

MWA's final form: Preparing for Phase III

Mia Walker, MWA Program Manager
Virtual Project Meeting, December 2020





MRO RFI ELIMINATION VEHICLE

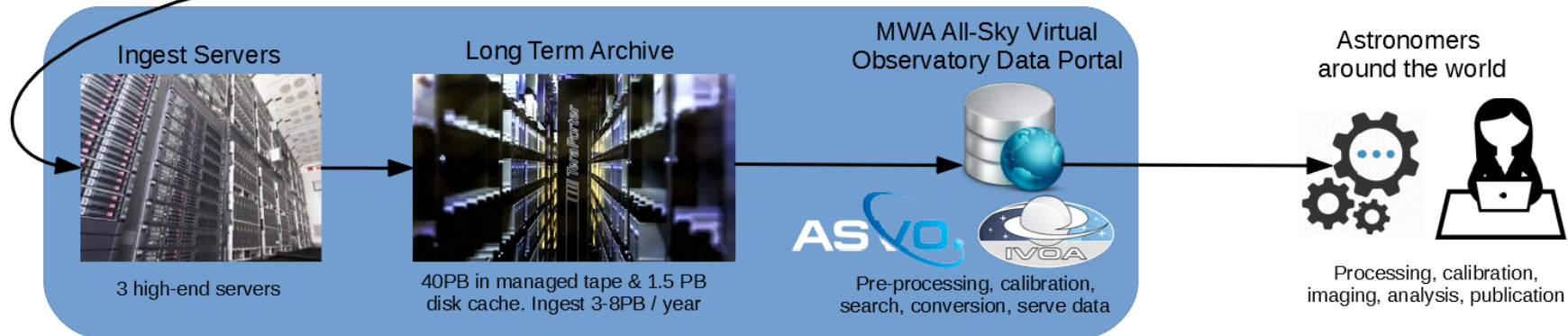
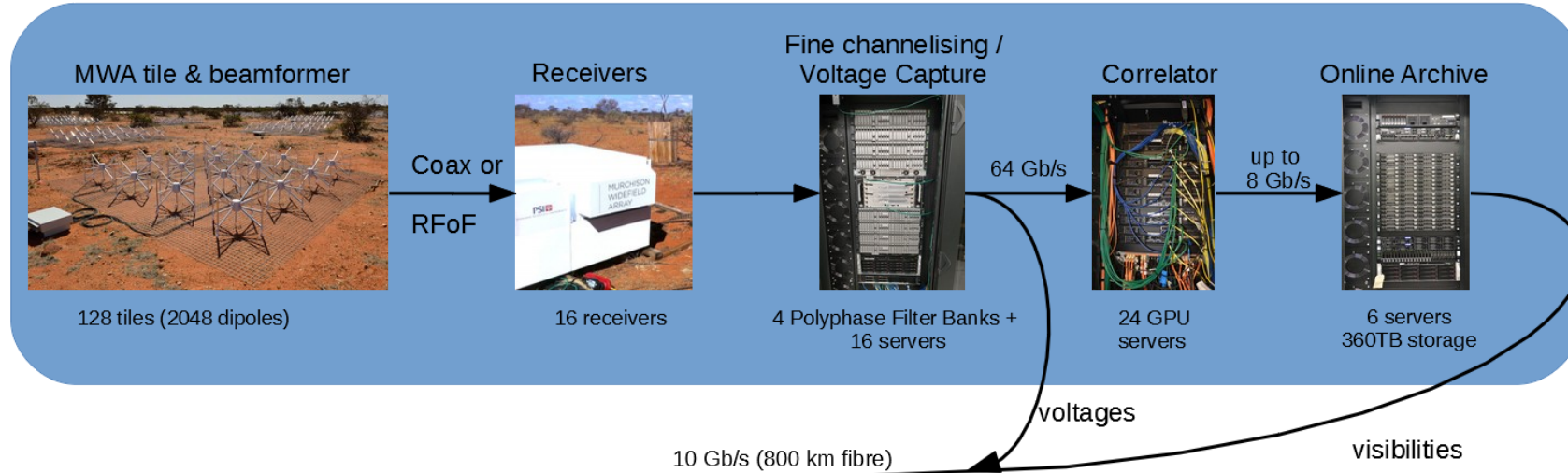
Brian.crosse@curtin.edu.au





