Deloitte.

Northern Territory Aviation Academy Report

July 2020

ISACNT
INDUSTRY SKILLS ADVISORY COUNCIL NT

Proudly sponsored by
NORTHERN TERRITORY GOVERNMENT

Introduction

This report summarises findings from Deloitte's pre-feasibility study for an aviation training academy in the Northern Territory (NT) in 2019, and presents a scalable approach to the establishment of an academy in the NT. The academy offers a strategic approach to harnessing the Territory's unique advantages, and to capitalise on the global aerospace industry.

Deloitte has worked with the Industry Skills Advisory Council Northern Territory (ISACNT), and engaged across the aerospace industry, to establish an industry-led approach to advanced trade skilling and aerospace growth in the NT. Interest and commitment to development of the industry from a range of stakeholders has grown during the course of the engagement commencing in mid-2019.

Aerospace skilling in the NT

The Northern Territory has a pipeline for and is already delivering aviation training to a Certificate III level. There is demand for more advanced training courses to be offered locally. COVID-19 has accelerated the focus and need for training to be more localised. Additionally, growth in related industries will support expanded education and training for the NT.

An aviation training academy in the NT will provide **local, national and international workforce solutions** across the aerospace industry, as well as offering in-demand advanced skills training solutions in the NT. Due to geographical positioning and established supply relationships, the NT has an opportunity to engage closely with Asian markets, to help meet Asia's high demand for skills. A new approach to advanced trade skilling in the NT will enable the implementation of novel technologies and flexible approaches to learning, to meet the evolving training needs of industry.

The work informing this report occurred prior to the 2019 coronavirus pandemic. This event has had significant social and economic impacts across the globe, across Australia and in the NT. Social policy and economic activity associated with the pandemic have directly and indirectly impacted trends in several industries, including the aviation industry which has experienced an immediate downturn globally, nationally and locally. It is anticipated that medium term trends in aviation will also be impacted.

Strategic alignment

An aviation training academy in the NT closely aligns to the NT Economic Development Framework (EDF), with several of the Territory's comparative advantages leveraged by the aerospace industry.

The Territory's proximity to Asia; cultural diversity; and space to grow, all strengthen the case for investment in training targeting the needs of Asian markets, such as aerospace skill development.

The aerospace industry is a significant contributor to the Territory's growth sectors for the NT: agribusiness; tourism; energy and minerals; international education and training; and Defence.

A training academy acts to enable private investment in the Territory, and grow the Territory's skilled population, both key principles driving the economic strategy for the NT.

[...] have an immediate need for at least 5 additional full time engineers to keep up with current demand on the smaller aircraft (before any expansion plans).

[...] are looking to increase the number of licensed engineers they currently have to manage their maintenance requirements.

Expansion for [...] would require sourcing additional staff, both pilots and engineers.

In 2018, 35 students training in Darwin had to re-sit their exam, compounding existing travel cost for training interstate

The Aerospace industry

Aerospace encompasses the division of technology and industry concerned with both aviation and space flight. It includes all applicable technologies and fundamental support systems required for the lifecycle (from development to maintenance) of flight vehicles and correspondent ground systems.[1]

In the context of this report, the aviation industry is defined as:

- Airline Operations
- General Aviation
- Aviation Support Services
- Remote Pilot Services
- Defence
- Aircraft
- Space

The aerospace industry is experiencing a period of momentous growth, with Australia well placed to capitalise on this, through proven capabilities in aviation sustainment; a reputation for delivering quality and leading standards in training and education; and strong performance in innovation.

Growth in the industry is being driven by the commercial aerospace sector; sustainment needs; workforce training requirements; Defence budgets; environmental sustainability efforts; and the emergence of technologies.

Industry value

The aerospace industry represents high value.

