



Alice Springs Airport
MASTER PLAN
Final

2009

Approved 6 August 2010

i Table of Contents

I TABLE OF CONTENTS	1	5. DEVELOPMENT OBJECTIVES.....	29
II FOREWORD.....	5	6. SOCIAL, ECONOMIC AND REGIONAL SIGNIFICANCE	33
III EXECUTIVE SUMMARY	6	Current Economic Impact of Alice Springs Airport	34
Apron, Taxiway and Runway works	6	Future Economic Impact of Alice Springs Airport.....	34
Terminal	6	Airport Business Impact in 2029-30.....	34
Ground Transport and Car Parks	6	Tourism Impacts in 2029-30	35
Commercial Developments	6	Other Related Activities.....	35
Environmental and Heritage Initiatives.....	6	Medical services	35
Key Features of the 2009 Master Plan.....	7	Joint Defence Research Facility	35
Development Objectives	7	Connecting communities in the Territory	35
Social, Economic and Regional Significance.....	7	Hot weather testing facility.....	35
Aviation Activity Forecasts.....	7	7. AVIATION ACTIVITY FORECASTS.....	37
Airport Land Use	7	Industry Outlook.....	38
Airfield Development.....	7	Recent Performance.....	38
Protection of Aircraft Operations	8	Traffic Performance	38
Aircraft Noise Management.....	8	International Operations	38
Terminal Development.....	8	Freight	38
Commercial Development.....	8	General Aviation	38
Land Access	8	United States (US) Military Operations	39
Environmental Management	8	Forecast Methodology	39
Consultation	9	Traffic Forecasts	39
1. INTRODUCTION	13	Passenger Movements.....	39
2009 Master Plan	14	International Charter Operations	39
2. BACKGROUND	17	Freight.....	39
History	18	Aircraft Movements.....	40
1921–1968 Town Site Aerodrome Operations.....	18	8. AIRPORT LAND USE.....	41
1939 Seven-Mile Site	18	Introduction	42
United States of America Air Force (USAAF) and		Development Potential of Airport Land.....	42
RAAF Operations	18	Future Development Zone.....	42
Post-War Development	18	Identified Need.....	42
Significant Developments on Airport	19	Regulatory Context.....	42
Apron, Taxiway and Runway works	19	Land Tenure.....	43
Terminal	19	Kilgariff Development Proposal	43
Ground Transport and Car Parks	20	<i>Airports Act 1996 and Associated Regulations</i>	43
Commercial, Heritage and Environment		<i>Airports Act 1996</i>	43
Developments	20	Consistency with the Northern Territory	
3. AIRPORTS ACT FRAMEWORK.....	21	Planning Scheme	43
<i>Airports Act 1996 (as amended) and Associated</i>		Pre-Existing Interests	43
<i>Regulations</i>	22	Land Use Zones	44
<i>Airport Master Plan Requirements</i>	22	Aviation Activities Zone	46
<i>Airport Master Plan Assessment Process</i>	22	Terminal and Facilities Zone	46
<i>Aviation White Paper</i>	23	Interim Uses	47
4. STAKEHOLDER AND COMMUNITY CONSULTATION	25	Aviation Reservation Zone	47
Communication and Consultation Approach	26	Non-aviation Related Uses	47
		Commercial Zone	47

Service Commercial Zone	48	Existing Facilities	86
Tourist Commercial Zone	48	2029 Development Concept	86
Future Development Zone	49	Aircraft Maintenance	86
Light Industry Zone	49	Existing Facilities	86
General Industry Zone	50	2029 Development Concept	86
Heritage Zone	50	Ground Service Equipment (GSE)	86
Horticulture Zone	51	Existing Facilities	86
Dust Suppression	51	2029 Development Concept	87
Water Management Zone	52	Flight Catering	87
Public Safety Zones	52	Existing Facilities	87
9. AIRFIELD DEVELOPMENT CONCEPT	53	2029 Development Concept	87
Introduction	54	Utilities	87
Planning standards	54	Water Supply	87
Design Aircraft	54	Sewerage	87
Movement Areas	55	Stormwater Drainage	87
Runways	55	Electricity Supply	87
Helicopters	55	Communications	87
Taxiways	56	14. COMMERCIAL DEVELOPMENT CONCEPT	89
Aprons	56	Commercial Development Vision	90
Terminal Apron	56	Recent Commercial Developments	90
General Aviation Aprons	56	2029 Development Concepts	90
Existing Support Systems	57	15. GROUND TRANSPORT MASTER PLAN CONCEPT	93
Airservices Australia Facilities	57	Existing Road and Ground Transport System	94
2029 Development Concepts	57	External Access and Internal Road System	94
Runway	57	Existing Ground Transport and Parking	94
Taxiways	58	2029 Development Concept	94
Apron	58	Background	94
Freight	58	External Road Access	94
General Aviation	58	Internal Road Network	95
10. PROTECTION OF AIRCRAFT OPERATIONS	61	Ground Transport and Parking	95
Airspace Protection	62	16. ENVIRONMENTAL MANAGEMENT	97
Obstacle Limitation Surfaces (current and future)	62	Airport Environment Strategy (AES)	98
Procedures for Air Navigation Services –		Airport Environmental Management	98
Aircraft Operations (PANS –OPS) Surfaces	62	Alice Springs Airport Environmental Achievements	98
Airspace Protection Planning Control	62	Dust Control	98
Navigation Aids and Radar-restricted Surfaces	63	Anetyeke Garden	99
Restrictions to Building Structure and Material	63	Supporting Research	99
Bird Hazard	63	Land for Wildlife	99
11. AIRCRAFT NOISE MANAGEMENT	67	Solar Power	99
Australian Noise Exposure Forecast (ANEF)	68	Seven-Mile Aviation Heritage Zone	99
ANEF in Land Use Planning and		Environmental Management of Future	
Development Consent	68	Developments	99
Endorsed ANEF	68	Sustainability	100
Methodology	68	2029 Development Concept	100
Approval Process	69	Heritage	100
Noise Comparisons over Time	69	Conservation	100
N70 Contour and Flight Tracks	69	Dust Management	100
12. TERMINAL DEVELOPMENT CONCEPT	81	17. IMPLEMENTATION	101
Introduction	82	Implementation Framework	102
Planning Principles	82	Review Process	102
Current Terminal Facilities	82	18. ASSESSMENT OF CONSISTENCY WITH THE	
Future Demand	82	AIRPORTS ACT 1996	105
2029 Development Concept	82	19. ACRONYMS	109
13. AVIATION SUPPORT FACILITIES AND UTILITIES	85	20. DEFINITIONS OF LAND USES	113
Aviation Fuel	86	21. GLOSSARY AND AVIATION TERMINOLOGY	117

Aircraft Noise Terms	118
Aircraft Noise Exposure Concept (ANEC)	118
Australian Noise Exposure Forecast (ANEF).....	118
Flight path	118
N70 Chart	118
Airfield Terms	118
Aerodrome/Airport.....	118
Aircraft Operator	118
Airport Operator	118
Airside.....	118
Aprons	118
General Aviation	118
Gate.....	118
Landside	119
Manoeuvring areas	119
Movement areas.....	119
Runways	119
Runway strips	119
Stand/Bay.....	119
Taxiways.....	119
Thresholds.....	119
22. FIGURES AND TABLES.....	121
23. REFERENCES	125

ii Foreword

I am pleased to present Alice Springs Airport's 2009 Master Plan.

Alice Springs Airport Pty Ltd (ASA) holds a 50-year lease, plus 49-year option, over the Alice Springs Airport from the Commonwealth of Australia under the *Airports Act 1996*.

Alice Springs Airport is the major Central Australian airport. It provides facilities for the local community, tourists, and other visitors to Central Australia, air services for remote communities, the Joint Defence Research Facility at Pine Gap, and other recreational activities. Alice Springs Airport is strategically important to Central Australian community, businesses and government.

The 2009 Master Plan retains the fundamental concepts of the 1999 and 2004 Master Plans. The changes that have been made largely reflect:

- the modest growth projections of aviation activity;
- the developing aviation industry structure including low cost carriers;
- the evolving Airport business, the needs of business partners and impact on the community;
- the potential to diversify airport income by expanding the property portfolio.

The 20 year Master Plan provides a 2029 development concept for the 3550 hectare airport area with an optimal mix of aeronautical and non-aeronautical uses. The Master Plan assists and encourages progressive, orderly and strong growth of the airport land.

Yours sincerely



IAN KEW

Chief Executive Officer
Alice Springs Airport



iii Executive Summary

Alice Springs Airport Pty Ltd (ASA) holds a 50-year lease, plus 49-year option, over the Alice Springs Airport site from the Commonwealth of Australia under the *Airports Act 1996*.

.....

The *Airports Act 1996* (the Act) and other regulations under the Act (the Regulations) stipulate the requirements for the management and operation of the Airport. The Act requires that ASA prepares a 20-year Master Plan to guide development of existing and proposed airport land uses and facilities, with the Master Plan renewed every five years.

The previous 2004 Final Master Plan and the 2004 Airport Environment Strategy (AES) were approved by the Acting Federal Minister for Transport and Regional Services in December 2004. The 2004 Master Plan provided details of the airport's future aeronautical development as well as the development strategy for the Airport's property portfolio. The Environment Strategy established a framework for assessing compliance with the relevant standards and legislation. The strategy also guided continual improvement of environmental management at the airport.

In line with the previous 2004 Final Master Plan and Environment Strategy a wide range of developments/initiatives have been or are being implemented, including:

Apron, Taxiway and Runway works

- Pavement rejuvenation and resurfacing of the runways and taxiways.
- Downgrade of runway 06/24 to a taxiway to simplify air traffic management and to reduce maintenance costs.

Terminal

- Implemented checked bag screening system.
- Ongoing upgrade and refurbishment of terminal facilities and security system.

Ground Transport and Car Parks

- Development of additional car parking facilities.

Commercial Developments

- Conversion of the old passenger terminal to a freight facility.
- Upgrade of the previous management centre to cater for the introduction of Australian Federal Police presence at the airport.

Environmental and Heritage Initiatives

- Management and maintenance of Seven-Mile heritage zone in accordance with the Conservation and Management Plan.
- Enhanced and maintained the Anetyeke Garden, including the upgrade to educational signage and material;
- Investigated solar power supplementing the airport mains power consumption and replaced electricity-powered hot water system with solar power system in the terminal.

The 2009 Master Plan retains the fundamental concepts of the 1999 and 2004 Master Plans. The changes that have been made largely reflect:

- the modest growth projections of aviation activity;
- the developing aviation industry structure including low cost carriers;
- the evolving Airport business, the needs of business partners and impact on the community;
- the potential to diversify airport income by expanding the property portfolio.

The 2009 Master Plan provides 2029 development concept plans for long-term development as an airport with an optimal mix of aeronautical uses and non-aeronautical uses. While the 2009 Master Plan provides a framework for future development until 2029, ASA is conscious the Master Plan must also incorporate the necessary flexibility to meet changing conditions.

KEY FEATURES OF THE 2009 MASTER PLAN

The current Alice Springs Airport layout is shown in Figure 1. The 2029 Development Concept, shown in Figure 2, is based on comprehensive technical studies, wide consultation and confidence in the future of the Airport business.

This Master Plan demonstrates that ASA can accommodate forecast growth in aircraft movements and passenger activity, aviation support facilities and commercial developments.

Development Objectives

ASA has established the following development objectives to guide its planning and development of aeronautical and non-aeronautical facilities and services:

- Ensure that planning supports long-term development as an airport with an optimal mix of aeronautical uses.
- Provide a safe, secure, reliable and sustainable airport-operating environment.
- Enhance the airport's contribution to Northern Territory (NT) economic growth through developing the airport's aviation and property business and by facilitating the success of our business partners.
- Integrate environmental considerations into the development of facilities and services and seek to minimise their impact on the natural environment.
- Engage with key community, business and government stakeholders on airport related economic, social and environmental issues and be mindful of surrounding community interests.
- Provide airport infrastructure and facilities which are timely, cost-effective, flexible in use and provide a good customer experience.
- Undertake developments which enhance value to our shareholders and the broader economic community.

Social, Economic and Regional Significance

Alice Springs Airport is the major Central Australian airport. The Airport's direct contribution of economic activity to the NT economy constitutes some 0.4% of NT Gross State Product (GSP). The Airport currently employs some 248 people in airport operations-related activity and an additional 67 people in other airport businesses.

In 2029-30, the projected annual output (or revenue) will be \$165 million, and its value-added (or contribution to GSP) will be \$91 million per year (both in today's dollar values). Approximately 40 percent of the value added (\$35 million in today's dollars) will go to employees as wages and other income. Total employment at the Airport will grow to some 460 jobs by the end of the planning period.

Alice Springs Airport's General Aviation (GA) sector, comprising 45 aircraft, is essential for the provision of services to central Australia's remote communities.

Aviation Activity Forecasts

It is projected that:

- passenger movements, including transit and transferring passengers, will increase from 630,000 passengers to approximately 940,000 passengers by the end of the planning period;
- domestic airlines will continue to carry freight predominantly in the cargo hold of passenger services. As domestic airfreight movements increase, this will generate additional capacity for domestic freight uplift;
- combined Airline and General Aviation aircraft movements at Alice Springs Airport will grow from 23,700 movements to some 33,000 movements per year by the end of the planning period.

Airport Land Use

Land use planning (see *Land Use Zone Plan Figure 3*), is fundamental to an Airport Master Plan and is specifically highlighted in the Act. Land use planning in the 2009 Master Plan:

- ensures there is adequate land for expansion of aviation activity;
- clearly separates aeronautical and non-aeronautical uses;
- has been developed using terminology and definitions consistent with that of the Northern Territory Planning Scheme where possible, with any variations being highlighted;
- reflects the large land holding and the significant long-term development potential of the airport.

A new land zone is Aviation Reservation which preserves land for ultimate aeronautical use but provides for a non aeronautical interim use.

As with the 2004 Master Plan, residential continues as a land use, but now within a Future Development zone. ASA and the Northern Territory Government are planning for the northern part of the Airport's land holding to be developed in conjunction with the nearby Arid Zone Research Institute (AZRI) land for integrated residential and commercial development. The combined area will be called Kilgariff.

For any residential development to occur the Future Development Zone would need to be excised from the Airport lease and converted to freehold tenure.

Airfield Development

No runway extensions are needed within the planning period. The existing runway system is adequate to cater for future-projected traffic and is proposed to be retained in its existing configuration. A runway turning loop to improve runway usability is planned. Taxiway enhancements are needed to support the increase in Regular Public Transport (RPT) and General Aviation traffic and support new apron areas.

The RPT Apron will continue to use effectively the space and infrastructure available and expand in a linear manner. When the aircraft apron is reconfigured the opportunity will be taken to move aircraft parking positions closer to the terminal to remove current OLS infringements.

Additional general aviation facilities will be developed on a commercial basis. Provision is made for short and long term aircraft storage facilities.

Protection of Aircraft Operations

Obstacle Limitation Surfaces (OLS) and Procedures for Air Navigation Services – Aircraft Operations (PANS–OPS) surfaces are prepared for Alice Springs Airport to assist with the protection of airspace required for airport operations around the Airport (refer to Figure 8 and Figure 9).

Aircraft Noise Management

ASA as the Airport Operator has little direct control over noise produced by aircraft operations other than ground running.

The most important noise metric at an airport is the Australian Noise Exposure Forecast (ANEF). The ANEF is a set of geographical contours showing future aircraft noise levels. The ANEF is the only noise metric which has status under the:

- Northern Territory Planning Scheme for land use planning and development consent off-Airport; and
- *Airports Act 1996* of the Commonwealth for land use planning and development consent on-Airport.

This Master Plan incorporates a 2049 ANEF in order to provide a longer term view of aircraft noise than the minimum 20-year ANEF required.

Terminal Development

Terminal growth will be accommodated by expanding the existing terminal within the Terminal and Facilities zone. Key areas which will drive the expansion of the overall footprint of the terminal will be baggage reclaim and baggage make-up. Future expansion of the terminal is illustrated in Figure 12.

Commercial Development

Of the 3550 hectares in the airport lease area, some 1930 hectares of the land are available for commercial use. Possible commercial developments include offices, showrooms, warehousing, large format and speciality retail, hotel and other short-stay accommodation, and cafes.

As outlined above, ASA and the Northern Territory Government are planning for the northern part of the Airport's land holding to be developed in conjunction with the nearby Arid Zone Research Institute (AZRI) land for residential and commercial development. For this to occur the Future Development Zone would need to be excised from the Airport lease.

Commercial development opportunities exist in the Seven-Mile Heritage Zone. Developments will be compatible with the heritage value and character of the area.

Land Access

Both the existing external and internal road systems may need enhancing during the 20-year planning period. Access to Roger Vale Drive and Santa Teresa Road from the airport complex will probably need upgrading during the planning period. Any upgrading of Airport's access to the external road network that is required will be undertaken in consultation with the Northern Territory Government.

Development of any future access from the northern area to the external road network would occur in consultation with the Northern Territory Government.

The approach to development of the internal road network will be to:

- maximise the use of existing road capacity;
- enhance progressively the road system capacity in line with demand.

Car parking capacity will be expanded in line with demand. Long-term car park capacity will be the first to be enhanced.

