

# Defence & Aerospace QLD

**Development of a State Strategy to  
support the Aerospace Industry**

# Welcome to QLD



**...but perhaps there is a little more than meets the eye**

# Topics

- QLD in aviation- 1920 to now, why is aviation still important to us
- Why Update QLD Aerospace Strategy?
- Areas of Interest
- Industry feedback – key areas
- What needs to be done
- Next steps

# QLD Has a History in Aviation

- 1920 - Qantas founded in Winton, Queensland
- 1927 - First apprentice in 1927
- 1929 - The airline moved its headquarters to Brisbane. Qantas had just completed its first one million miles (1,600,000km) and had carried 10,400 passengers.
- 1934 - Qantas Empire Airways Limited was registered in Brisbane
- 2012 - Relocated its Australian Heavy Maintenance facilities to Brisbane

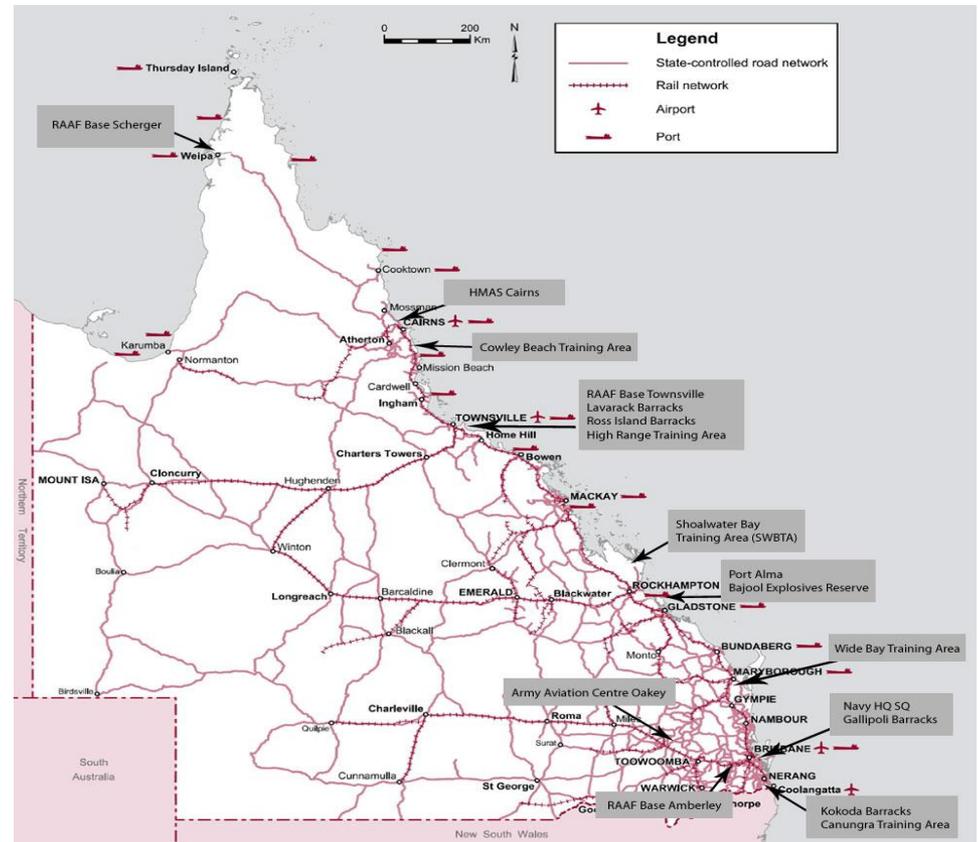
*"We were convinced of the important part aircraft would eventually play in transporting mail, passengers and freight over the sparsely populated and practically roadless areas of western and northern Queensland and North Australia."*

Lt W.H Fysh

**Tyranny of distance and sparsity still governs QLD aerospace, and new technology focus**

# Major Defence bases – QLD a Strategic Partner

- **Amberley 2000-2005 – mainly one fleet:**
  - ~24-30 F-111, some attrition and training airframes
  - 707 Tanker Mods
  - MRO
  - <3000 people
- **2018-2025 - over 70 aircraft in 6 fleets, many new capabilities:**
  - 24 Superhornet
  - 12 Growler
  - 8 KC-30 (possibly 10)
  - 8 C-17
  - 10 C-27
  - 12 C-130J
  - E-7 MRO
  - Logistics warehousing
  - Army Units 17 CS, Land 121 training and storage
  - >7250 people
- **CAPEX**
  - ~\$1bn through 2023 starting now
  - Everything is bigger – hangars, fuel farms, maintenance
  - Infrastructure critical



