Performance indicators

This chapter describes performance indicators that are used to assess the performance of the ATNF.

1 Scheduled and successfully completed observing time

For the Parkes radio telescope and the Compact Array the ATNF sets a target that at least 70% of the time available should be allocated for astronomical observations while the time lost during scheduled observations from equipment failure should be below 5%.

The following values show the time allocation for scheduled observations in 2003:

	Compact Array	Parkes
Time allocated for scheduled observations	72.9%	64.5%
Time allocated for NASA tracking observations	–	9.4%
Downtime due to equipment failure (during scheduled observations)	1.7%	1.3%
Downtime due to weather	0.7%	3.8%

For the Parkes radio telescope, the observing time allocated to astronomical observations was lower than usual. This was mainly due to the use of the telescope for the NASA Mars tracking program and associated upgrades to the telescope in preparation for this (page 36).

For most observing programs, observers are required to be present at Parkes or the Compact Array for their observations. For the Compact Array, remote observing is also possible from other Australian sites. In 2003, 9.8% of scheduled observations with the Compact Array were taken remotely.

2 Response of the ATNF to recommendations by the Users Committee

The ATNF Users Committee (ATUC) is an advisory group that meets twice a year, to represent the user community in the ATNF decision-making process. After each meeting, the committee presents a list of recommendations to the Director. ATUC considers matters raised by the user community, current operations and priorities for future developments.

In most cases the ATNF addresses ATUC issues. In 2002 ATUC made 17 recommendations to the ATNF. Of these 14 were completed by December 2003, with responses to two requests still in progress and one withdrawn by ATUC.

A significant issue for the user community in 2003 was a decision to change from four-month observing terms to six-month observing terms. Although ATUC had previously advised against this change, a decision to proceed with a change to six-month terms was made after consulting with all major stakeholders including the ATNF Steering Committee, Senior Management Group and the Time Assignment Committee.

3 Time allocation on ATNF facilities

The allocation of time on the ATNF facilities is done on the basis of scientific merit. In 2003 a total of 219 proposals were allocated time on ATNF facilities (each proposal is counted once only per calendar year although some proposals are submitted two or three times). Of these, 146 were for the Australia Telescope Compact Array, 54 were for the Parkes telescope, eight were for the Mopra telescope and 11 were for the Long Baseline Array. A summary of the observing programs is given in Appendix D.

Since January 2003, the ATNF has accepted applications for service observations with the Tidbinbilla DSS43 70-m antenna. The radio telescopes at Tidbinbilla are operated by the Canberra Deep Space Communication Complex, part of NASA's Deep Space Network. During the year, service observations were taken using the DSS43 70-m antenna for nine observing programs.

Figures 3 and 4 show the time allocated to observing teams on the Compact Array and Parkes radio telescope as a percentage of the total allocated time, by affiliation of the team leader. Figure 5 shows the total time allocated to all proposals observed with the Compact Array, from 1990 to 2003.

In 2003 the proposals allocated time by the ATNF included at least 410 authors. Of these approximately 45 authors were from the ATNF, 85 were from 14 other institutions in Australia, and 280 authors were from around 120 overseas institutions in 20 countries.