MWA Phase II (Now) – Data Flow

Tier 0: Murchison Radio Astronomy Observatory (MRO), Western Australia



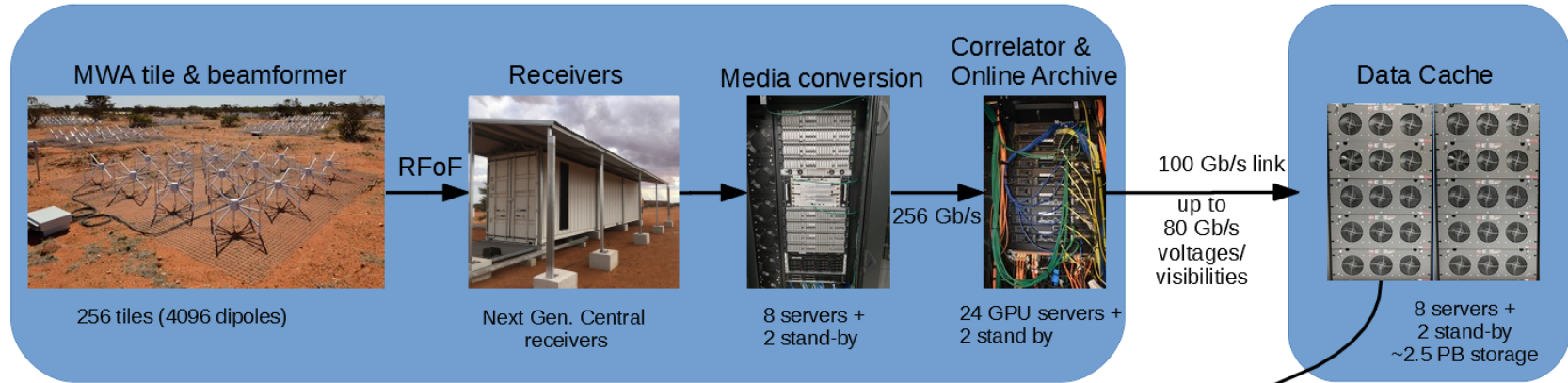
Tier 1: Pawsey Supercomputing Centre, Kensington, Western Australia



MWA Phase III (Future) – Data Flow

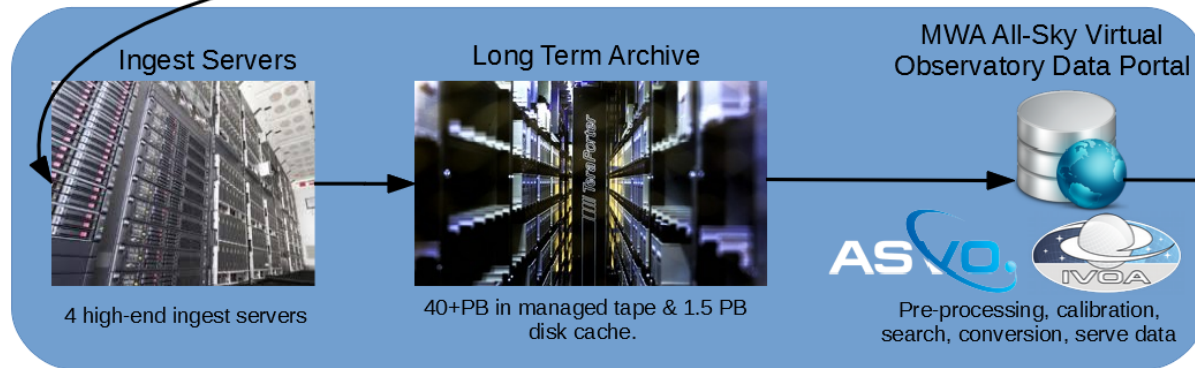
Tier 0: Murchison Radio Astronomy Observatory (MRO), Western Australia

