



# ATCA Operations Report

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ASTRONOMY AND SPACE SCIENCE

[www.csiro.au](http://www.csiro.au)



# Since last time

# Seeing Monitor has gotten cooler

The seeing monitor cabinets were taken off-line in early Feb 2018.

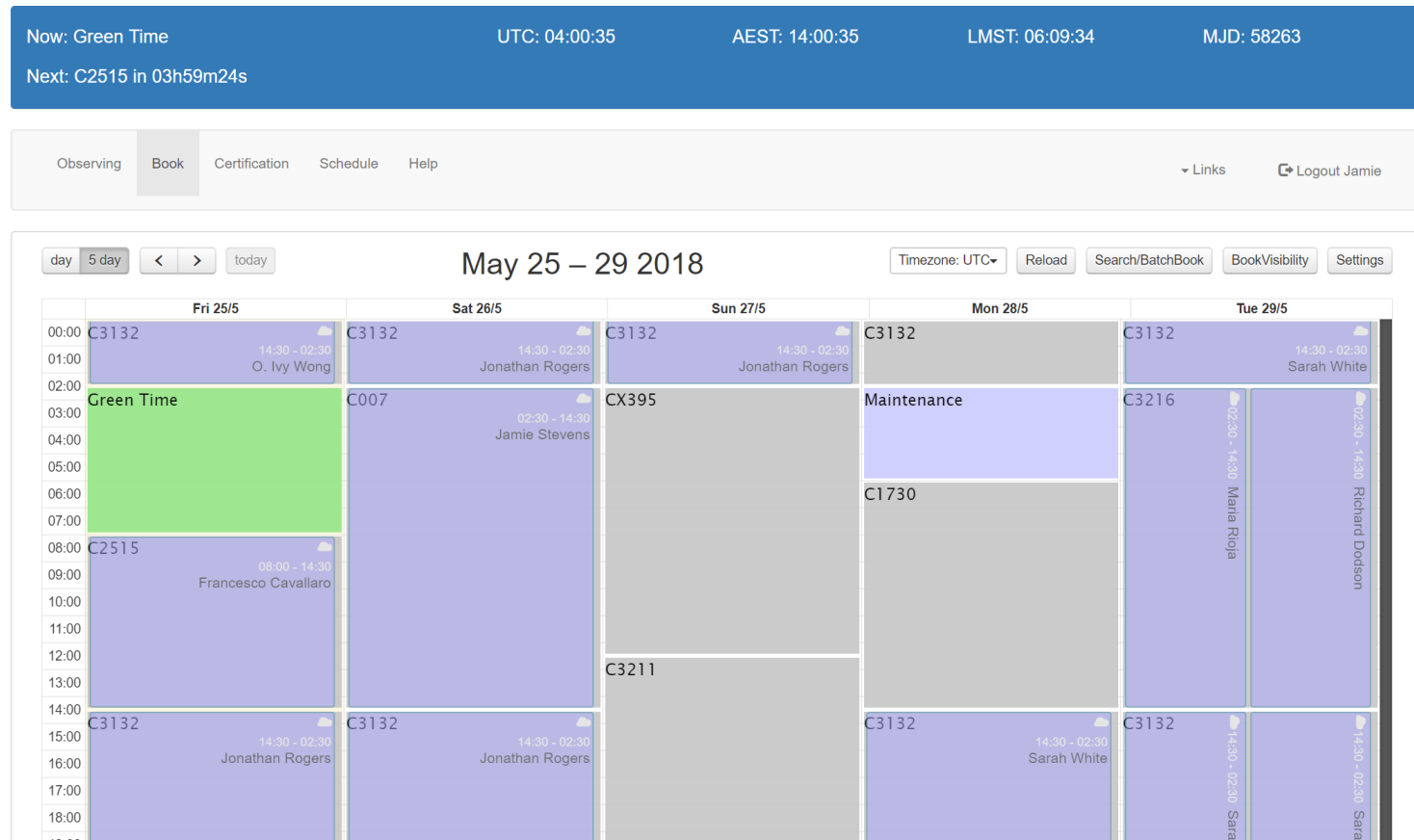
During the 6 weeks they were off-line, the cabinets were refurbished, and a new air con system was installed.

This should prevent over-temperature cutouts in summer, and extend the life time of the electronics.

Returned to service in mid-March. Unfortunately, some mm experiments were inconvenienced by this maintenance.

# New Portal

The ATCA Portal has been updated to match the Parkes Portal.



