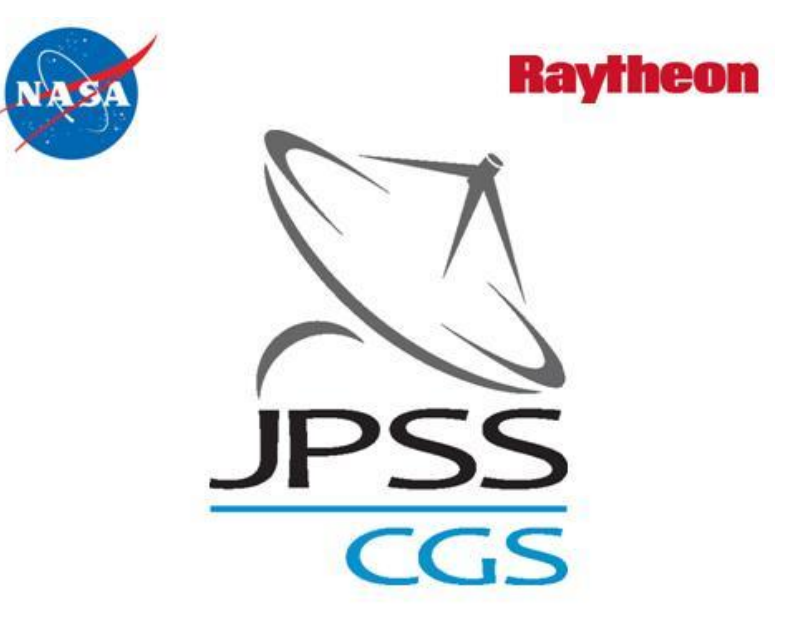
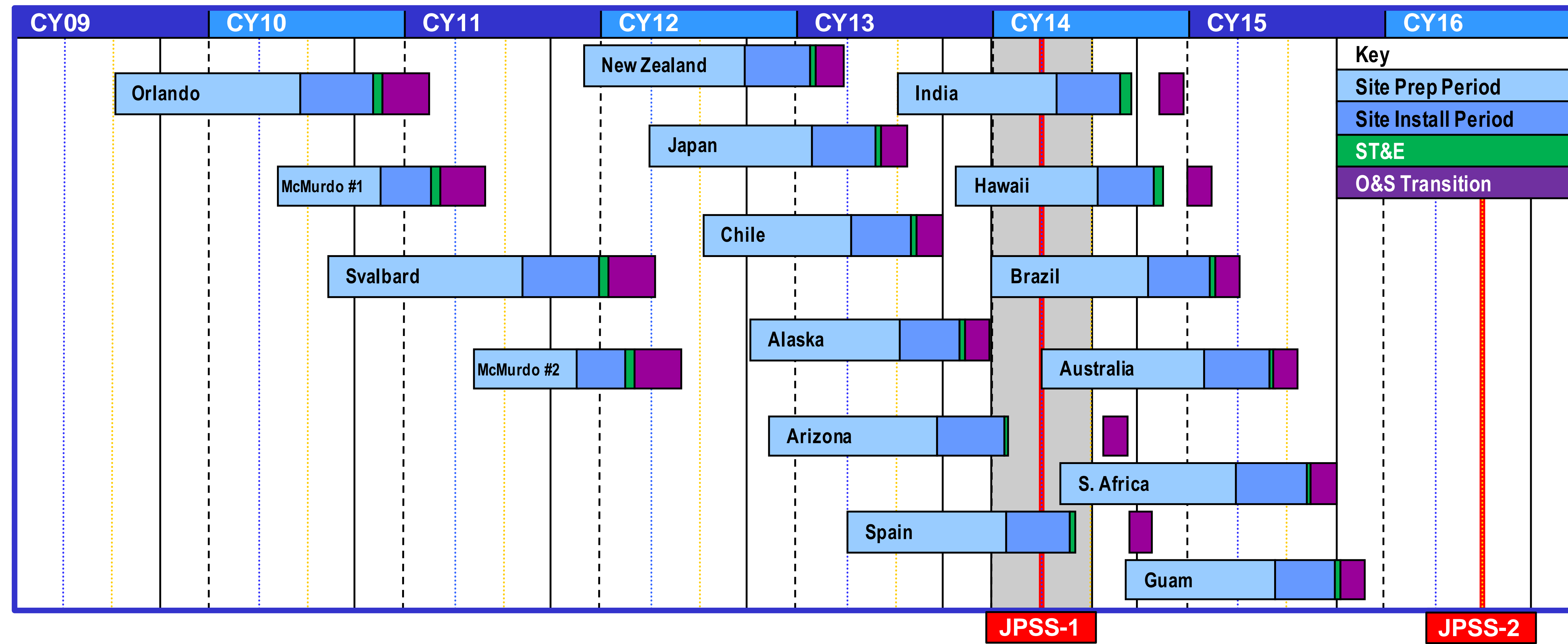


