



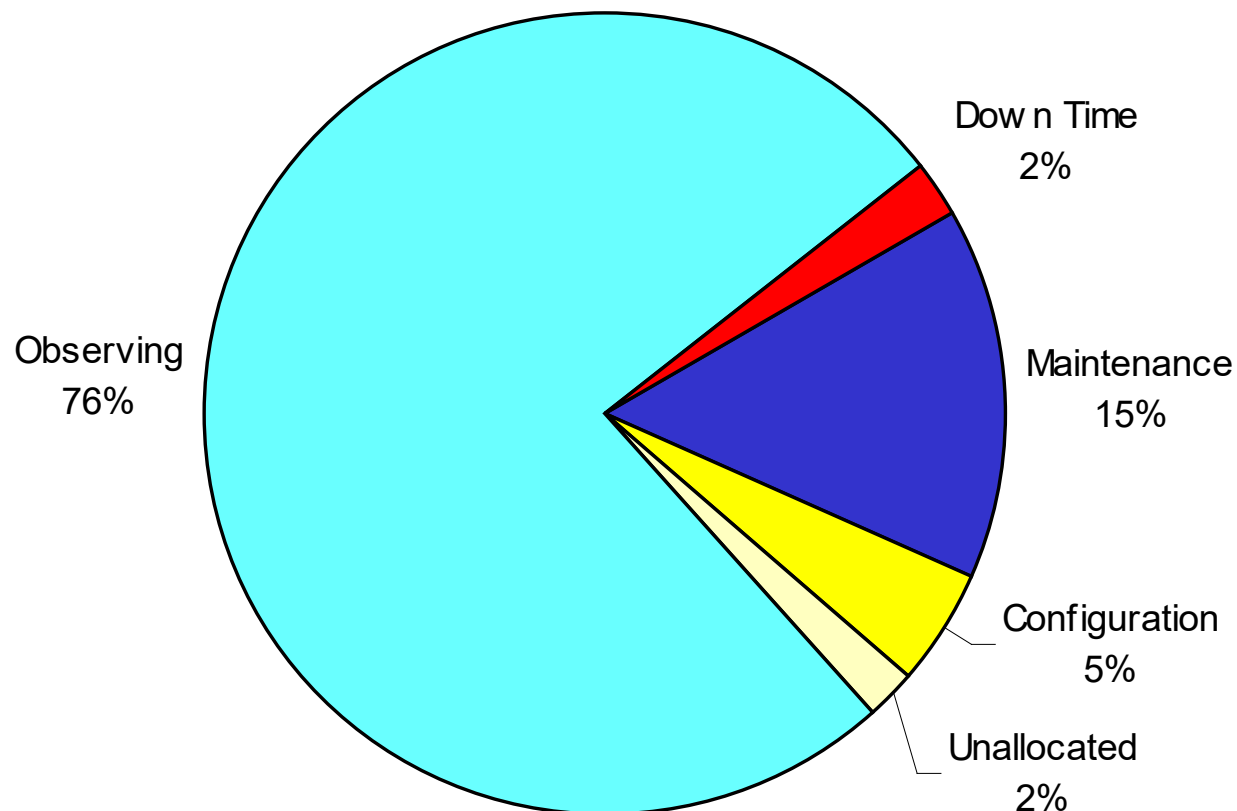
Compact Array



March - October 2000