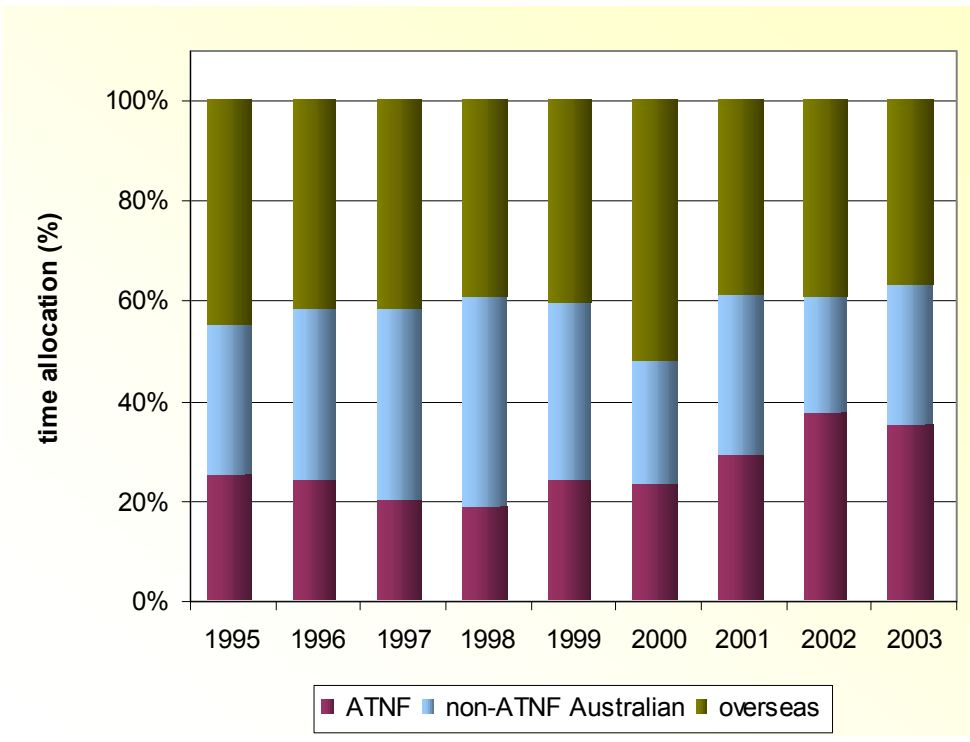

Figure 3 Compact Array time allocation, 1995 - 2003.

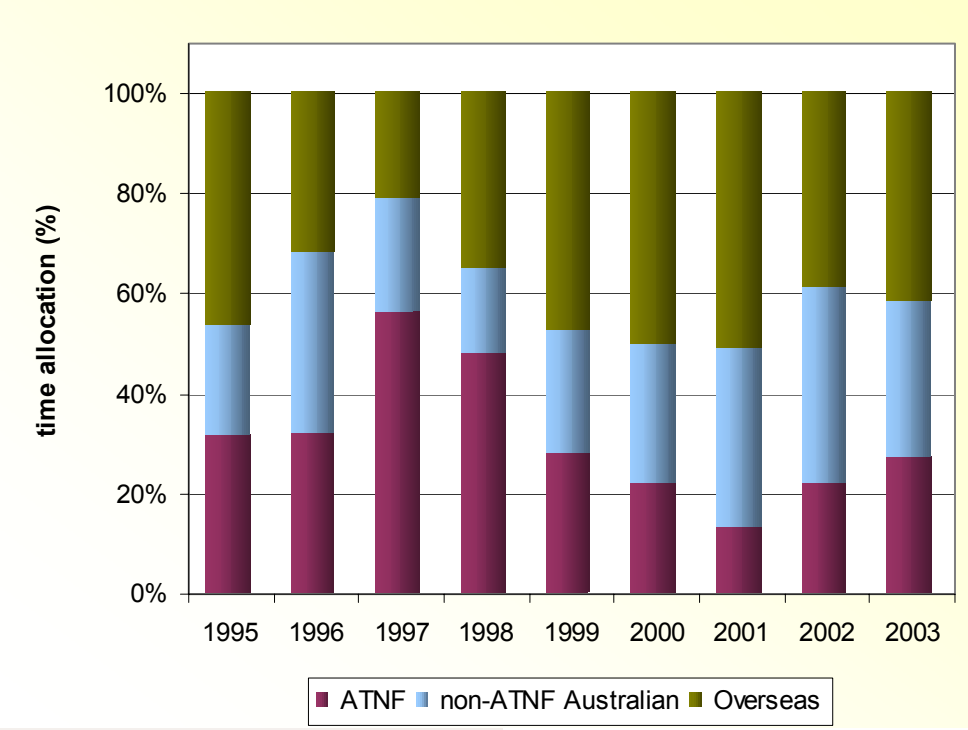

Figure 4 Parkes time allocation, 1995 - 2003.