Industry	Approximate value	Projected value in 2030
Global Space	US $345 Billion[1] in 2016	US $1 Trillion[2]
Australian Space	AU $4 Billion[2] in 2016	AU $12 Billion[2]
Australian Aviation	AU $43 Billion in 2017[3]	

1 Australian Government Department of Industry Innovation and Science, Global Space Industry Dynamics

2 Department of Trade, Business and Innovation, 2019, Territory Space Industry 2020

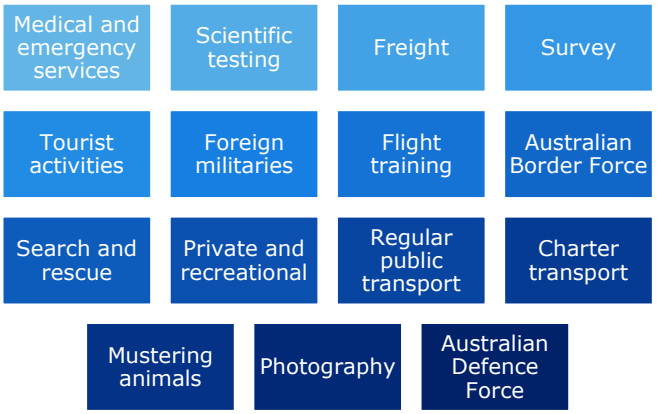
3 Australian Industry Standards, 2018, Aviation industry

The NT aerospace industry

The NT aerospace industry has established capability across four key domains.

The aviation industry supports 967 direct jobs for the NT covering commercial and helicopter pilots, engineers and air traffic controllers, according to the ISACNT aviation industry study conducted in 2018.

Key aviation activities in the NT currently support:



Growth prospects

The upcoming investment in and consequential growth from key industry activities will provide further demand and support scale for aviation training. This prospect comes from the following:

- **Defence investment** in platforms and capability
- Development of an **NT space sector**
- **International** aviation training
- **New technology** such as remotely piloted aircraft systems
- **Civil aviation demand** from onshore and offshore, oil and gas and mining
- Aviation **tourism** across Australia
- **Aircraft maintenance** during COVID-19 reduced aviation activity

Skilled workforce demand

Over the next two decades to 2038, Boeing has forecast[2] the market value of the global aviation will grow by:

[1] Deloitte, 2018, NT Aerospace sustainment industry 10-year roadmap discussion paper.

[2] https://www.boeing.com/resources/boeingdotcom/commercial/market/pilot-technician-services/assets/downloads/2019_pto_infographic.pdf

4.1%	US $9.1 B	2.4 m employees

In the same period, in the Asia-Pacific region alone, it is predicted the aviation industry will grow by:

5.1%	859,000 employees

In addition to global demand, Australia's aging aviation workforce is exacerbating demand for skilled workers in the sector.

Workforce capability in Australia

A skilled and available workforce is a critical component for continued economic prosperity and is a key challenge in northern Australia where worker shortages, high wage costs and unique labour market conditions occur. This is further intensified by changing industry conditions such as the widespread adoption of technology and automation.

Australia has a nationally recognised and accredited Vocational Educational Training (VET) system which broadly meets the workforce training needs of industries.[3] While it is a critical lever in workplace skilling, opportunities exist to enhance the flexibility of workforce training, to better meet the frequently adapting needs of industry. For example, accreditation timeframes for VET courses average six months[4], and reaccreditation is required with any significant change to an established course.

Approaches to workforce skilling that deliver ongoing education and training, work-based training, innovative and flexibility training are recognised to enhance workforce productivity and should be the goal of future training systems.

Technology

The evolving nature of technology means that training must be adaptive and evolve to address changing technologies. With continuous technology advances, ensuring trainers maintain current industry knowledge is also an important consideration in training approaches.

New technologies such as virtual and augmented reality also offer the potential to enhance training outcomes, through safe, immersive and engaging training experiences.

Integrated learning

Integration between training providers and industry provide a mechanism for industry to source capable and skilled labour while supporting students to develop workforce capabilities early in their career.

Examples in Australia include:

The Cairns Aviation Skill Centre (CASC) has an industry board and is facilitated through Aviation Australia (AA). Training involves students undertaking a year of intensive theory with the Registered Training Organisation (RTO), and then three years of practical placement in the aviation industry.

The Williamtown Aerospace Centre, bordering Newcastle airport and RAAF Base Williamtown. Operating as an aviation hub, brings together tertiary institutions and global aerospace companies where practical training and education are intertwined.