 Curtin University

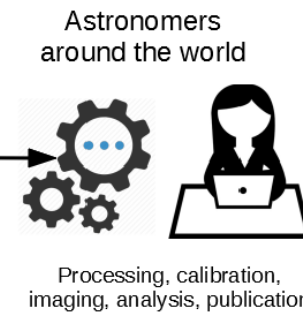


Tier 1: Curtin University, Bentley, Western Australia

100 Gb/s link



Tier 2: Pawsey Supercomputing Centre, Kensington, Western Australia

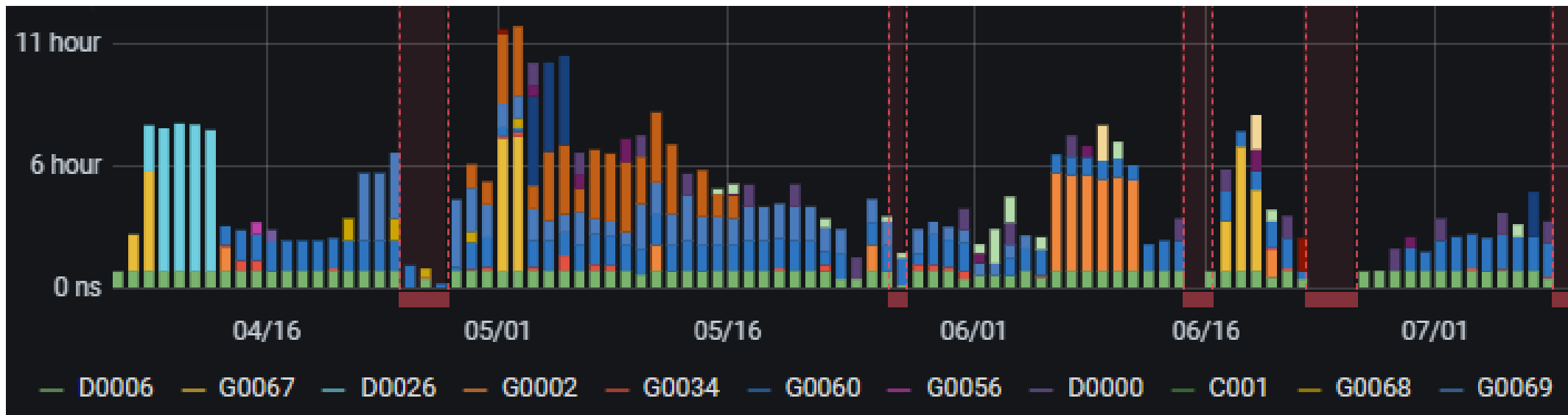






Updates

- New receivers
- Data Lifecycle Policy
- ASVO
- M&C
- Upgraded beamformers
- Cable trays





Timeline

Phase II



- December 2020: MWAX development work functionally complete
- ~April 2021: Installation of MWAX
- ~May 2021: Commissioning
- June 2021: New receiver prototype tested
- July 2021: MWA Phase III starts
- December 2022: Array fully operating in new regime

Phase III
2021-2026



- June 2026: MWA Phase III ends
- Dec 2027: All MWA-ASVO observations become public, support ends

