

# ATNF Operations

ATUC

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CSIRO Astronomy and Space Science  
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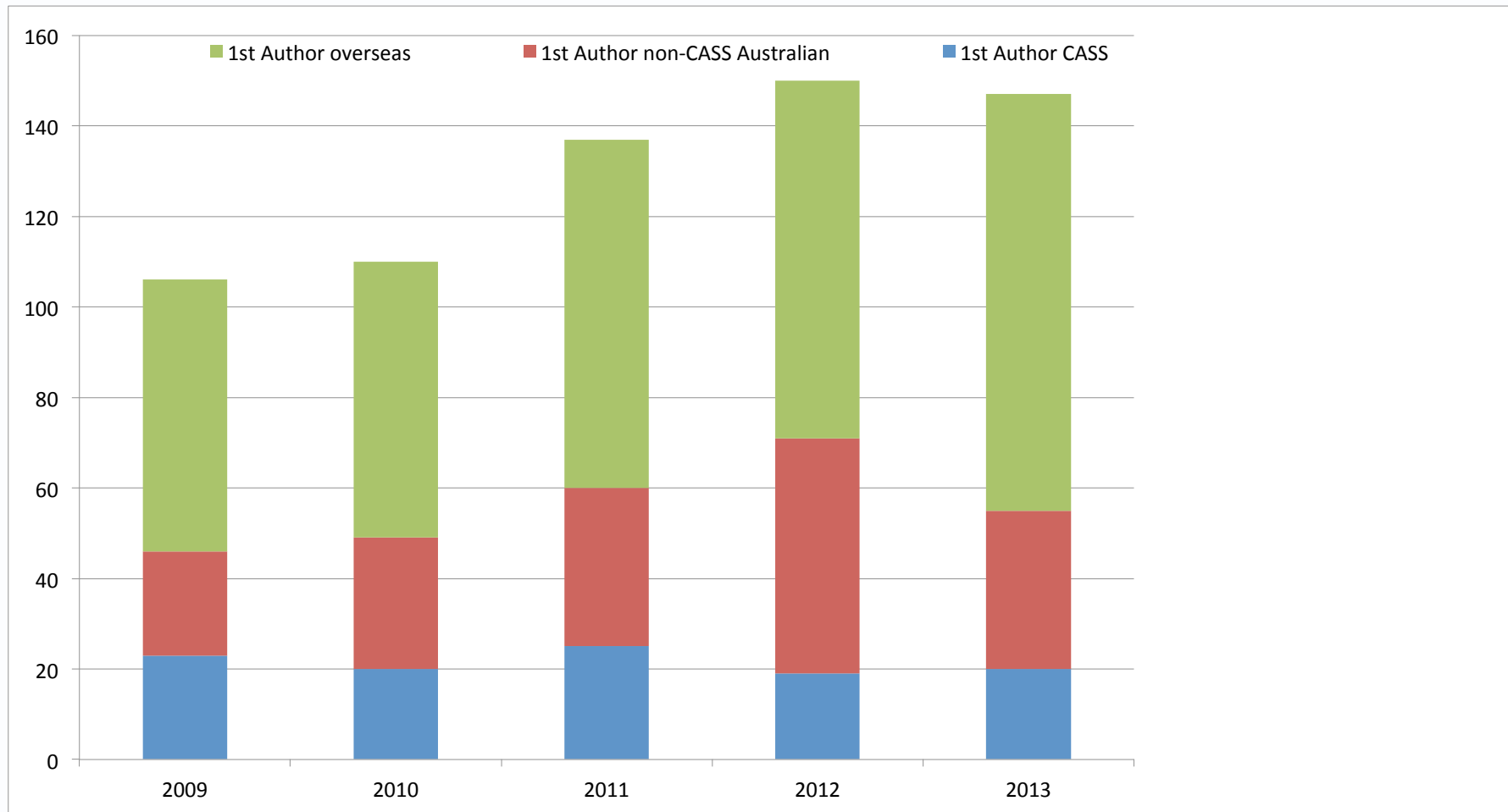