**Amberley, Townsville, Oakey key aviation sites**  
**Mobility, Strike, EW, Tankers, Rotary Wing**

# QLD Companies Supporting Defence

- **Combination of global leaders and SMEs:**
  - Boeing, Cubic, Insitu, Harris, Elbit, Airbus Military, Toll Remote Logistics – regional HQs
  - Thales, Raytheon, Harris, GE, NG, Volvo - major sites
  - Ferra, NIOA, Craig Ballistics, Microe, Flying Colours, etc, - Macro SME's
- **FY15-16 - \$3.84bn defence contract awards to QLD registered companies:**
  - Excludes orders placed in interstate HQ but executed in QLD (Thales, BAES)
  - Excludes anything below \$10K
  - Excludes Defence Housing
- **Orders placed across spectrum of defence supply, but leans towards Aerospace and Land Systems**

# Why an Update to State Aerospace Strategy?

- **Almost a decade since it was last addressed**
- **Aircraft manufacturing and maintenance provides 4500 jobs across 344 companies**
- **\$1.3Bn revenue in FY14-15**
- **QLD is home to over 30% of Australian Aerospace Manufacturing repair services** - IBIS World 2015 Aircraft Manufacturing and Repairs Services reports
- **Grow high value, highly skilled design, engineering, systems integration, manufacturing capabilities**
- **Strategy needs to be industry driven**
- **Part of \$405m Accelerating Advance QLD initiative**

**What Should a State do/not do, and when?**

# Areas of interest - 2025

- **Manufacturing – defence global supply chains, JSF**
- **Niche MRO - defence, civil**
- **Repair and overhaul – engines, power systems, props**
- **Training – vocational, pilot, RPA**
- **Space – ground terminals and associated systems**
- **Emerging Technologies aligned with dual use needs:**
  - **Hypersonics**
  - **RPA**
  - **Robotics and trusted autonomous systems**
  - **Microelectronics**
  - **Wearable and other new repair technologies**
  - **Additive manufacturing**
  - **Data analysis and management in MRO space**
  - **New materials and structures MRO**
- **Export opportunities leveraged through Advance QLD funding**
- **Leverage new Defence Innovation Fund and Next Gen Technology fund**

# Changing market conditions

- **30k new regional airframes by 2030 plus infrastructure**
- **Higher maintenance costs of older planes offset by enduring low fuel costs**
- **Fleets may not be turned over as often**
- **Mods and upgrades likely, ageing aircraft regimes needed**
- **Regional growth in skills, experience, facilities not matching supply**
- **Regional salaries rise in line with new middle class expectations**
- **FOREX in Australia's favour against USD**
- **Large airlines get the most attention from global MRO's**
- **Estimated 30% shortfall in maintenance capacity by 2025**
- **Opens opportunities for qualified and experienced niche players for customers needing a trusted place/people**
- **Helicopter market remains important – engines, training, resources sector**
- **RPA application development rapidly increasing, technology churn <12 months**

# Competition is global

- **State actors and subsidies prevail**
- **Rise of Singapore MRO hub**
- **Emergence of Mexico as a manufacturer**
- **Revitalisation of UK Aerospace through Aerospace Growth Partnership**
- **Heavy national investments in Japan, Italy, Turkey, UK in JSF**

# What has industry said to us?

- **Regulatory**
  - Framework complexity and cost
  - Export means being compliant with each companies regulatory regime – closer the alignment, the better
  - Regulatory change needs to keep pace with technology
  - Relationships improving
- **Facilitation**
  - Help industry identify real regional shortfall opportunities – training and MRO
  - Labour supply must match demand
  - What is civil and military demand, really?
  - Growing experience base essential but needs hand on work
  - Improve skills development, STEM through to hand skills
  - Closer collaboration with defence and industry practitioners to finalise demand data
- **Communications and Engagement**
  - Limited regional and global exposure of QLD industry capabilities
  - Exposure cost is high for many companies
  - QLD should be a desirable MRO destination, more than just the hangar
  - Facilitated access to global supply chains across a broader civil/defence market
  - Leverage national buying power to gain market entry

# Innovation and Opportunity to 2025

- **Opportunities**
  - What does the BNE second runway mean for MRO?
  - Under consideration by BAC
  - New industry sectors, e.g. fractional business jet ownership
  - Aging civil and military fleets
  - Cabin fit outs
  
- **Innovation in:**
  - Hypersonics
  - RPA
  - Manufacture and repair of advanced materials
  - Additive manufacturing

# Next Steps

- **More work need on defence demand and Jobs QLD to refine forecasts of skills demand and supply**
- **Finalise aerospace strategy paper for review by industry leaders**
- **Frame recommendations to government based on priority industry needs**
- **Submission to government approval process by end Q3**
- **Work with new CDIC to identify opportunities for co-funding in defence innovation space – bring ideas**