

Haystack Status

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Projects

- Haystack 37 Meter Status
- Mark6 Status
- R2DBE's
- Operations

Haystack 37 Meter

- 37 Meter is regaining function after a full body transplant
 - High aperture efficiency @ 3mm
- Fringe test with VLBA was performed on 09/12/2016
 - 43 & 86 GHz
 - 512MHz, PFB 32 MHz channels
- Expecting to participate in GMVA sessions either the end of September or October
- Goal is to become regular participant in astronomy sessions

Mark6 Status

- d-plane has been transferred to my responsibility
- High altitude issues
 - Investigating over heating issues
 - Systems shut down
 - Options under test
 - Use of higher rated CFM fans on the back of Mark6
 - Prevent air from re-circulating back into chassis by blocking section of vents
 - Re-direction of airflow from disk modules down to motherboard
- Memo on results will detail investigation / results

Mark6 Status

- New Operating System under test
 - Debian Jessie 64 bit
 - c-plane has been modified and under checkout for verification
 - d-plane under test
 - pf_ring upgraded to newer version
 - Kernel support
- Expect release December 2016
 - OS
 - Mark6 software suite
 - Support software

R2DBE's

- Roach2 based Digital Backend
 - Two IFs 1024 MHz bandwidth
 - Fully VGOS Compliant
 - PFB firmware
 - On schedule
 - Target completion December 2016
 - Presently 50% complete
 - 16 out of 32 channel selection for each IF
 - Complex data
 - 4Gbps
 - Odentical features (pcal, tsys, multicast) to version 3.0 deployed

VGOS Operational Evaluation

- Advancing complete end-to-end operational integration / verification of VGOS antennas
- Station participation with PCFS control of systems
 - Wettzell, Yebes, Westford, GGAO, Kokee, Isioka
- Correlation at Haystack
 - Working to transition knowledge to Bonn, USNO
- Successful fringes with all stations
- Continue to work with stations on identifying anomalies and smooth out procedures

Astronomy Operations

- **Alma Phasing Project (64Gbps)**
 - Continue to add features for Mark6 to ease operations
 - Preparing for next observing cycle
 - Working with Geoff Crew for the next Mark6 software release
 - APP / EHT have a different model than that being used by VGOS stations for software release
- **Event Horizon Telescope / BHC (32Gbps)**
 - Where the issues associated with overheating noted
 - Working to support as best we can

Questions?

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