# ATNF Performance indicators

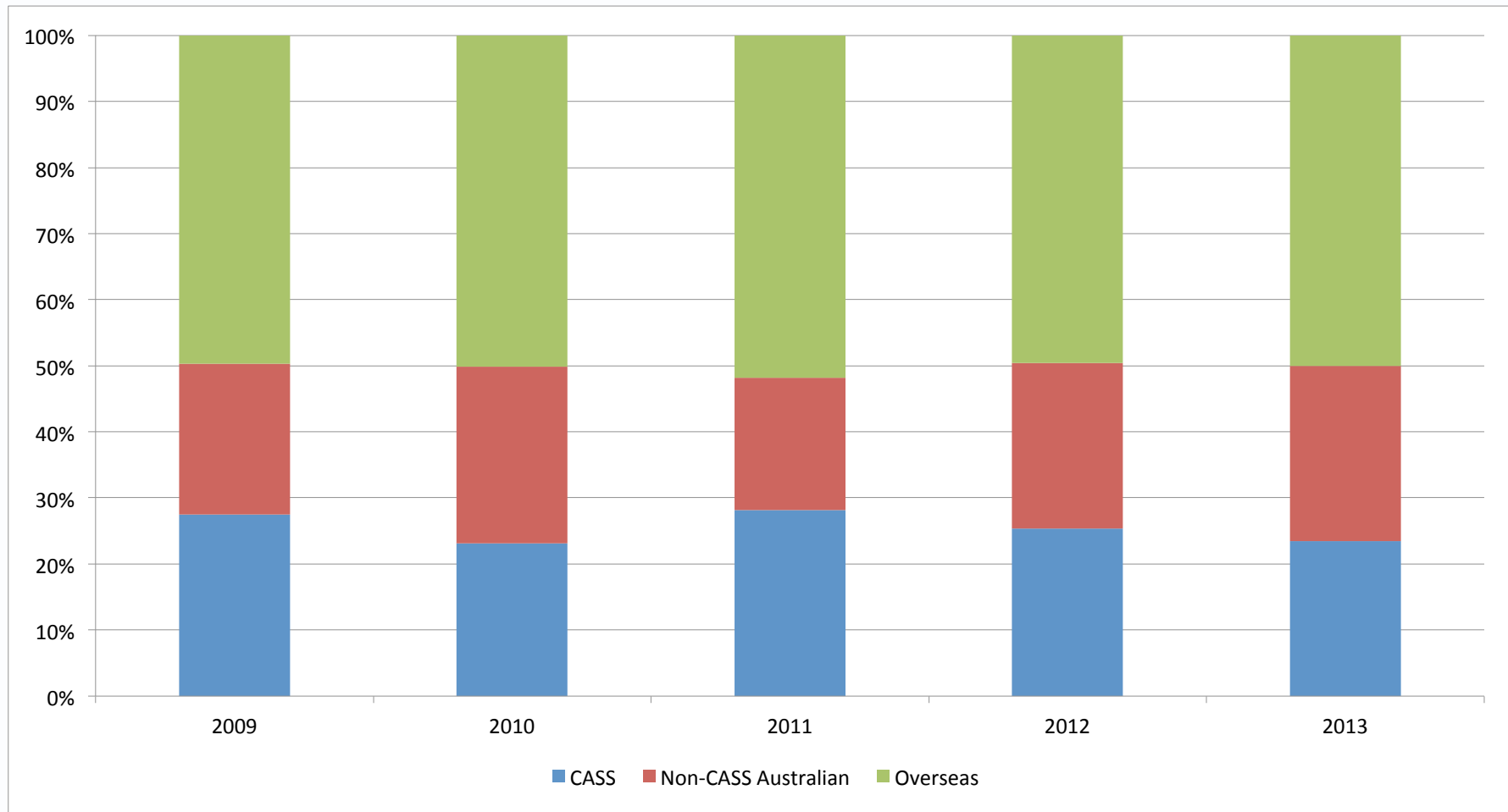
	ATCA	Parkes	Mopra *
Successful astronomy observations	78%	83%	82%
Maintenance/test time	16%	10%	5%
Time lost to equipment failure	3%	4%	4%
Time lost to weather	2%	2%	9%
Idle time	1%	1%	1%

\* Mopra statistics are for the period 7 May to 14 November, the “millimetre season” for 2013.

