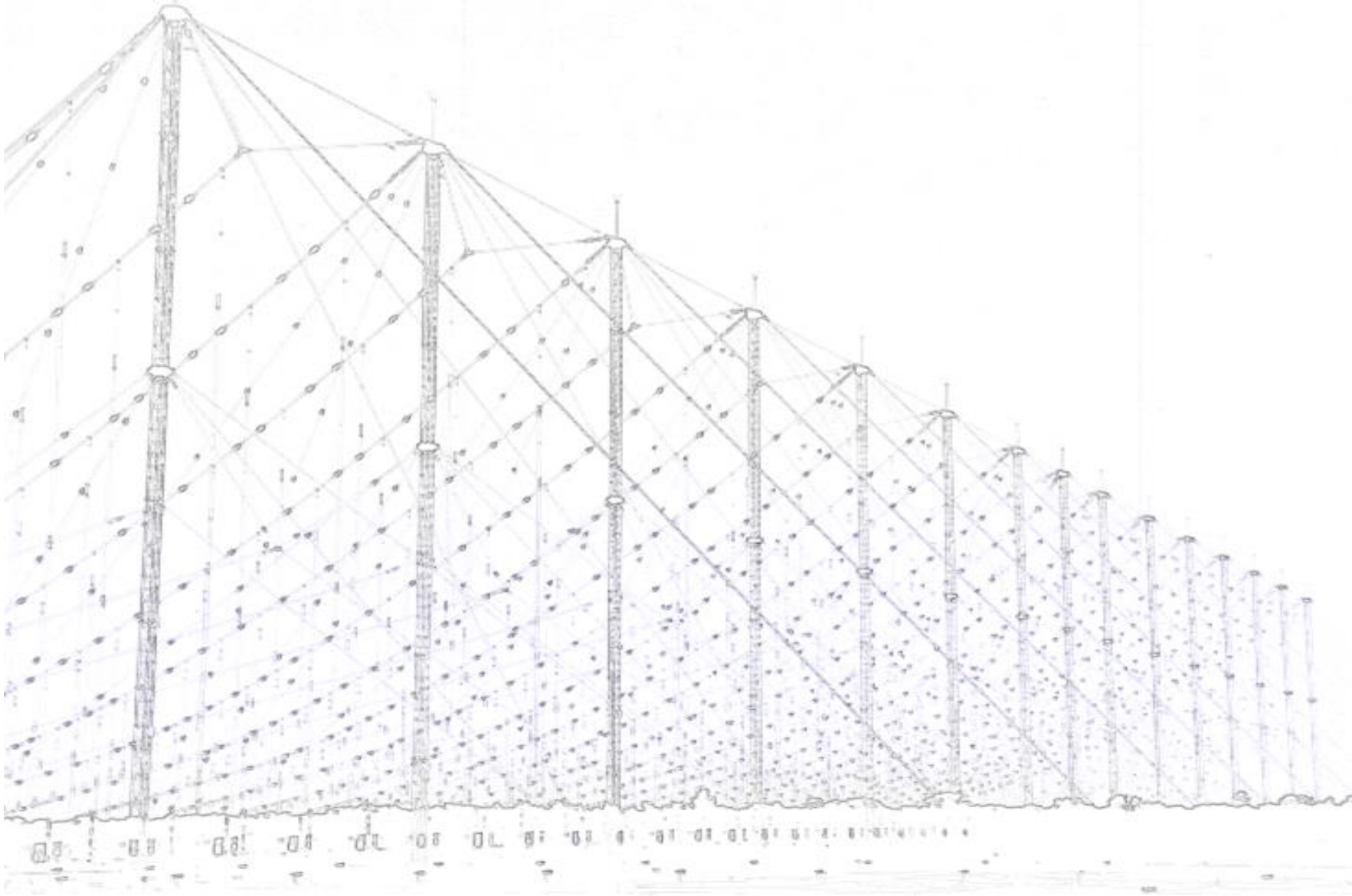




RFS MAJOR HF PROJECTS SUMMARY.



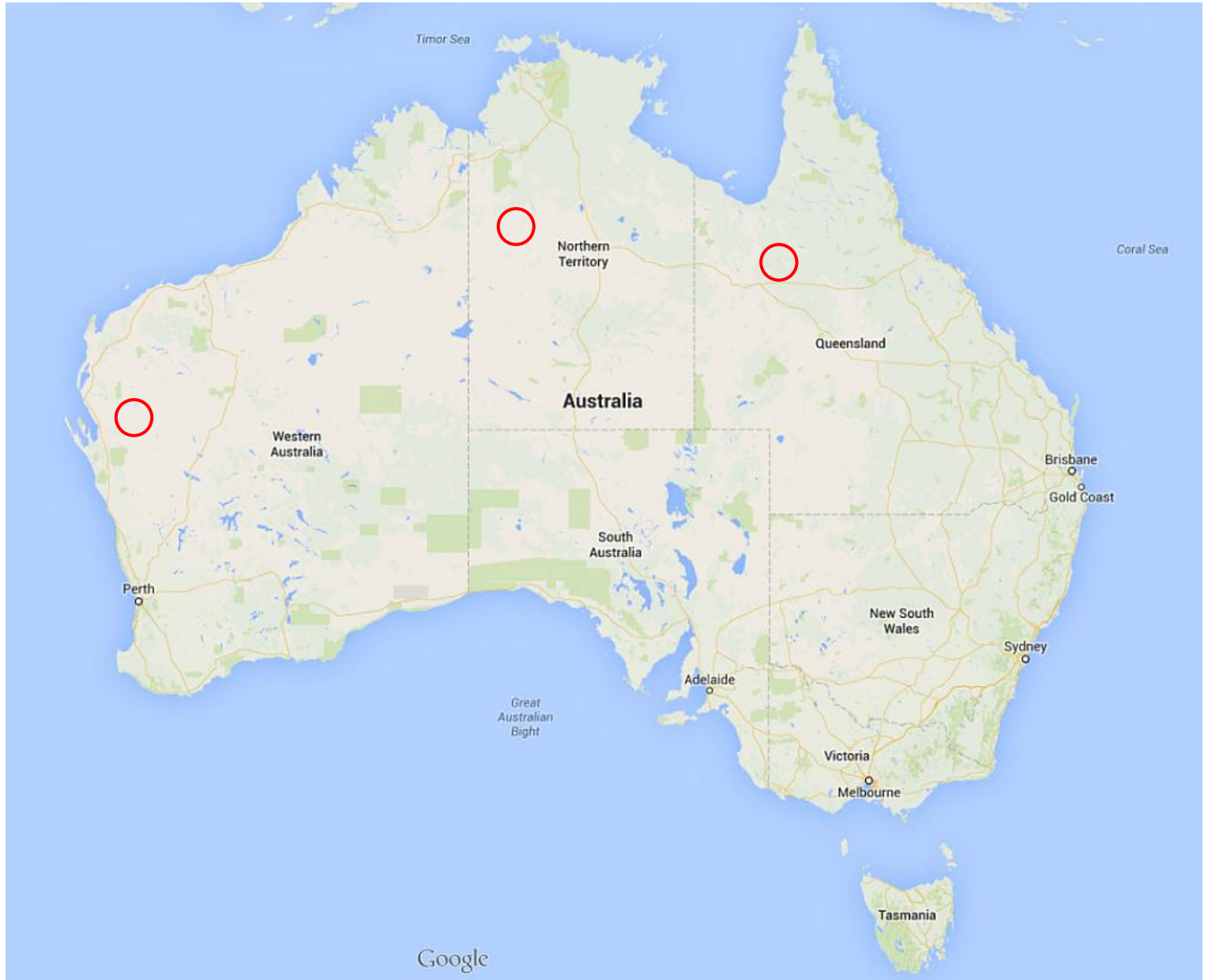
The following pages show some of the HF projects that RFS have delivered.