Training in the NT

Aerospace training in the NT is currently limited, delivered predominantly through interstate training providers. In 2019 aerospace training offerings delivered in the NT included the:

- Certificate II in aircraft line maintenance delivered by Aviation Australia.
- Cert III in Aviation (ground operations and services) delivered by KRTS training; and
- Remotely Piloted Aircraft: Learning to fly and survey unit, delivered by Charles Darwin University.

Currently aviation training above Cert III is delivered outside of the NT, requiring Territory students to travel to complete their study, and establishing a critical gap in aviation training in the NT. Notably there is interest from RTOs to deliver aviation training in the NT.

NT market demand

Deloitte has consulted broadly across the Defence, aerospace and associated sustainment industries in the NT and key interstate markets, to understand the current and expected future advance trade skilling needs of industry.

Market demand for an aviation training academy in the NT to deliver training for licensed aircraft maintenance engineers (LAME) as well as pilots, was confirmed during consultations.

[3] Australian Skills Quality Authority, Accreditation with ASQA, Australian Government, https://www.asqa.gov.au/course-accreditation/accreditation-asqa

[4] Australian Skills Quality Authority, Service Standards, Australian Government, https://www.asqa.gov.au/about/accountability-and-reporting/service-standards

Market demand is further evidenced by the Territory's training pipeline, including 76 students undertaking a Certificate II aircraft line maintenance in 2020, 48 aero-skills apprentices for the NT in 2019, and Defence demand for 26 aero-trades and specialist positions, building from 2023.

In addition, maintenance and repair opportunities are projected to grow in the NT, with investment in the Asia Pacific Aircraft Storage in Alice Springs. This coupled with interest from Government and industry to deliver targeted training to the Territory's Indigenous and international student populations builds demand for an academy.

Importantly industry stakeholders noted the need for a collaborative approach to establishing aviation training in the NT, to ensure adequate scale and a sustainable framework supports the investment. The value of close relationships and collaboration between training providers and industry is confirmed by existing industry training models in Australia.

The collaborative approach to the establishment and implementation of the Cert II in aircraft line maintenance, delivered in partnership between Air North, Careflight, Aviation Australia and the NT Government, is a replicable model that has generated interest amongst industry stakeholders.

Aviation skilling needs in the NT

A substantive demand for investment in aerospace skilling in the NT and anticipated strong return from investment was established through industry engagement. The market engagement confirmed:

1. Demand exists for investment in aerospace industry advanced trade training in the NT
2. Businesses can not currently fulfil their workforce skill requirements and are reliant on FIFO workers.
3. Demand for trainers is high, and digital training delivery solutions will be necessary to address this gap.
4. Investment (both public and private) in advanced trade capability and infrastructure development in the aerospace industry will enable growth opportunities to be harnessed.
5. Demand exists for skilled:
    a) Licenced Aviation Mechanical Engineers (LAME)
    b) Pilots

Training pathways for the in-demand workforce skills

LAME training pathways

To become a LAME in Australia a person must:

- Be over 21 years of age
- Have at least
  - four years' experience in aircraft maintenance or aircraft component maintenance
  - two years' experience in the category that the license is for (Airframe, Engine, or Electrical, Instrumentation and Radio).
- Complete
  - a CASA training course on the aircraft type that the license is for (aircraft type training), including basic knowledge requirements for the license rating (e.g. aircraft systems, structures and theory of flight).
  - the Airworthiness Administration Basic examination (AA) must occur within 12 months of licensing[5].

Currently step four in this pathway is only available to students in the NT, who are able to travel interstate to meet this training requirement.