ASVO



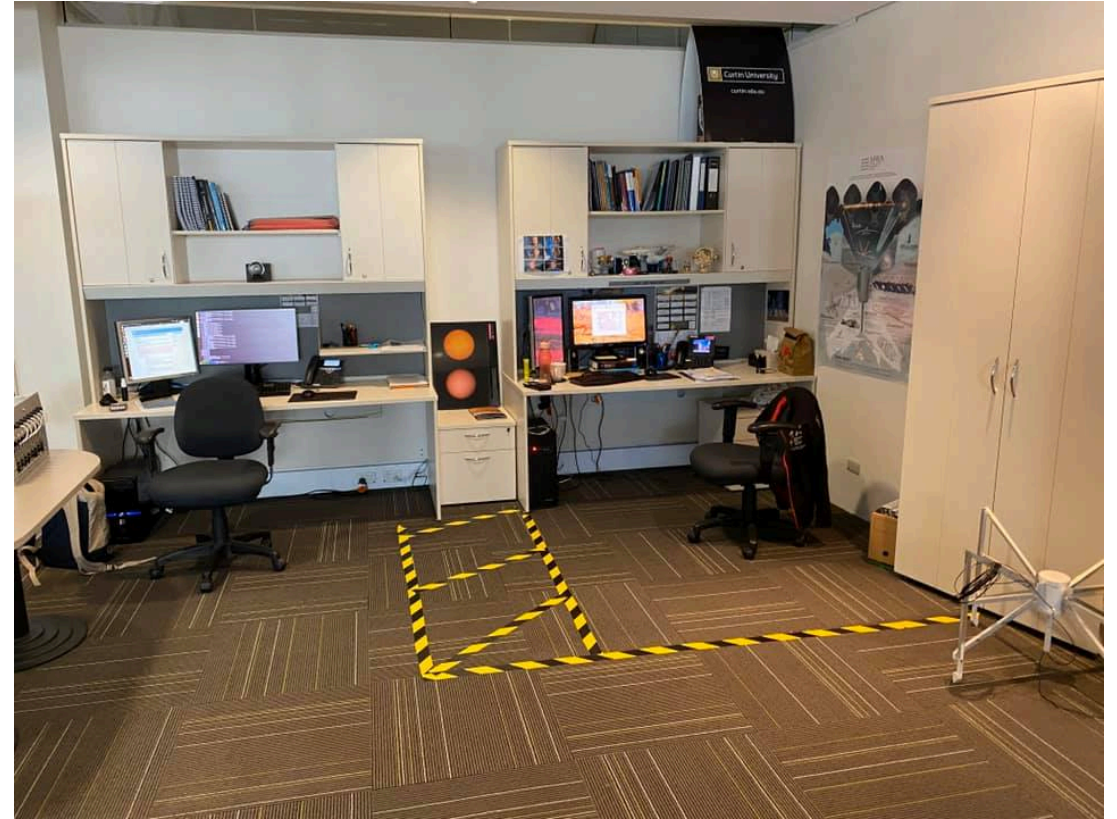
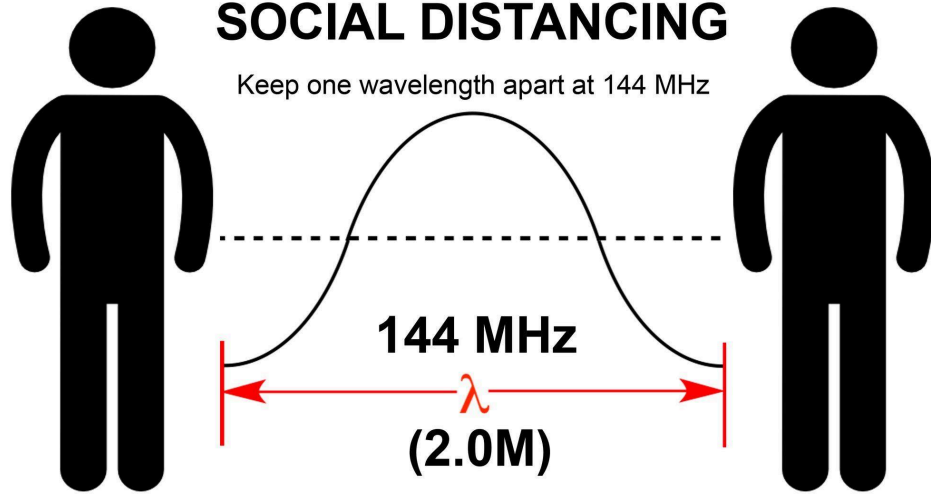