Environmental Management

The Airport Environment Strategy (AES) 2009 was approved by the Federal Minister for Infrastructure, Transport, Regional Development and Local Government on 17 March 2010.

The AES establishes a framework for assessing compliance with the relevant standards and legislation. The AES also guides continual improvement of environmental management at the airport.

ASA strives to integrate environmental considerations into the development of facilities and services, and seeks to minimise their impact on the natural environment.

All proposed developments will take into consideration the procedures and requirements contained in the AES as well as the associated action plans and environmental management plans.

ASA will maintain the Seven-Mile Heritage Zone in accordance with the Conservation Management Plan.

ASA is committed to conservation best practice and creating an environmentally sustainable airport operation. The Airport is proud of its environmental performance and will continue to work closely with its partners to incorporate environmental considerations into every aspect of its business.

CONSULTATION

This Master Plan was prepared by ASA following consultation with a range of stakeholders.

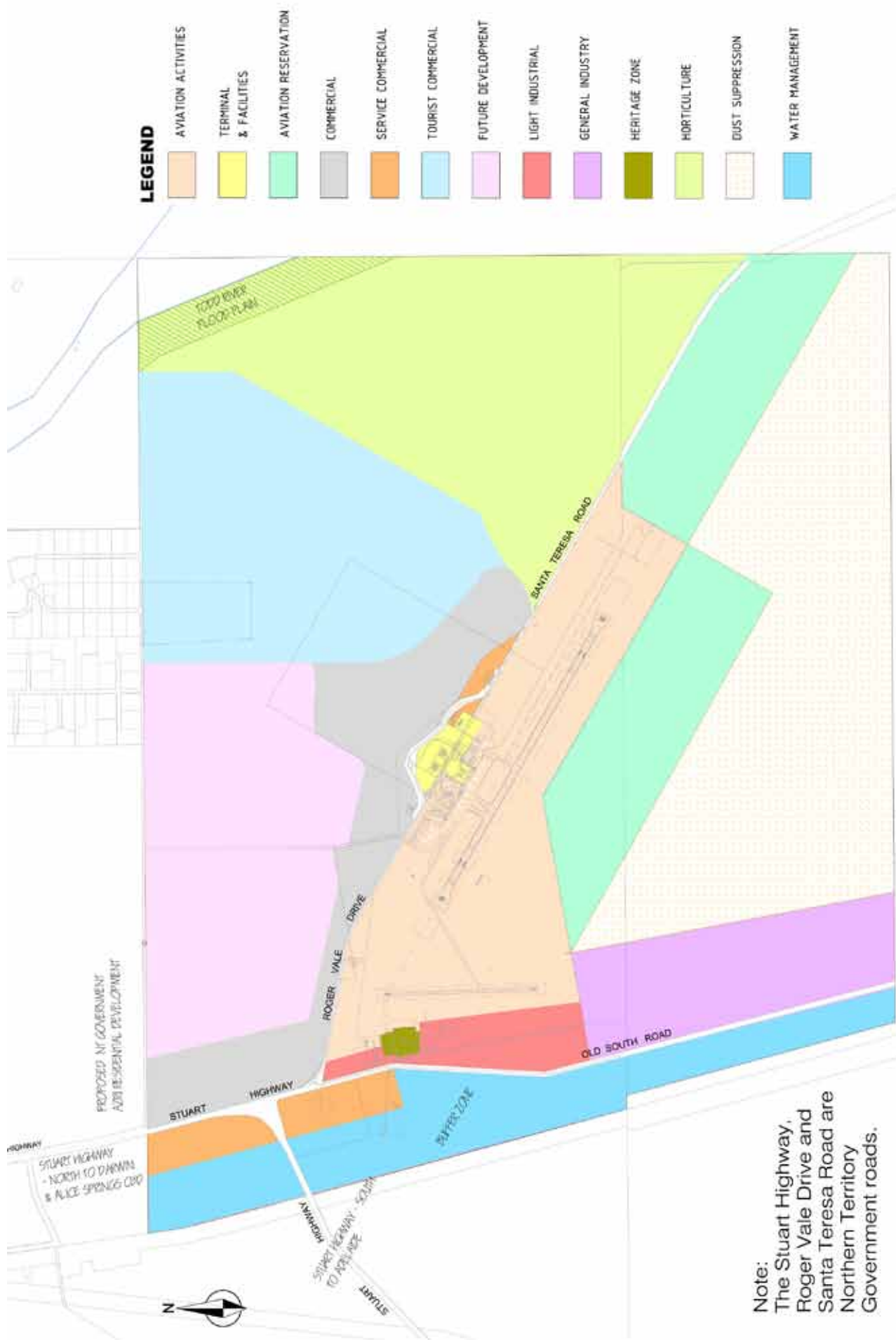
FIGURE 1: CURRENT ALICE SPRINGS AIRPORT LAYOUT (2009)



FIGURE 2: 2029 ALICE SPRINGS AIRPORT DEVELOPMENT CONCEPT



Figure 3: Airport Land Use Zone Plan



SECTION 1

Introduction



- Alice Springs Airport is the gateway to Central Australia.
- The *Airports Act 1996* specifies that the Airport Master Plan be reviewed every 5 years.
- The 2009 Master Plan has been prepared following comprehensive technical studies and consultation with stakeholders.

SECTION 1

Introduction

Alice Springs Airport is located approximately 14 km south-east of the town of Alice Springs in the Northern Territory. The airport covers a total site of approximately 3550 hectares, which makes it the largest Australian airport in terms of area. The ASA Airport lease boundary is shown in Figure 4.

Alice Springs has long served as the tourist gateway to Central Australia, with the Airport also serving the community, businesses and government. There is also a sizeable General Aviation sector servicing the surrounding region and remote communities.

Alice Springs Airport is one of 11 'Designated' airports under the Aviation Transport Security Act 2004 and is hence subject to the highest standards of counter terrorism security.



Alice Springs Airport Pty Ltd (ASA) holds a 50-year lease, plus 49-year option, over the Alice Springs Airport from the Commonwealth of Australia under the *Airports Act 1996*.

The *Airports Act 1996* (the Act) and other regulations under the Act (the Regulations) stipulate the requirements for the management and operation of the Airport. The specific

provisions of the Act applying to Airports, other than joint-user airports, apply to the ASA Master Plan. The Act requires that ASA prepares a Master Plan to guide development of existing and proposed airport land uses and facilities. The previous 2004 Final Master Plan was approved by the Acting Federal Minister for Transport and Regional Services on 2 December 2004. The previous 2004 Final Master Plan provided details of the airport's future aeronautical development as well as the development strategy for the Airport's large holding of undeveloped property.

2009 MASTER PLAN

This Master Plan has been prepared by ASA following consultation with a range of stakeholders. While the 2009 Master Plan provides a framework for future development to 2029, ASA is conscious the Master Plan must also incorporate the necessary flexibility to meet changing conditions.

This Master Plan has been prepared by Alice Springs Airport Pty Ltd with the assistance of a consultant team. The consultants and their technical work area are outlined in Table 1.

TABLE 1: CONSULTATION TEAM

CONSULTANT	TECHNICAL AREA
Airbiz Aviation Strategies Pty Ltd	Airside, terminal, noise management and prescribed airspace
Demeyne Aviation	General aviation
ACIL Tasman	Economic impact study
Tourism Futures International (TFI)	Passenger and aircraft movement forecasts

FIGURE 4: AIRPORT LEASE BOUNDARY



This page has intentionally been left blank

SECTION 2

Background

- The Seven-Mile aerodrome became a civil airport in 1945.
- Alice Springs Airport Pty Ltd (ASA) has a 50-year lease plus 49-year option on the Alice Springs Airport site.
- ASA has spent over \$23M on Airport facilities since 1998.



SECTION 2

Background

HISTORY

1921–1968 Town Site Aerodrome Operations

The original town site was cleared and prepared to receive the first aircraft which landed on 5 October 1921. The aircraft, a DH4 bi-plane, was chartered by the writer and explorer Francis Birtles and was crewed by L.L. Briggs, pilot, and George Bailey, mechanic. Facilities at the airfield were non-existent and before the aircraft could resume its return flight it had to await the arrival of a camel-train laden with the necessary fuel.

In August 1935, the first commercial air service began, and the airfield was used by famous aviators, such as Hitchcock, Anderson, Ulm and Kingsford Smith. The air service, operated between Adelaide and Darwin by the Australian Transcontinental Airways, took two days with an overnight stopover in Alice Springs. Guinea Airways commenced charter service in 1936 and a year later provided a scheduled service between Adelaide and Darwin.

E.J. Connellan, on his 40,000-mile survey of the Northern Territory, landed here in 1938. Later he established Connellan Airways and flew the trial mail run on 10 July 1939. Connair, as the company was to become, spent its first 29 years operating from the airfield. It became known as 'The Biggest Little Airline in the World'.

The only jet aircraft to land at the town aerodrome was a Royal Australian Air Force (RAAF) Canberra bomber in April 1958, which mistakenly took the old town Site strip for the modern and larger Seven-Mile Aerodrome.

1939 Seven-Mile Site

Like many of the aerodromes in the Northern Territory, the Seven-Mile Aerodrome owes its origins to the military build-up of the north during the late 1930s and to the commencement of World War II in the Pacific. With the increase in defences came the requirements for airfield capable of use by the heavier, faster aircraft of the time.

Originally a part of the E. and A.J. Hayes lease 116A, the Seven-Mile Site was taken over by the Department of Defence in 1939 and development work commenced in early 1940, with the facility partially complete by mid-year, including three runways: 06/24, 17/35 and 12/30.

United States of America Air Force (USAAF) and RAAF Operations

In July 1940, the Lockheed Hudson bombers of the RAAF's Number 1 Squadron, staged through the new aerodrome during their deployment to Malaya to help bolster the RAAF commitment both there and in Singapore. A major defence exercise in Darwin that year saw a number of aircraft pass through the facility during the trans-continental flight to the newly developed RAAF station in Darwin. By 1941, civilian airlines were using the site, though much of the activity remained with the 'Town Site Drome' adjacent to the Araluen homestead. With the entry of Japan into the war, the 'Seven-Mile Drome' was utilised increasingly by the military and, in particular, the American USAAF units transiting north.

The Seven-Mile facility was made a RAAF station on 28 May 1942, with No. 57 Operational Base Unit taking over the administrative control. By 1944, however, the site was effectively little more than a transit base for RAAF aircraft and more an airport facility for civilian airline operations. Some new works were undertaken, however, and by 23 March 1944 some \$AUS46,000 in United States (US) funding had been utilised by the Allied Works Council in the aerodrome development project.

While 1945 saw the last of the RAAF units to be permanently based at the Seven-Mile Site, a revitalisation of sorts occurred following the cessation of hostilities. The Seven-Mile Site was used extensively during the flights of aircraft and personnel to southern depots and demobilisation centres, and the facility was utilised into the 1960s as a major transit base by the RAAF's newer aircraft, the jet-propelled Meteor, Vampire, Sabre and Canberra, during the deployments to Darwin on major air-defence exercises.

Three buildings associated with the Seven-Mile Aerodrome are now on the Northern Territory Heritage Register.

Post-War Development

The post-war development of Alice Springs saw the old Town Site Aerodrome used less and less, with Eddie Connellan remaining the major user. Civilian airliners became heavier and faster, and these factors combined to become the catalyst for a building program at the Seven-Mile Site. Bellman hangars from Gorrie airfield were re-erected at the site, while new

airport buildings were constructed. The Shell Company installed underground fuel tanks and a fuel storage area in 1946, and a Very High Frequency (VHF) Radio Range facility was formalised in 1948. A Meteorological Aids site was established three years later in mid 1951.

In 1956, the airport featured in the film adapted from Neville Shute's 'A Town Like Alice', and in 1958 the name changed officially to 'Alice Springs Airport'.

The main runway 12/30 was extended to 2438m in 1961. In 1965, a new terminal and fire station were opened to handle the increase in airline traffic. The buildings remained in situ and were controlled by the Commonwealth Department of Civil Aviation. Over the years they have continued to be used primarily by aviation-oriented groups: the Flying Club and the Parachute Club. Others have utilised the site as well, and overall integrity of the structures has been assured accordingly. Finally, in 1968, Connellan Airways relocated entirely from the Town Aerodrome.

During the 1960's surrounding land was progressively acquired to prevent grazing which was thought to contribute to Airport dust storms. As a consequence Alice Springs Airport land holding increased to 35 square kilometres, the largest airport site in Australia.

The airport continued to grow with the location of the Royal Flying Doctor Service, Aboriginal Aircraft Maintenance and others.

Changing Ownership

On 1 April 1989, control of Alice Springs Airport passed from Commonwealth Government to the Federal Airports Corporation (FAC). It immediately commenced the construction of a new terminal building which was commissioned in 1991.

This terminal was designed mainly around the requirements of Australian Airlines (now Qantas) and Ansett. The airport continued to experience a significant growth in passengers, supporting infrastructure and tenants, but in 1995 airport traffic was adversely impacted by the commencement of direct interstate B737-400 flights into Ayers Rock. All interstate traffic to Ayers Rock was lost, with some Alice Springs - Ayers Rocks flights returning after extensive marketing efforts.

In 1998, Airport Development Group (ADG) acquired a 50-year lease, with a further 49-year option for the three FAC controlled Northern Territory airports. ADG owns 100% of Northern Territory Airports Pty Ltd (NTAPL) and Tennant Creek Airport PL. NTAPL in turn owns 100% of Darwin International Airport Pty Ltd (DIA) and Alice Springs Airport Pty Ltd (ASA). ASA is the airport operator.

Some 50% of aircraft and passenger traffic was lost with the demise of Ansett Airlines in 2001, with traffic levels returning slowly after 2002. ASA has worked closely with government and private sector tourism interests to secure additional Alice Springs flights with the objective of achieving pre-2001 passenger and traffic levels. Occasional international charters have also operated directly into Alice Springs with the last being a Japan Airlines B747 charter program.

ASA has also worked to diversify the property portfolio by identifying commercial opportunities. One such opportunity was afforded by moving the Airport management centre function into the terminal building in 2005. This freed up the old management centre to be leased to the Australian Federal Police on a commercial basis. Another commercial venture commenced on a site located west of the runway 17 threshold. Established in 2007 this site is currently used for the construction of transportable buildings.

SIGNIFICANT DEVELOPMENTS ON AIRPORT

Since the ADG acquired Alice Springs Airport there has been development in both infrastructure and facilities at the Airport.

Details of the developments that have been funded by ASA are outlined below.

Apron, Taxiway and Runway works

2004

- \$250,000 resurfacing project to runway 17/35.

2009

- \$10 million resurfacing of the main runway 12/30 to extend the runway life by 15 years;
- \$250,000 general aviation apron expansion.

Terminal

2004

- \$2 million refurbishment to terminal, including locally inspired carpet designs to create a Centralian experience and to improve passenger processing;
- \$390,000 security upgrade, including Closed Circuit Television (CCTV), access control and screening point.

2005

- \$200,000 provision of flight information displays (FIDs);
- \$115,000 upgraded and expanded toilet facilities.

2006

- \$6 million checked bag screening system;
- \$300,000 check-in and car rental counter development.

2007

- \$205,000 enhancement to baggage makeup capacity.

2009

- Building management system upgrade to improve the energy efficiency of the air-conditioning system.

Ground Transport and Car Parks

2006

- \$520,000 long-term car park development;
- \$247,000 development of wash bay facilities.

Commercial, Heritage and Environment Developments

2004

- \$100,000 conversion of old passenger terminal to freight facility.

2007

- \$120,000 expansion of old terminal freight facility.

2008

- \$1.4 million upgrade of the high voltage system from a single radial feed to a ring main configuration, giving flexibility and redundancy of power supply to the Airport.

SECTION 3

Airports Act Framework

- The *Airports Act 1996* specifies the content of an Airport Master Plan which covers aviation, commercial and environment planning requirements.
- Consultation with government, business and community is a prominent part of the Master Plan development process.
- The Master Plan must be submitted to the Federal Minister for Infrastructure, Transport, Regional Development and Local Government for approval.
- The Final (approved) Master Plan is valid for five years.

SECTION 3

Airports Act Framework

AIRPORTS ACT 1996 (AS AMENDED) AND ASSOCIATED REGULATIONS

In 1996, the Federal Parliament passed the *Airports Act 1996*, *Airports (Environmental Protection) Regulations 1997* and associated regulations, to govern the development and operations of federal airports in Australia, leased to the private sector. The Act and the Regulations are the statutory controls for the ongoing regulation of activities on airport land for both aeronautical and non-aeronautical development.

Part 5 of the *Airports Act 1996* directs that an airport-lessee company (ALC) must develop a Master Plan. In accordance with the Act the Master Plan must provide strategic direction for the development of the Airport.

AIRPORT MASTER PLAN REQUIREMENTS

The Act states that there is to be a final Master Plan, as defined in Part 3, Division 5, Section 70. The specific provisions of the Act applying to Airports, other than joint-user airports, apply to the ASA Master Plan.