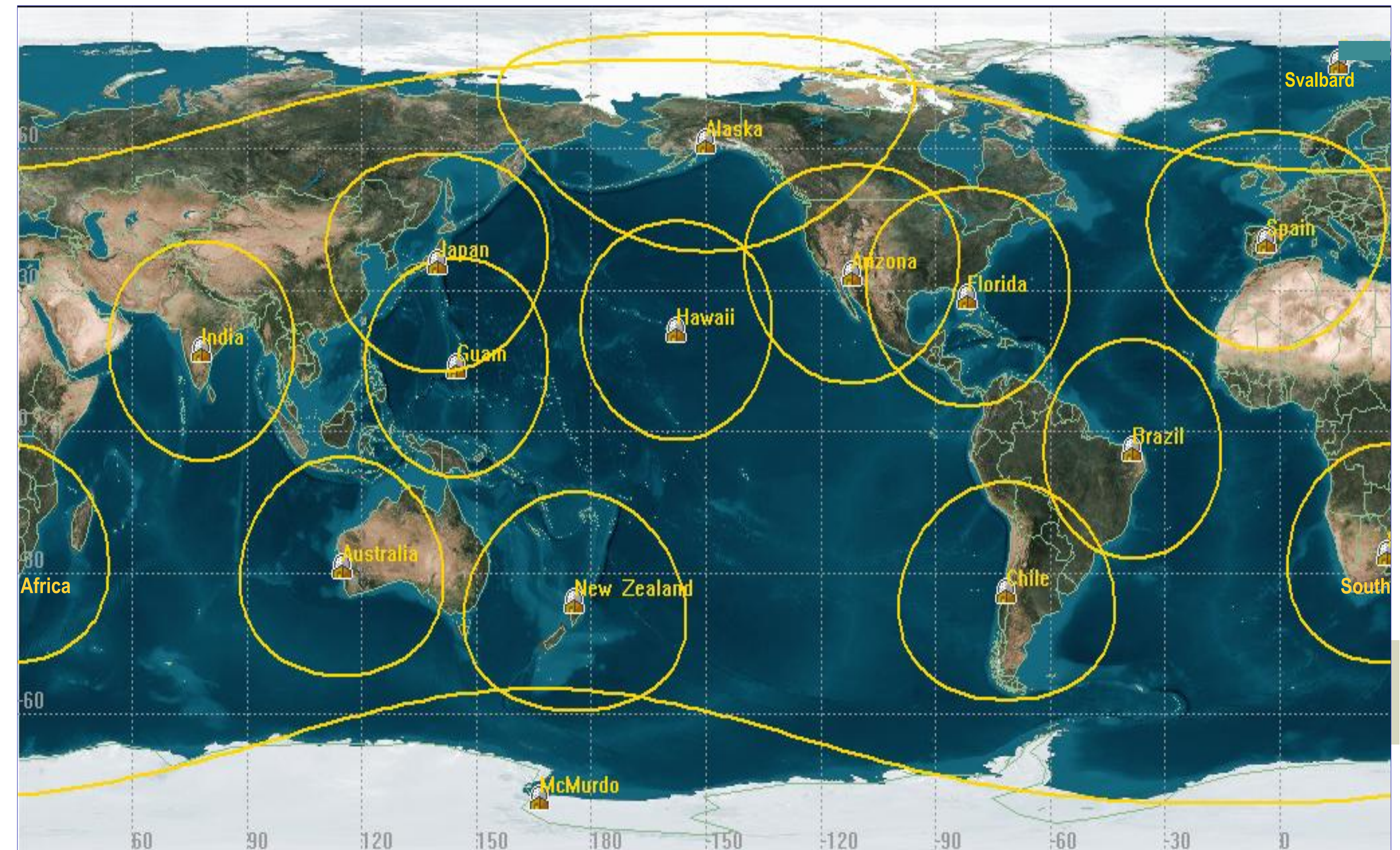
# Joint Polar Satellite System (JPSS) Common Ground System (CGS) C3S Expandability: DRN and McMurdo Improvements