MWA Operations in 2020

Amateur radio enthusiast guide to

SOCIAL DISTANCING

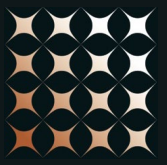
Keep one wavelength apart at 144 MHz





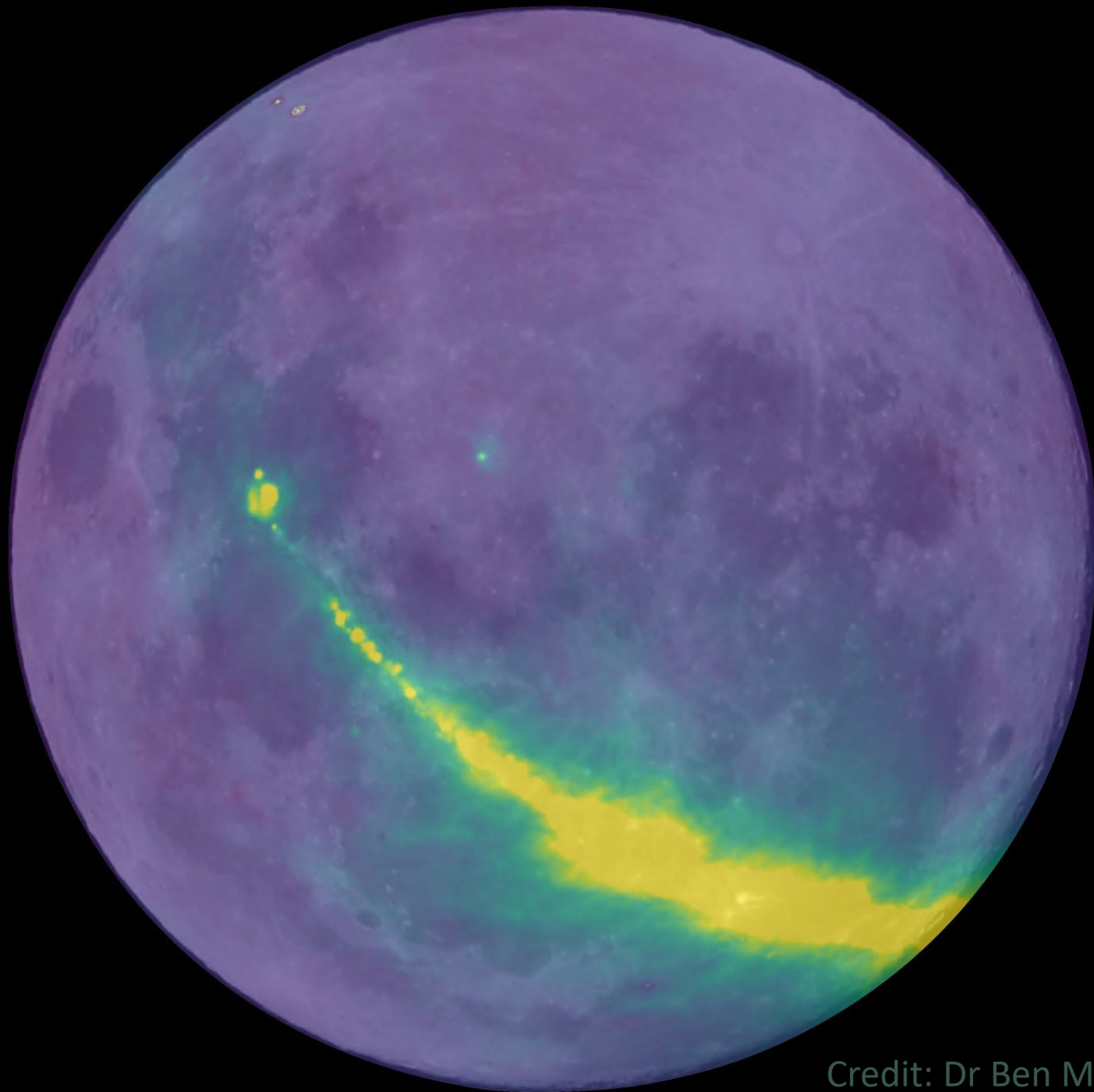
Lessons Learned

- Value of preventative maintenance
- R&D: Measure twice, cut once
- Documentation is useful - to a degree
- Travelling not always necessary
- Emails don't convey tone very well...



Working for YOU!





Credit: Dr Ben McKinley, NASA