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Future ATNF Operations

Dave McConnell and ATNF Leadership Team
6 November 2007



By 2012, the Australia Telescope National Facility will be operating four world-class observatories ensuring its continued status as a leading global contributor to the understanding of the universe.

Establish integrated operation of all four ATNF telescopes

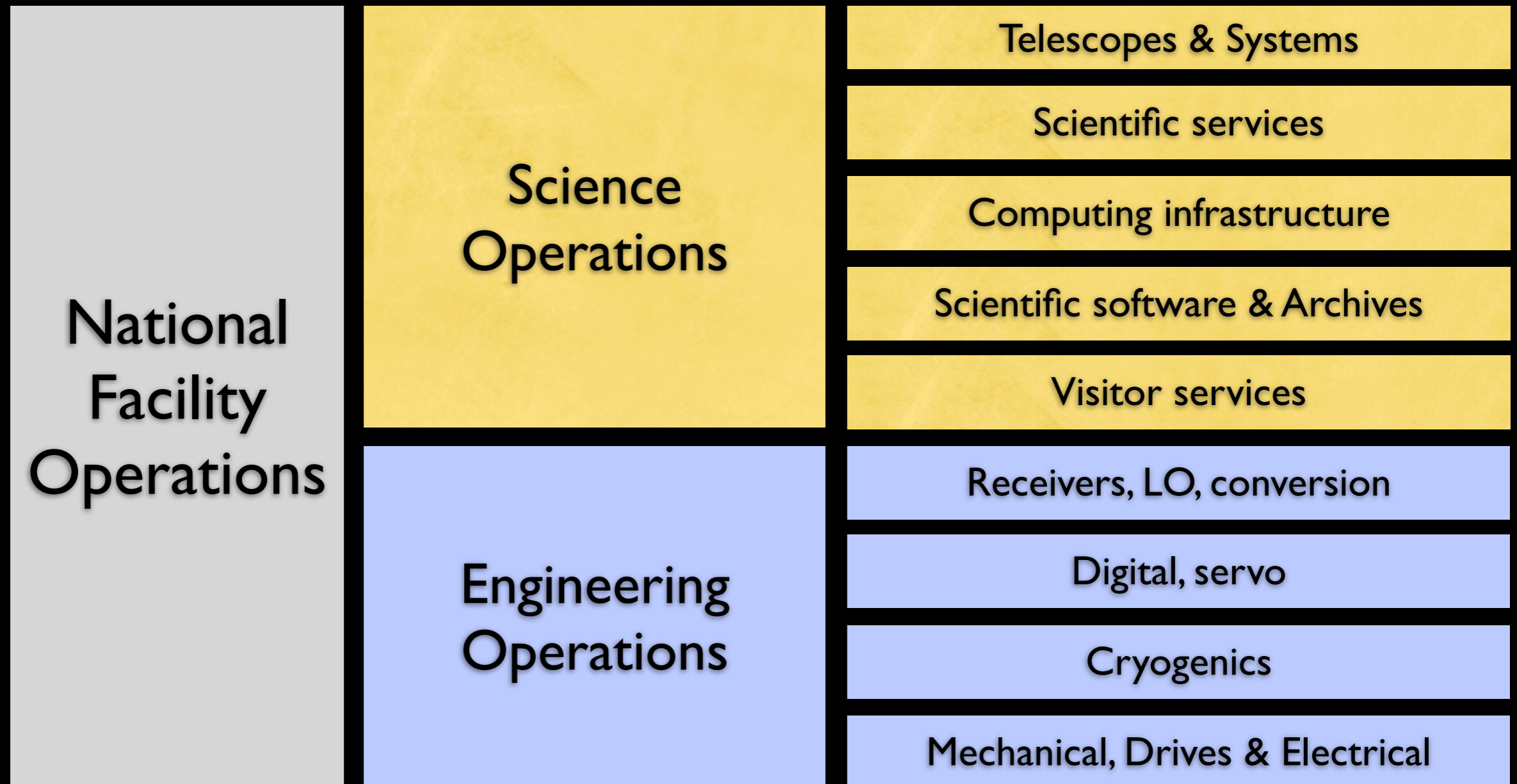
1. Restructure into Science Operations & Engineering Operations
 - Functional (not regional) groups
2. Establish Science Operations Centre (SOC) at central location (initially Marsfield)
 - Fully supported observing available at SOC only
3. Streamline supported modes according to scientific priorities
 - Balance cost against availability of observing hours, instrumentation and support