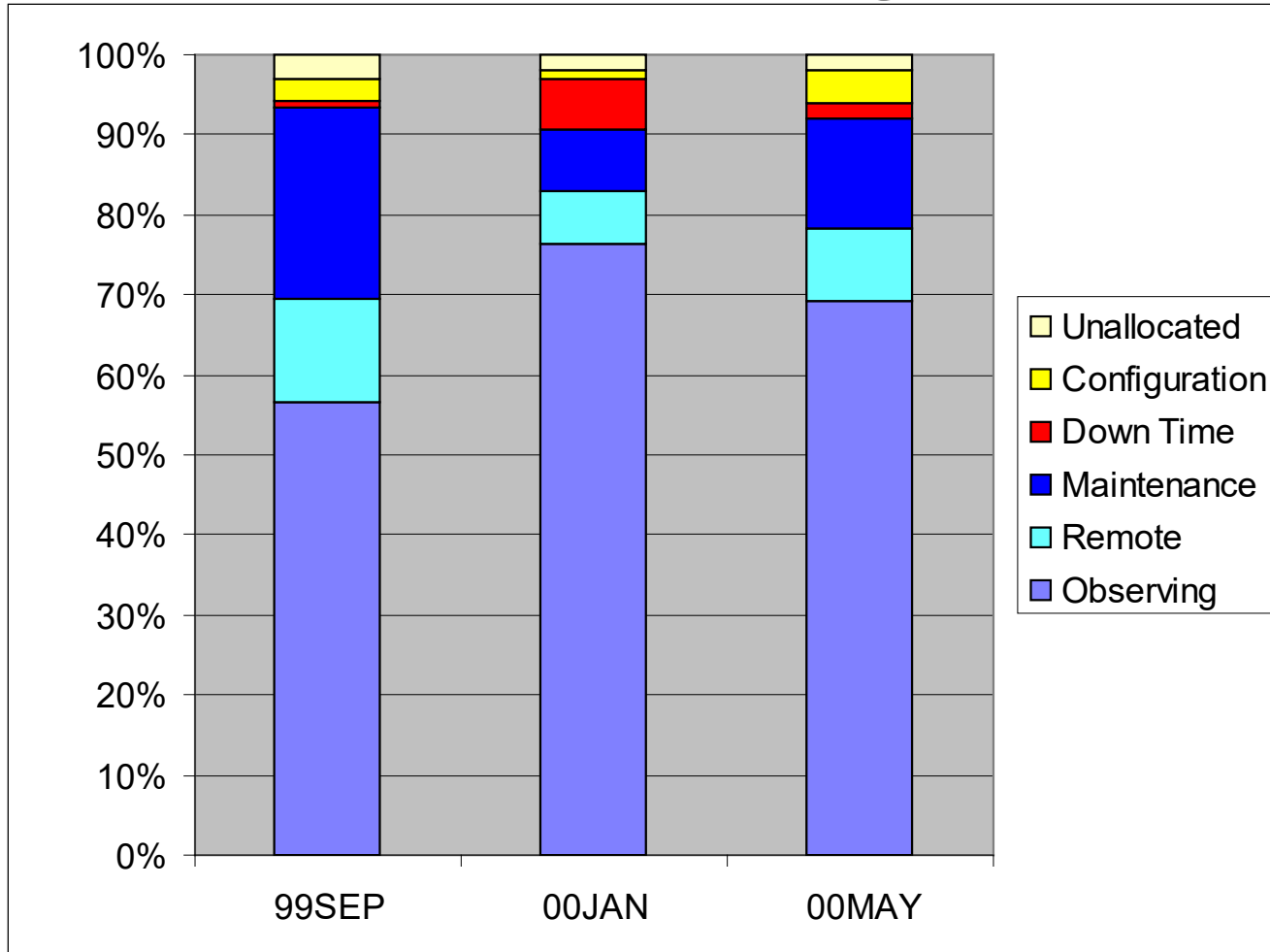
Australia Telescope Compact Array

Array usage 00MAYT



