

# Parkes ATUC Report

## November 2003



# Parkes staff changes

- New VC manager/  
coordinator
  - John Smith
- New VC casuals
  - Trisha Trim
  - Terry Wilkie



# Parke's observing statistics

(2003, cf 2002)

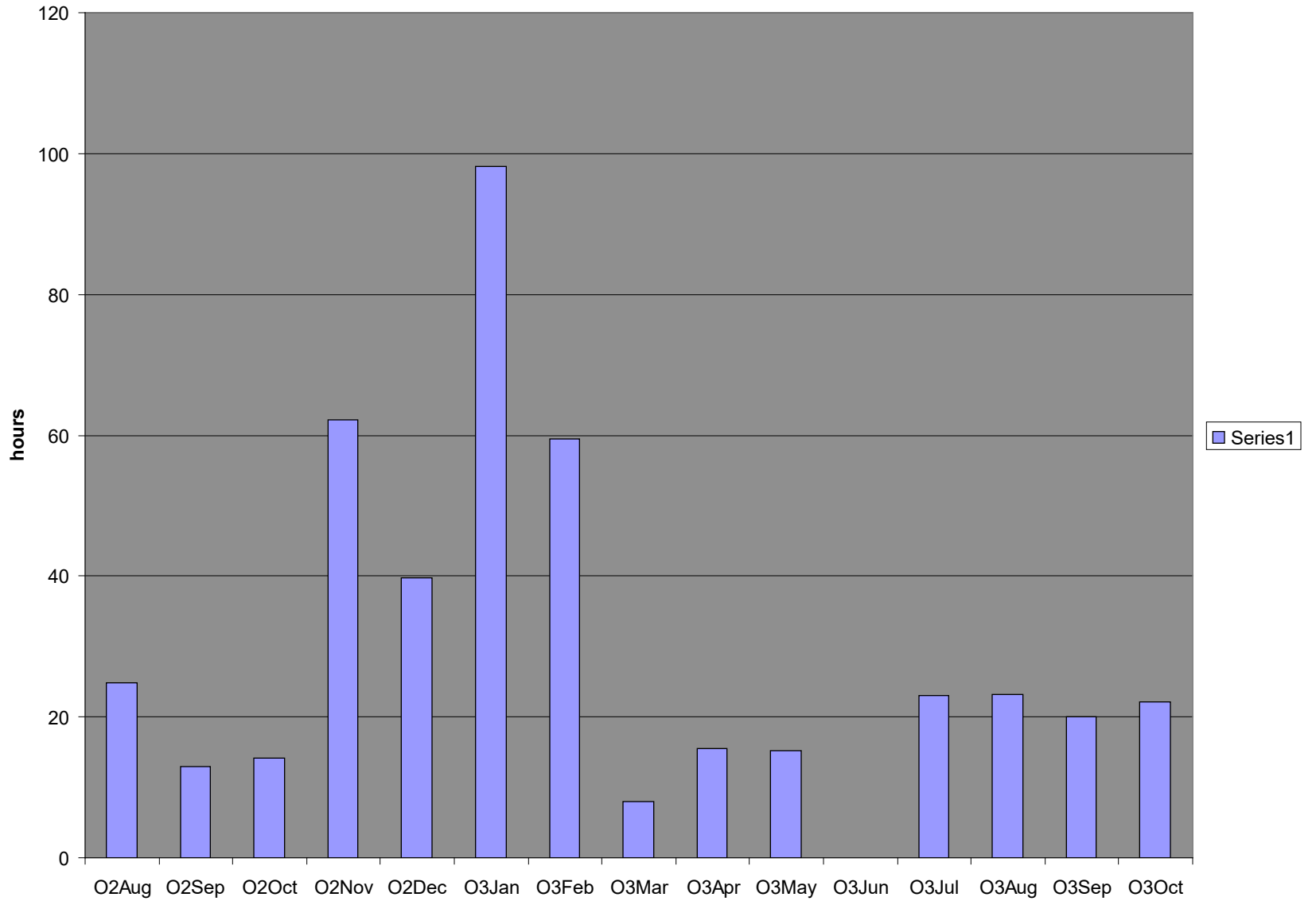
- 63.6% (81.6%) Scheduled observing
- 6.7% Unallocated (mostly reallocated)
- 9.3% NASA tracking
  