The Act specifies that an Airport Master Plan must set out:

- development objectives;
- an assessment of the future needs of civil aviation users and other uses of the airport;
- intention for land use and related development of the area embracing landside, surface access and land planning/zoning aspects as well as airside aspects including runways or taxiways;
- an Australian Noise Exposure Forecast in relation to the airport for land surrounding the airport;
- flight paths at the airport;
- plans for managing aircraft noise within the area;
- an assessment of environmental issues associated with the implementation of the plan;
- management of the environmental impacts including plans for ameliorating or preventing environmental impacts;
- whether a draft environment strategy has been approved.

Part 3 Division 5 Section 72 of the Act also states that the plan must cover a 20-year planning period. The Master Plan remains in force for a 5-year period, and thus will be reviewed every five years.

AIRPORT MASTER PLAN ASSESSMENT PROCESS

When a Master Plan is prepared, consultation must be undertaken to ensure compatibility and acceptability of the plan. The agencies that were consulted include:

- Territory Government;
- authorities of the Territory Government;
- local government;
- airlines or other users of the airport.

Furthermore, pursuant to Section 79(1) of the Act, the Preliminary Draft Master Plan was advertised for public comment for a period of 60 business days.

Prior to the public comment period, ASA advised in writing the following persons and provided evidence, by way of a copy of the advice and a signed written certificate to the Minister, of distributing the Preliminary Draft Master Plan to:

- the Northern Territory Minister for Lands and Planning;
- the Department of Planning and Infrastructure;
- the Alice Springs Town Council.

When the public comment period closed, ASA submitted to the Minister a summary of comments received together with the Draft Master Plan. This summary contained the following:

- the names of persons or organisations that made comments;
- a summary of the comments;
- a statement declaring that ASA has taken due regard of the comments;
- any other information relating to the comments that may be required by the Regulations.

Once ASA submitted the Draft Master Plan the Minister had 50 business days to decide whether to approve or refuse to approve the plan. In making the decision to approve or refuse the Draft Master Plan, the Minister gave regard to:

- the extent to which the plan achieves the purpose of a Master Plan;
- the extent to which the plan meets the needs of the airport users;
- the effect on the use of land, including within the airport site and the areas surrounding the airport;
- consultation undertaken;

- the views of the Civil Aviation Safety Authority (CASA) and Airservices Australia in respect to safety and operational aspects;
- any other matters considered relevant.

The Master Plan was approved by the Minister on 6 August 2010 and is therefore the Final Master Plan for the Airport.

FIGURE 5: MASTER PLAN PROCESS OUTLINE



AVIATION WHITE PAPER

The Federal Government released an Aviation White Paper on 16 December 2009. The White Paper has a number of policy initiatives that will impact on airport Master Plans and developments on airports. The impacts of the White Paper initiative on planning for Alice Springs Airport are discussed throughout the Master Plan.

This page has intentionally been left blank

SECTION 4

Stakeholder and Community Consultation

- Alice Springs Airport (ASA) is committed to genuine consultation with all stakeholders.
- During preparation of the Master Plan, ASA undertook consultation with government agencies, airlines, general aviation operators and airport businesses to scope the major issues.

SECTION 4

Stakeholder and Community Consultation

ASA is committed to effective and genuine consultation with all key stakeholders. ASA endeavours to provide a considered and clearly articulated approach to ensure that accurate information is disseminated and that feedback is encouraged in regard to development of Alice Springs Airport.

.....

COMMUNICATION AND CONSULTATION APPROACH

During preparation of the Master Plan, ASA has undertaken consultation with government agencies, airlines, general aviation operators and airport businesses, to scope the major issues.

As part of the public consultation process, ASA provided or undertook:

- Copies of the Preliminary Draft Master Plan (PDMP) were available from the Alice Springs Airport Management Centre and on www.alicespringsairport.com.au.
- Copies of the PDMP were available for viewing at the Alice Springs library.
- Public Display at the airport.
- Public Display and face to face at the Alice Springs Show 3 - 4 July 2009.
- Various discussions with NT Government representatives and key stakeholders.

Stakeholders consulted during the preparation for or during the public comment period of the PDMP included:

- Airservices Australia – Canberra;
- Airservices Australia – Alice Springs;
- Civil Aviation Safety Authority (CASA) – Canberra;
- Civil Aviation Safety Authority – Adelaide;
- Alice Springs Airport staff;
- Department of Infrastructure, Transport, Regional Development and Local Government (DITRD LG) – Canberra (exposure draft only);
- Airlines;
 - Qantas Airways;
 - Tiger Airways;
- Northern Territory Department of Lands and Planning; and
- General Aviation operators.

Additionally, during preparation of the Preliminary Draft Master Plan, ASA undertook consultation with key stakeholders through surveys, data collection or direct consultation as part of the various technical studies.

Consultation with the MacDonnell Shire occurred during the Minister's assessment period.

Prior to the commencement of the public comment period, ASA advised, as per the Act, in writing the following persons:

- the Northern Territory Minister for Lands and Planning;
- the Department of Lands and Planning;
- the Alice Springs Town Council.

This page has intentionally been left blank

This page has intentionally been left blank

SECTION 5

Development Objectives

- Alice Springs Airport has established Development Objectives to guide its planning and development of aeronautical and non-aeronautical facilities and services.

SECTION 5

Development Objectives

ASA has established the following development objectives to guide its planning and development of aeronautical and non-aeronautical facilities and services:

- Ensure that planning supports long term development as an airport with an optimal mix of aeronautical uses.
- Provide a safe, secure, reliable and sustainable airport operating environment.
- Enhance the airport's contribution to Northern Territory economic growth through developing the airport's aviation and property business and by facilitating the success of our business partners.
- Integrate environmental considerations into the development of facilities and services and seek to minimise their impact on the natural environment.
- Engage with key community, business and government stakeholders on airport related economic, social and environmental issues and be mindful of surrounding community interests.
- Provide airport infrastructure and facilities which are timely, cost effective, flexible in use and provide a good customer experience.
- Undertake developments which enhance value to our shareholders and the broader economic community.

This page has intentionally been left blank

This page has intentionally been left blank

SECTION 6

Social, Economic and Regional Significance

- Economic activity at Alice Springs Airport comprises some 0.4% of Northern Territory GSP.
- The net tourism sector impact of the Airport creates about 1,400 jobs in the tourism industry.
- The large General Aviation sector at the Airport is critical to delivery of services to Northern Territory and regional interstate remote communities.

SECTION 6

Social, Economic and Regional Significance

CURRENT ECONOMIC IMPACT OF ALICE SPRINGS AIRPORT

Alice Springs Airport is the major Central Australian airport. It provides facilities used by tourists and other visitors to central Australia, air services for remote communities (for which Alice Springs serves as the regional centre), the Joint Defence Research Facility at Pine Gap, general aviation and helicopter traffic, and other recreational activities.

Input-output analysis has been used to estimate the economic impact of the airport, using data obtained from survey of airport businesses and airport financial information.

The current total annual impact of the airport on the Central Australian economy is significant, with revenues of \$113 million, wages and other income of \$24 million, value-added of \$62 million and 315 jobs (see Table 2).

TABLE 2: ANNUAL AIRPORT-RELATED BUSINESS IMPACTS 2009

	AIRPORT OPERATIONS	VISITOR-RELATED AIRPORT BUSINESSES	TOTAL
Output (\$m)	95.5	17.3	112.8
Income (\$m)	20.0	4.0	23.9
Employment (FTEs)	248	67	315
Value-added (\$m)	52.7	9.1	61.8

Data source: ACIL Tasman

In addition to the economic activities taking place at the airport, Alice Springs Airport makes a contribution to the wider NT economy by facilitating the air travel of domestic and international visitors into the region.

The direct contribution of ASA economic activity to the Northern Territory economy constitutes some 0.4% of Northern Territory Gross State Product (GSP).

The net tourism impact of the airport is also considerable, with \$168 million in value-added, \$87 million in wages and other income, \$320 million in revenues and 1420 jobs. These numbers are net of the tourism impact due to visitor spending at the airport, as these are already included in figures shown in Table 2.

TABLE 3: AIRPORT-ENABLED TOURISM IMPACT ON THE NT ECONOMY

	TOURISM IMPACT (\$M)	TOURISM IMPACT DUE TO SPENDING AT ASA (\$M)	NET TOURISM IMPACT (\$M)
Output (\$m)	337.0	17.3	319.8
Income (\$m)	90.5	4.0	86.5
Employment (FTEs)	1,483	67	1,416
Value-added (\$m)	177.0	9.1	167.9

Data source: ACIL Tasman

FUTURE ECONOMIC IMPACT OF ALICE SPRINGS AIRPORT

Airport Business Impact in 2029-30

Based on projected passenger numbers, the estimated impact of airport-related activities on the Central Australian economy is significant. It is projected that Alice Springs Airport and on-airport businesses will support over 461 jobs in 2029-30. In 2029-30, the annual output (or revenue) will be \$165 million, and its value added (or contribution to GSP) will be \$91 million per year (both in current dollar values). Approximately 40 percent of the value-added (\$35 million in today's dollars) will go to employees as wages and other income.

TABLE 4: ESTIMATED AIRPORT-RELATED BUSINESS IMPACT IN 2029-30

	AIRPORT OPERATIONS	VISITOR-RELATED AIRPORT BUSINESSES	VISITOR-RELATED AIRPORT BUSINESSES
Output (\$m)	139.9	25.3	165.2
Income (\$m)	29.2	5.8	35.1
Employment (FTEs)	363	99	461
Value-added (\$m)	77.2	13.3	90.5

Note: The above effects are in current dollar values

Data source: ACIL Tasman

Tourism Impacts in 2029-30

The estimated airport-enabled tourism impact shows that over 2170 jobs will be due to tourists arriving by air while they will add approximately \$260 million of value in current dollar terms to the NT economy. Removing the impacts of tourism spending at the airport to avoid double-counting, the net impacts are approximately \$130 million in wages and other income, \$250 million in value added and 2070 jobs.

TABLE 5: ESTIMATED AIRPORT-ENABLED TOURISM IMPACT IN 2029-30

	TOURISM IMPACT (\$M)	TOURISM IMPACT DUE TO SPENDING AT ASA (\$M)	NET TOURISM IMPACT (\$M)
Output (\$m)	493.6	25.3	468.4
Income (\$m)	132.5	5.8	126.7
Employment (FTEs)	2,172	99	2,074
Value-added (\$m)	259.2	13.3	245.9

Note: The above effects are in current dollar values
Data source: ACIL Tasman

Connecting communities in the Territory

Alice Springs Airport plays a vital role in sustaining remote communities in Australia's central regions through the utilisation of the large general aviation capability at the airport. Apart from aero medical operations there are a wide range of essential service type air services that connect remote communities to Alice Springs.

Hot weather testing facility

The Airport also serves as a testbed for Boeing conducting hot weather trials relating to new in service aircraft as the summer temperatures are frequently in excess of 40 degrees Celsius (104 Fahrenheit).

OTHER RELATED ACTIVITIES

There are a number of activities at Alice Springs Airport whose value to Alice Springs and the wider community has not been quantified in the above analysis.

Medical services

Aircraft-based medical services play a key role in Central Australia. Prior to the introduction of such services, the needs of many emergency or critical cases simply could not be met, as land based transportation often meant impossible time delays in accessing medical services.

As such, the Alice Springs Airport plays a critical role in enabling timely access of emergency medical care in remote areas, transport of critically ill persons to Alice Springs Hospital and larger medical centres elsewhere in Australia, and in the provision of preventative health care services within the remote areas of Central Australia.

Joint Defence Research Facility

The airport enables weekly supply flights that service the Joint Defence Research Facility (JDSRF) at Pine Gap. It serves as a freight transfer base for United States Air Force cargo aircraft taking equipment in and out of the nearby facility.

This page has intentionally been left blank

SECTION 7

Aviation Activity Forecasts

- Passenger traffic will grow moderately over the next 20 years with the current 630,000 passengers per annum growing to some 940,000 in 2029.
- Aircraft movement will increase from 23,700 currently to around 33,000 aircraft movements over the 20-year planning period.

SECTION 7

Aviation Activity Forecasts

INDUSTRY OUTLOOK

As with the previous 2004 Master Plan, aviation industry conditions have changed considerably since the preparation of the previous Master Plan. In concert with most of the Australian economy, airports and airlines are focussed on weathering the economic slowdown induced by the global financial crisis.

In terms of airline operators:

- Virgin Blue commenced Sydney services in 2003 and Adelaide services in 2004, but had withdrawn totally from the Alice Springs market by late 2005;
- Tiger airways commenced Melbourne services in 2008 and Adelaide services in 2009. Adelaide services terminated in May 2010.
- Qantas continues to provide most domestic Alice Springs capacity.

It is expected that there will continue to be volatility in airline service levels in at least the short term. Aside from the impacts of the global financial crisis, Low Cost Carriers (LCC) tend to vary capacity and routes in response to changing market conditions more frequently than full service airlines. This is a feature of the LCC model.

An additional factor is that the Alice Springs passenger market is dominated by leisure traffic which means it is more impacted by economic cycles than markets with a significant business traffic component. The General Aviation sector continues to experience entry and exit of industry participants.

RECENT PERFORMANCE

Due to Alice Springs Airport's relatively small passenger base, the addition of new services or suspension of existing services has a major impact on growth. This has been demonstrated several times in recent years, following the collapse of Ansett, the September 11 attacks in New York, the Bali bombings and SARS outbreak in the Asia region.

Since the previous 2004 Master Plan, Alice Springs Airport's passenger numbers have experienced modest growth. Domestic passenger movements (including transits) grew from 610,000 in 2004 to 630,000 in 2008, representing average annual growth of around 1%.

International charter operations have varied from year to year with the most recent charter program featuring Japan Airlines B747 flights in 2006.

Traffic Performance

Over the 10-year period to 2007-08 the number of domestic airline passenger movements arriving or departing at Alice Springs Airport has increased by a compound average of 2.8% per year, from nearly 460,000 to 573,000 passengers (excluding transit passengers).

A strong downturn was experienced in 2001-02 due to the collapse of Ansett. Growth through 2002-03 and 2003-04 resulted from the entry of Virgin Blue and additional Qantas services. However, Virgin Blue progressively withdrew its services throughout 2005. Alice Springs recorded 5.5% growth in 2007-08. Tiger Airways entered the market on the 1 March 2008 with Melbourne services and a year later commenced flights to Adelaide.

In 2008, Darwin was the major Alice Springs route accounting for nearly 23% of domestic passengers. Between them Sydney, Melbourne and Adelaide accounted for 47% of passengers.

International Operations

International charters (non-scheduled international jet services) have periodically operated into Alice Springs Airport. In recent years the annual number of international charter passengers has been:

- around 700 in each of 2003-04 and 2004-05;
- 2148 in 2005-06;
- 1540 in 2006-07;
- no charters in 2007-08 or 2008-09.

Freight

Domestic freight has continued to be carried in the cargo hold of scheduled passenger flight aircraft. There is no central source of domestic freight data.

General Aviation

In recent times, GA activities have been highly volatile with growth differing amongst the various categories of general aviation flying. From 1999 to 2007 the compound annual growth for annual flying hours for GA activities was 0.6% for charter, 6.6% aerial work and 6.1% for business operations.

From 1999 to 2007, charter has accounted for the largest sector of general aviation in the NT with 56% of total flying hours. Aerial work was the second highest with 27% and business flying accounted for a further 9%.

United States (US) Military Operations

There is an average of some 200 Military movements per annum at Alice Springs Airport. It serves as a freight transfer base for United States Air Force military cargo planes, taking equipment in and out of the nearby Joint Defence Research Facility (JDSRF) with C-17 & KC-10 aircraft types. In the past the airport has catered for C-5 Galaxy aircraft.

FORECAST METHODOLOGY

The forecasts outlined below are produced by Tourism Futures International (TFI) in consultation with ASA. Due to growth being driven by capacity in the short term, the next five year growth forecasts are based on likely operating capacity. Beyond the first five years, a model (developed over the past 19 years for forecasting Australian airport growth) was used. For the international market estimates of the responsiveness of passenger traffic to general economic activity (generally measured by Gross Domestic Product (GDP)), air fares and exchange rates are used. The main influences on domestic growth are Australian GDP and airfares. Results from aggregate and market based models are compared before finalising results.

Low, central and high forecasts have been developed for both passengers and aircraft movements. The low and high figures represent the likely lower and upper bands of growth to 2030. The central forecasts represent the most likely growth scenarios and provides the basis for the planning throughout this document.

TRAFFIC FORECASTS

Passenger Movements

It is projected that annual passenger movements, including transit, will increase from 630,000 passengers to approximately 940,000 passengers by the end of the planning period.

The early years of the passenger forecasts (up to 2011-12) are driven heavily by airline and capacity developments.

Developments of significance to Alice Springs include:

- the introduction and expansion of low-cost air services by Tiger Airways
- seasonal supplementary services by Qantas to cater for peak tourist season demand
- the decline of the Japan-Australia market, and Qantas' mainline withdrawal from the Japan-Cairns market. This is expected to have a flow-on impact to Central Australia as Cairns was an important hub for Japanese traffic.

The forecasts have been based on the following assumptions:

- ongoing presence of a low cost carrier operation at Alice Springs
- additional domestic services that offer improved connectivity from key inbound tourist markets.

Refer to Table 6: Forecast Passenger Movements below.

