How did you arrive today?

> Mobile mapping application?

> Ride sharing service?

> QF713 Canberra to Adelaide?
Mission

We exist to **enable** Australia to **progress and thrive** by providing the **infrastructure for better positioning technology**.

This will **enhance accuracy and reliability** for Australia, allow **potential for innovative technologies** across industries and **accelerate economic growth**.
Foundation Program

... to develop and maintain the Australian Geospatial Reference System
Our Capabilities
Our New Program

In the 2018-19 Australian Federal Budget $225 million was allocated to improve satellite positioning in Australia.

> $161 million for better GPS in regional Australia (Satellite Based Augmentation System).

> $64 million for better GPS for Australian industries (National Positioning Infrastructure Capability).
Satellite Based Augmentation
SBAS Deliverables

- L1 SBAS (GPS only).
- DFMC SBAS (L1/L5 GPS and E1/E5a GAL).
- PPP (precise satellite clocks and orbits = 10 cm service).
The SBAS test-bed ran for two years and assessed 45 applications through 27 projects across 10 industry sectors to determine the economic benefit of SBAS technology to Australia and NZ.
INCREASE OF 1866 SUCCESSFULLY COMPLETED

medical helicopter rescue missions in remote locations
SBAS Economic Benefits

PREVENT 2000 SERIOUS INJURIES AND 23 FATALITIES
using Collision Avoidance Systems
SBAS Economic Benefits

INCREASED VESSEL CAPACITY OF 1375 DAYS

for port operations
SBAS Economic Benefits
National Positioning Infrastructure
NPIC Deliverables

- 200 station highly reliable GNSS reference station network.
- Public access to public / private real-time data streams.
- Open software to support GNSS analysis.
- Scalable data centre to support 100,000’s of users.
NPIC Deliverables

- Field Enclosure
- GNSS Antenna
- Meteorological Sensor
- Telemetry
- Power

(BMAN00AUS) Blinman, South Australia
Open Source Software

Network Platform

User Platform

Combination Platform
South Australia
Collaboration with SA

Collaborative Project Agreement signed between Geoscience Australia and the SA Department of Planning, Transport and Infrastructure (November 2018).

Sites currently under negotiation
> Waikerie, Kangaroo Island, Oak Valley, Kingston, Yunta.

Sites being scoped
> Inamincka, Oodnadatta, Strezlecki Track, Birdsville Track, Gelndambo, APY Lands.
Questions

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GNSS Positioning

DIFFERENT APPLICATIONS DEMAND DIFFERENT LEVELS OF ACCURACY

STANDARD SATELLITE POSITIONING

5 METRES ACCURACY
GNSS Positioning
Satellite Based Augmentation
High Precision Augmentation