- 20.3% (18.4%) Maintenance/tests/shutdown

# Parkes downtime statistics

(YTD 2003, full year 2002)

- 1.5% (1.2%) equipment faults
- 3.8% (3.8%) weather
- > 1% RFI

Hours lost to wind, by month



# Parkes observer feedback

Last 10 months (year 2002, year 2001)

- 27 (26,34) responses (WWW form)
- Extreme scores
  - 9.4 (9.2, 9.1) Tech support (in/out of normal hours)
  - 9.1 (9.1, 9.2) Admin support
  - 8.9 (8.5, 8.8) Overall
  - .....
  - 7.4 (7.4, 7.6) Documentation
  - 7.8 (6.1, 6.7) RFI (freedom from)
  - 8.1 (7.4, 7.7) Offline software (spectral-line reduction)

# Major Works

Mar :Install new high-performance panels

Aug : Commission MARS X-band receiver

Oct : Remove 21cm Multibeam for refurbishment  
Commission 10/50cm receiver

03Sep –04Feb : NASA tracking

04 April: Re-install 21cm MB

04 (2<sup>nd</sup> half) : Repaint surface, backing structure

04 (late) : 6GHz Multibeam?

# WBCor (Wideband Correlator)

- Period limit currently  $P > 25\text{mS}$
- Bandwidth limit currently 512MHz
- No search mode (yet)
  - Bandwidth upgrade to give 1GHz on Multibeam f/b

# CPSR2

- Double bandwidth ?
  - 4 freq x 2 pol x 64MHz BW
  - 2Gb/s

# Receiver availability 1

- MARS receiver : 8-9GHz
  - 40Jy SEFD (6dB improvement on old X-band!)
  - Dual circulars, currently 500MHz bandwidth
- 10/50cm : 40Jy / 60Jy
  - Basically working – minor improvements needed
- 21cm Multibeam
  - available again May 2004

# Receiver availability 2

- H-OH : Jan 2004
  - new LNAs :  $\sim 1$ dB improvement?
- K-band upgrade : July 2004 ?
  - $\sim 4$ dB sensitivity improvement?
  - wider bandwidth (18-25GHz)
- SETI : mid 2004 ??
  - 40Jy SEFD from 1.2 – 3.0 GHz
- 6GHz Multibeam
  - Late 2004?