Pilot training pathways

Pilot training involves four key stages:

1. Learning to fly as a student pilot under the supervision of a flight instructor (with a grade 1,2 or 3 training endorsement) and flight training organisation.
2. Obtaining a recreational pilot licence, (enabling pilots to fly light, single-engine aircraft as the pilot-in-command (independent of supervision)) by completing flight training, a general English language assessment, a theory exam, flight test and have at least 25 hours of flying time including 20 hours of dual and 5 hours as in-command-pilot.
3. Obtaining a commercial or air transport pilot licence. With a commercial license enabling co-pilot in any operation and pilot-in-command in some aircraft and some regular public transport operations. By completing flight training at a CASR Part 141 or 142 flight training organisation and passing a theory and flight test for the category rating and license. As well as meeting the minimum aeronautical experience requirements.
   An air transport licence provides authorisation to be the pilot-in-command or the co-pilot of any operation appropriate to the aircraft category rating on the licence and class/type of aircraft. By obtaining a commercial pilot licence or multi-crew pilot license with the same aircraft rating, completing flight and multi-crew cooperation

[5] Australian Licensed Aircraft Engineers Association

training, passing the theory and flight test, and meeting aeronautical experience requirements.

4. Ongoing professional development and upskilling including proficiency checks for the relevant aircraft to the licence held.

Currently flight training, testing and proficiency checks utilising simulators require students in the NT to travel interstate to meet these requirements.

Aviation skilling opportunities

Multiple stakeholders foresee opportunities in the aerospace industry in Darwin, however capitalising on these opportunities is contingent on the development of local workforce capability. For example, the ICN study of capacity of the aviation maintenance industry identified aviation operators in the NT are inhibited by a lack of skilled technicians and tradespersons in the NT.

'Some specialist activities are performed by fly-in support technicians from interstate' Airbus

'Interested in maintaining external third-party aircraft to stay competitive, dependant on licensing and availability of engineers' Cessna Territory

Workforce limitations in the NT are verified by the Territory's reliance on workforce skills shortages solutions, such as the NT Designated Area Migration Agreement (NTDAMA).

Workforce attraction, retention and training in the NT was confirmed as a significant challenge for businesses and can result in a reliance on FIFO workers in the Territory.

The breadth of skills shortages regionally, nationally and globally was utilised by several stakeholders to validate the need to invest in skills development of the NT workforce. Stakeholders highlighted the detrimental impact of skills shortages for their business, including the poaching of staff and diminishment in the overall skills of the workforce (due to quicker career advancement timelines).

Exploiting this skilled workforce demand, and the Territory's access to Asian markets was identified as key reasons for workforce training investment in the NT.

Infrastructure needs for aviation skilling

Industry identified that in tandem with workforce skilling, broad infrastructure investment is necessary to ensure that the aerospace industry remains competitive and can provide employment opportunities for a skilled workforce. Infrastructure development needs identified included:

- additional hanger space; and
- specialist aerospace training technologies for craft in the NT (simulators and helicopter winch)

Investment in infrastructure, including hangar space, was also identified as a key enabler of growth by the ICN study of capacity of the aviation maintenance industry, as noted below[6].

Will not look at undertaking maintenance on any third-party aircraft as they are constrained by space in their hangar' Hardy Aviation

Are always looking at options to expand their services although they are currently at full capacity at their maintenance hangar' R&R Avionics

The market analysis found that the NT faces strong competition against other states in Australia in building a local aviation industry. Several State Governments including QLD are investing heavily to facilitate aviation industry growth. As well some businesses expressed the perception that opportunities for growth, and business risk were more favourable outside of the Territory presenting a key challenge to the Territory in attracting investment.

When considering infrastructure needs, both business and RTOs identified that training for the aerospace industries will look vastly different in the future, requiring investment in new and novel approaches to training across the aerospace industry. This includes simulators that can be quickly adapted across aircraft models, the use of virtual and augmented reality and adaptation of training to suit advanced industry equipment.

Investment in new technologies will also benefit by limiting over-reliance on experienced trainers, who are already in high demand and for which demand is expected to continue to grow. While such infrastructure often has a high capital cost, it can contribute to reduced operating costs, and this is particularly likely in the aviation industry where regulation changes occur frequently, and constant workforce upskilling is required.

[6] Department of Trade, Business and Innovation, 2019, Statement of capacity: Aviation maintenance industry in the NT, NT Government.

NT market supply

ISACNT have engaged extensively with the supply market to test the opportunity to deliver training solutions in the NT. Currently ten (10) RTOs have confirmed an interest in developing training services in the NT, including: Aviation Australia; Pennant Australasia; Charles Darwin University; and RMIT University.