For these projects, RFS provided:

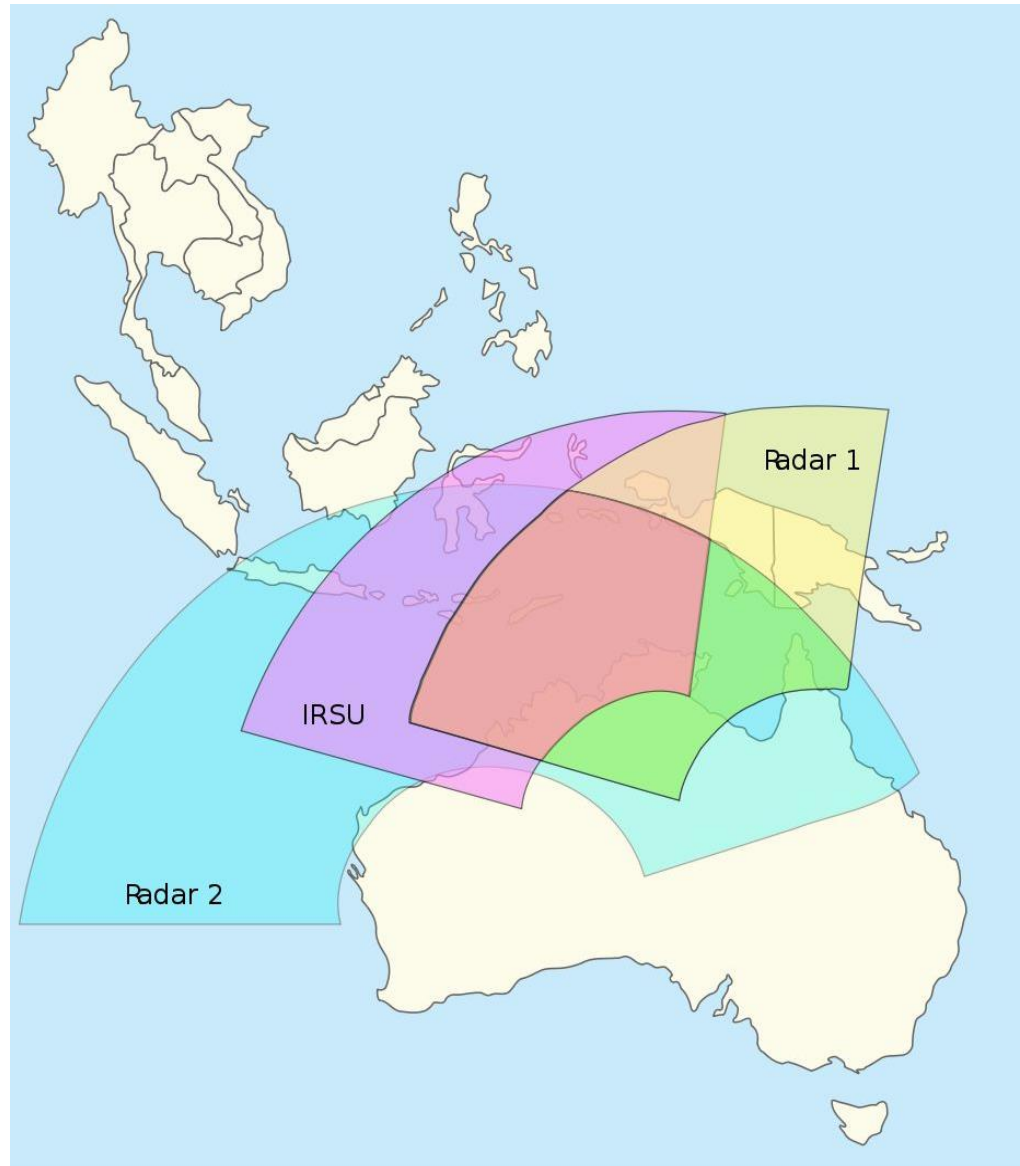
- **Product Design**
- **Product Manufacture**
- **System Design**
- **Site Layout Design**
- **Installation Works**
- **Testing and Commissioning**



