



ATCA Operations Report

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ASTRONOMY AND SPACE SCIENCE
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Since last time...

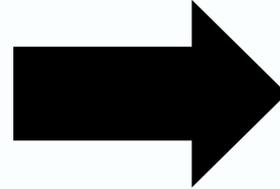
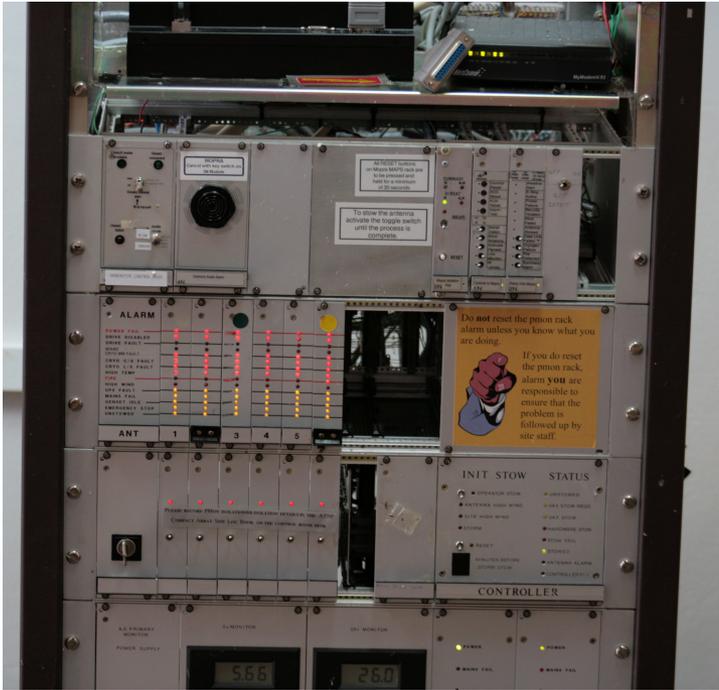
- **PMON gets replaced... by PMON**
- **Summer is Coming**
- **Green time and Legacy Projects**
- **CABB reveals one of its secrets**
- **New NAPA over-ride mode is in effect**

For discussion

- **Vale Duty astronomers?**
- **Is it time for an assistant?**

Since last time

PMON is dead, long live PMON!



New PMON improvements

The new PMON works much the same as the old, and should only have one noticeable difference for observers:

Hardware wind stows now result in a 15 minute lockout of the drives, after which they automatically get released.

This is similar in behaviour to Parkes and Mopra. It also means you don't need to call the on-call person to get a button pushed!

Summer is coming

We got a couple of unexpected tests of the system in winter, and we're confident the protection systems are working.

Reminder about behaviour:

- If any antenna enters a heat stow condition, the entire array will be pointed into the wind, and the drives stopped.
- Heat stow locks user out for 15 minutes, at which point the conditions are checked again, and the heat stow is re-issued if necessary.
- Heat conditions need to be heading in the right direction for the stow to end, at which point the antennas are put back to normal stow position and the user can recommence.
- Tested to work with the new PMON system, so hardware wind stows do not over-ride heat stows.

Scheduling and Green Time

ATCA green time scheduling duties are now with Jamie Stevens.

Green time rules:

- Many factors shape who gets the time:
 - Order of the requests,
 - TAC-rated project vs. new science,
 - CABB mode required, etc.
- Green time will be allocated no more than 1 week from the requested time.
- Observers are expected to be competent, as support is lesser for green time.
- Send an email to the scheduler with science case, and request the time in the Portal.

Legacy Projects

Time allocations for this semester and last (total semester time does not include VLBI and maintenance/reconfig time).

	2017APRS	2017OCTS
Semester time (hours)	3339.5	3410
GLASS (Huynh)	297h (8.9%)	504h (14.8%)
IMAGINE (Popping)	312.5h (9.4%)	496h (14.5%)
FSMALT45 (Breen)	302h (9.0%)	213h (6.2%)
CACHMC (Jackson)	297.5 (8.9%)	
Total LP time	1209h (36.2%)	1213h (35.6%)

CABB archaeology

We found a feature buried in the CABB code that never seemed to make it to the manual: you can choose to take the median value of the tvchannels, rather than the average.

`tvmedian on on` (in CACOR)

It is especially helpful when setting up at 16cm, and for keeping accurate Tsys during observations.

