximately as at present, although there may be modest changes to instrumentation. If so, this would be discussed with the user community in the future. The “user-operator” model, where users perform their own observing, will be retained. Remote observing will continue to be available to trained users that are able and willing to cope with a lower level of support. Full observing capabilities and support will be available at the observatory with extension to Marsfield planned, but contingent on resources.
4. CSIRO financial support for Mopra will cease in October 2012. CASS therefore anticipates that Mopra will no longer be provided as part of the ATNF from that date. The situation will be reviewed based on the level of interest for supporting Mopra with non-CSIRO funding (see below). We continue to advise proposers to assume that the 2012 April semester will be the last for Mopra as part of the ATNF (proposals due 16 January).
5. The Long Baseline Array and community access to the Tidbinbilla 70-m antenna will be continued as at present. CSIRO will seek to retain access to the Mopra telescope for use in the LBA but will not fund Mopra solely for this purpose.

The following factors have led us to adopt this scenario:

- User feedback preferring the original Scenario 1 to other scenarios;

- The broader science scope and the larger, more diverse user base of the ATCA compared to Parkes;
- The opportunities for the ATCA to provide high frequency follow-up observations to surveys conducted with ASKAP;
- The viability of a strong science case for Parkes, through high-impact projects, even with the changed model;
- The remarkable re-generation of the ATCA through upgrades to the front-ends (16cm receivers, 3/6cm receivers, high frequency capability) and back-end (the flexibility and bandwidth coverage of CABB);
- Community support for retaining the user-operator model and on-site observing for current facilities;
- Community support for enabling remote observing with the Parkes Telescope;
- The strategic importance of the Long Baseline Array to Australia and New Zealand's Square Kilometre Array bid, and of the linkages with the Australian and New Zealand university community.

Next steps for Parkes Instrumentation

CSIRO is devising a strategy for Parkes instrumentation that is consistent with the above model and trend in funding. Options will be presented to the community early in 2012 via the Australia Telescope Users Committee and the ATNF website. A consultation with the ATUC will be held in Marsfield on February 13, with an open session in the morning. The strategy is likely to include the following aspects:

- A reduction in the frequency of receiver changes from October 2012;
- Options for decommissioning of some instrumentation beginning in October 2012, based on a balance between user requests, maintainability, and compatibility with remote operations;
- Pursuit of capital funding for future receivers that provide broad capabilities but can be operated with the planned reduced level of support.

Call for Expressions of interest to fund or operate Mopra.

On 18 November, CSIRO released a call for expressions of interest to fund or operate Mopra. Detailed discussions with prospective operators/funders will begin early in 2012. It is not necessary that funding be secured by the 16 January deadline for initial expressions of interest. The call may be found at the following location:

<http://www.atnf.csiro.au/observers/MopraCallForEoI.pdf>

Phil Diamond
CASS Chief
Ph: +61 2 9372 4300

Tony Crawshaw (all media enquiries)
Tony.Crawshaw@csiro.au
Ph: +61 2 9372 4528
Mobile: +61 402 770 403