A key feature of the Joint Polar Satellite System Common Ground System (JPSS CGS) is the Distributed Receptor Network (DRN). Globally distributed ground receptors (15) developed by Raytheon Company, collect up to ten times as much weather data four-to-five times faster than current polar-orbiting weather satellites. Once collected, these data are forwarded near-instantaneously to US weather centrals via the global fiber optic network for processing in environmental prediction models.



Addition of DRN Receptor sites incrementally improves System Latency



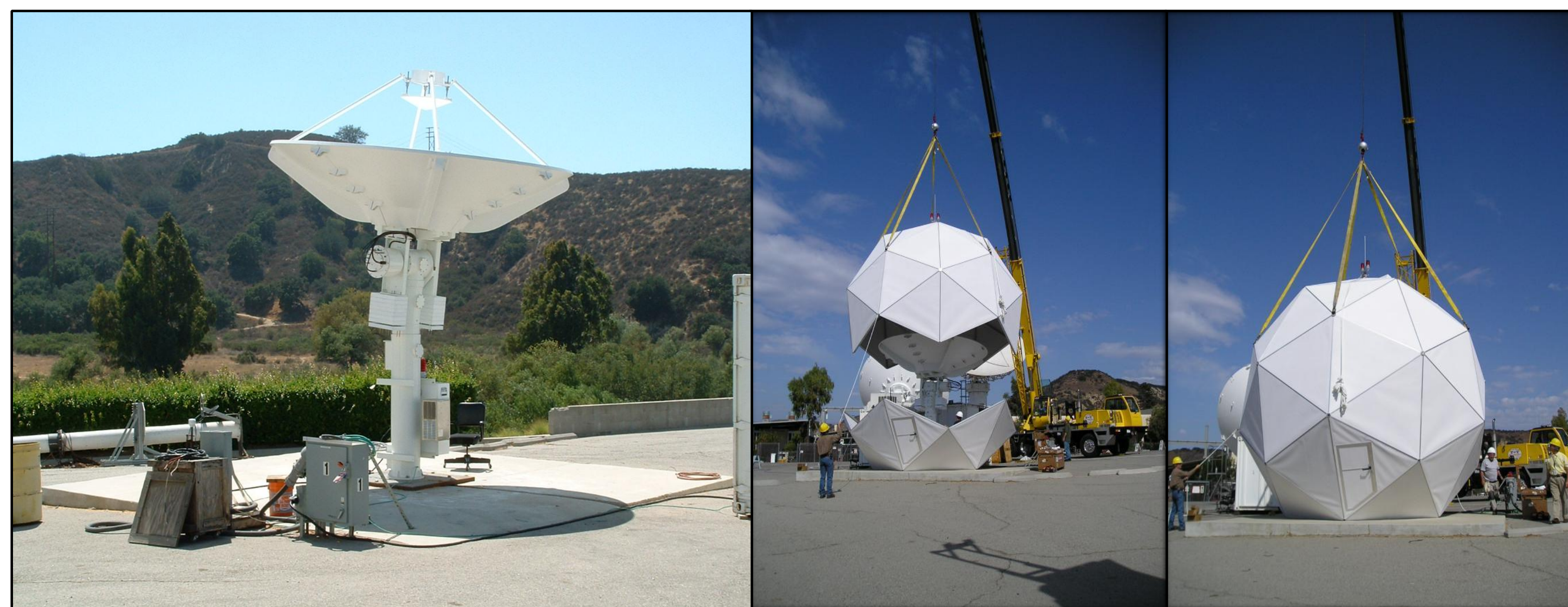
DRN- 15 globally distributed SMD receptor sites linked to the Centrals via commercial fiber – enables low data latency and high data availability...



Orlando, Florida

McMurdo, "T-Site"

Svalbard, Norway



First Receptor Assembly at Factory – September 2009

- Full motion to track polar satellites
- Ka-Band frequency, receive-only
- Autonomous operations

### JPSS CGS Benefits McMurdo Station, Antarctica Science Community

Off-continent communications antennas upgraded by NPOESS (predecessor to JPSS) -- increased National Science Foundation (NSF) McMurdo Station data rate by >3 times.