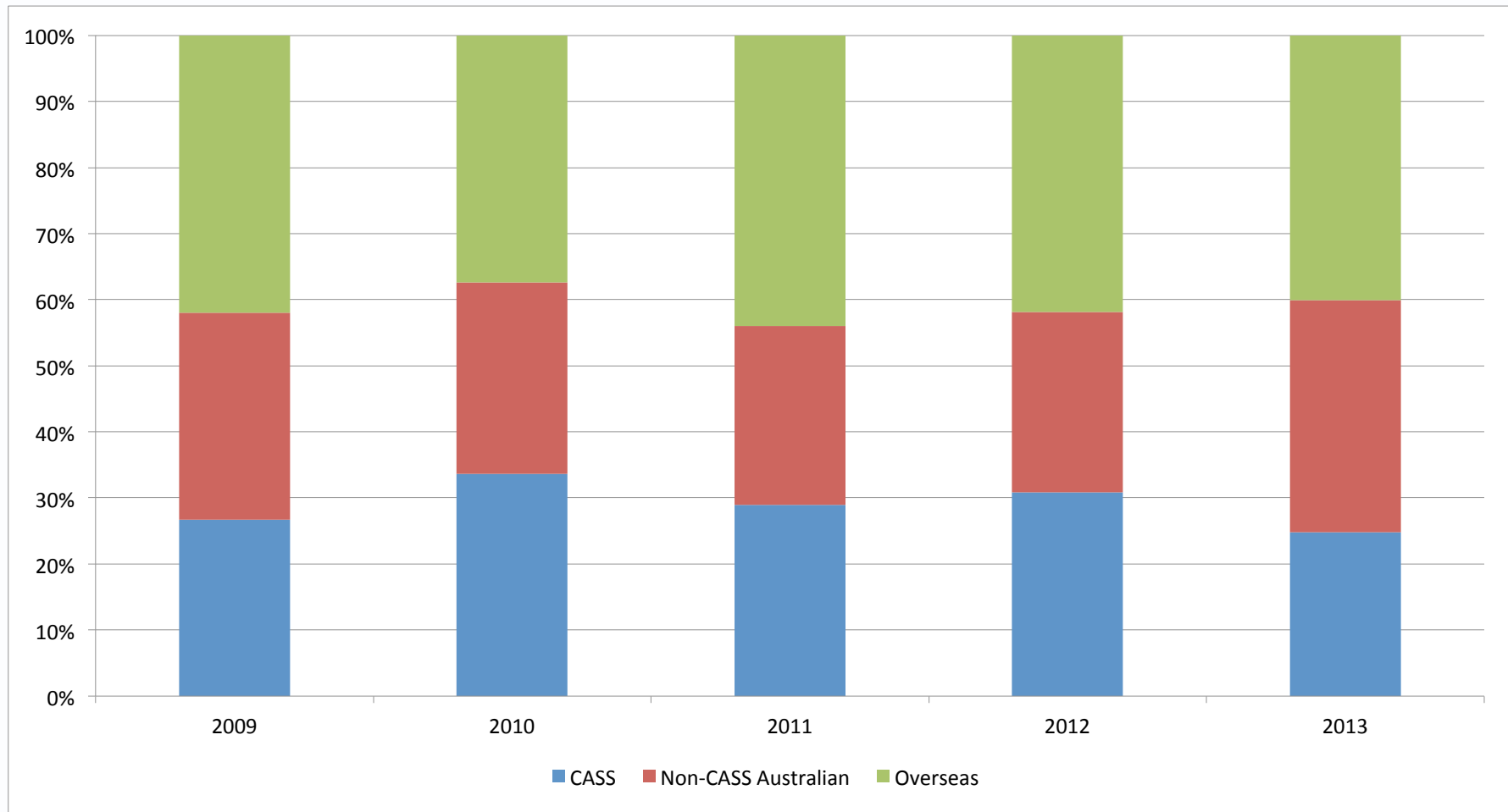
# ATNF Performance indicators – publications (preliminary for 2013)