International Charter Operations

Expectations are that charter programs for Alice Springs are likely to move forward as international economies and key tourist markets recover. Regular services may operate seasonally in the longer term.

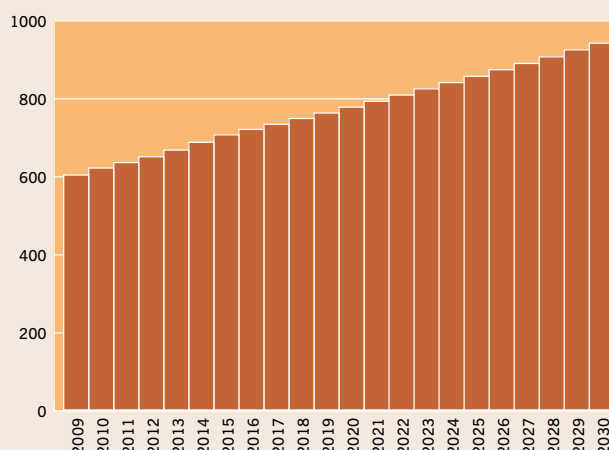
Freight

Domestic freight will continue to be carried predominantly in the cargo hold of passenger services. As domestic airline movements increase, this will generate additional capacity for domestic freight uplift.

TABLE 6: FORECAST PASSENGER MOVEMENTS

FORECAST PASSENGER MOVEMENTS

000's



Aircraft Movements

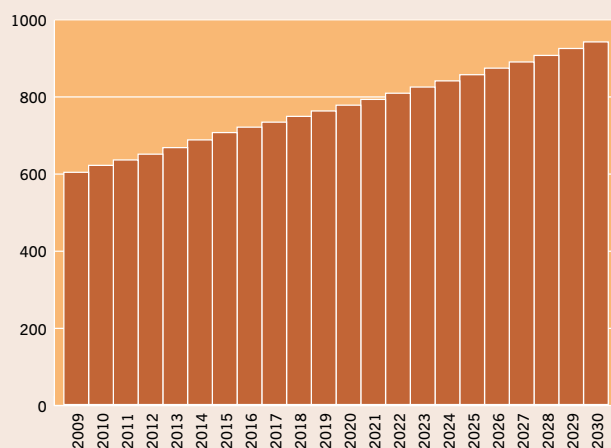
It is projected that combined aircraft movements at the Airport will grow from 23,700 movements to some 33,000 movements per year by the end of the planning period. Aircraft movements are forecast to grow in line with passenger volumes. It is anticipated that until at least 2015 the majority of aircraft movements will continue to be narrow body operations. General Aviation forecasts are generated using an assumption that the underlying growth represents one-quarter of the growth rate in NT GSP per capita.

Refer to Table 7: Forecast Aircraft Movements below.

TABLE 7: FORECAST AIRCRAFT MOVEMENTS

FORECAST PASSENGER MOVEMENTS

000's



SECTION 8

Airport Land Use

- Land use planning is fundamental to an Airport Master Plan and is specifically highlighted in the Act.
- Land use planning in the 2009 Master Plan:
 - ensures there is adequate land for expansion of aviation activity;
 - clearly separates aeronautical and non-aeronautical uses;
 - has been developed using terminology and definitions consistent with that of the Northern Territory Planning Scheme where possible, with any variations being highlighted; and
 - reflects the large land holding and the significant long-term development potential of the Airport.
- A new land zone is Aviation Reservation which preserves land for ultimate aeronautical use but provides for a non aeronautical interim use.
- ASA and the Northern Territory Government are planning for the northern part of the Airport's land holding to be developed in conjunction with the nearby Arid Zone Research Institute (AZRI) land for residential and commercial development.



SECTION 8

Airport Land Use

INTRODUCTION

Alice Springs Airport incorporates approximately 3550 hectares, which is a large area for an airport (Australia's largest airport site). Less than 800 hectares are utilised for the Airport operation. The reason for this very large area is the acquisition of land in the 1960s for dust suppression purposes.

DEVELOPMENT POTENTIAL OF AIRPORT LAND

Alice Springs and Alice Springs Airport have many development strengths. These include:

- vibrant lifestyle and attractive tourist destination;
- the major population and services centre in Central Australia
- high quality infrastructure;
- large Airport land area available for development.

Given these opportunities, ASA has identified development opportunities which include:

- high technology industry, especially those industries relevant to Alice Springs as a solar city;
- industries that rely on logistical support (e.g. mining);
- residential development;
- air, road and other transport-based industries.

Alice Springs Airport has a largely undeveloped and mainly flat, site in close proximity to the existing Alice Springs township. It has no development constraints from potential native title or topography issues in an area where these issues loom large. Combined with the shortage of residential land experienced in Alice Springs, this makes the Airport land particularly valuable for future development.

Development envisaged in Airport land use includes horticulture in the Horticulture Zone, aircraft storage in the Aviation Reservation and Dust Suppression Zones, General Aviation expansion in the Aviation Activities Zone, warehousing in the Light Industry Zone and a restaurant in the Heritage Zone. The Future Development Zone is described below.

FUTURE DEVELOPMENT ZONE

The Future Development Zone in the Airport Land Use Zone Plan (Figure 3) has "residential and ancillary and ancillary commercial and community uses" as its primary purpose. The term residential is used mainly in reference to the Future Development Zone.

Identified Need

The shortage of land for new housing in the Alice Springs area is well documented. Existing urban development is concentrated north of The Gap and local topography, soil types, Native Title factors and land servicing costs together result in high cost of new residential land north of The Gap. Hence the Northern Territory Government has focused its attention south of The Gap for additional new housing land.

A June 2008 public forum in Alice Springs and subsequent public submissions gave rise to the published Alice Springs Planning for the Future Forum – Outcomes Report and Action Plan (March 2009). It identified that part of the Arid Zone Research Institute (AZRI) site, as Government land, was suitable for rezoning to provide around 1,400 housing lots. Also identified was that a combined AZRI - Alice Springs Airport residential land development could provide 4,000 housing lots at half of the infrastructure servicing costs per lot, compared to the smaller AZRI only development.

Widespread support exists for an integrated development of the nearby AZRI residential area and the Airport proposed residential land. The Northern Territory Government, Alice Springs Town Council and Chamber of Commerce have all formally expressed their support.

Regulatory Context

The Aviation White Paper "Flight Path to the Future" states "there are a range of activities that are likely to be incompatible with the long-term operation of an airport as an airport. These activities included long-term residential development, residential aged or community care facilities, nursing homes, hospitals and schools." (Aviation White Paper)

The Australian Government made regulations in September 2009 requiring that all such developments, or extension of an existing facility, be subject to the Major Development Plan process.

The Government introduced legislation into the Federal Parliament in June which institutes a prima facie prohibition of such developments on Federal airport sites, with airports having the opportunity to demonstrate that exceptional circumstances exist. In assessing whether exceptional circumstances exist the Minister will have particular regard to whether the development would restrict the future use of the site for

aviation-related purposes, raise significant ground traffic issues, or present risks in terms of safety, security or environmental aspects” (Aviation White Paper).

Land Tenure

The Future Development Zone containing the proposed residential use is currently part of the airport lease under the *Airports Act 1996*.

Residential is a land use which is prima facie prohibited under both Australian Government policy and amendments to the *Airports Act 1996* introduced to Federal Parliament in June 2010. Residential development in the Northern Territory occurs on a freehold tenure basis. Hence for any residential development to occur the Future Development Zone would need to be excised from the Airport lease and converted to freehold tenure.

This would occur in accordance with the requirements of the Commonwealth Property Disposals Policy. The Policy provides that “Where a surplus Commonwealth property is considered by the Department of Families, Housing, Community Services and Indigenous Affairs as suitable for facilitating:

- an increase in the supply of housing without adversely affecting surrounding property prices;
- improved community amenity;
- the creation of new jobs

the property shall be disposed of under a strategy that has been jointly approved by the Minister for Housing; the Minister for Finance and Deregulation; and the Portfolio Minister (of the owner agency).”

This means that the approval of several Australian Government Ministers is required.

Kilgariff Development Proposal

Both ASA and the Northern Territory Government, subject to Australian Government approval, are committed to proceeding with an integrated AZRI and Airport land residential development, including joint Government – Airport planning. This integrated development will be called Kilgariff.

The integrated development has now been assessed as having a long term potential of some 3,500 building lots. This is less than the number of lots originally envisaged.

Planning to date has included town planning requirements under the Northern Territory Planning Scheme, best practice urban design principles, arid region factors, infrastructure requirements and environmental sensitivity. Community amenity is a particular focus.

Features of Kilgariff planning include:

- there will be a buffer of at least 1 km between housing and both the airport terminal and main runway to minimise aircraft noise impact on future residents. Residential

development is well outside the 2049 20 ANEF contour as illustrated in Figure 6;

- buffers between residential and the Stuart Highway and existing rural residential development;
- water sensitive urban design (WSUD) principles will be incorporated in the subdivision design, existing vegetation taken into account and natural water courses reinstated as much as possible;
- generous conservation, public space and organised recreation areas will contribute to good community amenity;
- commercial and community facilities planned for are schools, medical clinics, local shopping precinct, community halls, child minding facilities, small commercial (non-retail) development and sporting facilities (including ovals and organised recreation); and
- transport links will include cycle and pedestrian corridors.

PRE-EXISTING INTERESTS

Part 5.02930(b) of the Airport Regulations 1997 requires that any obligations or interests at Alice Springs Airport are addressed. Existing interests are listed below:

- Electronic communications Easement to Telstra Corporation Limited
- Electricity supply Easement to Power and Water Authority
- Electronic communications Easement to Northern Territory of Australia

AIRPORTS ACT 1996 AND ASSOCIATED REGULATIONS

Airports Act 1996

The *Airports Act 1996* requires the Master Plan to specify ASA's intentions for its land use and related development of the leased area of the airport site where uses and developments embrace airside, landside, surface access and land planning/ zoning aspects. The following Land Use Zones and Land Use Plans have been developed observing this.

Consistency with the Northern Territory Planning Scheme

Part 5.02(3)(b) of the Airport Regulations 1997 states: ‘an airport master plan, must, in relation to the landside part of the airport, where possible, describe proposals for land use and related planning, zoning or development in an amount of detail equivalent to that required by, and using terminology (including definitions) consistent with that applying in, land use planning zoning and development legislation in force in the State or Territory in which the airport is located.’

Consequently, where possible, the Land Use Zones have been developed in an amount of detail and using terminology and definitions consistent with that of the Northern Territory Planning Scheme.

Definitions of Intended land uses are contained in Section 20.

LAND USE ZONES

Land Use Zones for the airport land apply to areas on the Land Use Plan as shown in Figure 3. These are based on known airport land use needs and current market trends.

The administration of the zones aims to assist and encourage progressive, orderly and strong growth of the airport land. The zones have been categorised into:

- aviation and aviation-related uses;
- interim uses;
- non-aviation uses.

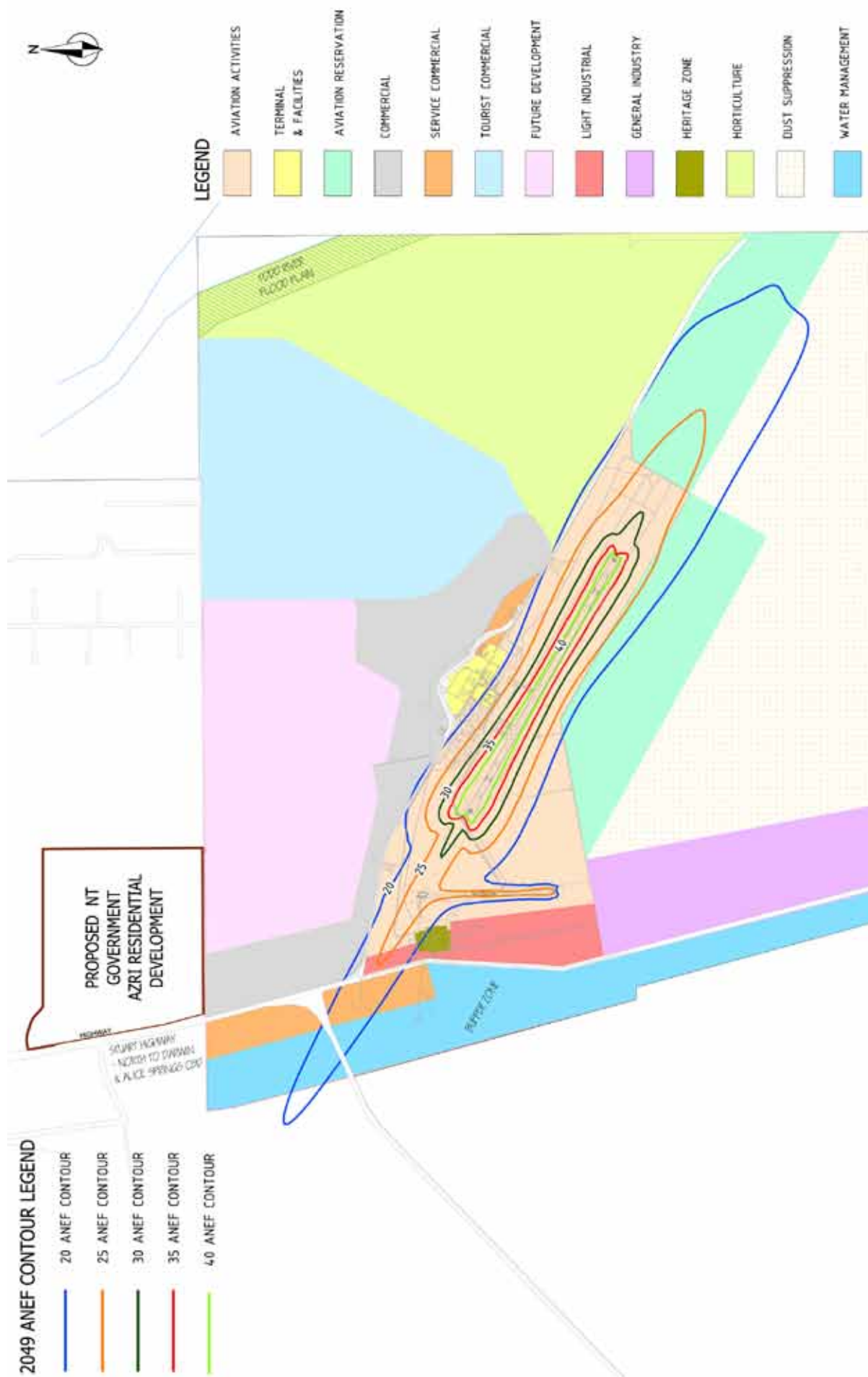
Where possible, the zones and associated permitted and discretionary uses of the Northern Territory Planning Scheme have been adopted as zones and intended uses.

Where there are inconsistencies between existing land uses and land uses proposed in the zone, the existing uses may continue. Expansion and/or replacement of the existing uses may be consented to by ASA and be regarded as an additional permissible form of the existing use.

Development in any land use zone will have regard to AS2021 – 2000 (Acoustics – Aircraft noise intrusions – building siting and construction).

Several of the following land use zones, including the Future Development Zone, have land uses which are *prima facie* prohibited under both Australian Government policy and amendments to the *Airports Act 1996* introduced to Federal Parliament in June 2010. These land uses include residential, child care, community facilities, education facilities and nursing homes. These uses could not proceed without exceptional circumstances being demonstrated and the Major Development Plan process followed where such a land use was to occur on the airport lease.

FIGURE 6: LAND USE AND PROPOSED NT GOVERNMENT AZRI AREA PLAN



AVIATION AND AVIATION RELATED USES

Aviation Activities Zone

(This zone is shown as beige on the Land Use Plan)

Primary Purpose

To provide for the future and current aviation operations and requirements of the airport and the airline passenger terminal.

Intended Principal Land Uses

- Aviation activities including General Aviation

TABLE 8: AVIATION ACTIVITIES ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Provide areas which are essential for aircraft operations and requirements.	Animal boarding Aviation activity Aviation support facility
Promote the safe and orderly operation of aircraft operations and the airport facilities in general.	Business sign Car park Fuel depot General aviation and support facilities
Facilitate compatible and ancillary uses within the zone which does not conflict with aviation activities or facilities.	General industry Helipad Heliport Light industry Medical clinic Navigational aids Office Passenger terminal Place of worship Promotion sign Shop Transport terminal Utilities and infrastructure

Terminal and Facilities Zone

(This zone is shown as yellow on the Land Use Plan)

Primary Purpose

To provide for a variety of goods, services and facilities to meet the needs of travelling passengers, airport visitors, the airport workforce and the airlines. This zone includes the main terminal building, public car parking, airport and government offices, and associated land.

Intended Principal Land Uses

- Airline passenger terminal
- Car parking
- Offices

TABLE 9: TERMINAL AND FACILITIES ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Provide for an airport terminal and passenger facilities which meet the needs of travellers, airport visitors, the airport workforce and airlines.	Animal boarding Aviation activity Aviation support facility Business sign
Not prejudice the safety or efficiency of the airport.	Car park Child care centre Fuel depot
Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.	General aviation and support facilities Helipad Heliport Hotel
Promote community safety in building design, having regard to adjacent and nearby uses.	Leisure and recreation Medical clinic Motel Navigational aids
Ensure that adequate car parking is provided.	Office Passenger terminal Place of worship Promotion sign Restaurant Service station Shop Transport terminal Utilities and infrastructure Vehicle sales and hire

INTERIM USES

Aviation Reservation Zone

(This zone is shown as mint green on the Land Use Plan)

Primary Purpose

To provide for the potential future expansion of aviation and aviation-related uses.