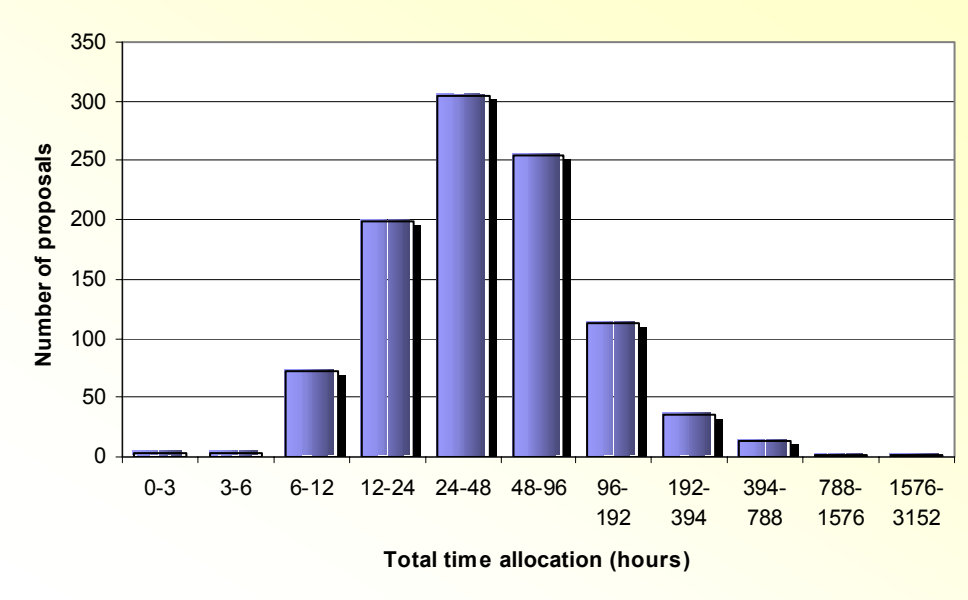

Figure 5 Compact Array time allocation, 1990 - 2003.

4 Teaching, measured by the number of postgraduate students supervised by ATNF staff

In December 2003 there were 27 PhD students affiliated with the ATNF as well as an Australian or overseas university. Their affiliations and project titles are given in Appendix H. Seven students were awarded PhDs during the year. Their theses are listed in Appendix G.

5 Publications and citations

Figure 6 shows the number of publications in refereed journals which include data obtained with the Australia Telescope. The publication counts include papers dealing with operations or data reduction but do not include IAU telegrams, abstracts, reports, historical papers, articles for popular magazines, or other papers by ATNF authors. In 2003, 103 papers with ATNF data were published in refereed journals. These are listed in Appendix G, which also lists other papers by ATNF staff, and conference papers.

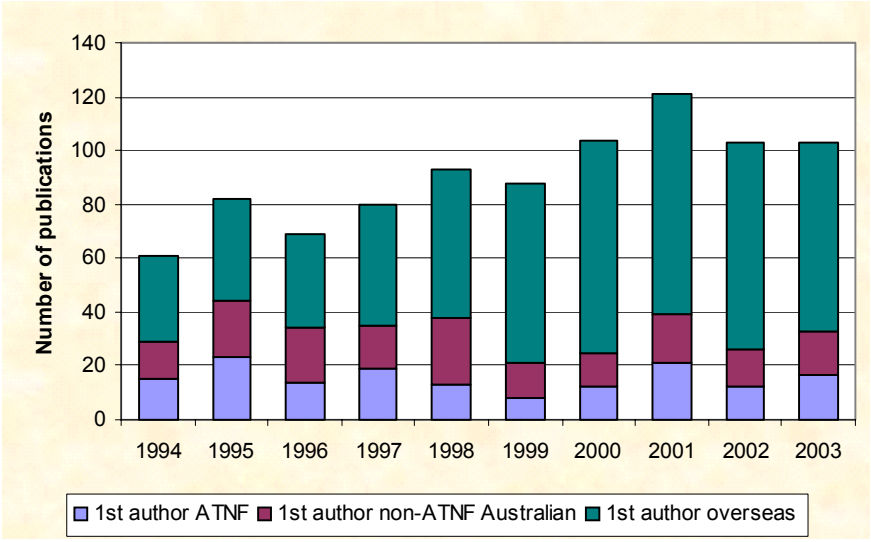

Figure 6 Papers from data obtained with the Australia Telescope, published in refereed journals.

