ATCA Operations Report

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ASTRONOMY AND SPACE SCIENCE
www.csiro.au

Since last time

ATUC Recommendation: NAPA over-ride emails

Two emails required so far!

SJ

Stevens, Jamie (CASS, Narrabri) | Kianhong Lee; KOHNO Kotaro; HATSUKADE Bunyo; Tatsuya Takekoshi; Yuri Nishimura; + 3 | 2018-10-04

Project C3283 over-ride notification

Dear Kianhong,

This email is to notify you that some of your scheduled C3283 time has been over-ridden for a NAPA trigger.

Originally scheduled epoch time (UTC):
2018-October-05 09:00 - 19:00

Over-riding NAPA project:
C3211: "Radio continuum emission from ASKAP-localised Fast Radio Bursts", PI: Shannon

All of your time in this epoch has been rescheduled for the NAPA. While the time from 17:30 - 19:00 UTC is not being taken by C3211, we think it is unlikely that you will get any useful data with this remaining time. If you would like to have this extra time rescheduled to your project, please email Jamie Stevens.

If you would like the observatory to reconsider this over-ride, you should feel free to email a request to the acting Head of ATNF Science Phil Edwards, who is copied on this email.

While we cannot guarantee that this epoch can or will be rescheduled in the future, we will endeavour to do so if an obvious opportunity to do so arises.

We apologise for any inconvenience this over-ride causes you and your team.

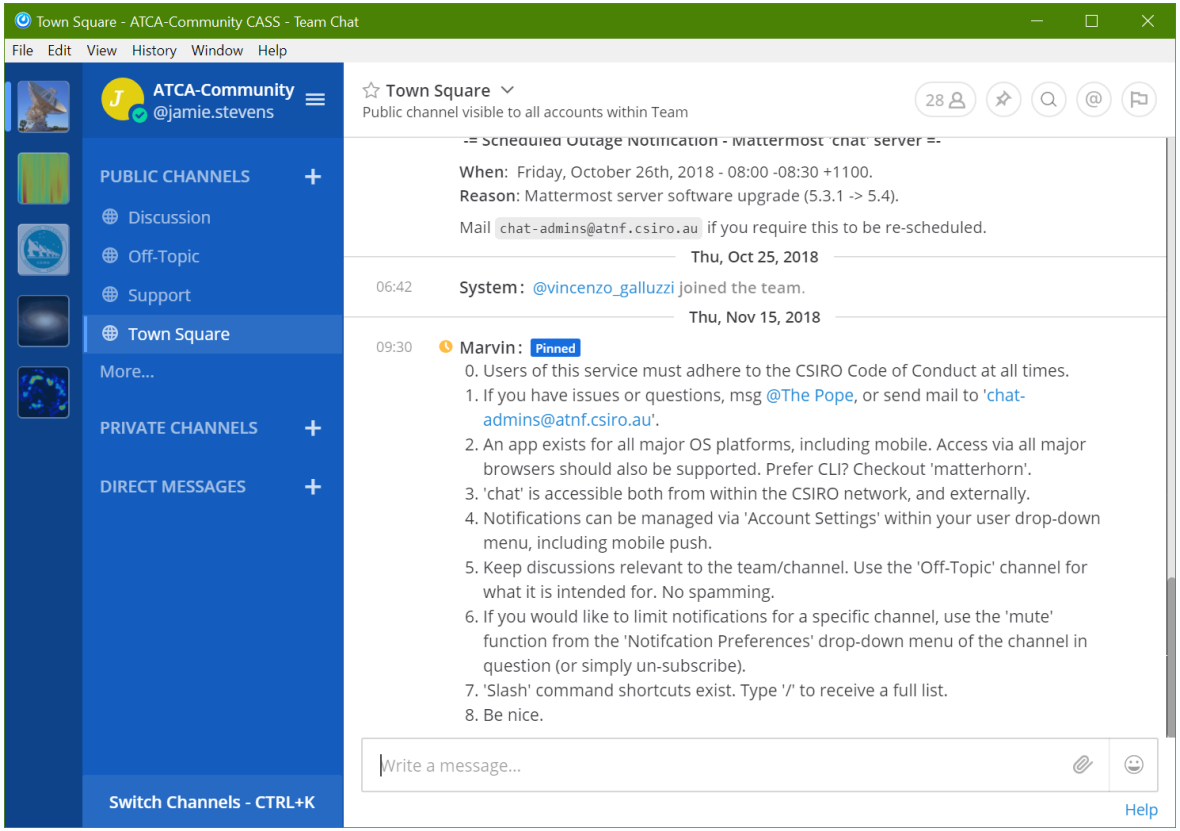
regards
Jamie Stevens
ATCA Senior Systems Scientist

If you would like to offer us feedback on this notification email, we welcome any criticisms, complements or suggestions for improvement. You can supply feedback on this email to Jamie Stevens, Jimi Green or Phil Edwards by email, or through the ATNF Users Committee (ATUC).

ATUC Recommendation: ATCA Community space

We now have a Mattermost space for this.

https://bit.ly/2zTiyKd



Robin has left the building

But will be back early next year to help train her replacement…

ATUC Recommendation: Observer Training

With Robin gone and her replacement some time away, it may be time to try some new approaches.