Intended Principal Land Uses

- Interim uses that do not conflict with future aviation and aviation-related uses

TABLE 10: AIRPORT RESERVATION ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Facilitate compatible and ancillary uses within the zone which does not conflict with aviation and aviation-related uses or render the land unfit for aviation and aviation-related uses when it is required for this use.	Animal boarding Aviation activity Aviation support facility Business sign Car park Community centre Education establishment Fuel depot General aviation and support facilities Helipad Heliport Hostel Hotel
Not prejudice the safety or efficiency of the airport.	Leisure and recreation Licensed club Light industry Medical clinic Motel Motor body works Motor repair station Navigational aids Office Passenger terminal Place of worship Plant nursery Promotion sign Restaurant Service station Shop Short-stay accommodation Showroom sales Transport terminal Utilities and infrastructure Vehicle sales and hire Veterinary clinic Warehouse
Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.	
Promote community safety in building design, having regard to adjacent and nearby uses.	
Ensure that adequate car parking is provided.	
Have regard for ecological and hydrology value during the design stage.	

NON-AVIATION RELATED USES

Commercial Zone

(This zone is shown as grey on the Land Use Plan)

Primary Purpose

To provide for a range of business, office, and retail activities as well as community uses.

Intended Principal Land Uses

- Office
- Retail (shops)

TABLE 11: COMMERCIAL ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Encourage a range of activities which would benefit from a location in close proximity to the airport and its terminal area.	Business sign Caretaker's residence Car park Child care centre Community centre Education establishment Hostel Hotel Leisure and recreation Licensed club Medical clinic Motel Motor repair station Navigational aids Office Place of worship Plant nursery Promotion sign Restaurant Service station Shop Showroom sales Supporting accommodation Utilities and infrastructure Vehicle sales and hire Veterinary clinic
Not prejudice the safety or efficiency of the airport.	
Respect the amenity of the adjacent and nearby uses.	
Promote community safety in building design, having regard to adjacent and nearby uses.	
Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.	
Ensure that adequate car parking is provided.	
Have regard for ecological and hydrology value during the design stage.	

Service Commercial Zone

(This zone is shown as light orange on the Land Use Plan)

Primary Purpose

To provide commercial activities, which because of the nature of the business or size of the population catchment, require large sites.

Intended Principal Land Uses

- Office
- Retail (shops)
- Showroom sales
- Warehouse

TABLE 12: SERVICE COMMERCIAL ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Allow for a range of land uses including showroom sales and warehouse but will not, by the nature of its operations, detrimentally affect the amenity of the adjoining or nearby land developments.	Business sign Car park Child care centre Community centre Education establishment Hostel Hotel
Not prejudice the safety or efficiency of the airport.	Leisure and recreation Licensed club Light industry Medical clinic Motel Motor body works Motor repair station Navigational aids Office Passenger terminal Place of worship Plant nursery Promotion sign Restaurant Service station Shop Short-stay accommodation Showroom sales Transport terminal Utilities and infrastructure Vehicle sales and hire Veterinary clinic Warehouse
Promote community safety in building design, having regard to adjacent and nearby uses.	
Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.	
Ensure that adequate car parking is provided.	

Tourist Commercial Zone

(This zone is shown as light blue on the Land Use Plan)

Primary Purpose

To provide for uses or development servicing tourism, including commercial activities.

Intended Principal Land Uses

- Hostel
- Hotel
- Motel
- Short-stay accommodation

TABLE 13: TOURIST COMMERCIAL ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Be of a scale and character compatible with uses or development nearby.	Business sign Caravan park Caretaker's residence Car park Community centre Hostel Hotel
Not prejudice the safety or efficiency of the airport.	Leisure and recreation Licensed club Medical clinic Motel
Encourage a range of viable tourist/visitor activities which would benefit from a location in close proximity to the airport and its terminal area.	Navigational aids Office Passenger terminal Place of worship Plant nursery Promotion sign Restaurant Service station Shop Short-stay accommodation Utilities and infrastructure Vehicle sales and hire
Promote community safety in building design, having regard to adjacent and nearby uses.	
Have regard to the portion of the Todd River Flood Plain located within this zone.	
Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.	
Ensure that adequate car parking is provided.	

Future Development Zone

(This zone is shown as light pink on the Land Use Plan)

Primary Purpose

To provide for future residential and ancillary commercial and community uses.

This zone is an interim zone identifying an area that is intended for future rezoning and development in accordance with a MDP or similar, prepared having regard to future requirements for land uses within the airport and on adjacent land.

Intended Principal Land Uses

- Single dwelling on individual lots
- Short-stay accommodation
- Affordable housing, including multiple dwellings
- Ancillary commercial uses including local shopping
- Ancillary community uses including child care and education

TABLE 14: FUTURE DEVELOPMENT ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Be of a scale and character compatible with uses or development nearby.	Business sign
Not prejudice the safety or efficiency of the airport.	Community centre
Demonstrate the relationship of the proposal to existing and proposed future land uses, identifying potential impacts on facilities and services and the amenity of the locality.	Dependant unit
Encourage a range of residential types and designs, including a focus on the provision of affordable houses.	Domestic livestock
Provide for the disposal of effluent on-site so that the effluent does not pollute ground or surface waters, where the lots are unsewered.	Group home
Encourages a range of commercial and community uses to support the residential uses within the Airport and the proposed AZRI development on the adjacent land.	Home based child care centre
Encourage a range of viable tourist/visitor activities which would benefit from a location in close proximity to the airport and its terminal area.	Home occupation
Promote community safety in building design, having regard to adjacent and nearby uses.	Multiple dwellings
Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.	Navigational aids
Ensure that adequate car parking is provided.	Place of worship
Have regard for ecological and hydrology value during the design stage.	Plant nursery
	Short-stay accommodation
	Single dwelling
	Supporting accommodation
	Utilities and infrastructure
	Bed and breakfast
	Caretaker's residence
	Child care centre
	Community centre
	Education establishment
	Home based contracting
	Hotel
	Leisure and recreation
	Licensed club
	Medical clinic
	Medical consulting rooms
	Motel
	Office
	Promotion sign
	Restaurant
	Retail agricultural stall
	Service station
	Shop
	Veterinary clinic

Light Industry Zone

(This zone is shown as coral pink on the Land Use Plan)

Primary Purpose

To provide for light industry uses or development activities that will not, by the nature of their operations, detrimentally affect adjoining or nearby land.

Intended Principal Land Uses

- Showroom and showroom sales
- Warehouse
- Light industry

TABLE 15: LIGHT INDUSTRY ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Allow for a range of land uses including showroom sales and warehouse but will not by the nature of their operations detrimentally affect the amenity of the adjoining or nearby land developments.	Animal boarding
Not prejudice the safety or efficiency of the airport.	Aviation activity
Promote community safety in building design, having regard to adjacent and nearby uses.	Aviation support facility
Be designed in such a way to protect the amenity of the adjacent heritage properties.	Business sign
Ensure that adequate car parking is provided.	Caretaker's residence
	Car park
	Community centre
	Education establishment
	General aviation and support facilities
	Helipad
	Heliport
	Hostel
	Hotel
	Leisure and recreation
	Licensed club
	Light industry
	Medical clinic
	Motor body works
	Motor repair station
	Navigational aids
	Office
	Passenger terminal
	Place of worship
	Plant nursery
	Promotion sign
	Recycling depot
	Restaurant
	Rural industry
	Service station
	Shop
	Showroom sales
	Transport terminal
	Utilities and infrastructure
	Vehicle sales and hire
	Veterinary clinic
	Warehouse

General Industry Zone

(This zone is shown as purple on the Land Use Plan)

Primary Purpose

To provide for general industry.

Intended Principal Land Uses

- Warehouse
- General industry

TABLE 16: GENERAL INDUSTRY ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Allow for a range of land uses including showroom sales and warehouse.	Agriculture Animal boarding Aviation activity Aviation support facility Business sign Caretaker's residence Car park Education establishment Fuel depot
Not prejudice the safety or efficiency of the airport.	General aviation and support facilities General industry Helipad Heliport Hostel Hotel Leisure and recreation Licensed club Light industry Medical clinic Motor body works Motor repair station Navigational aids Office Passenger terminal Place of worship Plant nursery Promotion sign Recycling depot Restaurant Rural industry Service station Shop Showroom sales Transport terminal Utilities and infrastructure Vehicle sales and hire Veterinary clinic Warehouse

Heritage Zone

(This zone is shown as olive green on the Land Use Plan)

Primary Purpose

To conserve and enhance those elements that contribute to the heritage significance of an area.

Intended Principal Land Uses

- Maintenance and enhancement of the 1939 Seven-Mile Site

TABLE 17: HERITAGE ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Be compatible with the heritage value and character of the area, and in particular the military build-up of the north.	Aviation activity Aviation support facility Bed and breakfast Business sign Caretaker's residence Child care centre Community centre Education establishment Fuel Depot General aviation and support facilities Helipad Heliport Hostel Leisure and recreation Licensed club Medical clinic Navigational aids Office Passenger terminal Place of worship Promotion sign Restaurant Shop Utilities and infrastructure
Be in accordance with the current Conservation and Management Plan for the 1939 Seven-Mile Site.	
Encourage a range of activities which would benefit from a location in close proximity to the airport and its terminal area.	
Not prejudice the safety or efficiency of the airport.	
Respect the amenity of the adjacent and nearby uses.	
Promote community safety in building design, having regard to adjacent and nearby uses.	
Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.	
Ensure that adequate car parking is provided.	

Horticulture Zone

(This zone is shown as light green on the Land Use Plan)

Primary Purpose

To provide suitable land for horticulture.

Intended Principal Land Uses

- Agriculture
- Intensive animal husbandry
- Rural industry

TABLE 18: HORTICULTURAL ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Encourage a range of horticultural activities which would benefit from a location in close proximity to the airport and its terminal area.	Agriculture Animal boarding Bed and breakfast Business sign Domestic livestock Horticulture Intensive animal husbandry Navigational aids Plant nursery Promotion sign Retail agricultural stall Rural industry Stables Transport terminal Utilities and infrastructure
Not prejudice the safety or efficiency of the airport.	
Respect the amenity of the adjacent and nearby uses.	
Promote community safety in building design, having regard to adjacent and nearby uses.	
Have regard to the portion of the Todd River Flood Plain located within this zone.	
Provide for buffer zones to accommodate existing and future infrastructure.	
Ensure that adequate car parking is provided.	
Have regard for ecological and hydrology value during the design stage.	

Dust Suppression

(This zone is shown as hatched brown on the Land Use Plan)

Primary Purpose

To provide excess land as a buffer zone to eliminate dust hazard to aircraft operations.

Intended Principal Land Uses

- Any land use not inconsistent with the objectives of minimising dust hazard within the airport lease area and including aviation activity support facilities, suitable livestock grazing and light and general industry.

TABLE 19: DUST SUPPRESSION ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Assist in the reduction of dust hazard to aircraft operations.	Agriculture Animal boarding Aviation activity Aviation support facility Business sign Car park Domestic livestock Education establishment General aviation and support facilities Helipad Heliport Horticulture Hostel Hotel Intensive animal husbandry Leisure and recreation Licensed club Light industry Medical clinic Motel Navigational aids Office Place of worship Plant nursery Promotion sign Restaurant Rural industry Service station Shop Showroom sales Transport terminal Utilities and infrastructure Vehicle sales and hire Veterinary clinic Warehouse
Encourage a range of activities which would benefit from a location in close proximity to the airport and its terminal area.	
Not prejudice the safety or efficiency of the airport.	
Respect the amenity of the adjacent and nearby uses.	
Promote community safety in building design, having regard to adjacent and nearby uses.	
Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.	
Ensure that adequate car parking is provided.	

Water Management Zone

(This zone is shown as blue on the Land Use Plan)

Primary Purpose

To restrict development within a water catchment area or other area providing surface or ground water for public or private water supplies.

Intended Principal Land Uses

- Any land use not inconsistent with the objectives of maintaining the quality and condition of the water catchment area and including suitable livestock grazing and horticulture.

TABLE 20: WATER MANAGEMENT ZONE

DEVELOPMENT SHOULD	INTENDED LAND USES
Restrict activities which would impact on the catchment area.	Agriculture Business sign Car park Domestic livestock Navigational aids Place of worship Plant nursery Promotion sign Stables Utilities and infrastructure
Be generally in accordance with the principles and guidelines for water management of the authority responsible for managing the public water supply.	
Not prejudice the safety or efficiency of the airport.	
Respect the amenity of the adjacent and nearby uses.	
Have regard for ecological and hydrology value during the design stage.	

PUBLIC SAFETY ZONES

With exception of the Restricted Development Zone in the Northern Territory Planning Scheme, no legislation or guidelines exists at a Commonwealth or Territory level governing permissible land use with respect to aircraft crash risk. Off-airport, land use zoning falls within the jurisdiction of the Northern Territory Government. On airport, issues related to crash risk are considered by ASA in the approval process when assessing a proposed development. The proposed on-airport land uses contained within this Master Plan are considered to be appropriate.

SECTION 9

Airfield Development Concept

- No runway extensions are needed within the planning period.
- The existing runway system is adequate to cater for future-projected traffic and is proposed to be retained in its existing configuration.
- The RPT Apron will continue to use effectively the space and infrastructure available and expand in a linear manner.

SECTION 9

Airfield Development Concept

INTRODUCTION

The airfield consists of runways, taxiways and aircraft aprons. The Master Plan provides for further development of the airfield to ensure efficient handling of the forecast aircraft traffic.

Planning standards

Civil aerodrome planning for Alice Springs Airport adheres with Civil Aviation Safety Regulations Manual of Standards Part 139 - Aerodrome (CASR MOS 139). This standard follows accepted International Civil Aviation Organisation (ICAO) methodology of using a code system, known as the Aerodrome Reference Code. The Code is composed of two elements: a code number and a code letter.

The Code Number indicates the runway type and is related to the length of the runway (*see Table 21 below*).

The Code Letter is related to the aeroplane wing span and outer main gear wheel span. The planning of aprons and taxiways is largely based on this element (*see Table 22 below*).

Design Aircraft

The Airport can accept Code E aircraft (e.g. Boeing 777 and 747) and is an important alternate for the vast majority of traffic over flying the centre of Australia. It is also capable of handling the A380 in limited circumstances.

The design aircraft for Alice Springs Master Plan is different for each runway.

Runway 12/30 - the design aircraft for the main runway is a Code 4E aircraft. This allows for B747, B777 aircraft types.

Runway 17/35 - the design aircraft for the secondary runway is a Code 2B aircraft. This allows for Beechcraft 200 Dash 8 and other GA aircraft types.

TABLE 21: CODE NUMBER

CODE NUMBER	1	2	3	4
Aeroplane reference field length	Less than 800m	800m up to but not including 1200m	1200m up to but not including 1800m	1800m and over

TABLE 22: CODE LETTER

CODE LETTER	A	B	C	D	E	F
Wingspan	Up to but not including 15m	15m up to but not including 24m	24m up to but not including 36m	36m up to but not including 52m	52m up to but not including 65m	65m up to but not including 80m
Outer main gear wheel span	Up to but not including 4.5m	4.5m up to but not including 6m	6m up to but not including 9m	9m up to but not including 14m	9m up to but not including 14m	14m up to but not including 16m

MOVEMENT AREAS

The existing airfield layout is shown in Figure 1.

Runways

Alice Springs Airport has two runways. The dimensions and declared distances of these runways are given in Table 23 below.

12/30

A main runway, with an orientation of 12/30, is 2438 metres long and 45 metres in width. It is an instrument runway with precision instrument approach on runway 12. It has a flexible construction and is grooved in its entirety. This runway can accept Code 4E aircraft.

Runway 12 is equipped with a 6-stage High Intensity Approach Lighting (HIAL) System–CAT I, which is designed to smooth the transition from instrument to visual flight on a precision instrument approach in conditions of low cloud or reduced visibility.

The main runway 12/30 is fitted with a 3-stage medium and 3-stage high intensity runway edge and threshold lighting system. A T-Visual Approach Slope Indicator System (T-VASIS) also services both ends.

Turning nodes are provided at both ends of the runway. The current node configurations allow for B747/B777/A380/A340 to conduct 180° starboard turns.

Runway 12/30 requires a 300 m flight strip in accordance with CASR MOS 139. The Obstacle Limitation Surfaces (OLS) for a 300 m flight strip are infringed when Code C and above aircraft occupy the aircraft apron.

The crosswind runway has an orientation of 17/35, with a length of 1133 metres and width of 18 metres. This runway is a non-precision instrument runway. The runway was reconstructed in 2006 and has been subsequently sand sealed. Runway 17/35 takes less than 10% of the total traffic and the use is limited due to sequencing of heavy aircraft traffic on the main runway. Otherwise the runway is used predominantly by GA aircraft due to its aircraft size limitations and proximity to the GA area.

Helicopters

A helicopter aiming point is located north of Taxiway B1.