Figure 7 compares ATNF publication counts for the ATNF with three other organisations that provide world-class facilities for radio astronomy. On the basis of the number of refereed articles, the National Radio Astronomical Observatory (NRAO)[1] clearly ranks first with ATNF second.

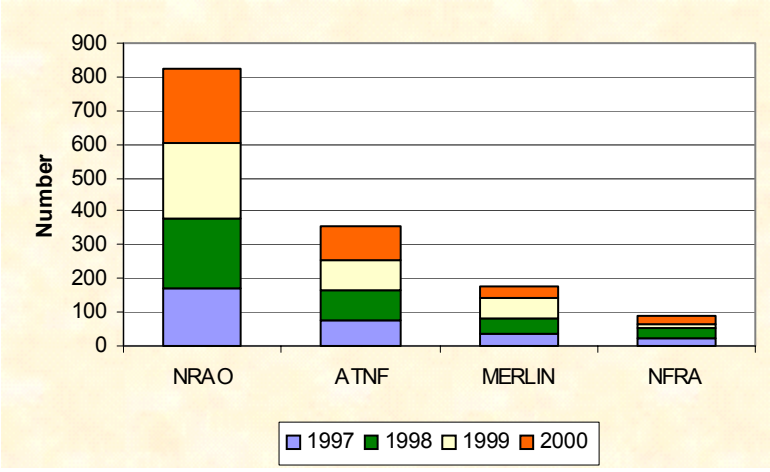

Figure 7 Publication counts 1997 - 2000, for articles published in refereed journals.

[1] The NRAO counts include publications with data from the Very Large Array and Very Long Baseline Array facilities. The counts for MERLIN include papers with data from the UK MERLIN/VLBI National facility. For NFRA (ASTRON), the counts include papers with data from the Westerbork Synthesis Radio Telescope and the Dwingeloo Radio Telescope.

6 Public relations

Figure 8 shows counts for media activities for the years 1999 – 2003. During the year the ATNF issued 11 media releases (Appendix F) and featured in more than 110 press items. ATNF staff gave approximately 100 TV and radio interviews. Figure 8 also shows the number of web hits to the central ATNF web site. The counts include internal use by staff and hits generated by external search engines. The number of web hits increases from year to year, with 22.7 million hits recorded for 2003.