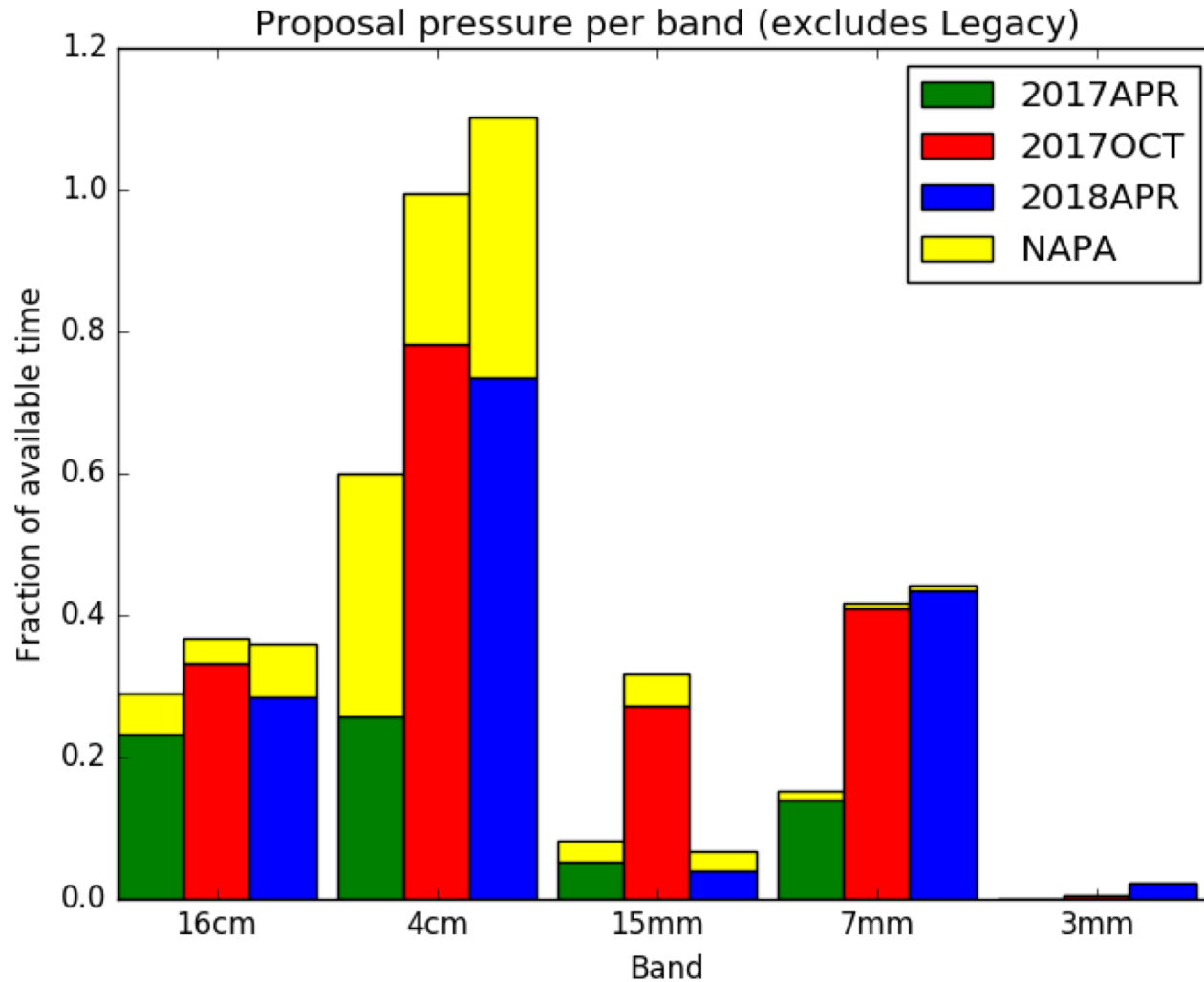


# Legacy Projects

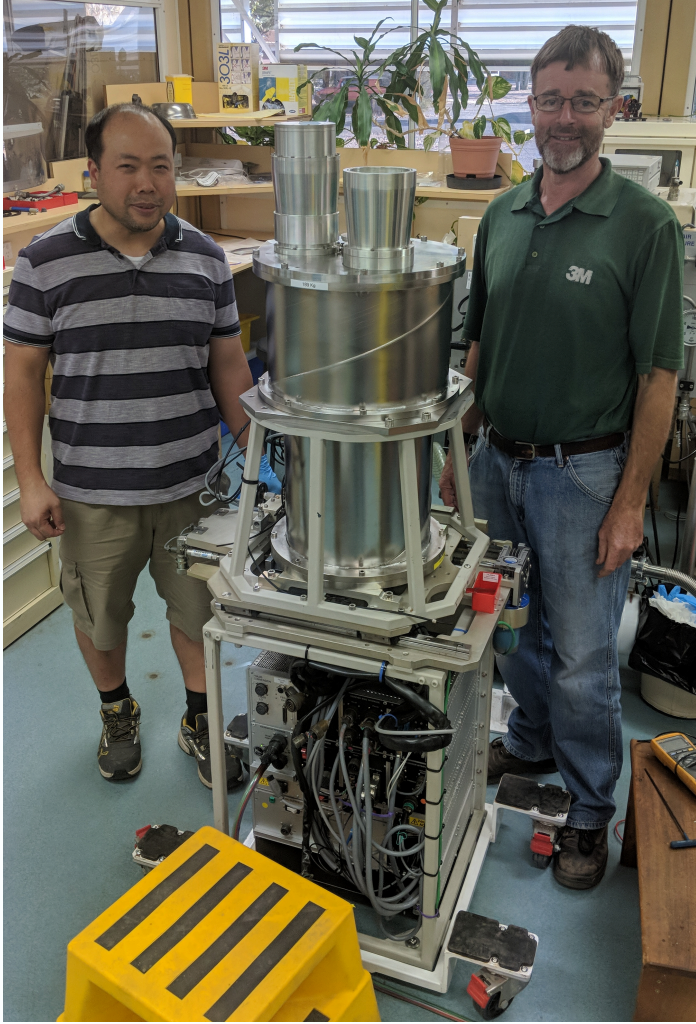
Time allocations for this semester and last (total semester time does not include VLBI and maintenance/reconfig time).

	2017OCT	2018APR
Semester time (hours)	3410	3373
GLASS (Huynh)	504h (14.8%)	300h (8.9%)
IMAGINE (Popping)	496h (14.5%)	283h (8.4%)
FSMALT45 (Breen)	213h (6.2%)	334h (9.9%)
CACHMC (Jackson)		280h (8.3%)
Total LP time	1213h (35.6%)	1197h (35.5%)

# Proposal Pressure per band



# MM receiver refurbishment



The CA03 mm receiver was starting to show decreased sensitivity at 7mm.

Both LNA chains in the dewar have been replaced, and the receiver will be back on the telescope Thursday.

# Observatory Staffing

# Redundancies/Retirements



**Bruce Tough**



**Jock McFee**



**Marg McFee**

## New Arrival

**Kun Lee**





# Upcoming Retirement



Secure | <https://jobs.csiro.au/job/Negotiable-National-Facility-Scientific-Operations-Officer/476924300/>

## National Facility Scientific Operations Officer

- Do you enjoy monitoring & calibrating astronomical observations?
- Add value through efficient and effective operations support
- Join CSIRO - Australia's premier science and technology research organisation

Apply now

### The Position

CSIRO Astronomy & Space Science is seeking to appoint a National Facility Scientific Operations Officer.

As the successful applicant you will support the scientific operations of the National Facilities, specifically the Australian Square Kilometre Array Pathfinder and the Australia Telescope Compact Array, undertaking activities including observing, data processing and pipeline management and user support.