TABLE 23: RUNWAY DATA

RUNWAY DIRECTION	LENGTH (M)	WIDTH (M)	TAKE-OFF RUN AVAILABLE (M)	TAKE-OFF DISTANCE AVAILABLE (M)	ACCELERATED STOP DISTANCE AVAILABLE (M)	LANDING DISTANCE AVAILABLE (M)
12	2438	45	2438	2738	2438	2438
30	2438	45	2438	2738	2438	2438
17	1133	18	1133	1193	1133	1133
35	1133	18	1133	1193	1133	1133

TAXIWAYS

Runways are supported by a comprehensive taxiway system designed to facilitate the efficient movement of aircraft between the runways and apron areas. Alice Springs Airport has a taxiway system, linking runway 12/30 with the main passenger apron, and also providing access to the general aviation and commuter aprons.

Refer to Table 24: Taxiway Data below.

APRONS

Aprons are areas provided for aircraft parking. Aircraft apron areas also support activities associated with the servicing of aircraft such as baggage, freight, refuelling and flight catering and utilise a variety of ground support equipment (GSE) operated by third parties.

The parking position is known as an aircraft stand (or bay). Existing aprons at Alice Springs Airport accommodate a full range of aircraft types and operations.

Terminal Apron

The Regular Public Transport (RPT) apron can accommodate up to nine large aircraft in various combinations. A diversion bay allows for Code F aircraft to park on the apron. All parking bays on the RPT Apron are common user.

Split fuel hydrant system with Shell feeding eastern bays and Air BP feeding the western bays is available on the RPT apron.

General Aviation Aprons

General Aviation includes all parts of the aviation industry that engage in activity other than scheduled commercial airline activity. This may include charter operations, aeromedical operations, agricultural aviation businesses, aviation-based fire-fighting services, training and aerial work such as aerial photography and surveying. It also includes private, business, recreational and sports aviation activity and supporting businesses such as maintenance providers.

Currently there are three designated GA areas providing around 25,000 m² of hangarage and 36,500 m² of aircraft parking space. An estimated 45 GA aircraft are currently based in these areas. Around 12 businesses operate from these facilities.

GA operations are clustered into three distinct areas:

1. An area to the north-west of the passenger terminal – known locally as the General Aviation (GA) Apron;
2. An area to the south-east of the passenger terminal – known locally as the Commuter Apron;
3. An area to the western edge of the airport boundary – known locally as the Seven-Mile Apron.

General Aviation Apron

The GA apron provides parking for approximately 20 aircraft, the wingspan of which must be less than 16.6 m (Code A and B aircraft). The apron is flexible pavement and the taxiway access limits the size of aircraft using the facilities to 5700kg (e.g. Code A and B aircraft). Additional aircraft are parked in hangars and leased areas along the frontage of leased hangar sites. There is also a natural surface aircraft parking area that can accommodate a further 20 aircraft.

Itinerant aircraft parking is on an opportunity basis in this area.

Operations from the GA apron include charter, aerial work, aircraft maintenance, flight training, private flying, aeromedical services and scenic flights.

Commuter Apron

The Commuter apron provides parking for approximately five code A and B aircraft in a free moving arrangement as the configuration of this area restricts where aircraft can be parked without interfering with the movement of others. Additional aircraft are parked in hangars and leased areas along the frontage of leased hangar sites.

Operations from the Commuter apron include charter and aircraft maintenance. On-airport catering, located well to the rear of this area, accesses the RPT apron via a designated airside road which transverses the Commuter apron.

TABLE 24: TAXIWAY DATA

TAXIWAY	DESCRIPTION	WIDTH/AIRCRAFT CODE	PAVEMENT CLASSIFICATION NUMBER (PCN) / RESTRICTIONS
C and D	Connect runway 12/30 with the RPT apron	23m	Simultaneous use of taxiway C and D not available to aircraft above 52m wingspan.
E1-2	Connects runway 12/30 to eastern end of RPT apron and the commuter apron	15m	E1 – PCN 45 E2 – PCN 60 Max wingspan 36m
A	Back of RPT apron and continues west to link the GA apron	10.5m	A2 restricted to 16.6m when Bay 9 occupied by Code C and above aircraft.
W	Joins Seven-Mile apron to runway 17/35	10.5m	Pavement rating 5700 kg /413 kPa (60PSI) sealed.
B	Converted from the old runway 06/24 and links the RPT and GA apron to runway 17/35.	15m	
M	Continues from runway 12 end and joins taxiway B.	18m	

Seven-Mile Apron

The Seven-Mile apron provides parking for several helicopters and fixed wing aircraft. This apron is nearing the end of its economic life.

Operations from the Seven-Mile apron include locally based helicopter activity, aircraft maintenance and private flying.

EXISTING SUPPORT SYSTEMS

Airservices Australia Facilities

Air Traffic Control (ATC) services at Alice Springs Airport are provided by Airservices Australia. The current control tower was constructed in 1967 and became operational in 1968. The tower is located to the west of the passenger terminal. The tower is operational between 0730 and 1800 local time every day. Outside these tower hours a Common Traffic Advisory Frequency (CTAF) operates. The primary role of ATC is the processing and separation of air traffic in both the initial and final stages of flight. ATC also provides surface movement control to aircraft and vehicles on the runways and taxiways.

Airservices Australia is also responsible for the provision and maintenance of numerous radio navigation aids and systems located on or near the airport, including:

- Distance Measuring Equipment (DME);
- Very High Frequency Omnidirectional Range (VOR);
- Non-Directional Beacon (NDB);
- Instrument Landing System (ILS) (Glide path and localiser).

Fire and rescue services are provided by Airservices Australia from a facility located to the west of the main RPT apron. Aviation Rescue and Fire Fighting Service (ARFFS) currently provides up to ICAO Category 6 standard during hours as required for flight operations, however, a capability to operate at Category 8 is possible for emergencies and/or diversions. A fire training area is located east of the passenger terminal.

In 2008, Airservices Australia completed a site survey and assessment study on the location of the ATC tower and Aviation Rescue and Fire Fighting Services (ARFFS) at Alice Springs Airport. This may lead to a change of the location of the ATC tower in the future.

2029 DEVELOPMENT CONCEPTS

The 2029 Airfield Development Concept Plan is shown in Figure 7.

Runway

The annual capacity of the runway system at Alice Springs Airport is approximately 80,300 movements per year. It is estimated that in 2029 there will be a total of around 32,500 movements. The existing runway system is adequate to cater for future projected traffic movements.

The critical aircraft for runway length at Alice Springs Airport is considered to be the A330 or B787. Under hot conditions some payload sacrifices would be required but commercial loads can still be carried. In considering the requirement for a runway extension the following was considered:

1. The B787 aircraft, which is a more likely replacement for existing B767 services, is likely to have better take-off performance than the A330.
2. The B787/A330 aircraft are more likely to be flown on the route in the peak tourist season when conditions are cooler.
3. B777 and B747 charter operations currently operate off the existing runway length.

It is therefore envisaged that no runway extension is required within the planning period. A future runway extension is safeguarded, so that runway 12/30 could be extended to 3100m beyond the planning period.

Lengthening of runway 17/35 is not required.

Runway 30 Threshold Turning Loop

Aircraft departing on runway 30 currently have to taxi approximately 1200 m from taxiway E to the runway end to take off. This can result in delays particularly if more than one aircraft is departing simultaneously.

A full length parallel taxiway could solve this problem however the current peak demand for activity on the main runway 12/30 is approximately six movements per hour. As noted in the Airplan 1993 study, a parallel taxiway should only be required when peak hour demand exceeds 20-jet RPT movements per hour, or approximately three times the current rate. This level of hourly demand will not be experienced in the 20 year planning period.

Instead, during the planning period a turning loop near the runway 30 threshold (south-eastern end of runway 12/30) would allow two aircraft to taxi to the start of runway 30 and one aircraft to hold on the loop while the other takes off. It would also allow an aircraft to hold on the loop while another aircraft lands.

Taxiways

The Master Plan concept proposes a number of taxiway enhancements by 2029 to support the increase in traffic and support new apron areas, including;

- widening of the fillets on Taxiways A3, A4, C, D and E1;
- an additional taxiway and taxiway upgrades linking the runway to a proposed long term aircraft storage area.

Apron

It is estimated that by 2029 the RPT apron will need to accommodate a mix of seven aircraft parking positions as indicated in Table 25.

TABLE 25: TERMINAL APRON AIRCRAFT PARKING DEMAND

AIRCRAFT	2008	2014	2019	2024	2029
Code C	4	5	6	6	6
Code D	1	1			
Code E			1	1	1
Total	5	6	7	7	7

The RPT apron will continue to effectively use the space and infrastructure available and expand in a linear manner. Current standards require a 300 m flight strip. The OLS for a 300 m flight strip is infringed when the apron is occupied by Code C and above aircraft. When the aircraft apron is reconfigured in the future the opportunity will be taken to move aircraft parking positions closer to the terminal to remove these infringements.

Freight

It is envisaged that a dedicated freight apron is not required during the planning period. Freight on passenger aircraft or adhoc freight services will continue to be facilitated on the main RPT apron.

General Aviation

Additional general aviation facilities will be developed on a commercial basis. These facilities will cater for all new and existing aircraft operators including current Seven-Mile operators.

The concept allows for Code A and B aircraft to continue to be facilitated in the General Aviation area and aircraft larger than Code B to be facilitated in the Commuter apron area. However, the Commuter apron area will progressively be located further east when the demand for RPT aircraft facilities is required and where commercially viable. Key areas which will drive the further expansion include economies of scale, demand for services and demand for facilities.

Helicopter growth will be accommodated within the General Aviation area, however, the desired separation of fixed wing and rotary aircraft will guide developments.

The Seven-Mile Apron will remain operational while commercially viable.

Long-term Aircraft Storage

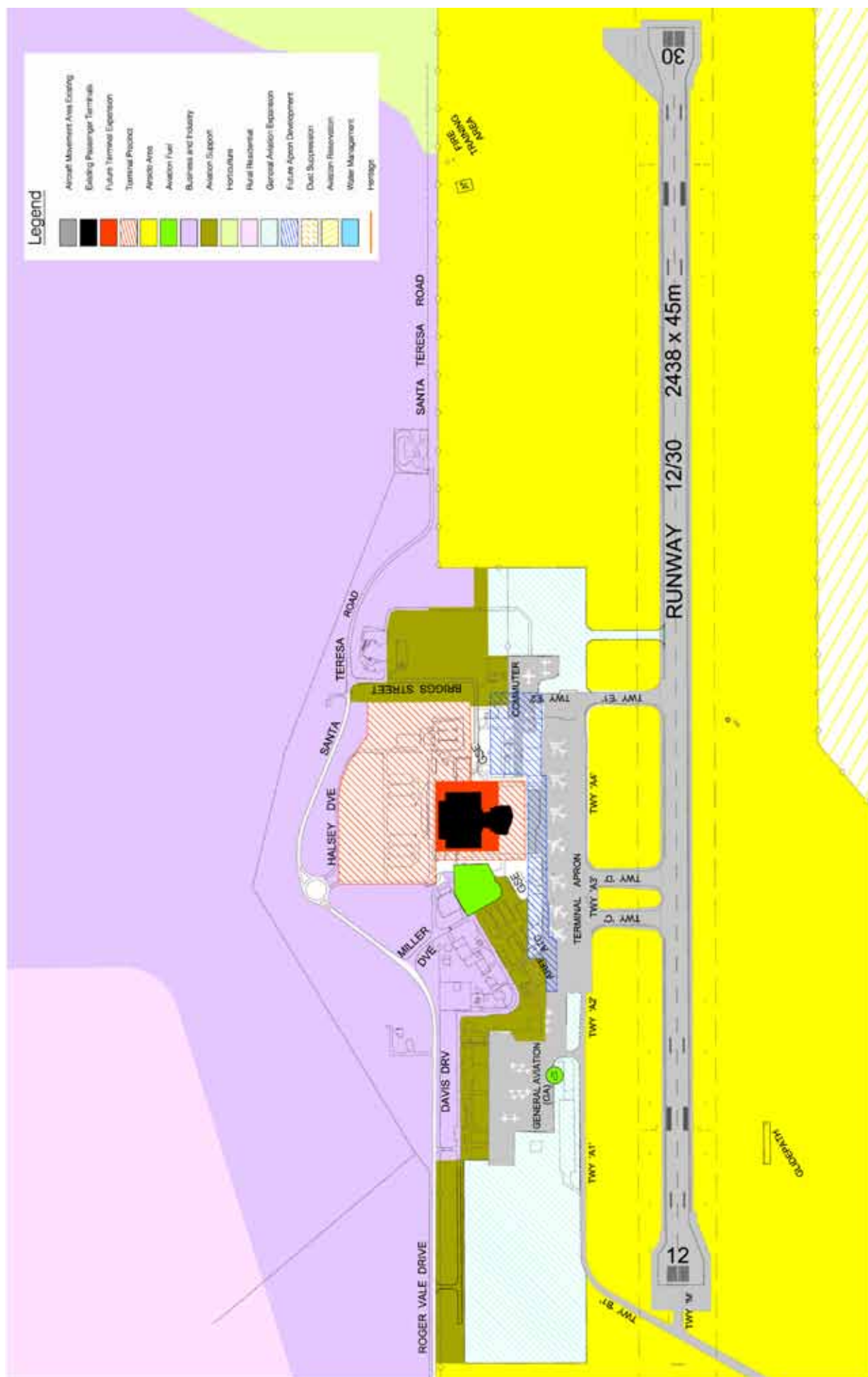
The desert climate of Alice Springs and large airport land holding provides the capabilities for long term storage of surplus aircraft, similar to the Mojave Desert.

Aircraft storage is divided into four categories:

- Category A – aircraft kept in near-ready condition to fly at airline request.
- Category B – aircraft preserved with view to flying again, depending on economic climate.
- Category C – aircraft maintained for spare parts only
- Category D – aircraft destined for static display, most to be broken into scrap metal.

Provision is made for facilities to cater for the long-term storage of all aircraft currently in service and all categories of storage. Long-term aircraft facilities, including apron and taxiways, could be constructed in the Aviation Facilities and Aviation Reserve Zones. In the longer term the facilities could expand into the Dust Suppression Zone.

FIGURE 7: 2029 AIRFIELD DEVELOPMENT CONCEPT



This page has intentionally been left blank

SECTION 10

Protection of Aircraft Operations

- Obstacle Limitation Surfaces (OLS) and Procedures for Air Navigation services – Aircraft Operations (PANS-OPS) are prepared for Alice Springs Airport to assist with the protection of airspace required for airport operations around the Airport.

SECTION 10

Protection of Aircraft Operations

Buildings and activities in the vicinity of an airport have the potential to create air safety hazards and to seriously limit the viability of aircraft operations in and out of the airport.

.....

AIRSPACE PROTECTION

Part 12 of the *Airports Act 1996* and the *Airport (Protection of Airspace) Regulations 1996* provides for the declaration of prescribed airspace and give statutory protection from intrusion into this airspace. For the immediate and long-term operation of the Airport new structures should be designed, or other activities controlled, to ensure that they do not intrude into the present or future protected airspace.

There are Australian Standards for airport design, including Civil Aviation Safety Regulations (CASR) and Civil Aviation Safety Authority (CASA) Manual of Standards (MOS) Part 139.

Under these Standards airspace is prescribed for protection in two categories:

- Obstacle Limitation Surfaces (OLS);
- Procedures for Air Navigation Services – Aircraft Operations (PANS–OPS).

Obstacle Limitation Surfaces (current and future)

The OLS are a series of surfaces in the airspace surrounding an airport and referenced to each runway.

The broad purpose of the OLS is to define the volume of airspace that should ideally be kept free from obstacles in order to minimise the danger to aircraft during an entirely visual approach or during the final visual segment of an instrument approach procedure. Infringements of these surfaces may be approved subject to a safety analysis and assessments by stakeholders and subject to any conditions imposed.

Figure 8 depicts the OLS associated with Alice Springs Airport for current and future requirements based on the long-term retention of the existing runway geometry.

Procedures for Air Navigation Services – Aircraft Operations (PANS –OPS) Surfaces

A PANS-OPS surface for an airport is a surface ascertained in accordance with the procedures in ICAO Procedures for Air Navigation Services – Aircraft Operations (Doc 8168, PANS-OPS).

The PANS-OPS surfaces are intended to safeguard an aircraft from collision with obstacles when the pilot is flying with reference to instruments. The designer of an instrument procedure determines the lateral extent of areas needed for an aircraft to execute a particular manoeuvre. The designer then applies minimum obstacle clearances to structures, terrain or other natural features within that area to determine the limiting altitude at which the manoeuvre can be safely executed. As a result, PANS-OPS surfaces cannot be infringed in any circumstance for periods longer than three months.

Figure 9 depicts the PANS-OPS associated with Alice Springs Airport for current and future requirements based on the long-term retention of the existing runway geometry.

Airspace Protection Planning Control

Any activity (on- or off-airport) that infringes an airport's protected airspace is called a controlled activity, and requires approval before it can be carried out. Controlled activities include the following:

- permanent structures, such as buildings, intruding into the protected airspace;
- temporary structures such as cranes intruding into the protected airspace;
- any activities causing intrusion into the protected airspace through glare from artificial light or reflected sunlight, air turbulence from stacks or vents, smoke, dust, steam or other gases or particulate matter.