JORN, Jindalee Operational Radar



JORN Jindalee Operational Radar





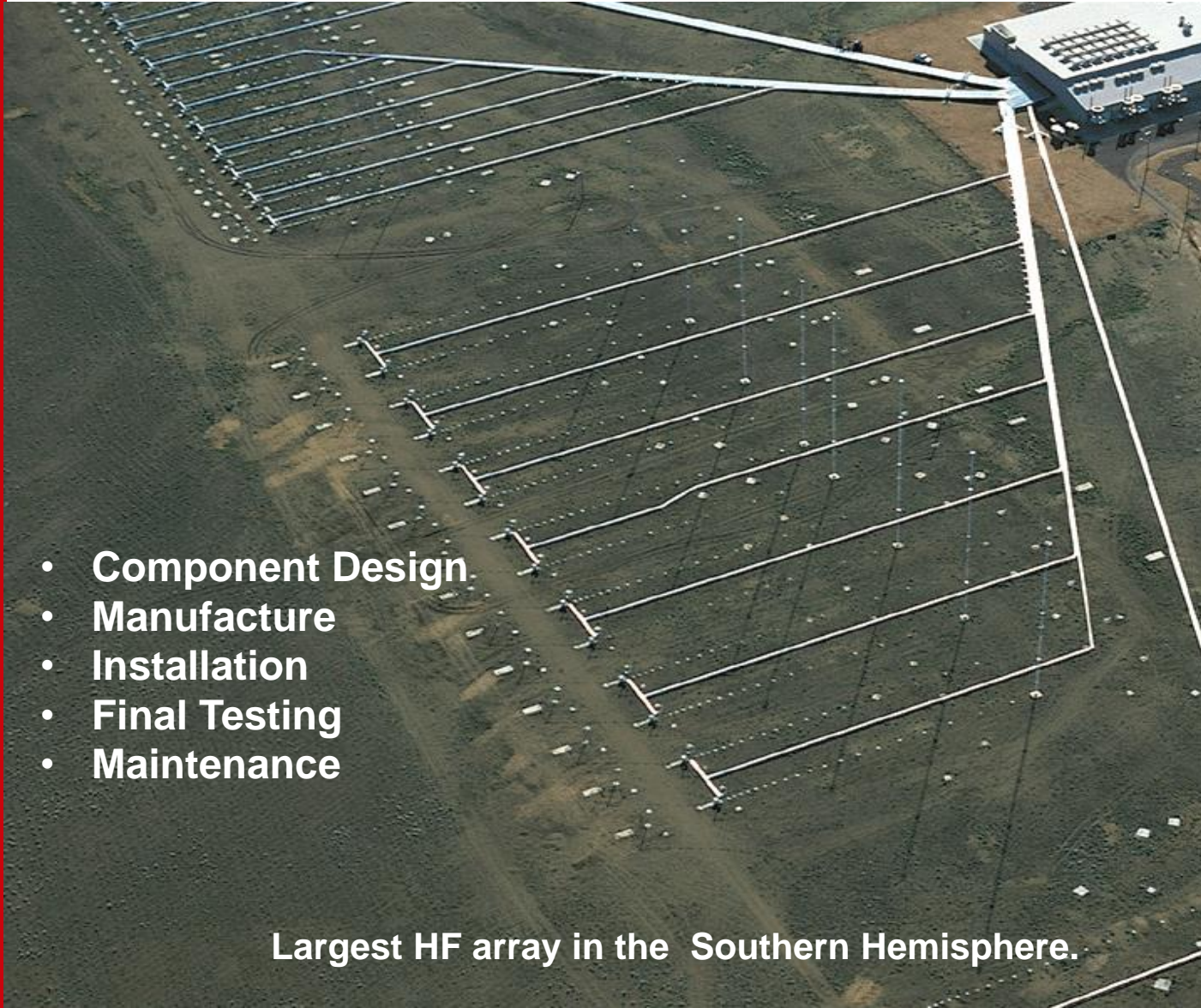
JORN, Jindalee Operational Radar

Transmit Sites: Longreach QLD & Laverton WA



JORN, Jindalee Operational Radar

Longreach QLD



- **Component Design**
- **Manufacture**
- **Installation**
- **Final Testing**
- **Maintenance**

Largest HF array in the Southern Hemisphere.