Projects

- Automation
- Telescope safety
- Scheduling
- SOC facility

Science Operations

Engineering Operations



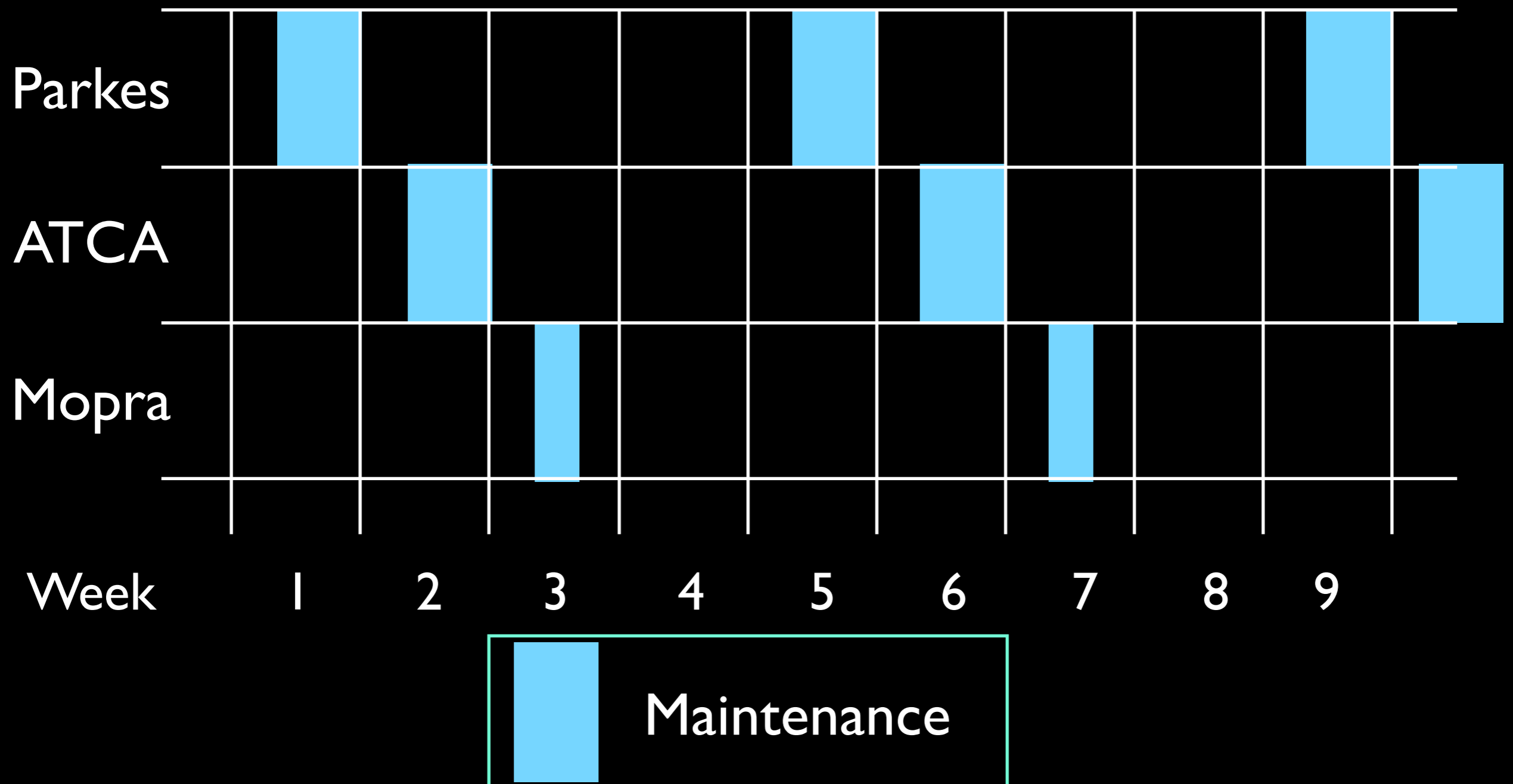
Science Operations Centre

- Initially located at Marsfield
- Retain “User/Operator” model (except ASKAP)
- Fully supported observing available at SOC only
- When necessary, observations will be possible from the observatories.
- Comprehensive computer, visual and auditory monitoring