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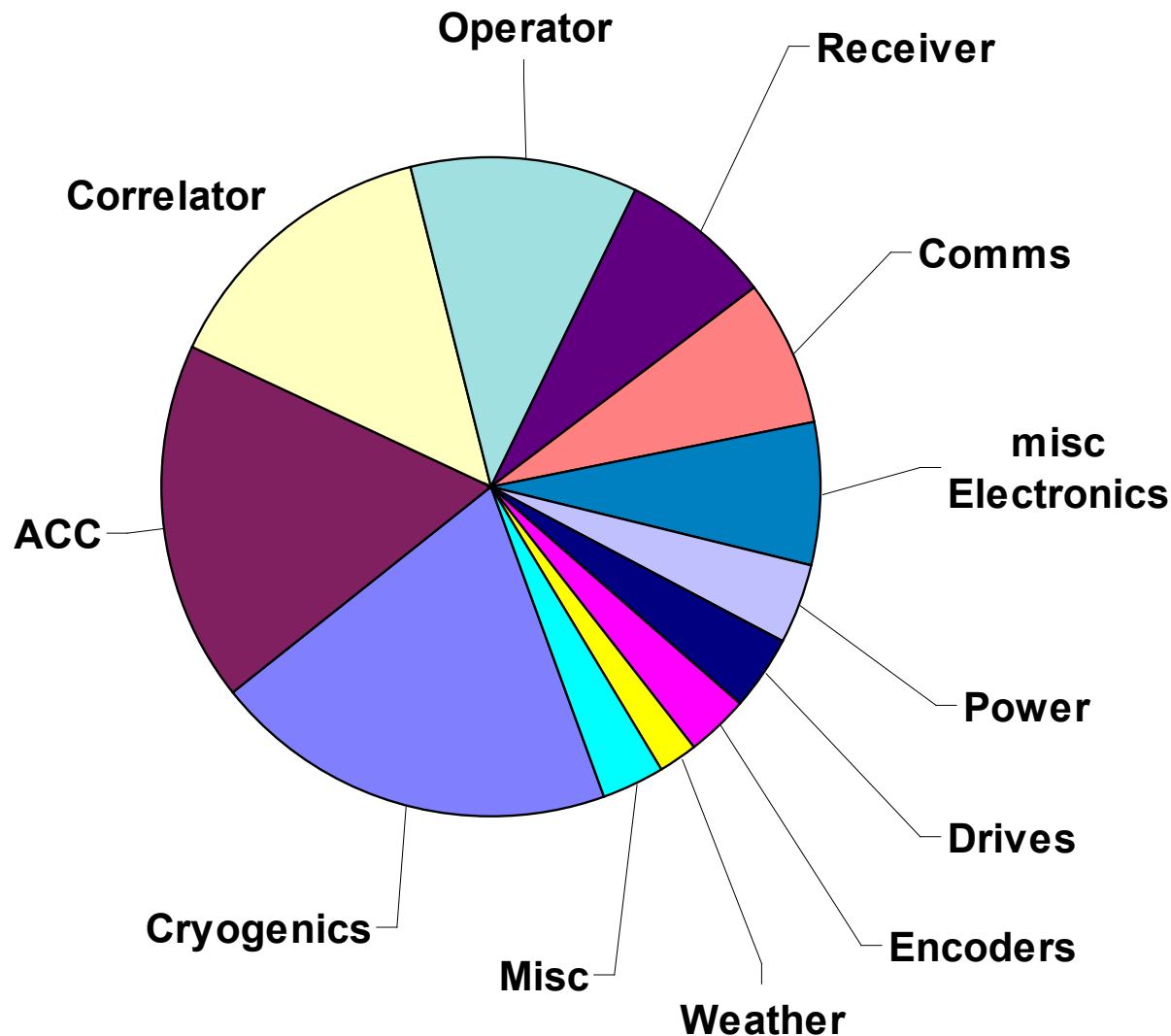
ATCA usage