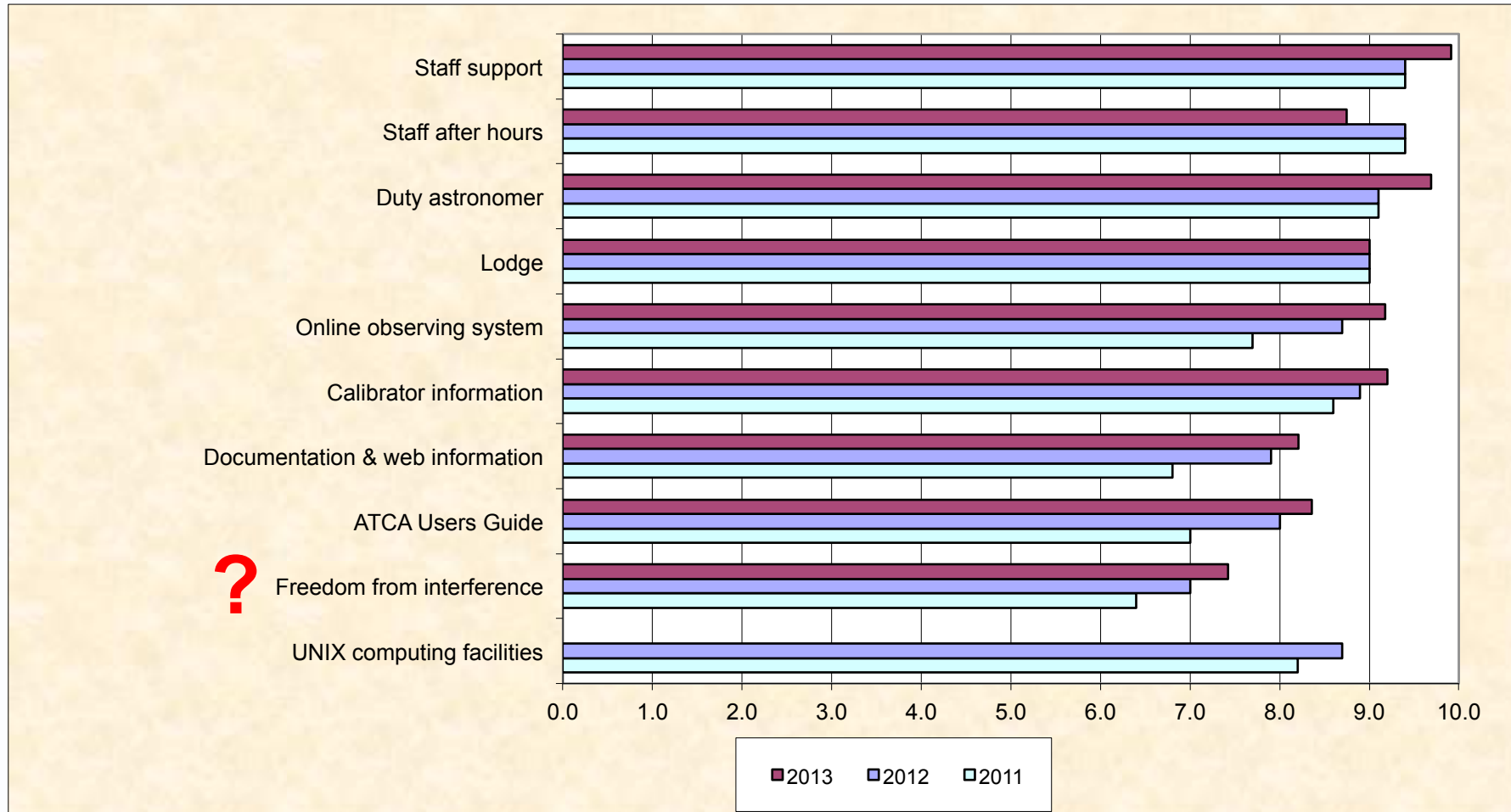
# ATCA Time Allocation (all authors)