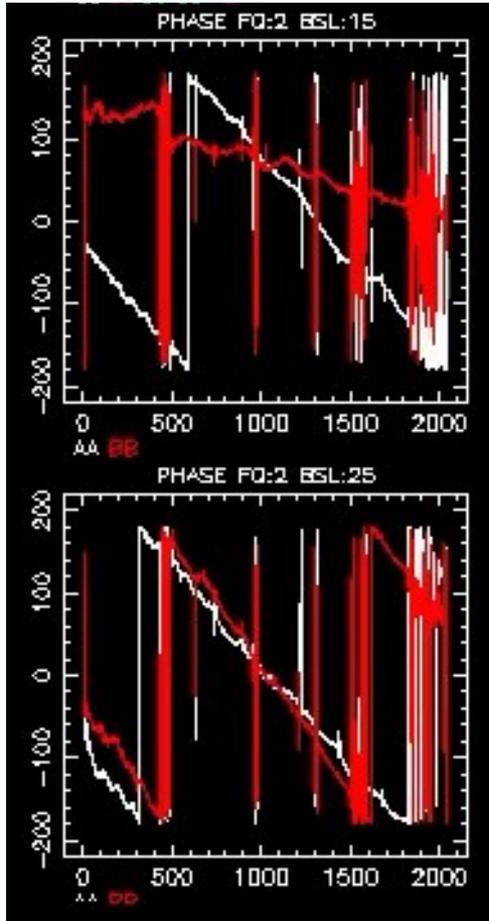
2100 / 2100 centre freqs, default tvchannels

CABB::	ATTS:	OFF	DELAGV:	32	TVCHAN: F1:	513,1537	F2:	513,1537						
◆ TSYS	◇ SAMPLERS	◇ F1 DATA LINKS	◇ F2 DATA LINKs	◇ F1 DSP BRDs	◇ F									
		Tsys Jy					Tsys K							
FQ PO		1	2	3	4	5	6	1	2	3	4	5	6	
1 A		523	515	506	487	508	603	45.5	44.8	44.0	42.4	44.2	52.4	
1 B		534	464	435	506	496	660	46.4	40.3	37.8	44.0	43.1	57.4	
2 A		785	117	422	180	2591	9999	68.3	10.2	36.7	15.6	225	869	
2 B		239	9999	62.3	1384	554	2041	20.7	869	5.4	120	48.2	177	