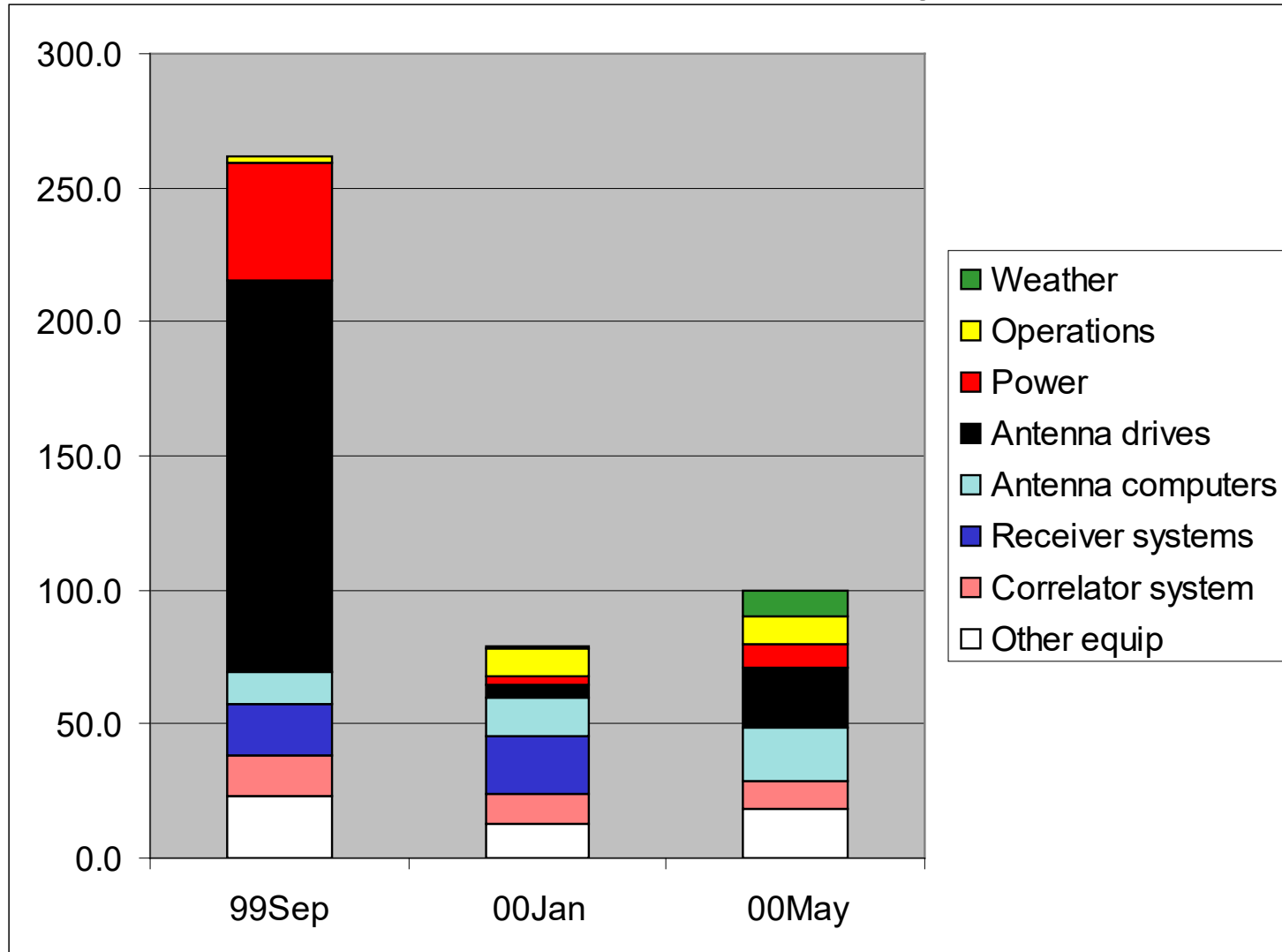
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ATCA lost time 00MayT