The *Airports (Protection of Airspace) Regulations 1996* stipulate that controlled activities need specific approval from the Department of Infrastructure, Transport, Regional Development and Local Government (DITRD LG).

The Regulations require that proponents of controlled activities must provide ASA with the details of the proposal, which are then assessed in relation to OLS, by ASA and Government safety agencies before ASA provides all information to DITRDLG for consideration. and PANS-OPS. Where it will affect the safety, efficiency or regularity of air transport at Alice Springs Airport, ASA will indicate to the DITRDLG its opposition to the proposal.

NAVIGATION AIDS AND RADAR-RESTRICTED SURFACES

At Alice Springs Airport there are a number of radio navigation aids and communication installations, which provide precision and other guidance to aircraft, which are operated by Airservices Australia, including the NDB, DME, VOR and ILS (glide path and localiser).

Aircraft utilise airport-based navigational aids for en-route navigation or to make an instrument approach to the airport. Unplanned interruptions to, or degradation of the ground signal, are to be avoided in the interests of safety. Therefore it is necessary to ensure there will be no interference caused to the operation of navigational aids by the erection of structures, or work activities within the vicinity of a navigational aid or its associated cables.

To meet the necessary performance requirements, airspace restrictions are established for each item of equipment and procedures. It may be possible under some circumstances to permit infringements of the protective surfaces, without degradation in system performance. Protection of the navigation aids and radar-restricted surfaces is managed cooperatively between ASA and Airservices Australia.

RESTRICTIONS TO BUILDING STRUCTURE AND MATERIAL

CASA has the power under the Civil Aviation Regulations 1988 (CAR 94 – Dangerous Lights) to control ground lights where they have the potential to cause confusion or distraction from glare to pilots in the air. To assist lighting designers and installation contractors in the vicinity of the airport, CASA has established guidelines on the location and permitted intensities of ground lights within a six-kilometre radius of airports. External advertising, sport field floodlighting and street lighting are some of the more likely lighting sources requiring consideration.

ASA will make documentation available indicating the zones around the Airport which have maximum permissible lighting intensities.

BIRD HAZARD

Surrounding land use can have the potential to attract problem bird species to the airport. ASA is required to monitor and control the presence of birds on or in the vicinity of the airport in accordance with CASA regulations.

ASA maintains a vigilant Bird and Animal Hazard Management System to remove and reduce potential high risk bird species. Bird hazard management considerations are also taken into account when planning potential airside or landside developments.

FIGURE 8: OLS CURRENT AND FUTURE

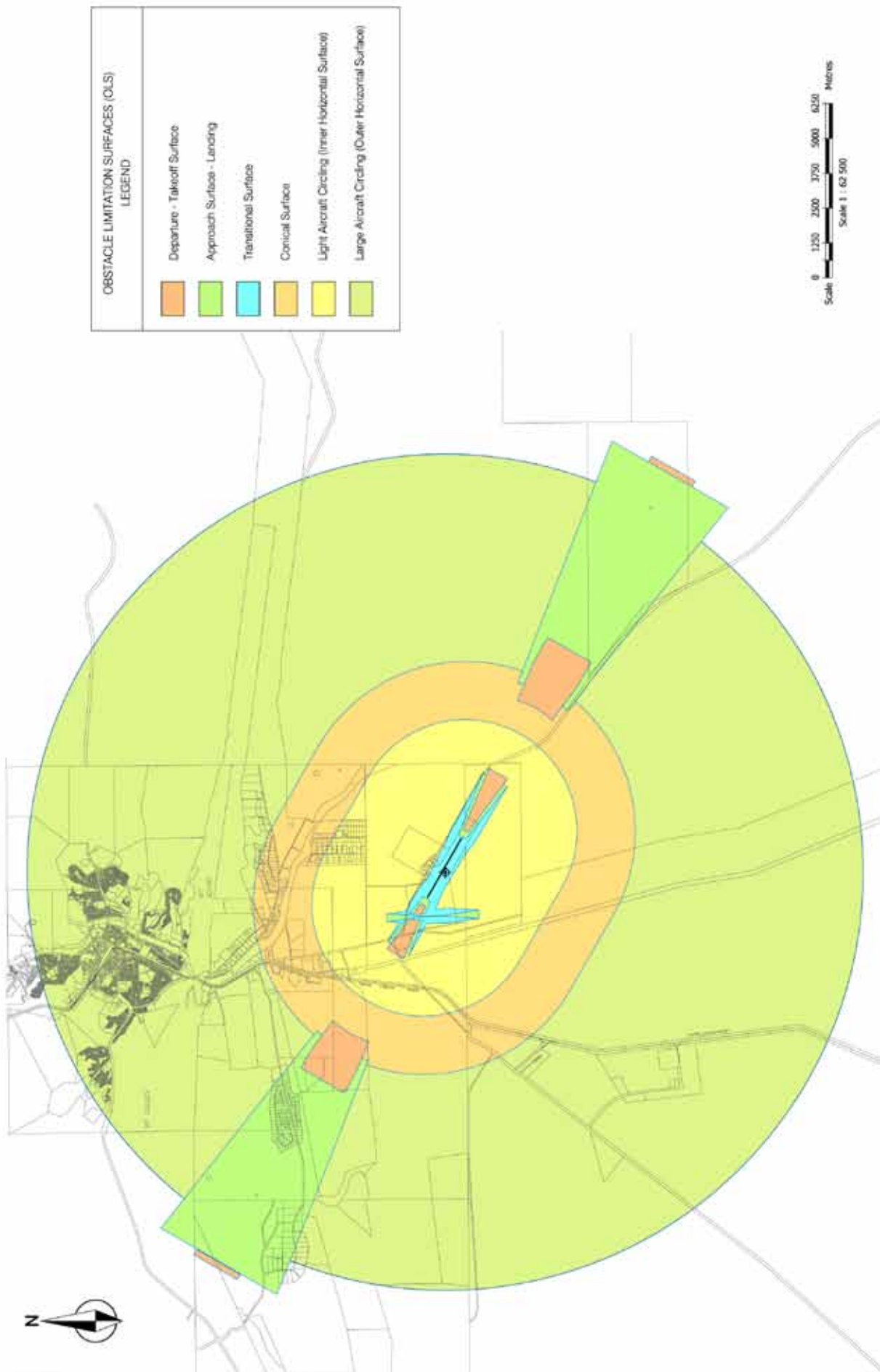
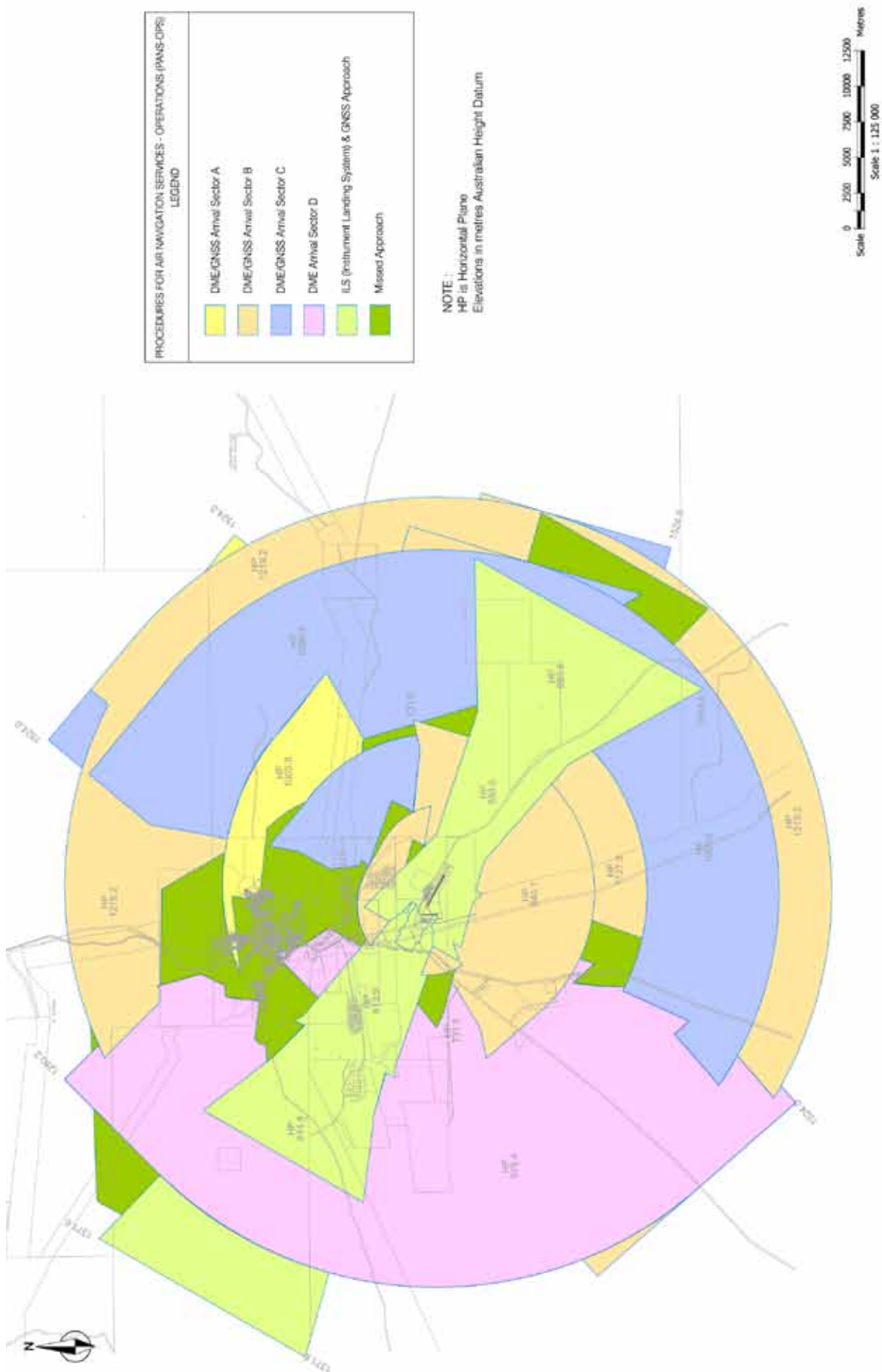


FIGURE 9: PANS-OPS CURRENT AND FUTURE



This page has intentionally been left blank

SECTION 11

Aircraft Noise Management

- The noise metric used for land use planning and building control is the Australian Noise Exposure Forecast (ANEF).
- This Master Plan incorporates a 2049 ANEF rather than the minimum required 2029 ANEF in order to provide a longer term view of aircraft noise and its impact on surrounding land uses.
- The 2049 ANEF contours do not extend far beyond the physical aeronautical complex.



SECTION 11

Aircraft Noise Management

Alice Springs Airport (ASA) as the civil airport operator has little direct control over noise produced by aircraft operations other than civil ground running. Airspace management is controlled by Airservices Australia.

The International Civil Aviation Organisation (ICAO) has developed standards and guidelines which address civil aircraft noise, referred to as Annex 16. Australian Government aircraft noise legislation reflects the standards developed by ICAO and the obligations placed on Australia as a member of ICAO.

ICAO has set standards for aircraft noise in Chapter 3 (Volume I, Annex 16). Aircraft that comply with these standards are commonly referred to as 'Chapter 3 aircraft.' Few civil aircraft that are not Chapter 3 compliant operate into Alice Springs.

Building approvals external to the airport are the responsibility of the Northern Territory Government. On-airport development is under the final approval of the Airport Building Controller (ABC) under the *Airports Act 1996*.

AUSTRALIAN NOISE EXPOSURE FORECAST (ANEF)

The Australian Noise Exposure Forecast (ANEF) is a set of contours showing future forecasted levels of exposure to noise for building control purposes.

The ANEF is an important noise metric because it is the only noise metric which has status under the:

- Northern Territory Planning Scheme for land use planning and development consent off-Airport; and
- *Airports Act 1996* of the Commonwealth for land use planning and development consent on-Airport.

The ANEF is used in accordance with Australian Standard AS2021-2000 to guide land use planning and development consent decisions by the relevant authority.

The ANEF is subject to technical review and endorsement by Airservices Australia.

ANEF in Land Use Planning and Development Consent

The following table from Australian Standard AS2021-2000 provides guidance for new construction in relation to ANEF contours. 'Conditional' means that approval may be given if appropriate noise control features can be incorporated in the construction.

TABLE 26: BUILDING SITE ACCEPTABILITY BASED ON ANEF ZONES

BUILDING TYPE	ACCEPTABLE	CONDITIONAL	UNACCEPTABLE
House, home unit, flat, caravan park	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hotel, motel, hostel	Less than 25 ANEF	25 to 30 ANEF	Greater than 30 ANEF
School, university	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hospital, nursing home	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Public building	Less than 20 ANEF	20 to 30 ANEF	Greater than 30 ANEF
Commercial building	Less than 25 ANEF	25 to 35 ANEF	Greater than 35 ANEF
Light industrial	Less than 30 ANEF	30 to 40 ANEF	Greater than 40 ANEF
Other industrial	All ANEF zones	Not Applicable	Not Applicable

ENDORSED ANEF

The *Airports Act 1996* requires that a minimum 20-year ANEF be provided, i.e. a 2029 ANEF for this Master Plan. Long-term (more than 20 years) or ultimate capacity ANEFs can also be incorporated in a Master Plan. This Master Plan presents a 2049 ANEF in order to provide a longer term view of aircraft noise than the minimum required.

Methodology

An ANEF is a set of noise contours at some point in the future (in this case 2049). The contours were prepared in accordance with the Airservices Australia document 'Guidelines for the Production of Noise Contours for Australian Airports' and comply with the 'manner of endorsement' approved by the Minister for Infrastructure, Transport, Regional Development and Local Government.

ANEF inputs include aircraft movement forecasts, runway and flight path usage, time of day and fleet mix. The ANEF process ensures that forecast traffic is within the aircraft

movement capacity of the Airport (in this case both civil and military movement forecasts). The ANEF for ASA takes into consideration that there are to be no major changes to the airfield layout, any runway extensions or changes to the current flight patterns within the planning period. The current procedures for aircraft arriving and departing the Airport were defined in close consultation with local Air Traffic Control.

Approval Process

Prior to seeking endorsement by Airservices Australia of the ANEF, the Airport provided the local planning authorities with a copy of a draft ANEF and the opportunity to comment. In the case of ASA the relevant authorities are the Northern Territory Department of Planning and Infrastructure and Alice Springs Town Council.

The 2049 ANEF endorsed by Airservices Australia is in Figure 10.

NOISE COMPARISONS OVER TIME

The ANEF from the 2004 Master Plan (the 2024 ANEF) compared to the ANEF from the 2009 Master Plan (the 2049 ANEF) is in Figure 11. As can be seen, the contours vary little over time with the 20 contour consistently located near the runways.

Alice Springs Airport aircraft traffic does not pose noise issues for the Alice Springs community in the future, including any residential development in the northern part of the Airport site.

N70 CONTOUR AND FLIGHT TRACKS

A guide to aircraft noise, which is more explanatory than an ANEF, is a N70 chart. The N70 chart is based on 'Number Above' contours, which are contour maps combining information on single event noise levels with aircraft movement numbers above the specified noise level. The N70 chart shows the number of aircraft noise events greater than 70 dB(A) that occur in a typical day.

Flight paths illustrate the broad spread of flight paths that an aircraft may fly when arriving or departing at an airport. The approved arrival and departure flight tracks for all runways are contained in Figures 12 to 18. While aircraft follow "flight tracks" these are not as precise as a train on a railway line or a car on the highway, with aircraft approaching or departing the runway within a flight path 'envelope' (or 'corridor'). The envelope may vary with aircraft configuration and weather. When presented this information is referred to as Swoosh Tracks. Figures 13 and 14 represent the broad flight tracks (swoosh tracks) and numbers of aircraft departures and approaches for the main runway.

The 2024 N70 and Swoosh Tracks are shown in Figure 19 and Figure 20.

MANAGING NOISE INTRUSION

Ground running of aircraft engines is a significant part of aircraft maintenance. The majority of aircraft maintenance is conducted by GA operators. ASA is largely a daylight hours airport and is currently remote from any residential development. Therefore there are minimal Engine Ground Running issues.

Similarly, no aircraft noise abatement procedures are currently required, but may be required in the future.