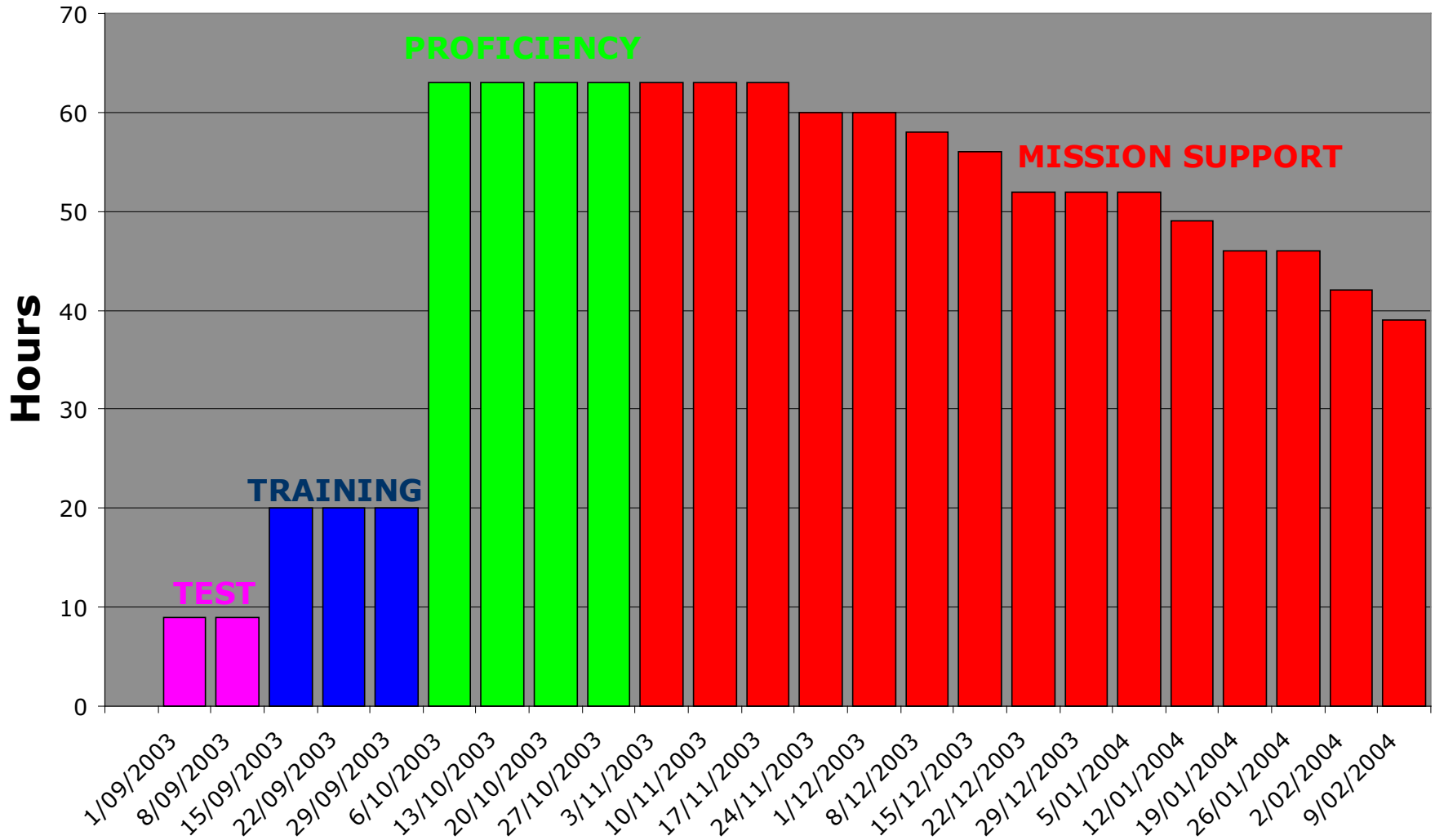
# SETI receiver

- In storage at Parkes
- Large, heavy, occupies one whole rotator
- Never been installed in new focus cabin : would take ~1 month's work to mount
- Performance
  - Dual linear polarization
  - 1.2GHz – 1.75GHz with SEFD 35~40Jy
  - 1.75GHz – 3.0GHz with SEFD 43~55Jy

# JPL tracking contract

- Extension of perforated panels: 44 → 54m  
(wind loading?)
- New X-band (8.4GHz) receiver
- Tracking (Sep 03 - Mar 04)
  - 8 hours/day: 22h, -16d ⇒ 03h, +17d

# Mars Tracking





Parikes Monitor - Netscape

File Edit View Go Bookmarks Tools Window Help

Back Forward Reload Stop

Search Print

Home Radio Netscape Search Bookmarks

Parikes Monitor

Summary Dish Mars Receiver Mars Backend

UTC 13:59:15.00

Dish Status TRACKING

Dish Az 326.08 deg

Dish Ze 28.91 deg

Wind Speed 5 km/h

Receiver (On-axis) MARS

Time to Rise 0

Time to Set 2:51:22

Send comments to: [Simon Hoyle](mailto:Simon.Hoyle)

Connected to server - OK

This Web Page created and maintained by Simon Hoyle.

Applet ParikesMonitor started



# Reduction software

- Single-dish reduction software
  - SPC still in use! W(h)ither AIPS++??
- Livedata growing in capabilities, but depends on demand

# Other Stuff

- Quarters refurbishment
  - New ladies bathroom “first flush” imminent
  - New Kitchen to be finished by Jan 04?
  - New quarters sound video system
- Additional office/user space in Opera House
  - More space for users outside tower
  - Additional library shelving

# Parke's Visitors Centre