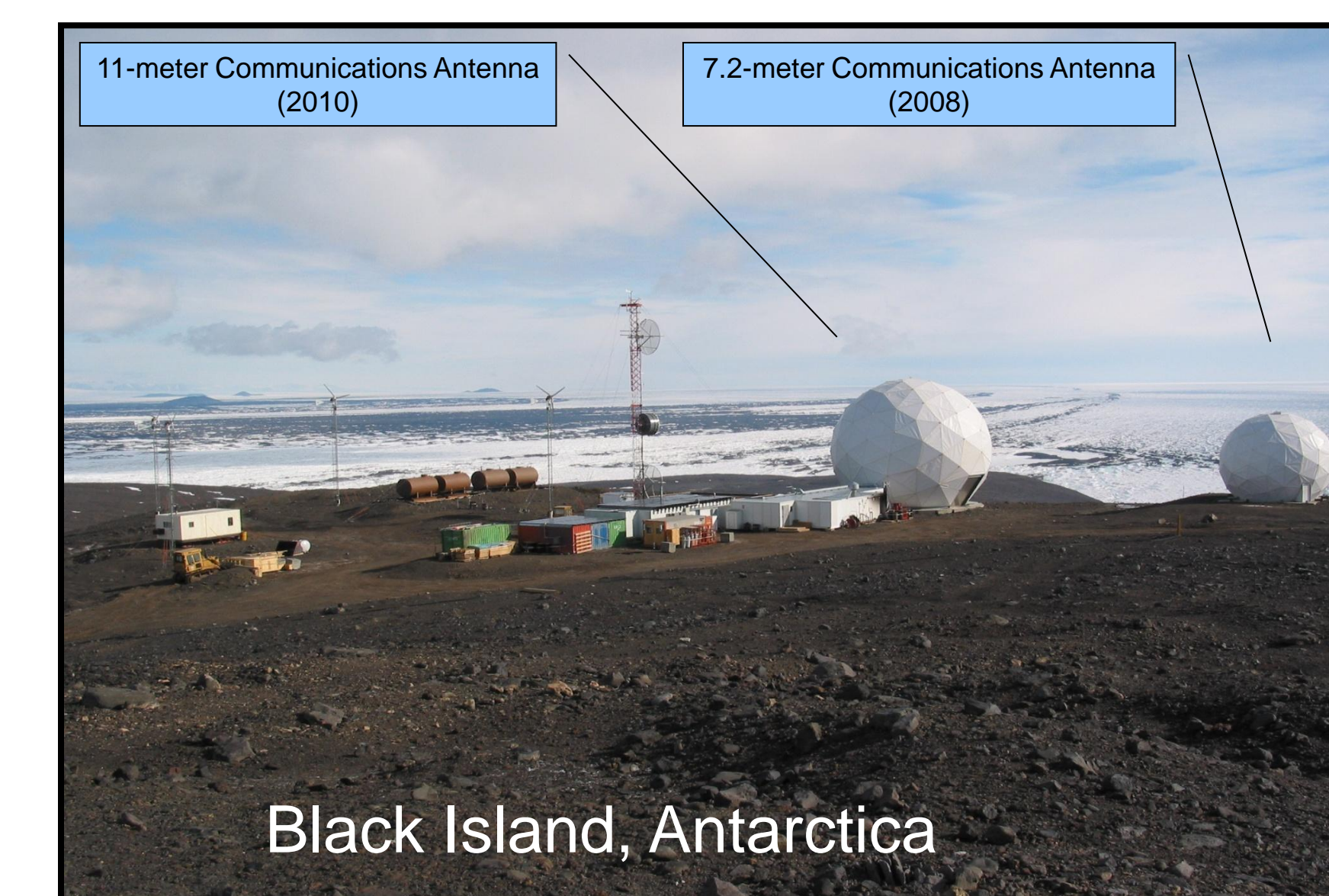


McMurdo Station, Antarctica



The Phase 1 upgrade of the 7.2 meter antenna completed in January 2008.

The Phase 2 upgrade of the 11 meter antenna completed in January 2010.



Black Island, Antarctica