JORN, Jindalee Operational Radar

Longreach QLD

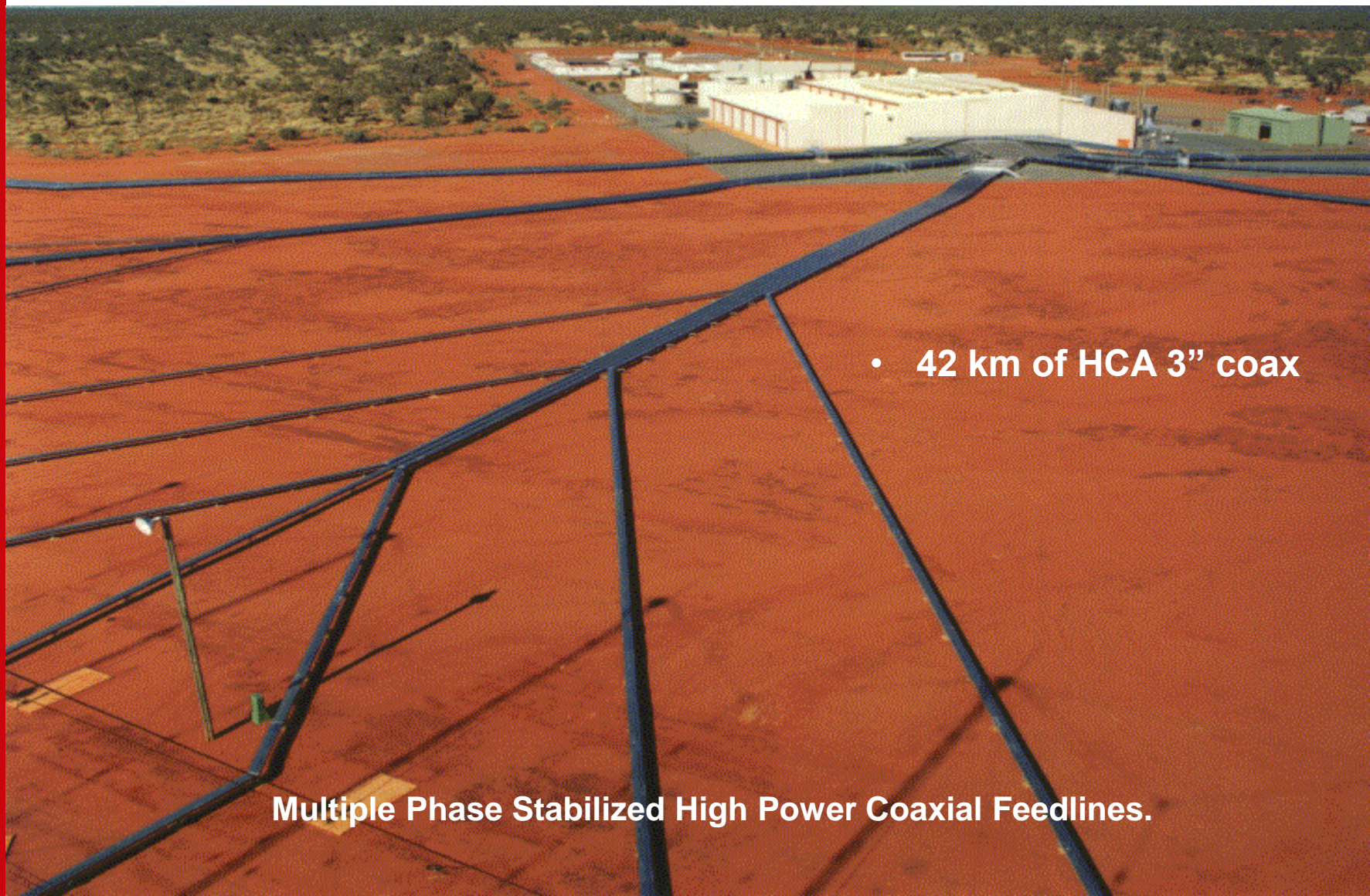


Log Periodic Antenna Arrays.



JORN, Jindalee Operational Radar

Laverton WA



- 42 km of HCA 3" coax

Multiple Phase Stabilized High Power Coaxial Feedlines.

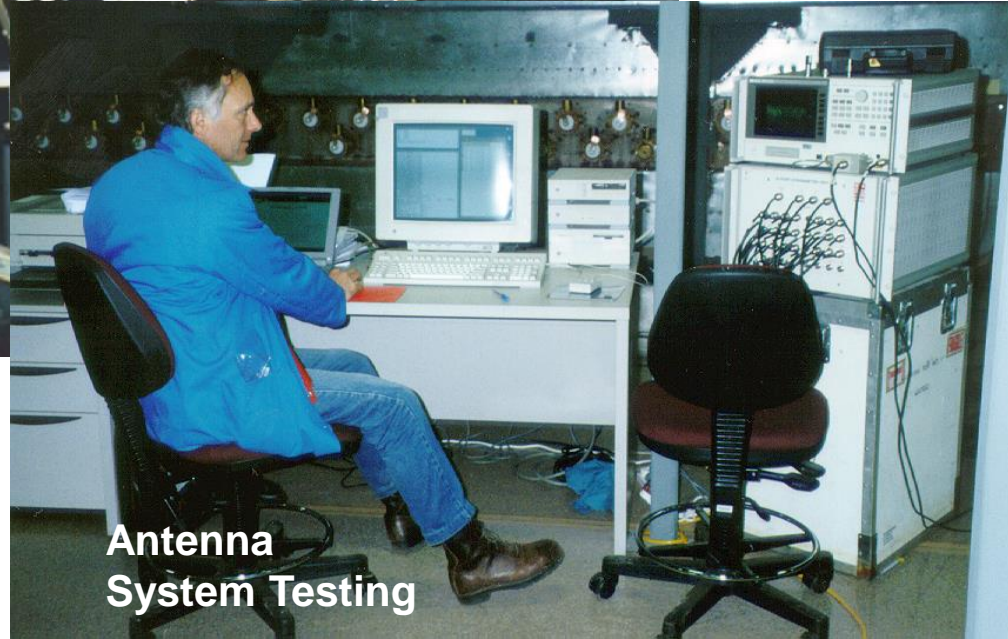
JORN, Jindalee Operational Radar



Installation of the High Power Coaxial Feedlines.



High Power RF Switches and Rigid Coaxial Feedlines.



Antenna System Testing

JORN, Jindalee Operational Radar

Laverton WA



Aerial View – Multiple high power arrays.



