



# ASKAP receiver upgrade

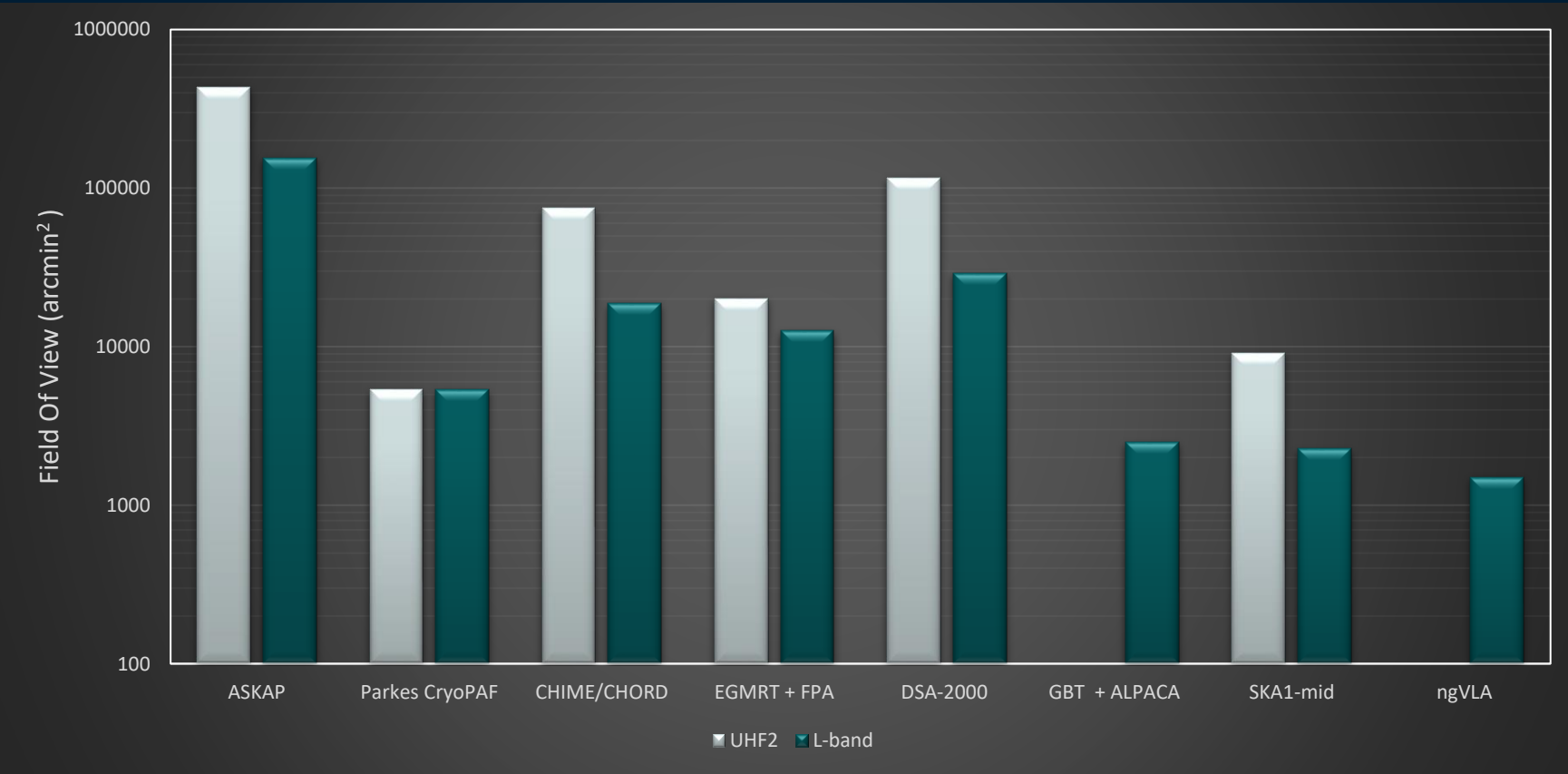
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# ASKAP Field of view