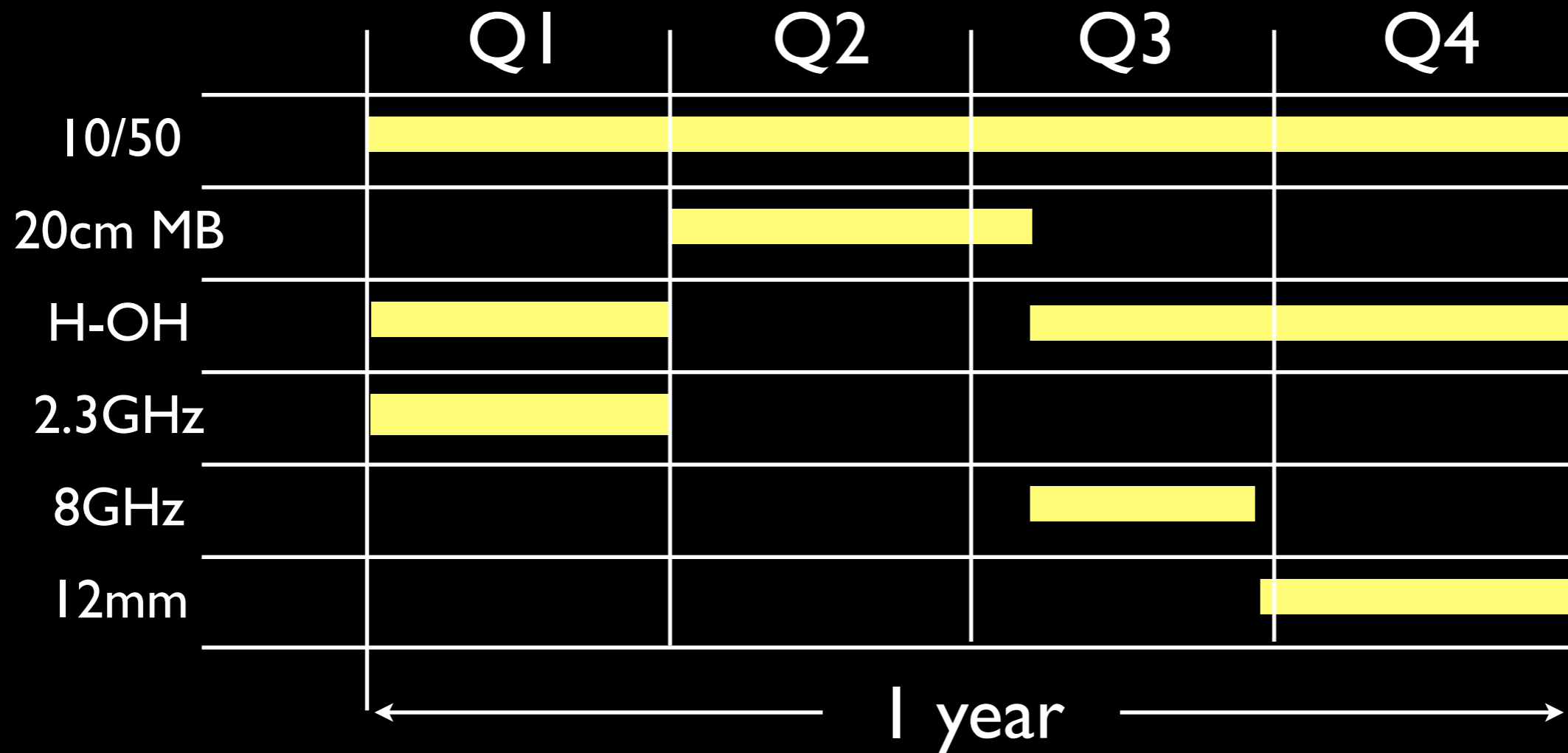
Streamlining operations

- Synchronise schedules
- Reduce the frequency of CA reconfigurations and Parkes receiver changes
- Limit the range of instrumentation
- Limit availability of telescope time