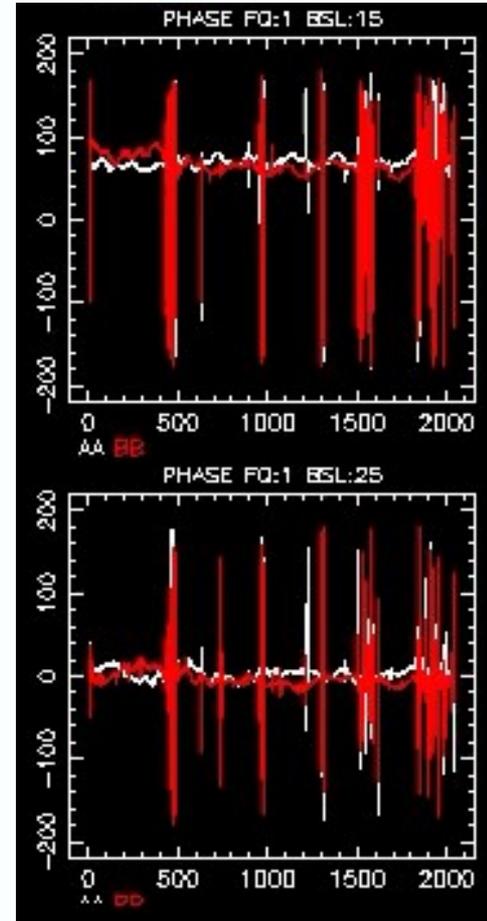
IF1: median on
IF2: median off

Flat phases

Median off

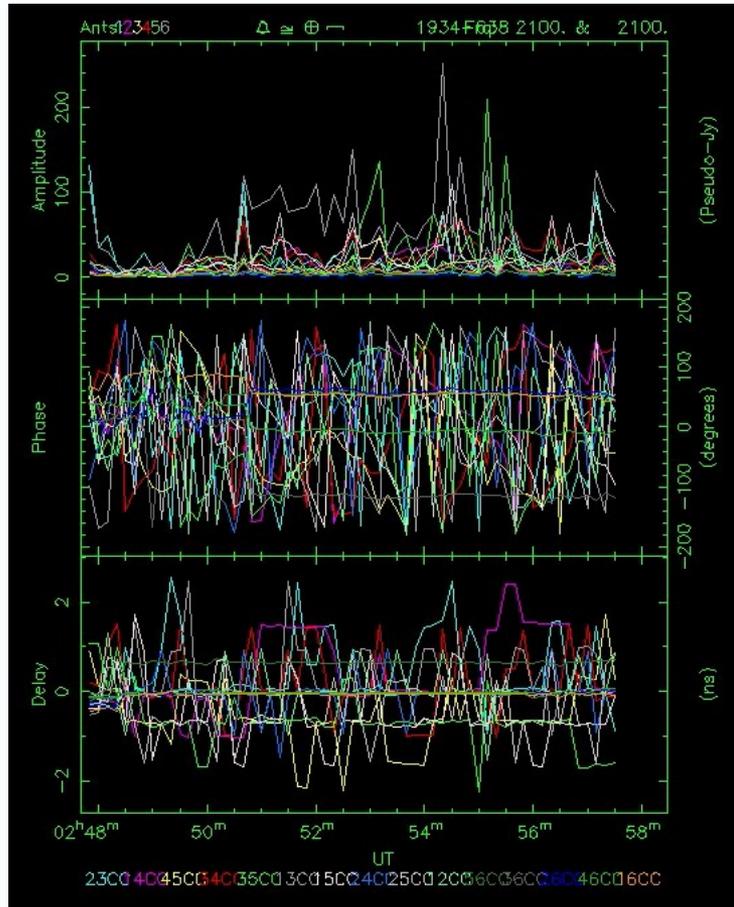


Median on

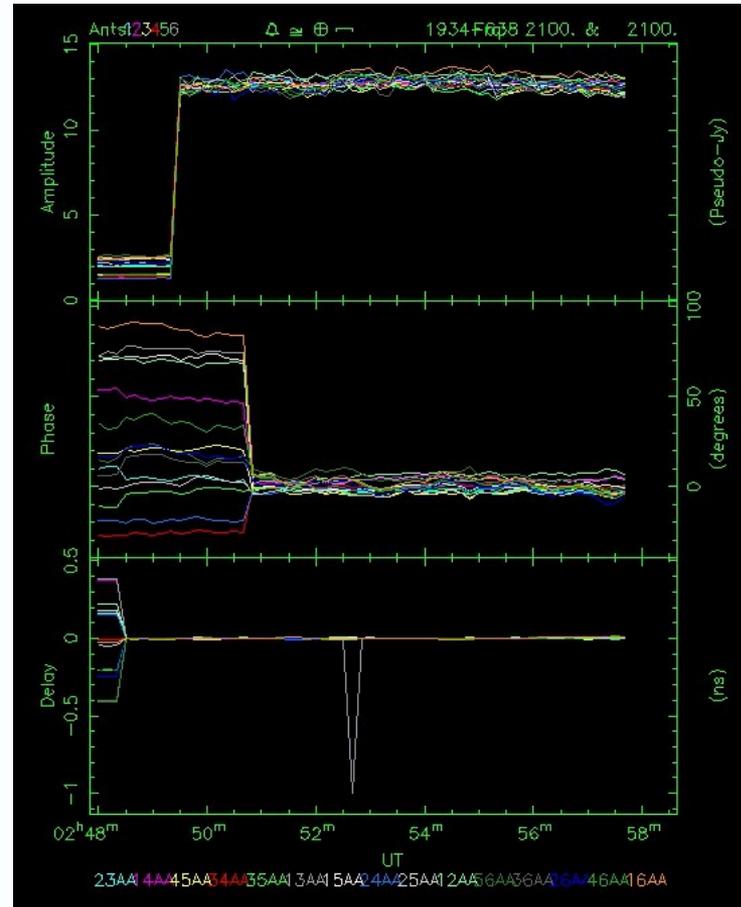


More stable vis quantities

Median off



Median on



RRM and NAPA over-ride policy update

New policy now in effect (2017OCTS)

All projects will be able to be over-ridden by NAPA projects with TAC scores greater than or equal to that where most of the projects at that score got most of their time. For 2017OCTS, that score is 3.6. There is no NAPA with a lower score than that, so all NAPAs are eligible to over-ride.

We will grant exemptions from NAPA over-rides to specific allocations or experiments, for specific reasons. The case for being exempt must be made to the TAC in your proposal.

We will review how this policy change works after 12 months.

For discussion

Duty Astronomers / ATCA observing support

Support by duty astronomer is currently less than optimal. Jimi Green has prepared a document discussing two options:

1. Adjust the current scheme.
2. Move to a project based scheme.

Some numbers:

- 17 staff were DA in 2016OCT semester (6 of these left)
- 16 staff were DA in 2017APR semester (4 of these left)
- 10 staff have signed up for 2017OCT semester

Duty Astronomers / ATCA observing support

Option 1: The adjustment.

The requirement for staff to be DA will be relaxed.

CASS co-supervised students will be required to DA duty, as a condition of getting their \$5K travel funding.

Each student would be required for 4 weeks per year, and each slot would be 2 weeks in duration. Each week will have two DAs: one who had been DA the previous week, and the one who has just started.

Costs should not be much more than currently. Getting students to Marsfield more often is a big positive. Co-DA duties should mean more effective learning.

Duty Astronomers / ATCA observing support

Option 2: The expert model.

We move to each project having a “project expert”.

This expert is trained at Marsfield, but can support their project from anywhere, via phone or Portal.

Threshold is up for discussion, but any project allocated more than some amount of time in a semester will be responsible for identifying someone to be their expert, within their team.

Any project allocated less time, will be assigned a DA, but who will only serve during those project slots, not as a week-long block.

Experts will be allowed to train other members of their team.

We may also be able to do expert training workshops, making the training more effective and less burdensome.

The ATCAbot

Another mode of support is in the works: a chatbot.

Why a chatbot?

- Aiming to make it the first thing you ask.
 - Most simple things can be handled by a bot.
 - Prevents needless calls to DAs and on-call people.
 - It will advise when you need to call someone.
- Will also proactively tell you something has happened.
 - Easier to call up/hang up the bot in Skype/Slack/whatever than follow/unfollow Twitter account.
 - Should also be possible to customise what you want to see.

Do people want this?

Thank you

Astronomy and Space Science

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