- Let's try for remote requalification? DAs are currently being trained via phone, so why not observers? Will need some technology improvements though to ensure that both instructor and student see the same thing.
- As said before, we are open to Legacy and Large projects training their own observing force. But we need to formalise what skills are necessary, and some sort of assessment of results (ie. what happens when the observer turns out not to be qualified).
- Duty Astronomers are still the front-line trainers for observers, especially now post-Robin.

https://www.atnf.csiro.au/observers/feedback/index.php/417272

ATUC Recommendation: Legacy Survey support

CASDA is ready for your science-ready data products.

- Catalogues as VOtables
- Images and cubes as FITS
- Supports DOIs

Teams ready for data submission should liaise with Minh Huynh to find out about the submission process and required metadata.

Legacy Projects

Time allocations for this semester and last (total semester time does not include VLBI and maintenance/reconfig time), and the amount of time remaining for each project.

	2018APR	2018OCT	Remaining
Semester time (hours)	3373	3240	
GLASS (Huynh)	300h (8.9%)	432h (13.3%)	914h (30.5%)
IMAGINE (Popping)	283h (8.4%)	272h (8.4%)	443h (19.6%)
FSMALT45 (Breen)	334h (9.9%)	218h (6.7%)	1632h (60.4%)
CACHMC (Jackson)	280h (8.3%)		922h (61.5%)
Total LP time	1197h (35.5%)	922h (28.5%)	3911h (41.3%)

Large projects

A few large projects are also about to finish.

	2018APR	2018OCT	Remaining
Semester time (hours)	3373	3240	
C2963 (Dickey)	166h (4.9%)	132h (4.1%)	0h
C3181 (Dannerbauer)	124h (3.7%)	132h (4.1%)	152h (23.8%)
C3244 (Heald)	234h (6.9%)	260h (8.0%)	78h (13.6%)

Statistics

Project allocations for “normal” projects (who expect to get time in a single semester, excluding NAPA).

	2017APR	2017OCT	2018APR	2018OCT
# of Proposals	47 (2639 hr)	37 (1733 hr)	32 (1405 hr)	44 (1719 hr)
Cutoff grade	3.5	3.5	3.5	3.2
Projects 90-100%	13	16	5	18
Projects 40-90%	7	5	7	10
Projects <40%	3	0	2	1
Projects 0%	24	16	18	15

And now…

Seeing Monitor Redesign

The ATCA seeing monitor uses the Optus C1 beacon, but this satellite is about to be moved in its orbit to conserve fuel and prolong its life. We can continue to use it for ~1 year.

We've decided to take this opportunity to redesign the whole system and use the 19 GHz beacon on SkyMuster 2.

This may mean an extended down time for the monitor when we're ready to switch over. We will keep the community updated.

Gravitational tsunami

The Advanced-LIGO instrument will start again to produce triggers in February 2019.

Chasing electromagnetic counterparts, three NAPA proposals have been approved by the TAC for 2018OCT semester. Each has a different strategy. All were very highly rated.

We would like to see what the community thinks is the best way of dealing with competing requests for the same triggers.

Option: Status Quo

Each project can trigger, and each may be scheduled.

Pros	Cons
Maximise chance of getting useful data on GW triggers	May displace high-impact science for duplicate data set

In the extreme case, given the assumed event rate and current strategies, we could be looking at 60-70 hr observing per project per month. For three projects, six candidates, 6 months after the initial trigger of the first candidate, that's 25-30% of the time per month observing GW events.

We will probably set aside 24 hours of green time per month next semester, in monolithic blocks.

Option: Data sharing

Whatever data one project takes is available for the others.

Pros	Cons
Impact on schedule is lower	Might miss crucial observing epoch (but this is always a risk)
More science for less time	Those who don't trigger get the data without having to do the observing

Data sharing for GW170817 was recommended by the TAC and feedback was that it worked OK. Data sharing may be complicated by the differing information each team can bring, but may not be shareable. But why should the observatory be bound by those restrictions?

Option: TAC scores

If we receive multiple triggers, the one with the higher TAC score wins.

Pros	Cons
Again, schedule impact is lower	May be biased against smaller projects
	Not really sure at this point what is the best way of looking at these things

And what if the TAC wants to give more than one project the same score?

Option: Simultaneity limits

We will only observe N counterparts per month.

Pros	Cons
Again, schedule impact is lower	We could miss something very interesting
	We would really have to focus on those objects that ATCA had exclusive access to

Who decides on which counterparts to drop, and when?

Option: Observatory service

ATNF is in charge of getting data on each counterpart, and data is freely available to all.

Pros	Cons
Again, schedule impact is lower, but many teams can use the data for more science	Burden on our staff
Data quality is guaranteed	

But can't really do searching for counterparts here, unless proprietary information is shared with us. Also, the community still needs to inform us about what they want.

Option: NAPA Legacy Project

Ask the community to collaborate on a new Legacy project.

Pros	Cons
Again, schedule impact is lower, but many teams can use the data for more science	Might not be possible
Collaboration may produce better strategies	

Who decides on how to limit the observed targets? Why participate in the Legacy project team if the data coming from it is excellent and freely available?

Community feedback required!

1. Is data sharing acceptable? For GW follow-up only?
2. Should ATNF choose winners? Should the TAC?
3. Should we exclude things that can be observed elsewhere?
4. Should NAPA projects be allowed to request time over multiple semesters? Is it better to require a new proposal for each candidate after the detection semester?
5. Does the community want ATNF to do the observing as a service?
6. Is the community willing and able to collaborate on a Legacy project?
7. Should we organise an ATUC science day for this?

Thank you

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