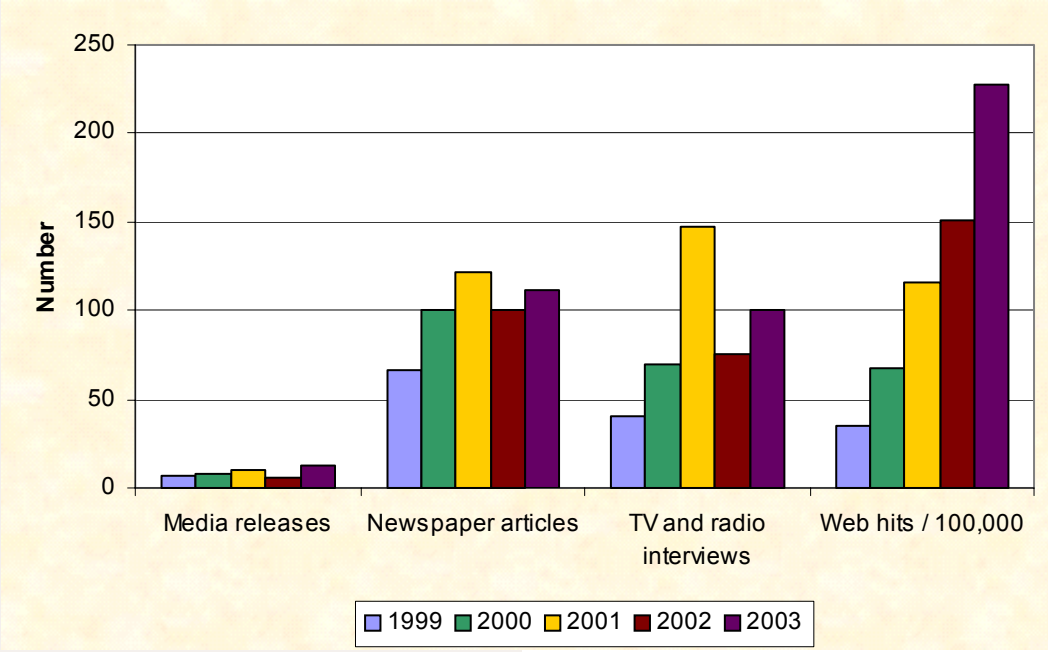

Figure 8 ATNF media activities

Figure 9 shows the number of visitors to the Narrabri and Parkes Visitors Centres. Approximately 10,000 people visit the Narrabri Visitors Centre each year. The number of visitors to the Parkes Visitors Centre increased greatly in 2001, following the release of the movie *The Dish*, and has continued to increase since then with 136,000 visitors in 2003, up from 134,000 in 2002.

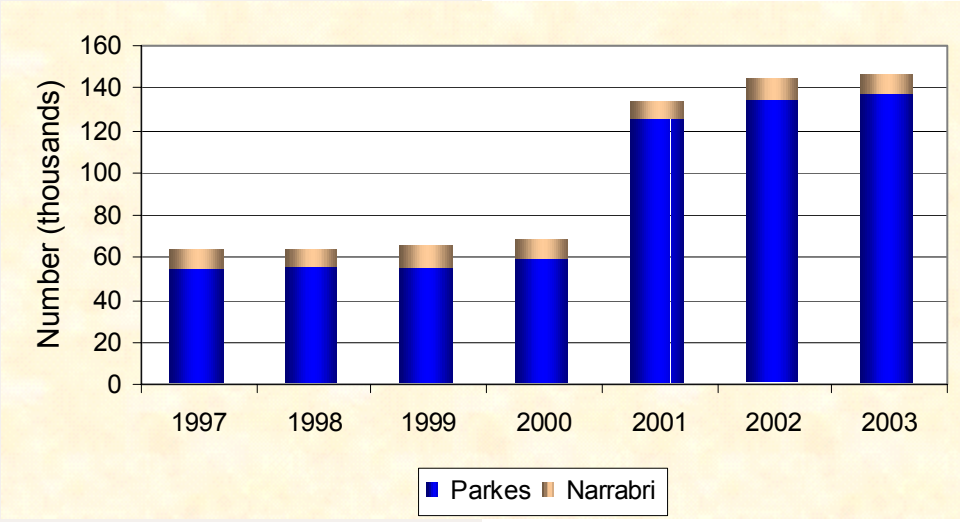

Figure 9 Number of visitors to the Parkes and Narrabri Visitors Centres

7 User feedback at Narrabri and Parkes

Observers at the Parkes and Narrabri observatories are asked to complete a user feedback questionnaire. Figures 10 and 11 show the user responses in 2002 – 2003 for general observing with the Compact Array and Parkes radio telescope. Figure 12 shows the user feedback for Compact Array observations taken in 2002 – 2003 with the 3- and 12-mm observing millimetre systems.

In general the level of user satisfaction is high. In 2003 the average over all items was 89% for the Parkes Observatory, 84% for standard observing at the Compact Array and 77% for millimetre observing at the Compact Array.