Total = 79h



ATCA lost time by term



Australia Telescope Compact Array

User feedback

		98May-Nov	Nov 98-Mar 99	99Mar-Sep	99Oct-00Feb	00Mar-00Sep
OBSERVING SUPPORT	Duty Astronomer	4.9	4.8	4.8	4.9	4.5
	Observatory Staff	5	4.8	4.7	4.9	4.9
	Observatory Staff (After hours)	4.9	4.7	4.8	4.9	4.9
DOCUMENTATION	ATCA Users' Guide	4.2	4.1	4.0	4.2	4.1
	On-line help	4.3	4.2	4.0	4.5	4.4
	Calibrator information			3.2	5.0	4.8
TECHNICAL SERVICES	Imaging Facilities (AIPS etc)	4.3	4.5	4.3	3.6	4.2
	On-line processing			3.6	5.0	4.7
	Vaxes	4.2	4.3	3.7	4.2	4.0
	UNIX Computers	4.2	4.4	4.3	4.6	4.5
	PCs	4.6	4.5	4.1	4.2	4.2
	Library	4.4	4.8	4.3	5.0	4.9
OTHER (Remote Observing)	Tie Line	4.8	5.0	5.0	4.2	4.5
	Marsfield Services	3.5		5	4.8	N/A
	Marsfield Staff					5.0
	Remote Observing Web Page	4.8	5.0	4.5	4.3	4.0

22 responses (20 local + 2 remote)

5 DA questionnaires received

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00OctT Schedule

□ Arrays

- » 6A (from 00MAYT)
- » 6C
- » 1.5B (W163, W182, W111, W113, W195, W392) \equiv (3 4 1 2 5 6)
- » 1.5C
- » 750D

□ Installation/Maint shutdown 27 Nov - 8 Dec

□ Term continues until 8 January 2001



Mopra

Operation & Support

□ Narrabri :

- » Antenna mechanical, drives, cm- λ receivers
- » Antenna computer, monitoring, site and lodge
- » Parts of observing computer and software

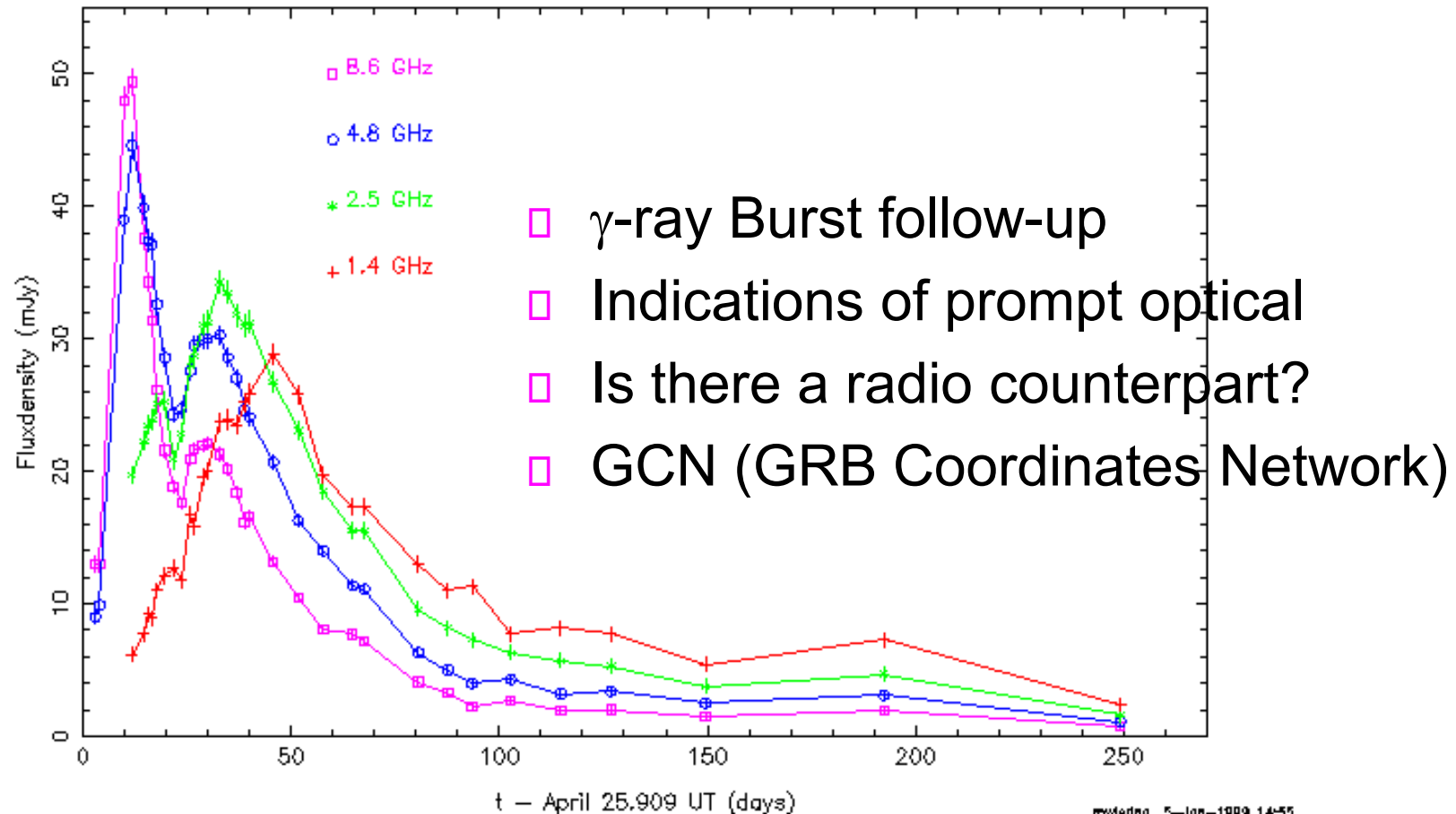
□ Marsfield :