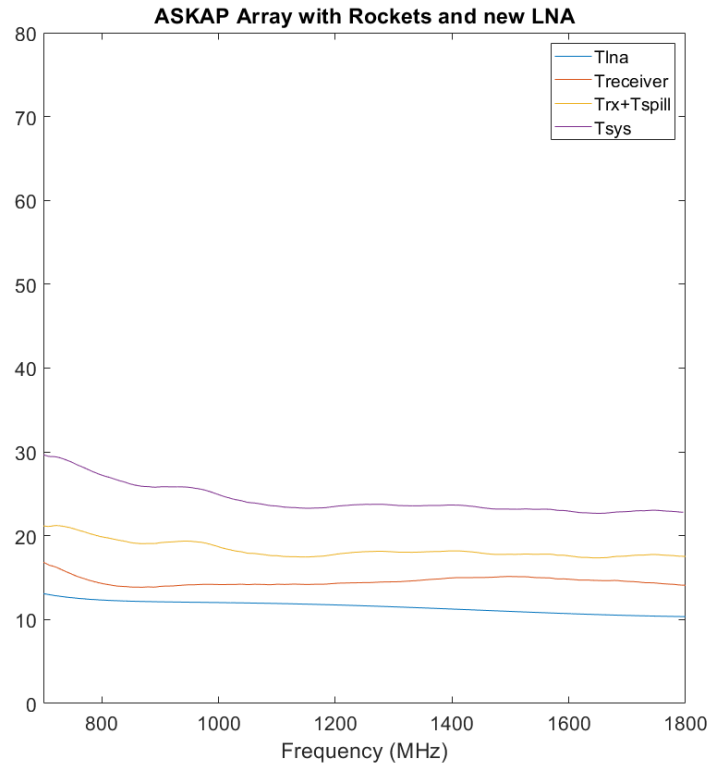
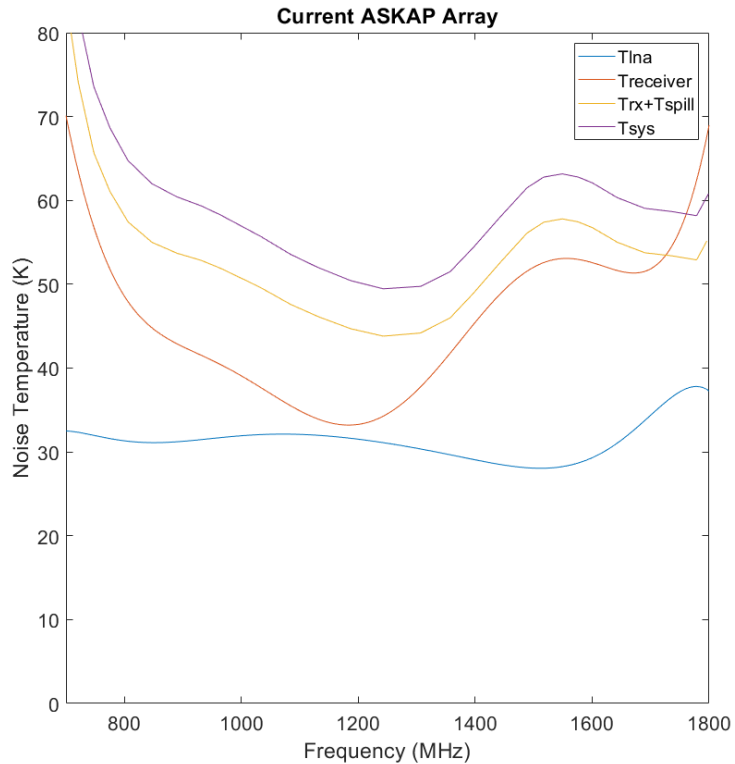