In consultation with RTOs, key considerations in the establishment of workforce development solutions in the NT included:

Infrastructure

Physical space is required by a number of RTOs that don't have an established operation in the NT, to support them to deliver industry training in the NT. Key considerations for infrastructure development to enable industry training include:

- Opportunities to leverage existing infrastructure in the NT (e.g. CDU campus, available land at NT airports), to reduce capital expenditure costs and enable scaled development;
- Proximity to aviation sustainment operations to incentivise and reduce barriers to workforce engagement;
- In-situ training solutions for industry operators, to enable industry-RTO collaboration and continuous improvement outcomes;
- Shared infrastructure use to reduce up-front capital expenditure and enable scaling of training activities in the NT.

Scaling of the market

The NT has a sizable aviation industry which includes commercial, Defence and space sector activities. With multiple small aviation industry and sector operators, disparate workforce activities are prominent. To establish sufficient scale amongst participants in the NT, approaches may include:

- Underwriting of student placements for a period as scale is developed.
- Subsidising student placements to incentivise training investment in the NT (including attracting both RTOs and international/interstate students).
- Coordination and collaboration between sector and industry to establish scaled approaches to workforce training.
- Engagement across broad markets, such as Asian student cohorts.

Industry engagement

The value and importance of strong relationships and committed engagement between RTOs and industry operators has been highlighted throughout the study. Such collaboration supports tailored training that is most responsive to the needs of industry, thereby resulting in the best workforce development outcomes.

Industry-RTO partnerships also provide a level of guarantee and commitment for RTOs to help secure their operations, as highlighted in the case study of Hawker Pacific in Cairns which has employed 75 apprentices from its partner RTO, the Cairns Aviation Skills Centre between 2004 and 2019.

Encouraging and incentivising industry-RTO partnership arrangements may help to facilitate RTO engagement in the NT market.

Technology

The value and importance of technology in aviation industry training is a prominent consideration for RTOs considering engagement in the NT market. With few advanced aviation technologies in the NT, RTOs in partnership with industry are able to offer the aviation industry significant value through the introduction of new technologies, such as simulators, virtual and augmented reality tools, and advanced training systems.

Importantly decisions on technologies which are best aligned to industry needs, and those that can be scaled across the aviation industry in the NT, help to guarantee investment in such technologies and their introduction to the NT aviation industry.

Strategic investment in technologies may also support broad industry growth, for example investment in simulators that can support multiple aircraft training programs could attract a broader student base.

Early framework for aviation skilling in the NT

The study of the feasibility of an aviation industry academy in the NT has confirmed industry have a need for local workforce skilling capability. Facilitation of several enabling elements would be required to effectively meet these needs, such as attraction of RTOs, infrastructure development and strategic action to scale the market. In addition to these factors, several unknown variables remain. A summary of these consideration is presented below, establishing an early framework for aviation skilling in the NT.

	Commercial	Defence	Space
Known training capabilities in the NT	Certificate II in aircraft line maintenance Cert III in Aviation (ground operations and services) Remotely Piloted Aircraft: Learning to fly and survey unit	Defence Safety Aviation Regulation Training	Unknown
RTOs currently providing training in the NT	Aviation Australia KRTS training Charles Darwin University	Northrup Grumman Boeing Aviation Australia	To be developed upon demand increasing
Early partner interstate RTOs offering related qualifications	Aviation Australia Pennant Australasia Air Affairs Australia RMIT University TAFE NSW Industry Delivered Training	Pennant Australasia Lockheed Martin Boeing BAE Systems Northrup Grumman Aviation Australia	RMIT
Current industry workforce skilling demands	Local pilot; and LAME training programs and pathways	Local AME/LAME training programs and pathways	To be developed
Scaling opportunities	Interstate and international student markets Cross sector and industry engagement (e.g. Marine and Defence)	Interstate markets Cross sector and industry engagement (e.g. Marine and Defence)	Interstate and international student markets Cross sector and industry engagement (e.g. Marine and Defence)
Enablers	Dedicated training facilities Hangar space Advanced training technologies	Advanced training technologies	Global primes establishing Space Industry operations in the NT

Feasibility of aviation training in the NT

Financial analysis to determine the financial feasibility of a combined maritime and aviation training precinct in Darwin has been undertaken. The analysis has considered cross industry participation in a training academy, recognising that insufficient scale exists to establish a training facility for a singular industry in the NT.