You will be based either at the CASS site in Sydney, Australia or the CASS site in Perth, Australia. Both have a lively research environment, as part of the ATNF Science group

Find out more by viewing the full position description and selection criteria here: [Position description](#)

### Your duties/responsibilities will include:

- Transition observing proposals to schedules and then observations
- Monitor and calibrate astronomical observations and utilise appropriate computing resources
- Assist with system checks, maintenance hand-overs, array and correlator/beamformer configurations

**Location:** Marsfield NSW or Kensington WA  
**Salary:** \$80K - \$91K plus up to 15.4% superannuation  
**Tenure:** Indefinite  
**Reference:** 56827

### To be successful you will need:

- Relevant Bachelors/Masters Degree or equivalent experience in Astrophysics, physics or computing.
- Expertise in astronomy techniques and observations
- Experience in radio astronomy instrumentation and/or data pipelines

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# And now...

# Documentation Push

We'll be having a week in Narrabri 18 – 22 June to update documentation and create new video guides.

Signed up so far:

- Robin Wark
- Jane Kaczmarek
- George Heald

**Do you have any preferences about what guides need creating/updating?**

# Progress on the new correlator



Team gCorr went to the Pawsey GPU Hackathon in March and created a correlator in a week.

We were able to achieve a processing speed of 70 Gbps, whereas the new ATCA correlator would require 49 Gbps.