# ASKAP survey speed



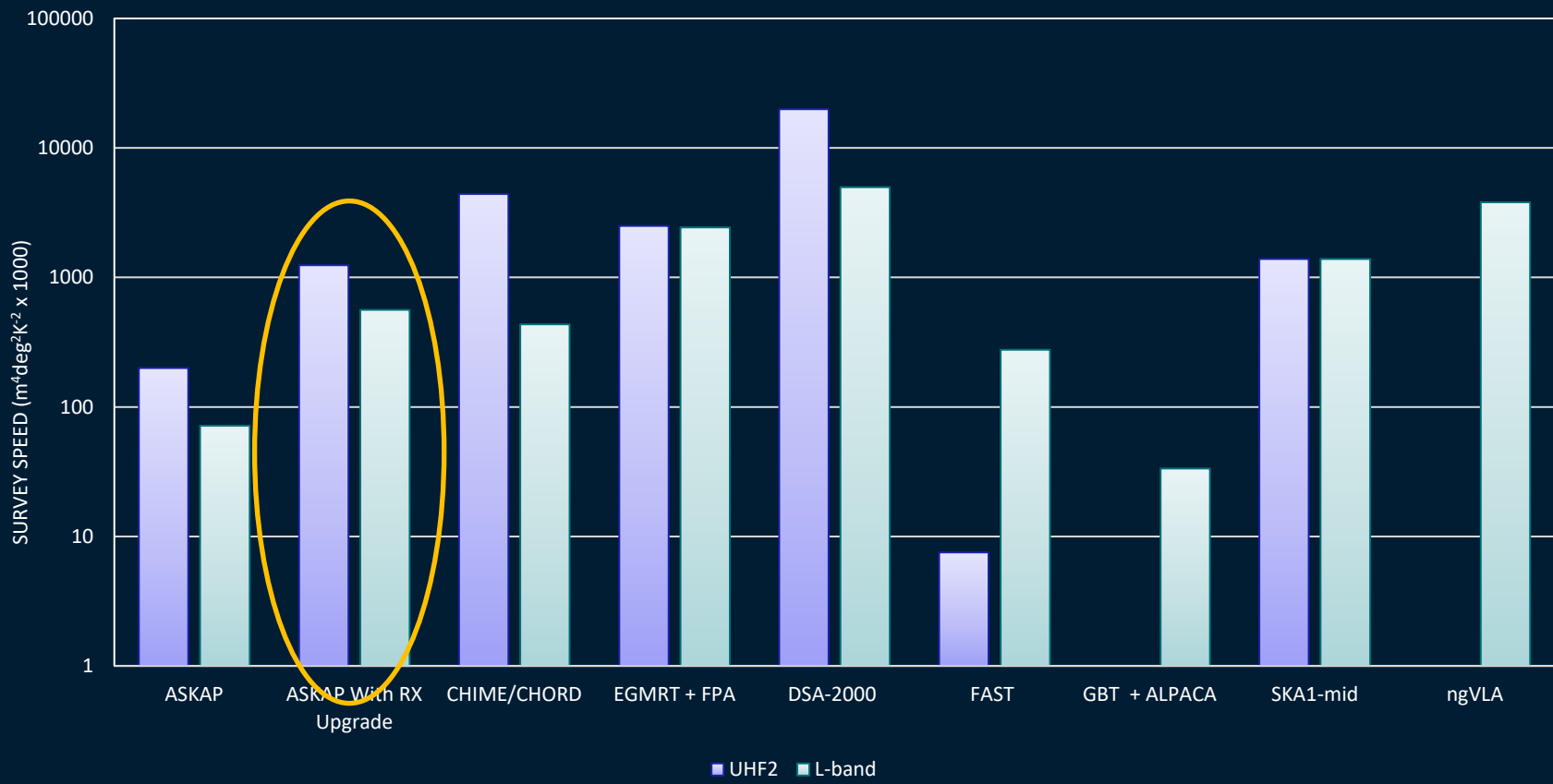


# Replacing the LNAs and Elements





# ASKAP survey speed





# Potential ASKAP PAF improvements

- **System noise** – Redesign LNA and antenna elements to reduce system noise
- **Cooling** – Upgrade cooling system for stability, power and reliability
- **Power** – Reduce power consumption
- **Weight** – Reduce weight to ease drive stress
- **Noise injection** – Add noise injection before LNA for calibration and stabilisation
- **Full bandwidth** – Change EM design to achieve good performance across the full band
- **Serviceability** (Access/simplicity) – Improve ease of access and ease of service
- **Lightning sensitivity** – Ground elements to reduce lightning sensitivity
- **Continuous control and monitoring** – enable C&M during observations by reducing interference
- **Sun tolerant** – Make front of PAF more tolerant to sun damage and easier to repair
- **Environmental degradation** – reduce susceptibility to dirt on PAF surface and through air vents
- **Connector reliability** – Improve connect and disconnect