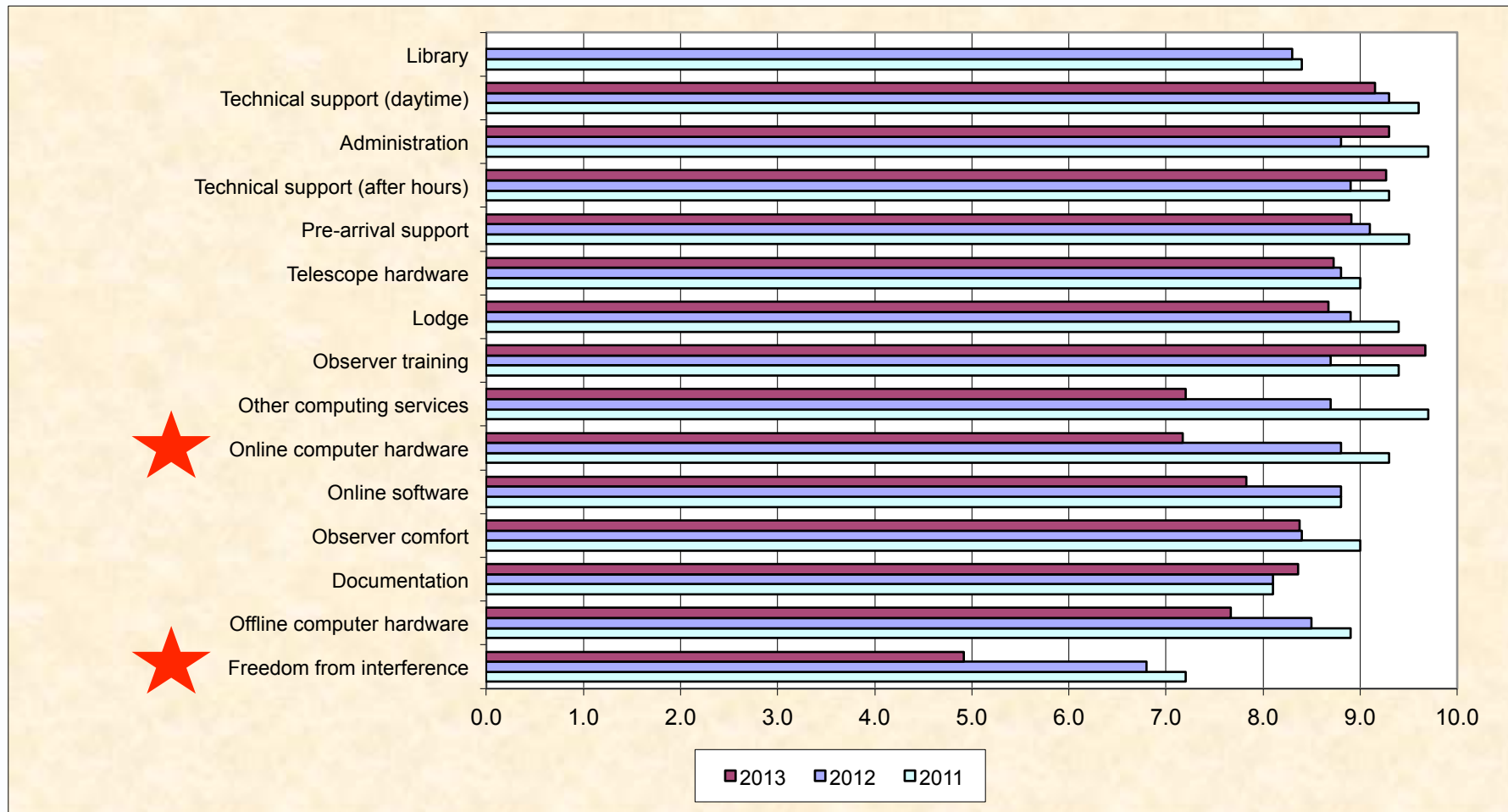
# Parke's Time Allocation (all authors)



# ATCA user feedback



# Parkes user feedback



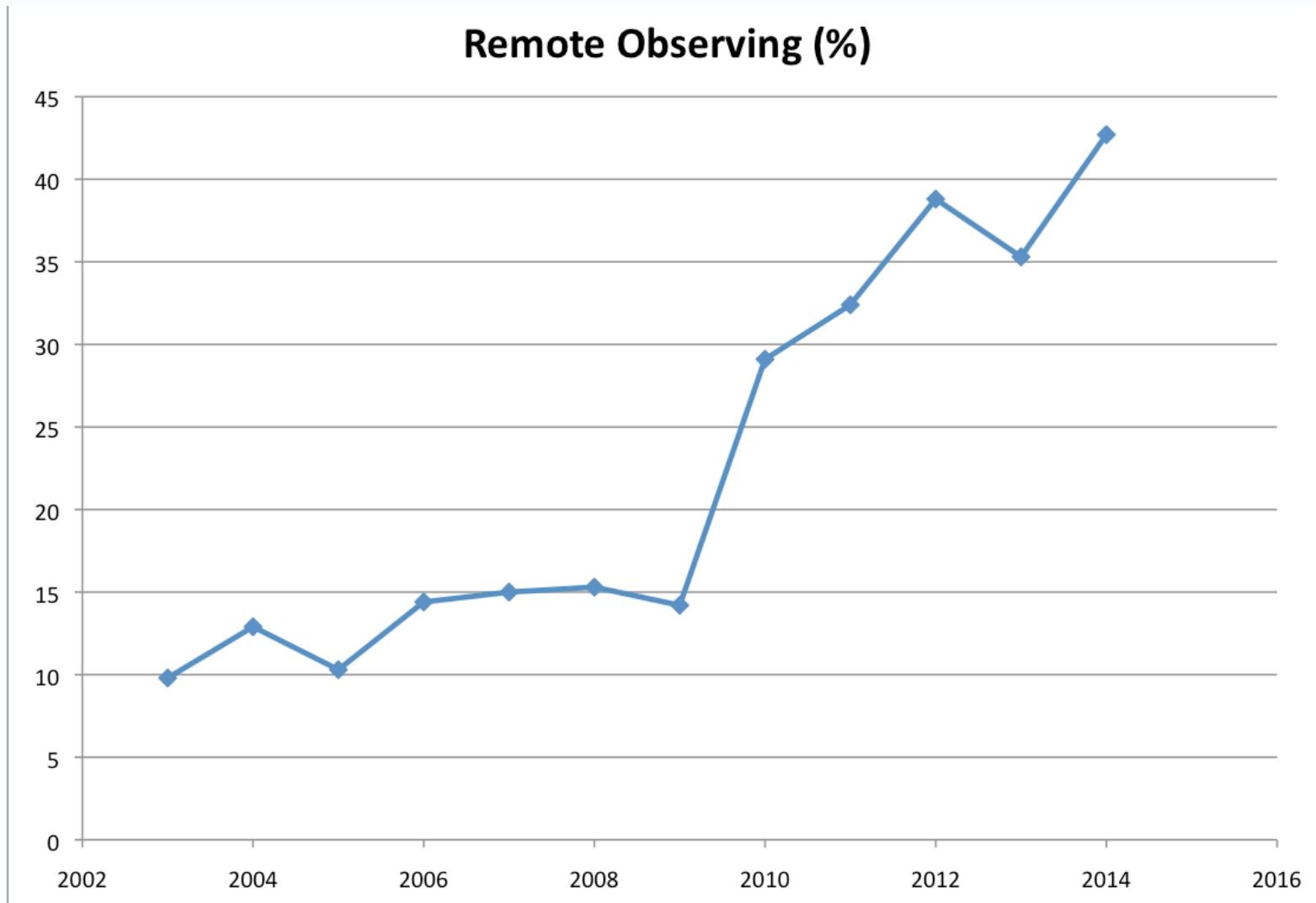
# Or?