JORN, Jindalee Operational Radar Receive Array



Receive Array 3.3km
(2 miles) long.
3,000 monopoles



High Frequency Array

JORN, Jindalee Operational Radar



Aerial View – Receive Array, Stonehenge QLD

JORN, Jindalee Operational Radar

Double Receive Array: Laverton WA

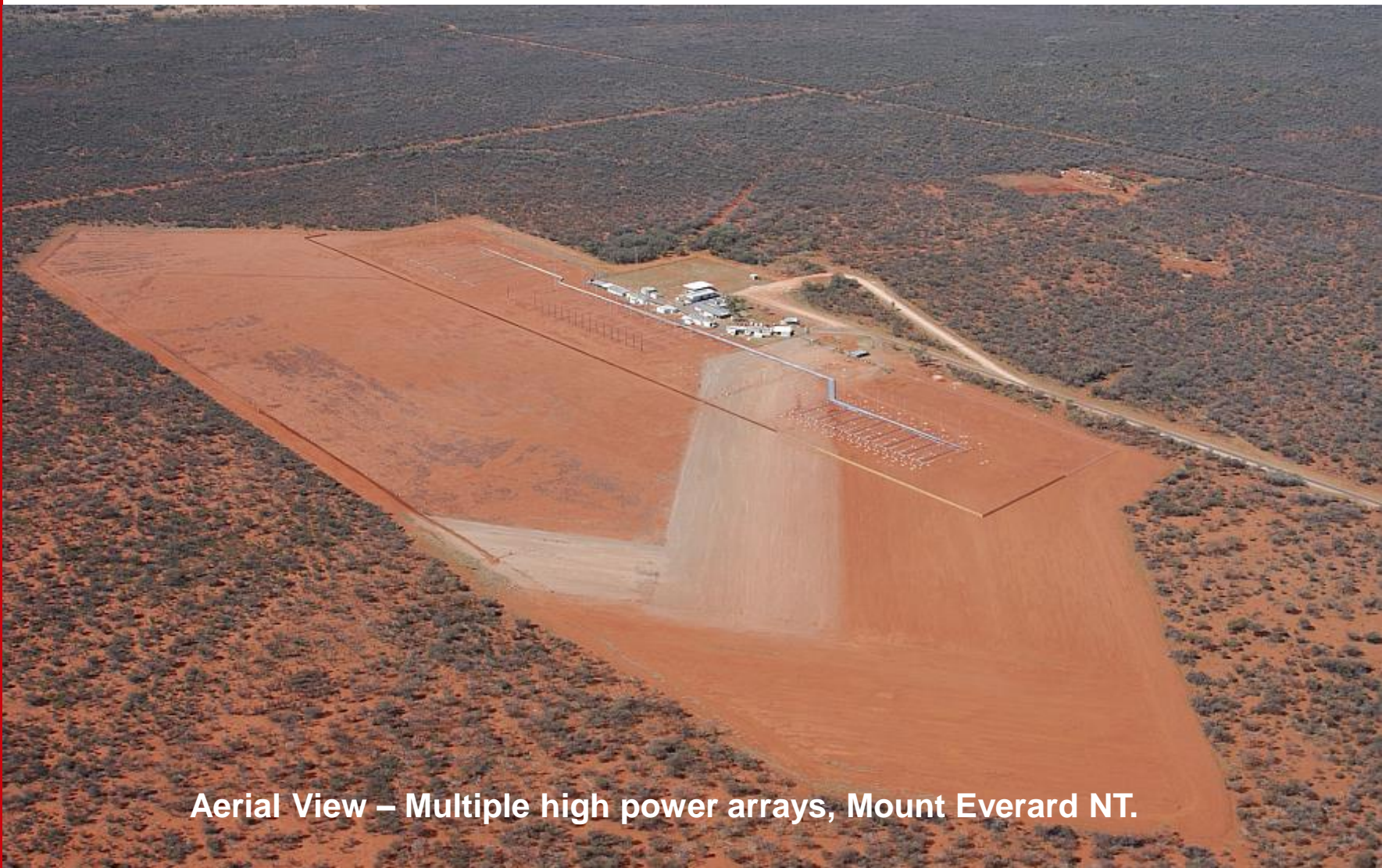


Aerial View – Multiple Receive Arrays, Laverton WA



JFAS, Jindalee Operational Radar

Transmit Site: Mount Everard NT



Aerial View – Multiple high power arrays, Mount Everard NT.