The analysis established that the minimum standard needed to achieve a positive cash flow, involves **215 students in year one, with continued growth.**

Deloitte's market analysis indicates that **demand currently exists for 200 student training positions** across the aviation and marine industries as noted through the following data sources:

76 NT students will be trained in Certificate II aircraft line maintenance by Aviation Australia in 2020.

48 NT avionics and/or mechanical apprentices trained with Aviation Australia in 2019.

26 Aero trades and ICT positions will be needed in Defence.

29 NT employees are currently completing a traineeship for a major marine-based company (requested to remain anonymous), with an additional 22 employees completing further marine training.

This is from consultation with industry though not comprehensive indicating a target of 215 is attainable.

Why have an aviation training academy in Darwin?

The case for an aviation training academy is centred on:

- Supporting the future growth and sustainability of the aviation and aerospace industry
- Building stronger regional capability and ability to retain population for the NT
- Drive economic growth that supports further training and education
- Preparing the NT for the emerging NT Space Industry
- Showcase Darwin as an industry training hub for the region and Asia
- Reduce costs to business of upskilling and provide pathways for advanced training
- Harness collaboration and cross-skilling opportunities

The case for change is compelling.

 Strategic economic development	Future industry development and economic growth in the NT is challenged by the Territory's finite population. This challenge generates limitations in the size of the workforce and ***capacity of businesses to access skilled labour***. This can result in the loss of Territory businesses to interstate locations, limited investment in the Territory, and a reliance on fly-in-fly-out (FIFO) and skilled migration models to resource business needs in the Territory.
 Global demand	Along with business demand for skilled workers in the Territory, a ***global demand for skilled workers*** exists in the aerospace industry, including significant demand in Asia, creating a unique opportunity for the NT to capitalise on an investment in workforce skilling.
 Enabling technologies	The impetus for investment in workforce skilling is further exacerbated by the ***changing demand for skilled labour***, driven by technology and automation. This change has created a need for continuous upskilling to meet industry requirements, and is also ***driving change in learning approaches***, creating opportunities for the Territory to lead the curve in approaches to flexible and integrated learning.

An aviation training academy in the NT is an enabler

Seize opportunities in Defence aerospace in the NT

Defence has several established aerospace capabilities in the NT, such as Airforce bases, helicopters and Hornet fighters. In addition, recent Defence Force posturing in Northern Australia has resulted in a focused Defence presence in the NT.

Defence developments in the Territory include the Australia-US Force Posture Initiative and the introduction of new Defence platforms (F-35A, Triton, P8, and Growler). This has driven upgrades and expansions to RAAF bases Tindal and Darwin, and Delamere Air Weapons Range, along with local demand for skilled labour.

Be a contender for more civil and commercial aviation in the NT

A sizeable commercial aviation industry exists in Darwin, contributing $270 million to GSP in 2017. By 2019, the air and space transport industry for the NT was valued at $318 million[7]. The aviation industry delivers passenger transport, emergency, commercial and freight transport services.[8] Darwin International Airport (DIA) is the largest civil aviation provider in the NT and one of ten major airports in Australia.

Strong growth is anticipated in aviation tourism across Australia over the long-term, driven by international economic growth, higher disposable incomes in emerging markets, and increased air travel in developing economies. Darwin is anticipated to benefit from this trend, with a predicted growth of 127% by 2030.[9]

In addition new opportunities in aviation are arising through the application of technologies, for example remotely piloted aircraft systems (RPAS) or unmanned aircraft systems (UAS) are expected to play a significant role in the aviation industry over the next 20 years.[10] Commercialisation of such opportunities is already occurring in the NT through private companies such as Uber Air Pty Ltd and Unique Aerial Solutions.

Prepare for the growth of the NT space sector

While in early stages of development, significant growth potential is anticipated for the Territory's space industry, due to several unique factors.