- » 3mm receiver (including tuning)
- » Other parts of observing computers and software
- » TCS (similar to Parkes)

Operational issues

Automated Override

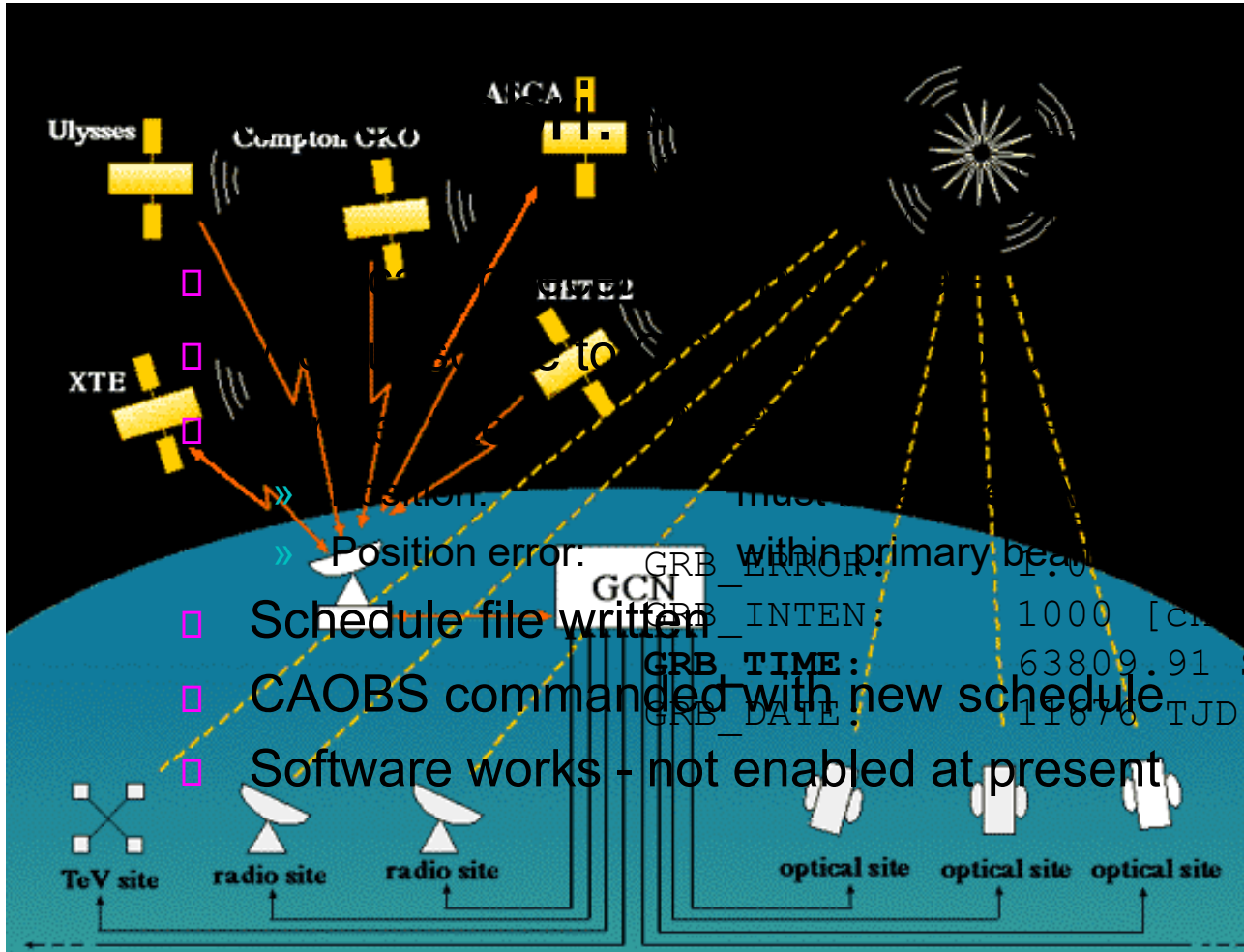
ATCA observations – GRB980425 / SN1998bw