JFAS, Jindalee Operational Radar

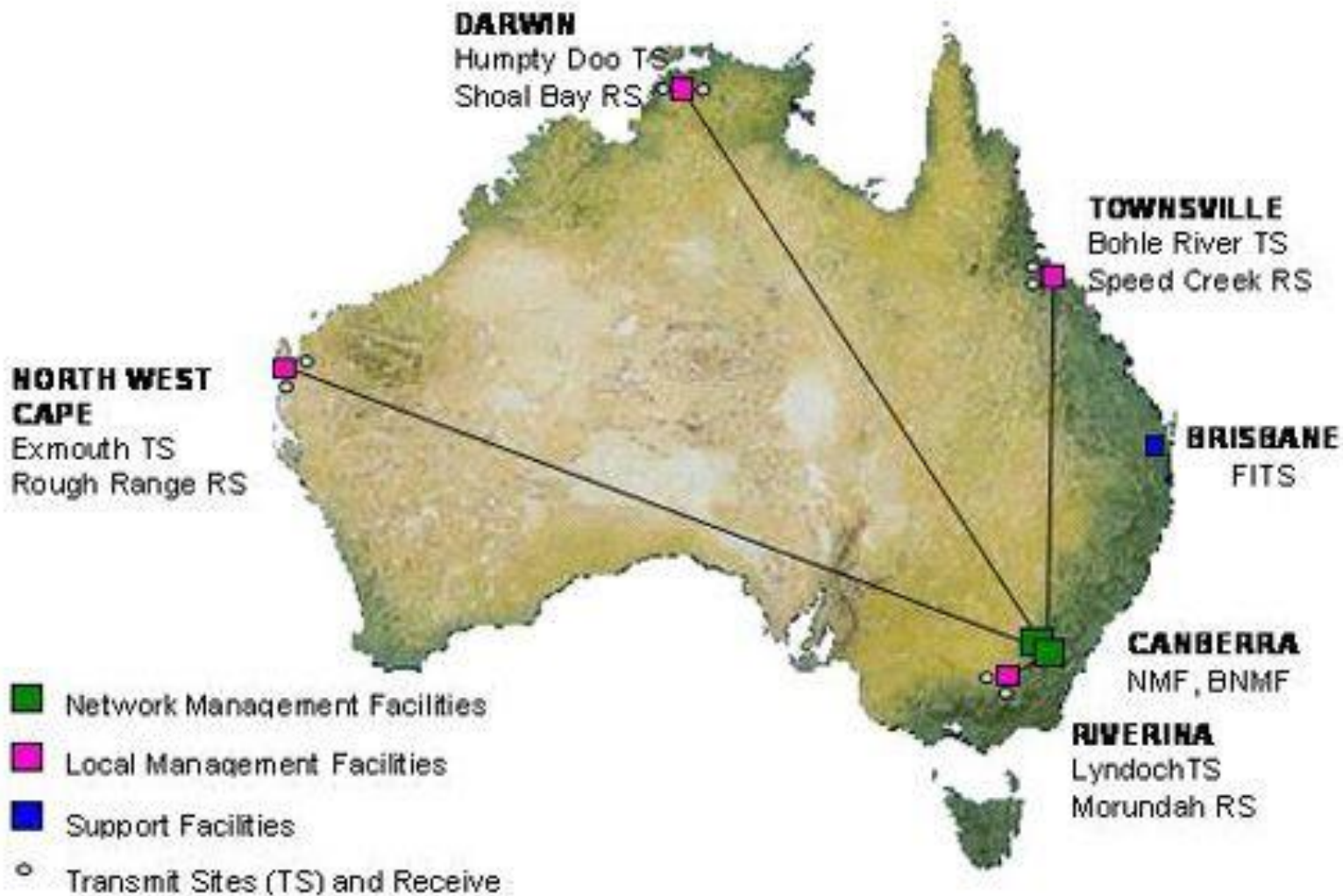
Transmit Site: Mount Everard NT



Log Periodic Antenna Array, Mount Everard NT.

HF Modernisation Project

Riverina NSW, Townsville QLD, Darwin NT, Exmouth WA



HF Modernisation Project

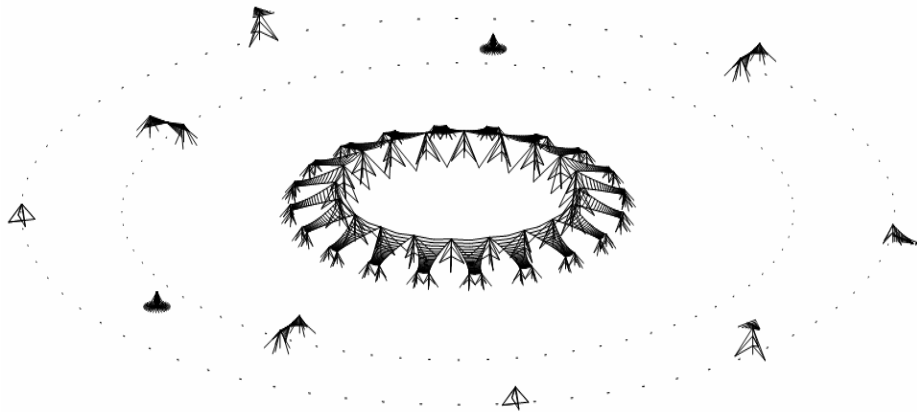
Riverina NSW, Townsville QLD, Darwin NT, Exmouth WA

- **Concept Design**
- **Component Design**
- **Manufacture**
- **Installation**
- **Final Testing**
- **Maintenance**

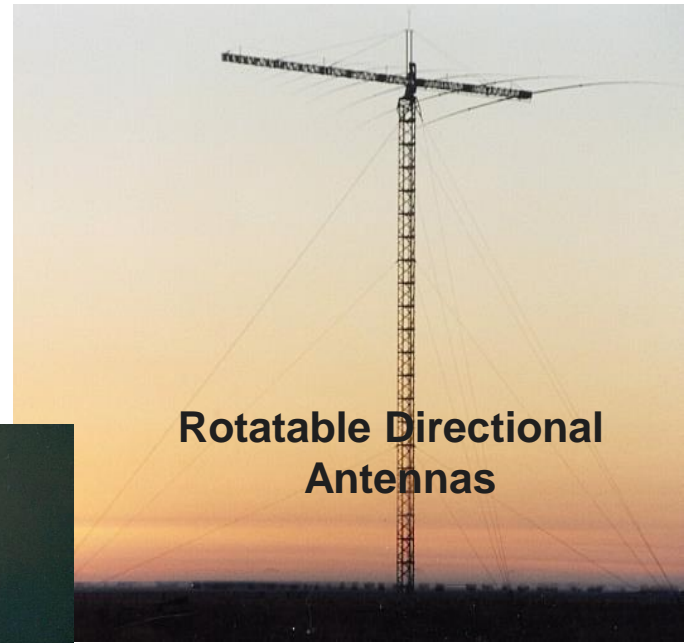
A photograph of a large HF antenna array at sunset. The sky is a mix of orange and blue, with the sun low on the horizon. The antenna structure consists of several tall, thin masts connected by a network of wires, forming a large, rectangular grid-like structure. The masts are spaced out across the field.

Eight Sites. Multiple HF antennas at each site.