“The primary success metric for the SKA Observatory will be the significance of its role in making fundamental scientific discoveries and facilitating overall scientific progress, expressed as high impact, peer-reviewed scientific papers using SKA data”

(SKA Concept of Operations Rev B)



# ATCA remote observing with time



# CSIRO ASKAP Science Data Archive

- March – April 2014: Preliminary Design Review and panel report (Chair: Andreas Wicenec, ICRAR)
- May 2014: CASDA response to report. Completed work from PDR recommendations [wiki.csiro.au/display/Preliminary+Design\\_Review+11-12+March+2014](http://wiki.csiro.au/display/Preliminary+Design_Review+11-12+March+2014)
- May 2014: Full release of document: *CSIRO ASKAP Science Data Archive: Overview, Requirements and Use Cases (v1.0)*
- June 2014: Completion of Project Stage 0. This has included:
  - Analysis of system architecture, software design and user requirements.
  - Configuration and testing of physical infrastructure in the Pawsey Centre.
  - Development of VO prototypes
  - Regular consultations with Science Reference Group and others
- July 2014: Software development and related construction begins.

# Miriad/CASA update

Mark Wieringa spent two weeks in Socorro working along with CASA developers

- ‘importmiriad’ task will be available in CASA 4.3 to be released late this year
- Lots of discussions about mosaicing, advanced imaging and calibration
- Access to CASA source code and development environment

## Short-term Plan (6 – 12 months)

- Update CASA for ATCA documentation
- Offering a CASA tutorial during upcoming Synthesis School
- Primary beam models
- Implement CASA regression testing with large ATCA data sets
- More detailed comparison between CASA and miriad in calibration aspects

## Medium to long term

- Still committed to minimum support to Miriad: bug fixes, minor features
- Continue moderate development in CASA in areas of wide bandwidth, wide field of view and calibration
- Monitor CASA and Miriad usage for ATCA

# ASKAP Commissioning and Early Science Team (ACES)

Joint team (led by Dave McConnell) to deliver:

Commissioning – led by John Reynolds

Early Science, Science Demonstration – led by Lisa Harvey-Smith)