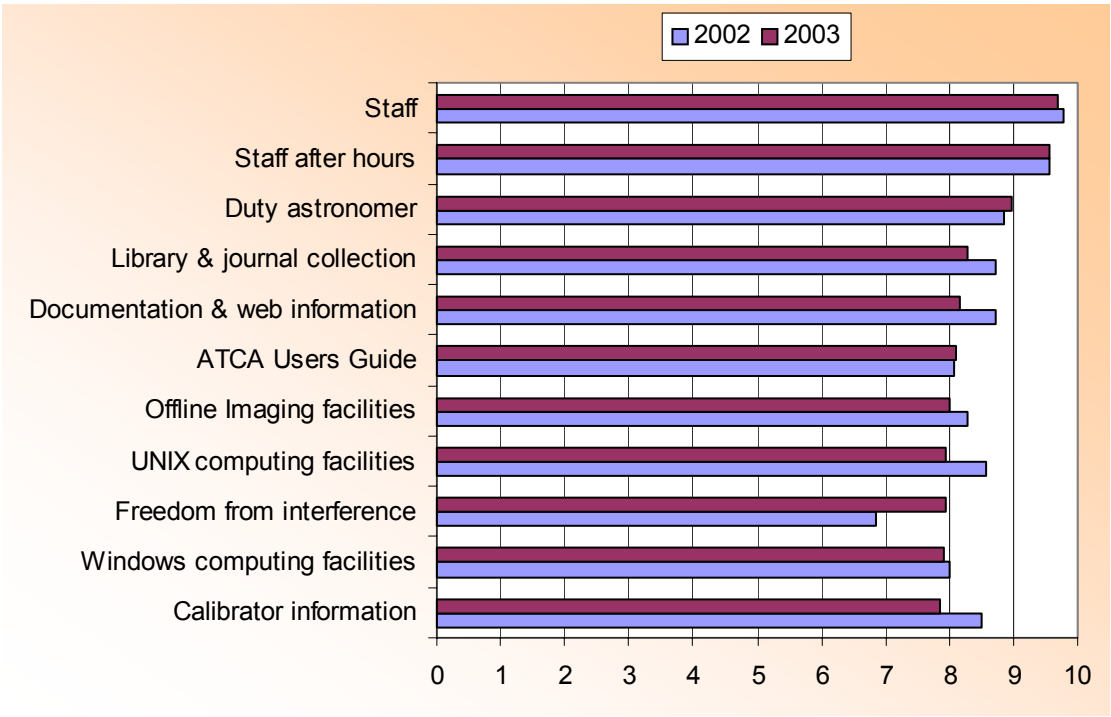

Figure 10 Narrabri general user feedback on a scale of 1 - 10 where 1 = poor and 10= excellent.