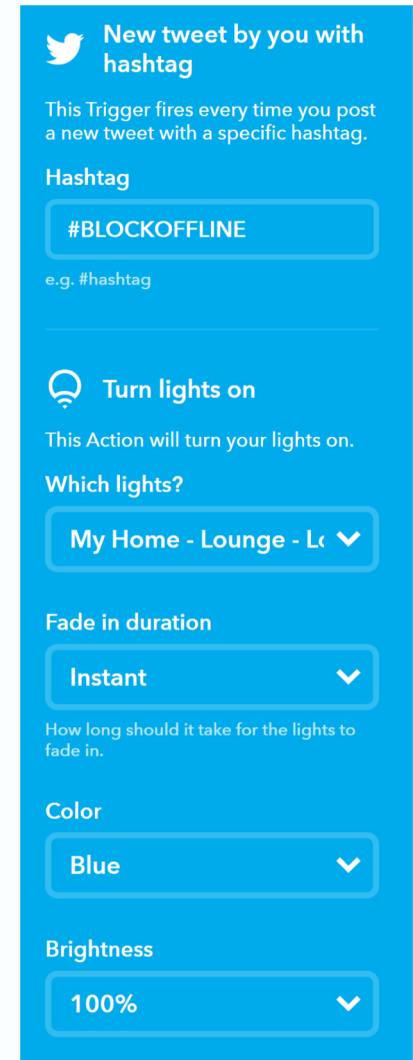
Search for a funding source continues!

# Thoughts on unattended observing

**IFTTT: If this, then that**

ifttt.com

You can make recipes to take triggers from Twitter, apply a filter, and control internet-of-things devices.



The image shows a vertical blue interface for configuring an IFTTT recipe. At the top, it says 'New tweet by you with hashtag' with a Twitter bird icon. Below this, a description states: 'This Trigger fires every time you post a new tweet with a specific hashtag.' A 'Hashtag' section contains a text input field with '#BLOCKOFFLINE' and a small example 'e.g. #hashtag' below it. The next section is 'Turn lights on', featuring a lightbulb icon and the text 'This Action will turn your lights on.' Below this is a 'Which lights?' section with a dropdown menu showing 'My Home - Lounge - L'. The 'Fade in duration' section has a dropdown menu set to 'Instant'. A note below says 'How long should it take for the lights to fade in.' The 'Color' section has a dropdown menu set to 'Blue'. Finally, the 'Brightness' section has a dropdown menu set to '100%'.

New tweet by you with hashtag

This Trigger fires every time you post a new tweet with a specific hashtag.

Hashtag

#BLOCKOFFLINE

e.g. #hashtag

Turn lights on

This Action will turn your lights on.

Which lights?

My Home - Lounge - L

Fade in duration

Instant

How long should it take for the lights to fade in.

Color

Blue

Brightness

100%



# The Compact Array bot

Work continues on our new chatbot, which now uses Dialogflow as the framework.

Should become available in the next month or two.

Priority is being given to interactions involving setup of the array and data quality checks, but we're eager to hear the common questions that people will ask of this bot.

# Chatbot Thoughts

- Can tell you the weather
- Can make your assistant alarm when
  - Blocks drop
  - It's time to go visit 1934-638
- Guide you through setup, or reprogramming a block
- Can help you keep a log



## Google Assistant

Build apps for the Google Assistant users on voice-activated speakers like Google Home, eligible Android phones and iPhones.

[One-click integration](#)



## Facebook Messenger

Build Messenger bots to connect with users on Facebook's Messenger Platform.

[One-click integration](#)  
[Integration toolkit on Github](#)



## Slack

Build chatbots for teams and companies to use on Slack.

[One-click integration](#)  
[Integration toolkit on Github](#)  
[Botkit-based SDK](#)



## Dialogflow Web Demo

[Web Demo instructions](#)



## Kik

[One-click integration](#)  
[Integration toolkit on Github](#)



## Line

[One-click integration](#)  
[Integration toolkit on Github](#)



## Skype

[One-click integration](#)  
[Integration toolkit on Github](#)



## Cisco Spark

[One-click integration](#)  
[Integration toolkit on Github](#)



## Telegram

[One-click integration](#)  
[Integration toolkit on Github](#)



## Cisco Taro

[One-click integration](#)  
[Integration toolkit on Github](#)



## Twilio

[One-click integration](#)  
[Integration toolkit on Github](#)



## Twilio Programmable Chat

[One-click integration](#)  
[Integration toolkit on Github](#)



## Twitter

[One-click integration](#)



## Viber

[One-click integration](#)

# Thank you

## **Astronomy and Space Science**

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