- Advanced space infrastructure and capabilities e.g. ELA.
- Geographical proximity to the equator, optimising launches.
- Favourable conditions like: tectonic stability; vicinity to the sea; & low density

Despite the Territory's potential in the space sector, barriers exist in the development of the industry, including weaknesses in labour supply and education, amongst others.[11]:

The downstream application of aerospace technologies

Downstream applications from the aerospace industry are stimulating innovation and new commercial opportunities in Australia, such as the manufacture of nanosatellites.

In the NT, downstream benefits could be applied to a diverse array of purposes, such as agricultural production, land management and transport automation. For example, enhanced geospatial data is identified as an opportunity to improve natural and economic resource management.

An approach to scaled investment in advanced trade skilling in the NT

Key principles to guide future investment in aerospace advanced trade skilling in the NT, based on industry best practice and market feedback, include:

- ✓ Industry lead solutions
- ✓ Engagement with Asian markets
- ✓ Innovative, technology enabled approaches
- ✓ Industry collaboration
- ✓ Holistic industry development

[7] Industry sector analysis – Air and Space Transport, Economic profile, .id
[8] Darwin International Airport, 2017, Master Plan
[9] Trends – Transport and Australia's development to 2040 and beyond, Department of Infrastructure and Regional Development, 2016, Commonwealth of Australia
[10] Industry Reference Committee, 'Skills Forecast 2018 – Aviation', Australian Industry Standards
[11] Deloitte, 2018, NT Aerospace sustainment roadmap discussion paper.

Vision

Early concepts of a future vision for the aerospace industry in the NT includes:

Sustained growth across all sectors

Leveraging the Territory's comparative advantages

Aspirations to contribute to local, national and global workforce demand.

Further testing and exploration with industry on a future vision is needed to establish greater clarity.

Scaling industry growth

Deloitte's analysis of aerospace industry development in the United States, Canada, France, Queensland and South Australia identified several patterns in growth, including:

- Leadership commitment to industry growth
- Industry coordination and collaboration
- Incentives for business collaboration
- Leveraging of competitive strengths/advantages
- The presence of growth enablers (e.g. supply proximity, infrastructure, investment, government support).

Scaling the aerospace industry in the NT

The NT aerospace industry offers broad capabilities in the Defence aerospace, Civil and commercial aviation, Space and downstream sectors. However, the industry remains challenged by barriers to growth including:

- supply chain logistics
- weaknesses in labour supply & education
- limitations in infrastructure capabilities
- potential to rival competitors in the global market.

These opportunities and barriers establish a compelling case for the NT to focus its growth efforts in aerospace advanced trade skilling and training. When combined with Australia's strong international reputation for quality and leading standards in training and education, and the Territory's close proximity to Asian markets with their high demand for skilling, the NT presents an attractive option for investment.

A key challenge to overcome in delivering advanced trade training in the NT is the establishment of sufficient scale in training demand to ensure financial viability of an investment in an academy. In the early stages of industry development activities this will only be achieved through industry collaboration, the maritime, manufacturing, Defence and mining industries present realistic opportunities to build such demand in the NT.

Activating the aviation training academy

The concept of the training academy has been widely accepted with a large range of RTO's expressing their interest in being involved. Taking the aviation academy to its fruition will require the following:

1. Confirm support and commitment to participation from identified RTO's and stakeholders
2. Achieve initial funding for appointment of a coordinator
3. Establish and implement a governance framework

An approach to the governance framework for scaling workforce skilling, cross-industry, based on best practice approaches and local needs would practically include:

Immediate to short-term	Medium to long-term
Formation of an industry advisory committee.	Marketing and engagement with Asian and Pacific markets
Articulation of vision, objectives and KPIs.	Continued engagement across key supply and demand markets to articulate competitive strengths and build support.
Incentives for industry collaboration to create scale and build industry viability.	Act as an advisory body to recommend complimentary aerospace industry infrastructure across the NT.
Formation of governance arrangements for collaborative approaches to workforce skilling.	
Establishment of aviation skilling premises.	
Negotiation of agreements with anchor tenants for use of skilling infrastructure (including RTOs).	

Deloitte.