Scheduling scheme



Sample one-year Parkes receiver schedule

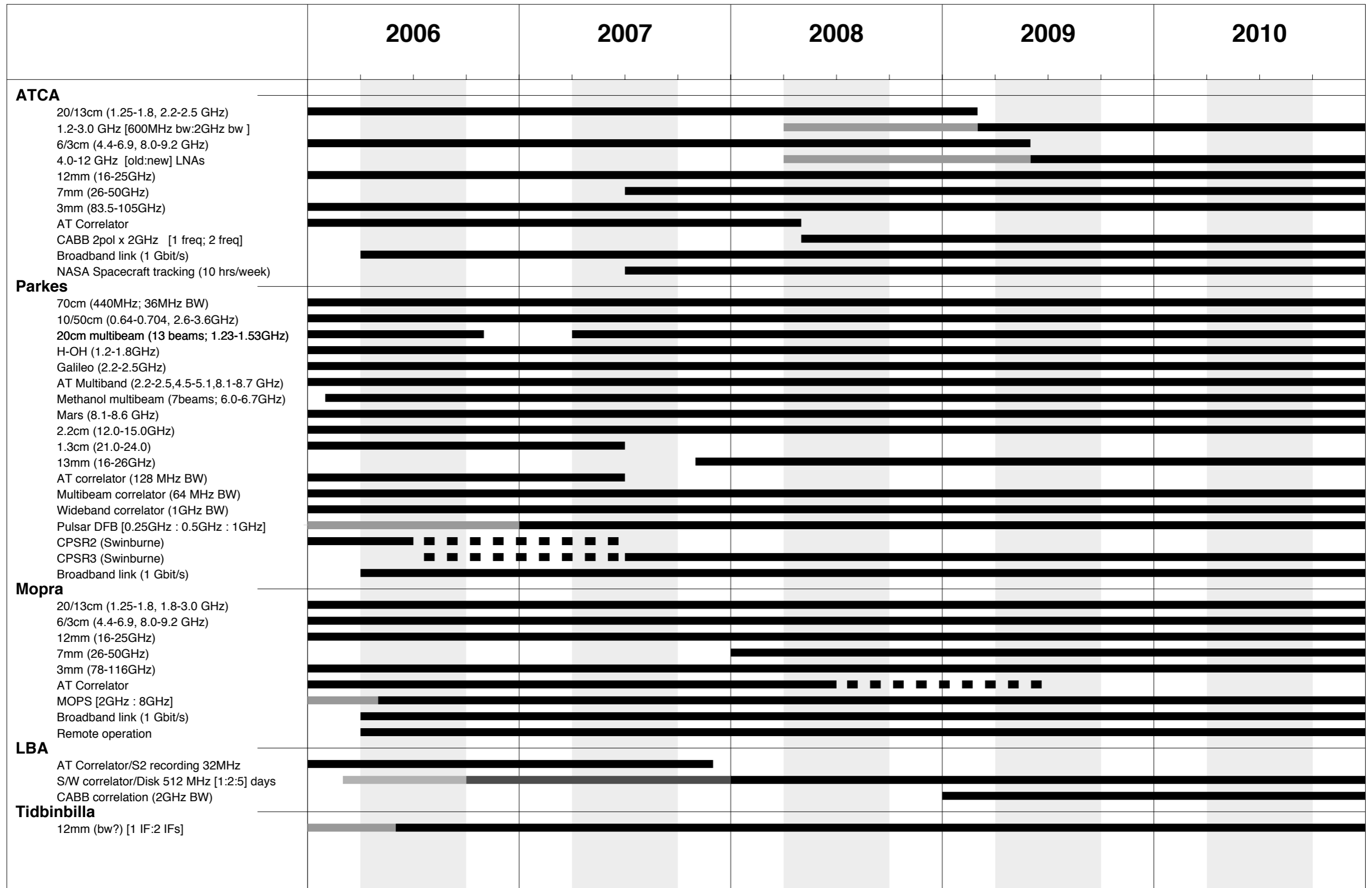


Instruments to be decommissioned?