HF Modernisation Project



Site Layout Design



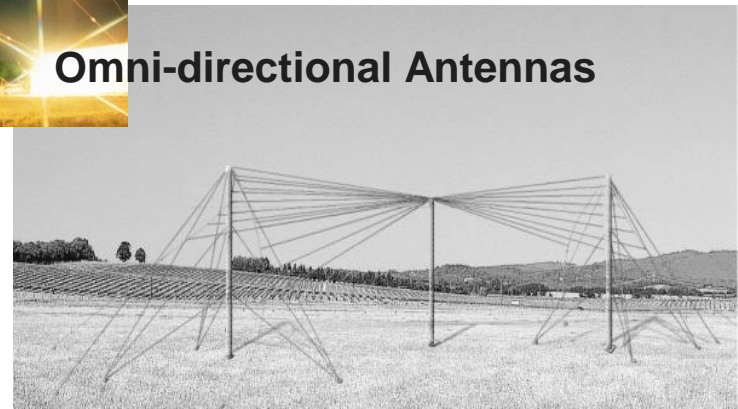
Rotatable Directional Antennas



Omni-directional Antennas

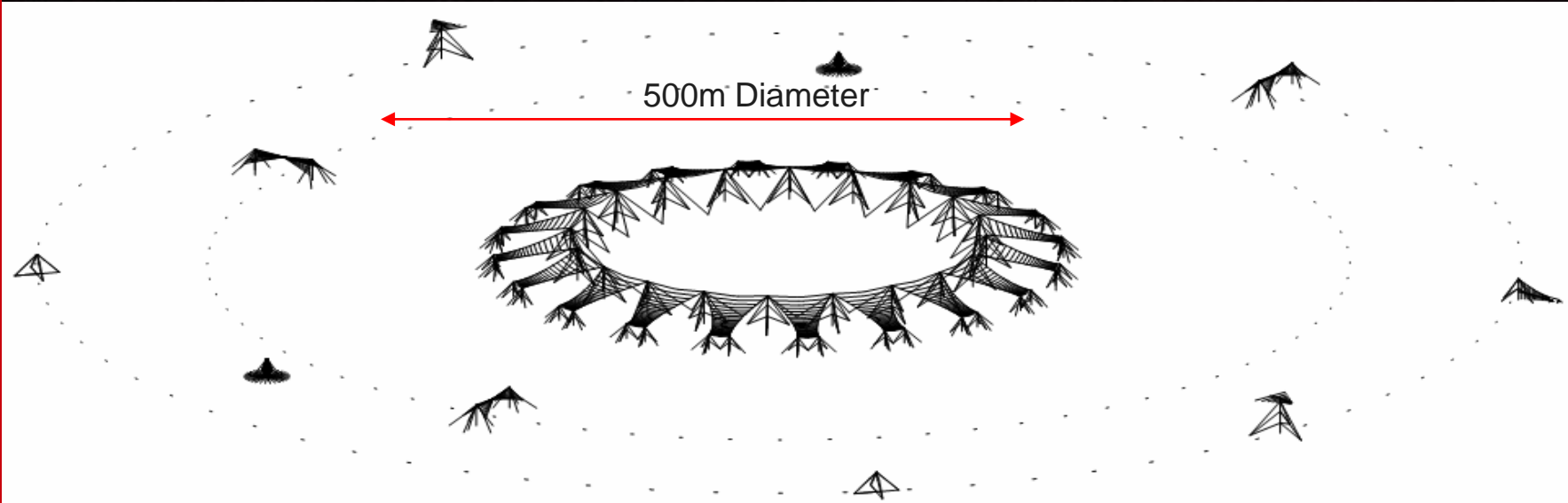


Directional Antennas,
fixed bearing



HF Modernisation Project

Riverina NSW



HF Modernisation Project

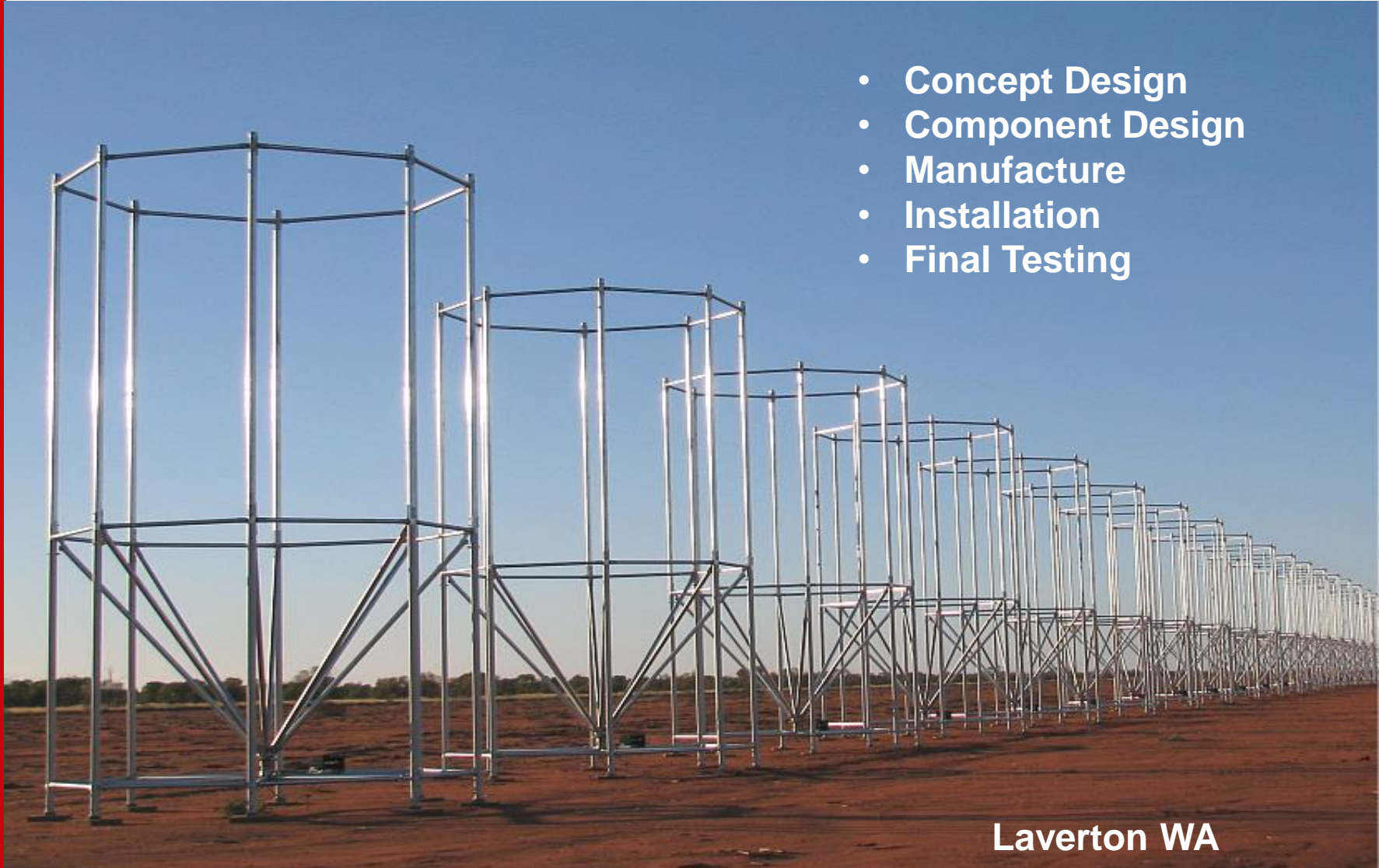


**500m Diameter
20 LPDAs**

Circular Array of 20 Directional Antennas

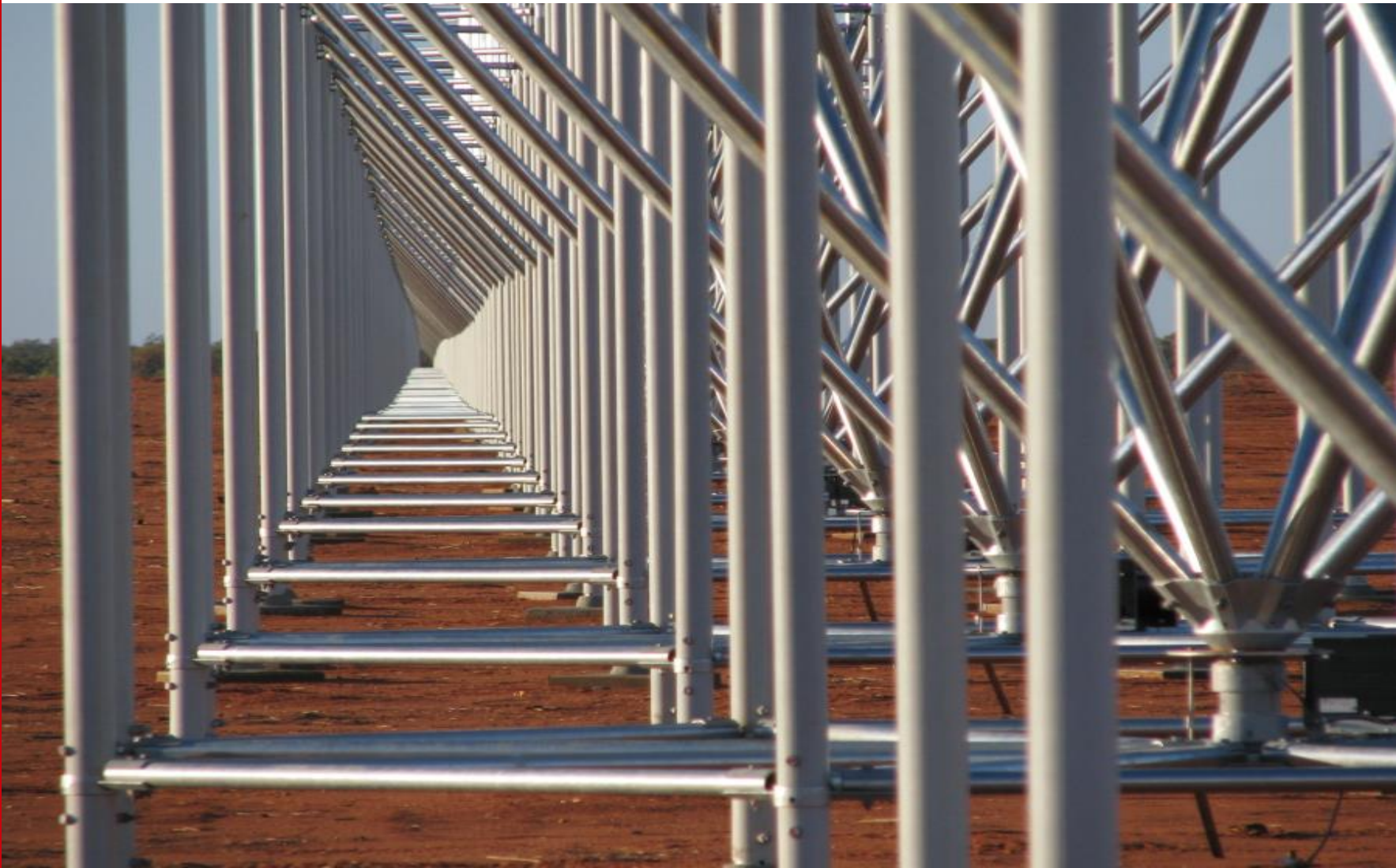