mwerfmg 5-Jan-1999 14:55

Australia Telescope Compact Array

ATCA interface



GRB POSITION NOTICE

00 17:44:22 UT

00h 00m 00s} (J2000),
 00h 00m 00s} (current),
 00h 02m 34s} (1950)
 34d 59' 53"} (J2000),
 35d 00' 00"} (current),
 34d 43' 11"} (1950)
 radius, statistical only]

- » Position error: within primary beam
- Schedule file written
- CAOBS commanded with new schedule
- Software works - not enabled at present

```

GRB_ERROR: 1.0
GRB_INTEN: 1000 [cnts/sec] Peak=1000 [cnts/sec]
GRB_TIME: 63809.91 SOD {17:43:29.91} UT
GRB_DATE: 11876 TJD; 133 DOY; 00/05/12
  
```

Australia Telescope Compact Array

Service Observing (1)

We currently allow two modes of observing:

- Observer travels to Narrabri and does observing
- (In some cases) expert observer observes remotely from within Australia

There is a de facto third mode:

- You get a friend/collaborator/student to do the observing for you



Service Observing (2)

We have received requests from some users for a fourth mode:

- User pays someone to do the observing for them

If there was sufficient support and interest in this mode, we could perhaps offer this as a part-time/casual job to astronomy students, or to employ someone at a postdoc level.

Question to ATUC: how would you feel about setting up this mode.

(NB: AAO already does something like it)

Australia Telescope Compact Array

Remote Observing

□ REMOBS - Pros

- » save travel costs
- » save time

□ REMOBS - Cons

- » decreased Astronomer/Observatory interaction
- » operational load on Narrabri staff & Duty Astronomer
- » reliant on WAN - not always reliable

□ REMOBS restrictions

- » < 20% total
- » < 30% in any week
- » from authorised **Australian** sites only
- » by experienced observers only



Remote Observing



- Charge for remote access?
- Would need to define support level
- How much?