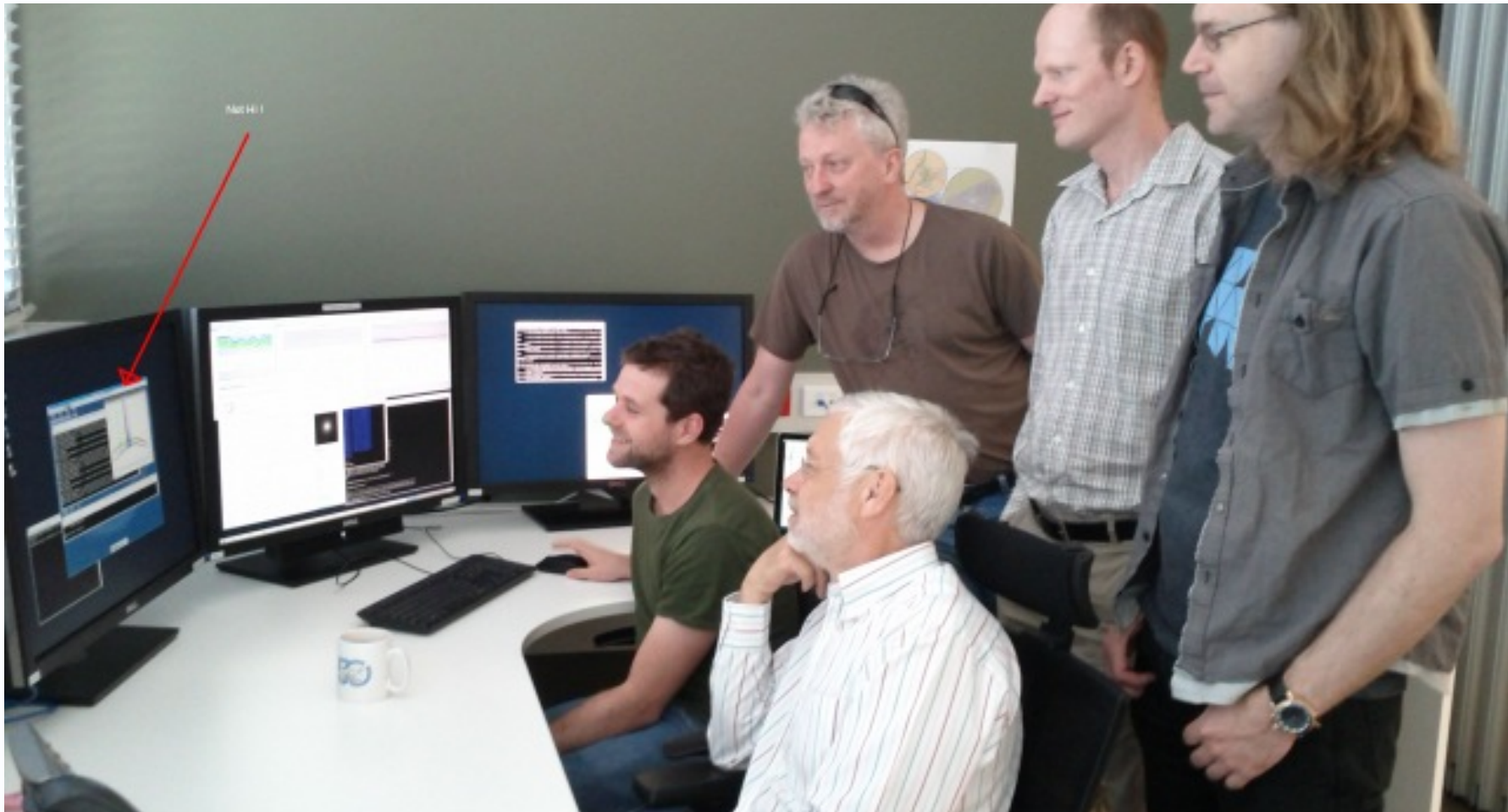
Telescope Operations & Support – led by Phil Edwards

Allows for rapid staff redeployment and retention of expertise in operations phase

Emphasis will change over time (currently commissioning)

Astro, Ops, Secondments, and Contracts [Bob Sault]

# ASKAP Commissioning and Early Science Team (ACES)



# ACES secondments

6-8 FTE-years secondments (or similar) to ASKAP Commissioning and Early Science (ACES) team

Bring in expertise for ASKAP and return ASKAP-specific expertise to the SSTs

Funded by subcontracts to Universities

First two (Emil Lenc and Hayley Bignall) on board

Priority areas include high dynamic range radio interferometry, HI imaging techniques, radio transients, polarimetric calibration