Advanced OTHR Transmit Array

- Concept Design
- Component Design
- Manufacture
- Installation
- Final Testing



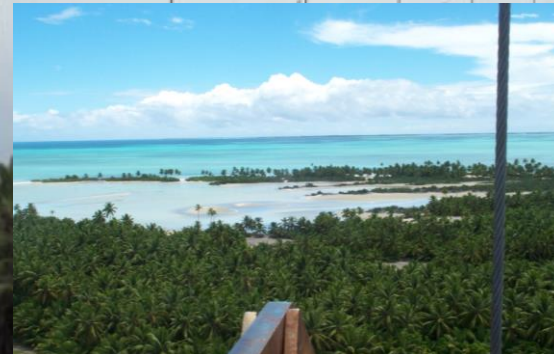
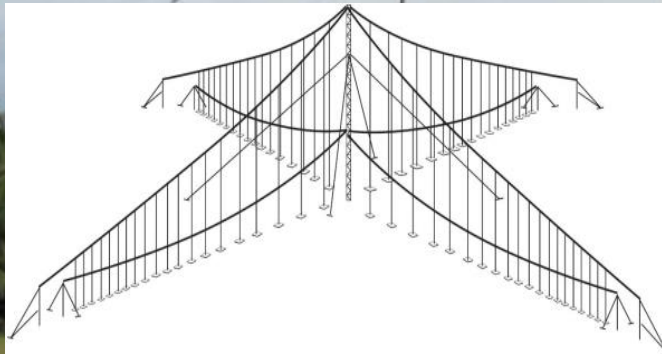
Laverton WA

Advanced OTHR Transmit Array



Harsh Site Project

- Design for Harsh Site Conditions
- Concept Design
- Component Design
- Manufacture
- Installation
- Final Testing





THANK YOU

Leading your network evolution to 5G