What	Where	When
70 cm receiver	Parkes	2007
Methanol receiver (6/12GHz)	Parkes	2007
1.3cm receiver	Parkes (replaced by new 12mm rx)	2007
WideBand Correlator	Parkes	2007
S2 VLBI recorders	Parkes, ATCA, Mopra	2007
Mark3A VLBI recorder	Parkes	2007
AT Correlator	Parkes, ATCA, Mopra	2008
Analogue Filter Bank	Parkes	2008
Methanol Multibeam	Parkes (send to JB)	2010

ATNF instrumentation

2006 - 2010

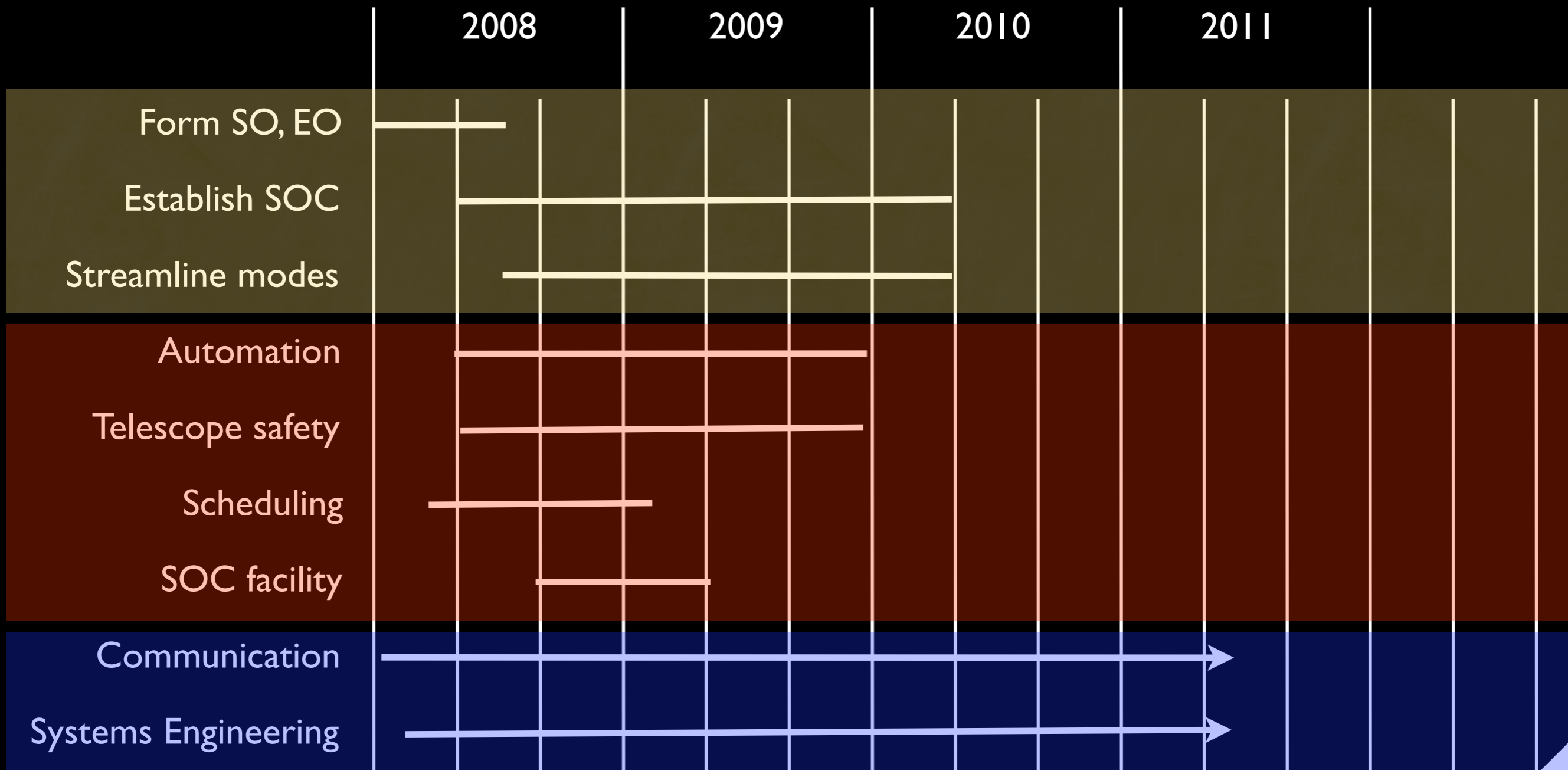


ATNF instrumentation

2007 - 2012



Schedule



Significant milestones

- 7 Dec 07 Written report to ATSC
- Dec 07 ATSC consultation
- Dec 07 Written report to ATUC
- 31 Mar 08 Projects approved
- 1 Jul 08 New formal structures in place
- Mid 2010 SOC operational
- 2011 ASKAP operational