ADB SAFEGATE
Case Study: AGL Systems in Modern Airfield Projects

Daniel Anile
AGL Systems in Modern Airfield Projects

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Project Overview – Brisbane New Parallel Runway

- **2.2 years** to construct
- **90 employees**
- **July 2020** first landing
- **3.3km** runway
- **12km** taxiways
- **60%** airfield systems
- **40%** civil construction
Project Overview – Brisbane New Parallel Runway

New Runway was constructed on **reclaimed land**

Majority of site consisted of **sand** dredged from Moreton Bay

Over 3 years of settlement before construction commenced
Scope – Airfield Systems

Design, supply, installation and commissioning of a fully integrated *Intelligent Airfield Lighting System*

- CAT-I System
- ALCMS
- ILCMS
- Follow the Green
- INTAS
- RVR
- Runway Incursion
Scope – Airfield Systems
Design, supply, installation and commissioning in-house of all airfield lighting electrical systems and visual aids

- Full LED
- ALER
- IT Network
- CCR’s
- Approach
- MAGS / PAPI / IWI
- Cabling
Scope – Civil Infrastructure

Supply and installation *in-house* of all civil infrastructure for the lighting electrical systems and visual aids

- 18km Conduit System
- 244 Pits
- 3km Duct Banks
- 46km Under Pave
- 2000 Multipiece Can
- Foundations
- Survey
Key Risks & Challenges – Airfield Systems

### Challenges

- **Highly technical system delivery**
  - Intelligent system with Follow the Green future enabled
- **Integration** to multiple system
  - INTAS, Weather, BMS, Communications
- **Coordination** of numerous competing stakeholders
  - BAC, ASA, CASA Skyways, IT, ATC, Consultants, BoM

### Solutions

- **Systems designed** to deliver Follow the Green
- **Long history delivering** fully integrated systems
- **Partnerships and previous experience** with all stakeholders
- **Local design capabilities by specialist team**
  - In-house development and local systems implementation
  - Proven engagement processes that address key risks
Key Risks & Challenges – Civil Infrastructure

**Challenges**

- Majority of site sand base – unstable ground conditions
- High tidal water table across the entire site
- Construction to follow future pavement gradients

**Solutions**

- Development of new construction techniques
- Implementation of unique water management systems
- Robust survey control processes & quality systems
Brisbane Airport – New Parallel Runway
Brisbane Airport – New Parallel Runway
Thank you for your attention