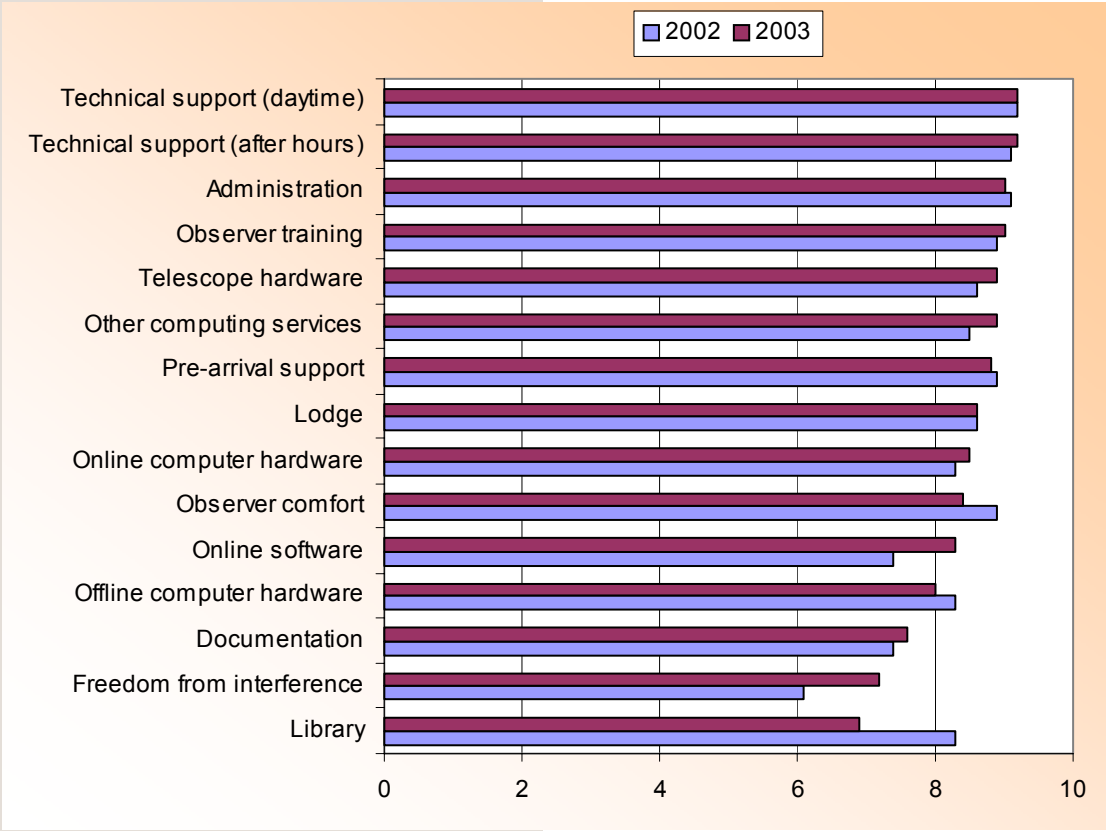

Figure 11 Parkes user feedback on a scale of 1 - 10 where 1 = poor and 10 = excellent.

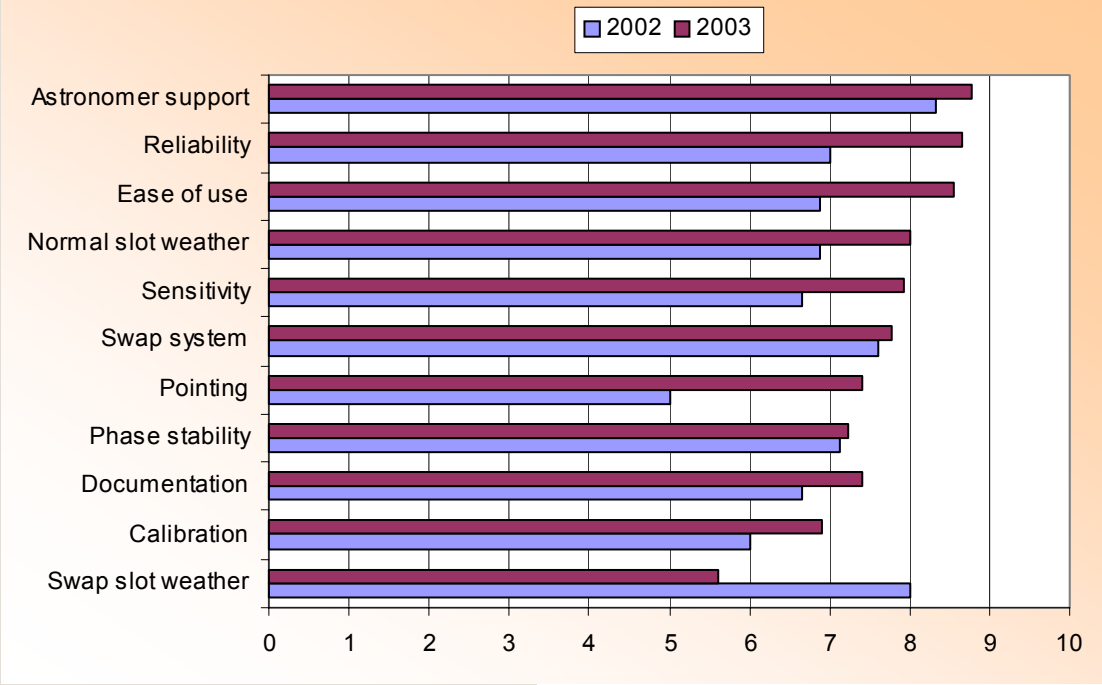

Figure 12 Narrabri user feedback for observations with the 3- and 12-mm observing systems on a scale of 1 - 10 where 1 = poor and 10 = excellent.

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