For a 12 hour observation:

•ATCA “share” of ATNF budget		\$10000
•Observatory budget	(\$2.9M pa)	\$4000
•Observing support	(CSO4M)	\$650
•(Sydney/Narrabri return	\$460)	

- Connell-Wagner report on moving Ant 6
- Open Day on 16 April



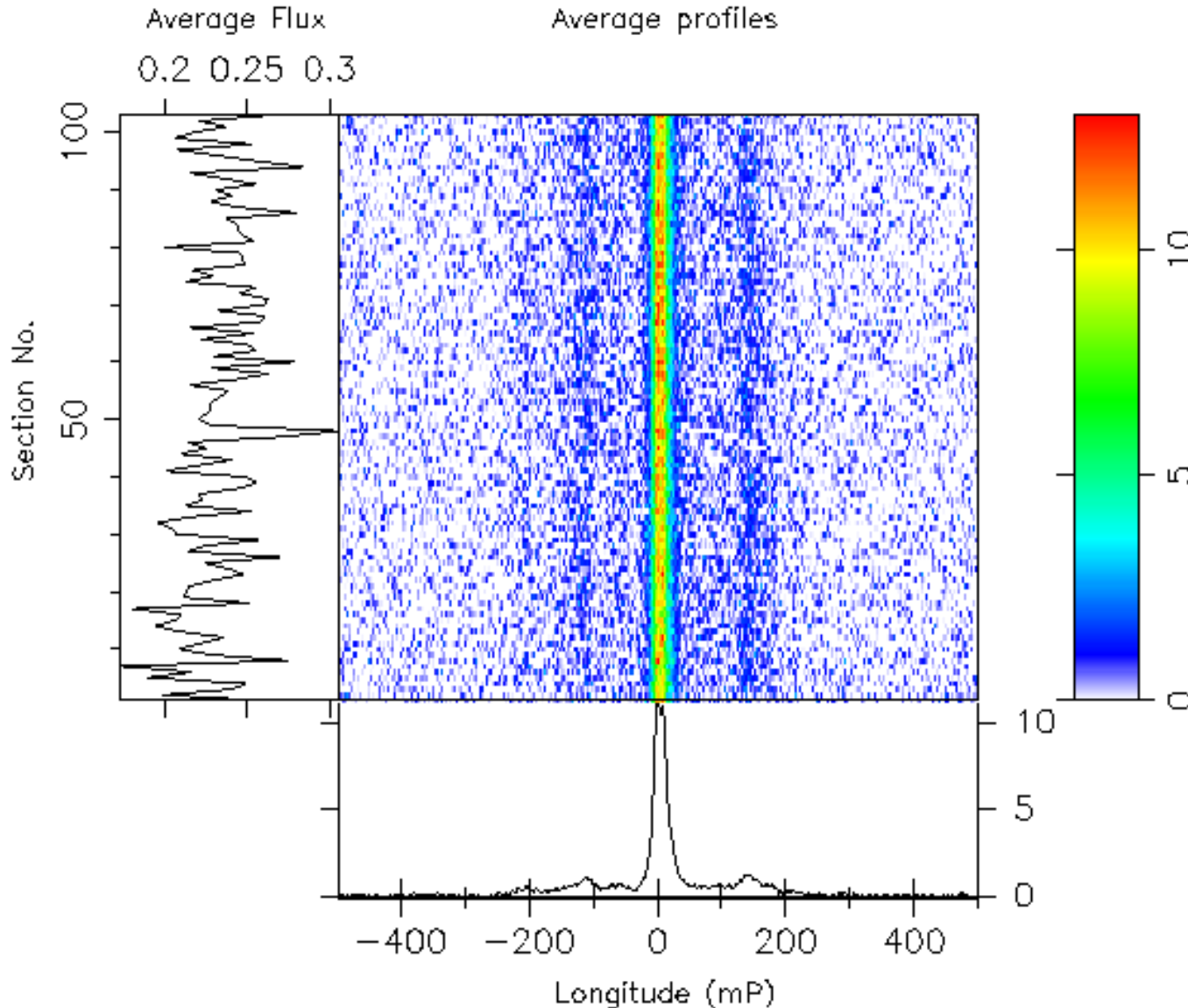
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ATCA Pulsar Backend



Australia Telescope Compact Array

PSR J0437-4715



Tied array - 5 antennas
1420 MHz
64MHz bandwidth
1 polarisation
1000s integration

