

## **Minutes: Parkes Forum 17 November 2015 11:30-12:30 AEDT**

Attendees: Greg Hellbourg, Phil Edwards, Dick Manchester, Karen Lee-Waddell, Ian Heywood, Amy Kimball, George Hobbs, Ryan Shannon, Lisa Harvey-Smith, Shi Dai, Vince McIntyre

Apologies: Megan Johnson, Xinping Deng

### **News:**

Welcome, Shi Dai – starting postdoc. OCE postdoc hunting for pulsars in continuum surveys. Working on pulsar Science

Welcome, Xinping Deng. Xinping is working on PAF at Parkes

Jimi Green will be arriving February-ish to start as Parkes system scientist

### **Science-operations update (Phil Edwards):**

Schedules:

- Current Parkes schedule only released up to Dec 24.
- Draft schedule to end of March will be released in a ~few weeks
- Call for next semester imminent

PAF system will tests will get 4x8 hour blocks per week in the next semester

Currently H-OH and Galileo receivers are mounted (along with multibeam) Galileo is being used for S-band bistatic radar tests (transmission from Goldstone DSS-43)

### **System-scientist update: (George Hobbs)**

Update on PAF project

- Purchased by MPIfR
- Engineer from MPIfR
- Google document set up by Xinping (our best knowledge of system)
- Sharepoint/Confluence/JIRA site have also been set up
- Backend definition need to be determined (which parts goes to Germany)
- MPIfR prefers Mellanox switch (vs Cisco switches used by ATNF)
- Xinping setting up email list?
- Project Scientist: Simon Johnston
- Project Engineer: Tasso
- Postdoc: Xinping will follow PAF to Germany

There was lots of discussion about the groups involved in

**Action item: Organize CSIRO meeting about PAF (Xinping)**

#### H-OH tests:

- Test were conducted during recent P737 observing to examine use of
- Ripples in band (possibly caused loose connection or poor grounding)
- 512 MHz mode tests
- Quick look showed that data give similar in 256 MHz mode are of similar quality to Multibeam data

**Action item: (Ryan Shannon/Matthew Kerr): look at data**

#### UWB Project:

- Time scale to stretch out into 2017 due to PAF deployment
- MPIfR likely to contribute backend hardware to system (is it the same GPUs as PAF?)
- NAOC contribution to amplifier chain

#### Multibeam:

- Come down in February?

#### Backends:

- Spectral line: no updates
- Pulsar: CASPSR/PDFB4 (Matthew Kerr updating CASPSR backend to produce search mode and hybrid pulsar/spectral line data)
- RFI mitigation has been tested. Matthew K has looked at using reference signals with CASPSR. Swinburne spectral kurtosis algorithms are doing a better job of excising mobile handsets.

**Action item: Check timing fidelity of spectral kurtosis data**

#### Archiving data from new systems:

- Pulsar data -> CSIRO archive (ANDS)
- Other backends -> ATOA
- PAF: Only storing candidates for FRB search (small data set)
- Will data be national facility standard?

#### Backends:

- Need rack space and cooling for new backends
- The SETI project is providing an independent backend that will require 6 racks

#### Tasks for group:

- Backend development?
- Documentation?

#### Action items:

**Make sure there is contact between us, Lister, MPI regarding PAF project  
Single dish HI experiments (possibilities: Jimi/Megan/Jo Dawson)**

The group discussed its role, which is largely bifurcated into maintaining current instrumentation and developing new instrumentation

**Action item: Keep current observing systems working and characterize current observing systems (George, Ryan, Megan, Shi, and Dick may meet independently to discuss this)**

**-- H-OH pulsar data analysis (Matthew, Ryan, George)**

**Action item: Group to be involved in PAF development. Members to define roles after special meeting on PAF (all)**

**-- Xinping to organise meeting (with MPIFR, Swinburne, Jodrell Bank)**

**Action Item: Ensure UWB project moves forward (Dick, George, Ryan)**