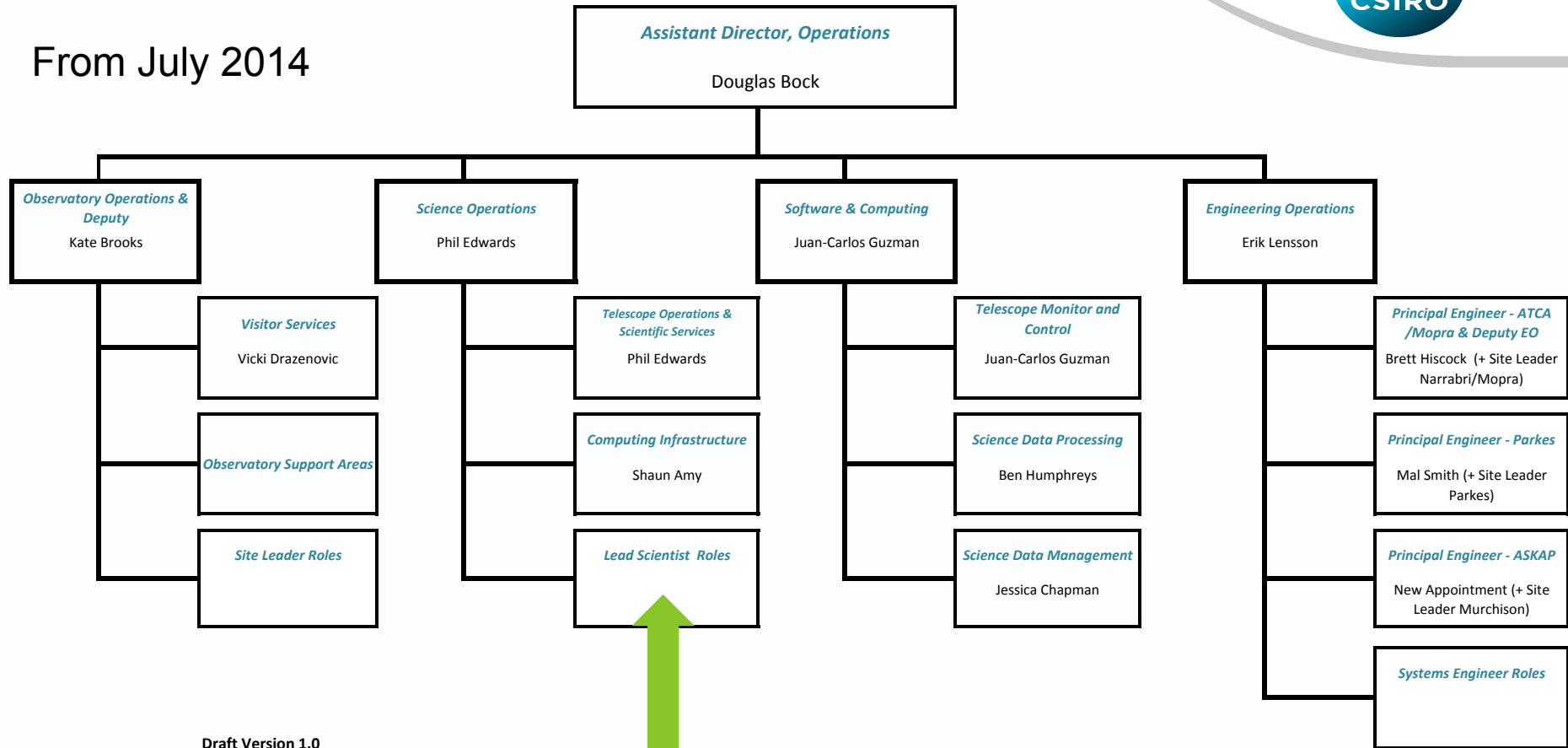
Additional roles will include scheduling, observing, enabling data access, improving documentation, training and supporting users

▪ For further information: Dave McConnell





From July 2014



Draft Version 1.0  
Prepared 19 May 2014

Key user interface: lead scientists



# ATNF Operations 2013-14 budget

	Budget 2013-14 (\$m)	trend
ASKAP	8.9	-> 11
ATCA	5.0	
Parkes	3.6	
Mopra	0.3	
LBA	0.3	
Common	3.2	(little ASKAP)

Includes overhead; excludes depreciation



# The Next Year?

- Not expecting significant impacts in the current semester
- Likely to be a decrease in capability and time allocated in the next semester (hope to give some indication by 18 June proposal deadline)
- Mopra
  - Current contract until Oct 2015; aiming to fulfil this
  - Covers only day-to-day running costs
  - Community access uncertain
  - External consortium seeking ways to continue to operate Mopra; we will support this (Burton/Rowell email to ASA exploder)

# Cost-saving ideas being explored

- Focus on “legacy” projects
- Parkes for just a few projects (very limited Rx changes)
- Reduction in ATCA support = number of projects
- Reduction in observing time (shut-down periods)
- ATCA “simpler” scheduling (e.g. zoom modes)
- Ceasing LBA access

## Already implementing

- Effort spent on long-term upgrades such as CABB, ATCA receivers, Parkes infrastructure -> ASKAP

# Principles for constrained budgets

Give 2 year's notice of major capability changes over maximising "up time"?

Support high impact science over maintaining all capability?

Favour science capability over student training?

*We acknowledge the Wajarri Yamatji people as  
the traditional owners of the Murchison Radio-Astronomy  
Observatory site.*

# Thank you

**Astronomy & Space Science**

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