[illegible]

FIGURE 11: 2024 ANEF VS 2049 ANEF

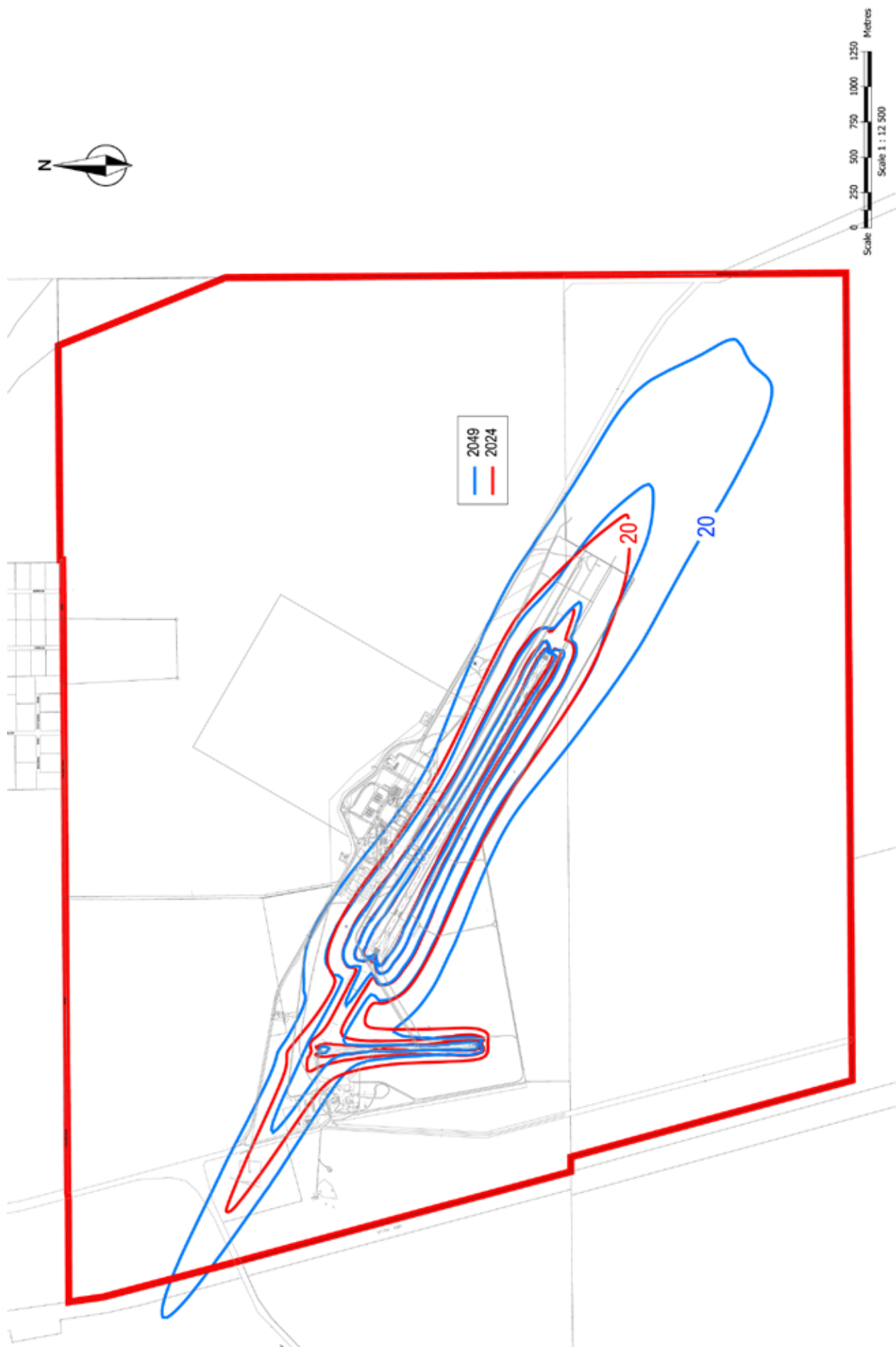


FIGURE 12: 2049 FLIGHT PATHS RUNWAY 12 ARRIVALS



FIGURE 13: 2049 FLIGHT PATHS RUNWAY 12 DEPARTURES



FIGURE 14: 2049 FLIGHT PATHS RUNWAY 30 ARRIVALS



FIGURE 15: 2049 FLIGHT PATHS RUNWAY 30 DEPARTURES



FIGURE 16: 2049 FLIGHT PATHS RUNWAY 12/30 CIRCUITS



FIGURE 17: 2049 FLIGHT PATHS RUNWAY 17 ARRIVALS AND DEPARTURES



FIGURE 18: 2049 FLIGHT PATHS RUNWAY 35 ARRIVALS AND DEPARTURES

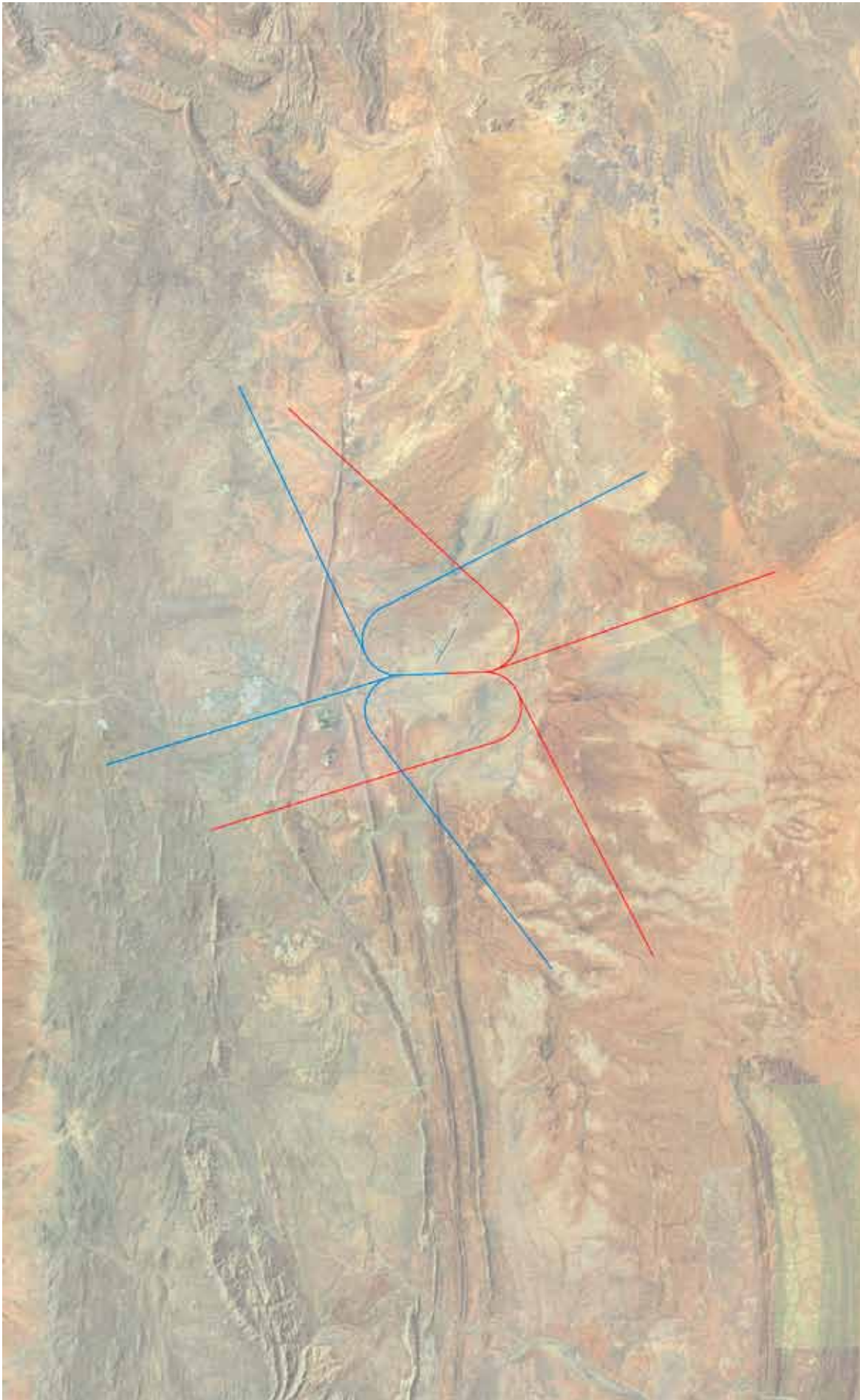


FIGURE 19: 2049 N70 AND SWOOSH PATHS RUNWAY 30



page 80



SECTION 12

Terminal Development Concept

- Alice Springs Airport aims to provide passengers with a safe, secure and efficient terminal which meets the needs of our airline partners.
- Terminal growth will be accommodated by expanding the existing terminal within the Terminal and Facilities zone.
- Key areas which will drive the expansion of the overall footprint of the terminal will be baggage reclaim and baggage make-up.

SECTION 12

Terminal Development Concept

INTRODUCTION

The terminal is the face of the airport business and serves as the public interface between landside and airside activities. ASA aims to provide passengers with an efficient and effective terminal which meets capacity and flexibility requirements of its airline partners while delivering a Centralian experience to the travelling public.

Critical to the efficiency of the passenger terminal is the underlying planning of the facilities and the efficiency of the terminal function, including road access and vehicle parking. ASA aims to provide safe, secure and efficient passenger systems which enhance the experience for visitors and the travelling public.

Presently, two ground handlers operate from the facility. All facilities located in the terminal are common use and there are various tour operators, shuttle bus and taxi services operating from the building.

Planning Principles

The International Air Transport Association (IATA) Guidelines for airport capacity management provides a level of service framework which permits comparison between subsystems within the airport environment. The framework ranges from levels of service category A, which provides an excellent level of comfort, to category F, which provides unacceptable levels of service, delays and an unacceptable level of comfort.

Future terminal and passenger facility planning for the Airport has been based on IATA level of service Category C, which provides good levels of service and comfort at a reasonable cost. This is in line with maintaining flexibility to support Full Service carriers (FSC) and Low Cost Carriers (LCC) simultaneously.

CURRENT TERMINAL FACILITIES

The existing terminal, a single level 9100m² passenger terminal building, is the service centre for the transfer of passengers and their baggage between vehicle and aircraft, or from aircraft to aircraft for interconnecting or transfer passengers.

In the airport terminal, passengers expect to find comfortable, attractive surroundings and to be serviced in an efficient, pleasant and expeditious manner. Check-in, baggage make-up and reclaim, security screening facilities, passenger lounges together with small scale concessionaires, including eatery, ticket sales and newsagent, are located in the terminal building.

Support facilities, including airline and airport offices, plant rooms, services and staff facilities as well as rental car, tourism and accommodation desks are located in the terminal.

The terminal facilities can be configured to cater for international arrivals and departures. Alice Springs Airport works closely with agencies and the aircraft operator to accommodate and facilitate international charters. Lead time is required for these services to be arranged. For unplanned diversions into Alice Springs Airport a memorandum of understanding exists with Customs to facilitate clearing of passengers.

FUTURE DEMAND

The projected annual passenger demand for the terminal is approximately 940,000 passengers by 2029. Annual passenger demands do not provide a true representation of the impact on terminal capacity; therefore hourly passenger flows for that year are used to determine development requirements.

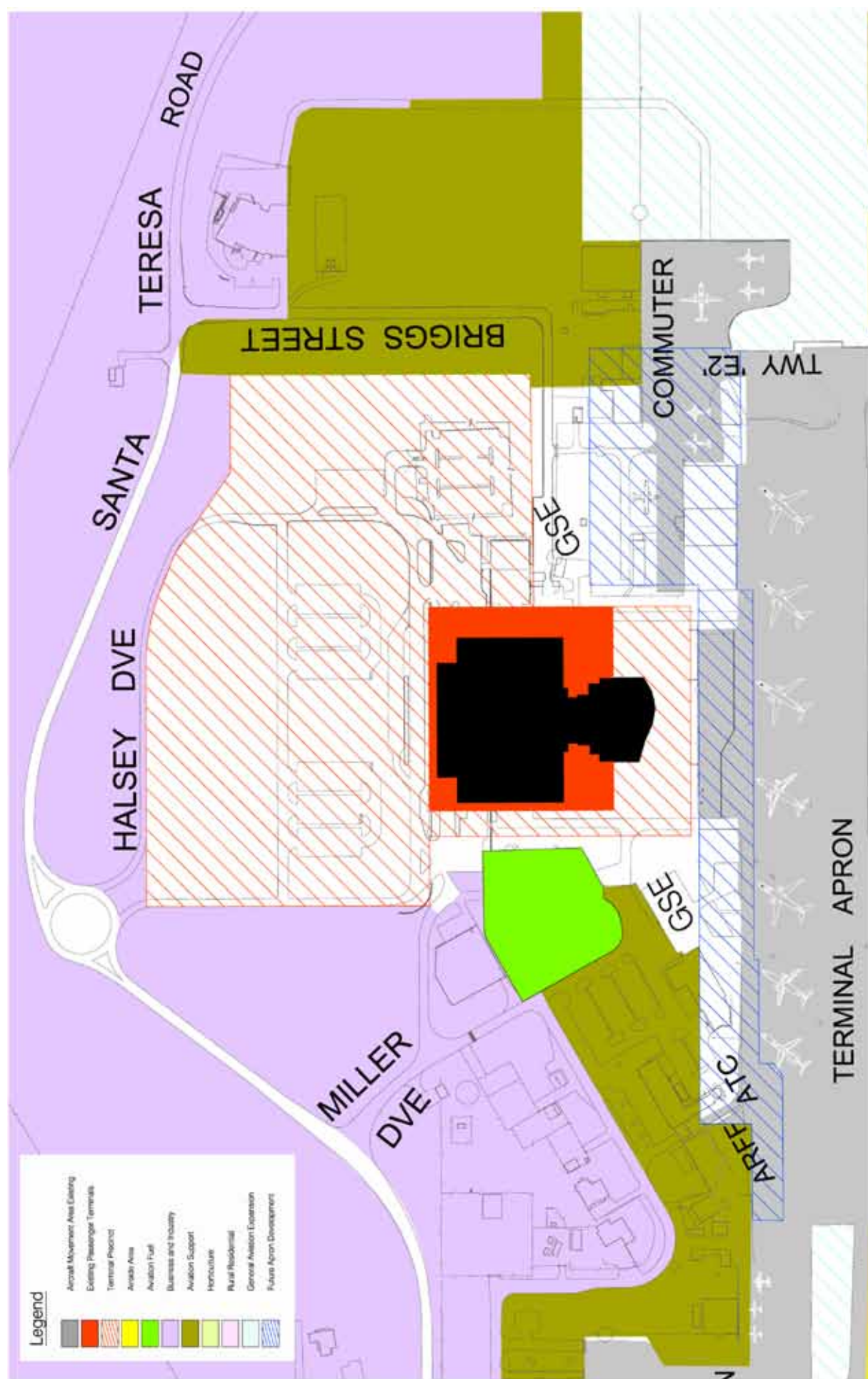
2029 DEVELOPMENT CONCEPT

Terminal growth will be accommodated by expanding the existing terminal in the Terminal and Facilities zone as illustrated in Figure 21. Key areas which will drive the expansion of the overall footprint of the terminal will be baggage reclaim and baggage make-up.

The extension of the passenger terminal in the terminal expansion zone will include:

- expansion of domestic processing areas, including check in and departure lounges;
- enhanced baggage reclaim facilities;
- expanded baggage make-up facilities;
- expanded retail facilities;
- flexible international processing facilities.

FIGURE 21: 2029 TERMINAL EXPANSION CONCEPT



This page has intentionally been left blank

SECTION 13

Aviation Support Facilities and Utilities

- Expansion of fuel supply, aircraft maintenance, freight handling, ground service equipment, flight catering and utilities capacity is provided for.

SECTION 13

Aviation Support Facilities and Utilities

There are a range of aviation support activities at Alice Springs Airport that support the core aviation business of transporting passengers and freight.

.....

Facilities to support these activities include supply, storage and distribution of fuel, aircraft maintenance, ground support equipment storage and flight catering. Support utilities include water supply, sewerage, stormwater drainage, electricity supply and communications.

ASA is responsible for internal electricity, water, sewage and stormwater infrastructure.

AVIATION FUEL

The safe and continuous supply of fuel is critical to on-time performance of all aircraft operators at the Airport. Any disruptions to the supply of fuel will impact aircraft movements and passengers.

Existing Facilities

There is no fuel pipeline delivery to the Airport. Fuel is supplied to the Airport by road train to a shared (Shell and BP) storage facility located immediately to the west of the terminal building. The Avtur fuel is dispensed by mobile tankers and via an in-ground hydrant system on the RPT apron.

General Aviation aircraft are serviced from a fuel bowser located in the GA area. Access to this facility is restricted to 12.5 m wingspan aircraft. Airport fuel tankers, carrying up to 16,000 litres, deliver this fuel to other locations on the Airport.

2029 Development Concept

The forecast increase in aircraft movements will result in increased fuel consumption over time. This will necessitate expanded fuel facilities. Adequate land has been reserved in the Aviation Activities Zone for this purpose. The land required for expansion has taken into consideration additional storage capabilities, increased number of refuelling vehicles and their associated parking and maintenance, as well as the associated increase in fuel deliveries required for the Airport.

The existing hydrant system will be extended incrementally to serve the RPT apron peak demands, if commercially viable, or the level of tanker refuelling will be expanded.

AIRCRAFT MAINTENANCE

There are three main types of aircraft maintenance activities:

- 1. Line maintenance** - this occurs during transit and turnaround and can be performed at the aircraft parking position.
- 2. Base Maintenance** - this requires ground-time in a hangar with simple access docking, or at a parking position away from the terminal. Ground time periods can range between 20 and 36 hours.
- 3. Heavy maintenance** - this requires significant ground-time in a hangar with extensive docking capabilities. Ground-time periods can range between 6 to 50 days depending on the type of heavy maintenance being performed.

In addition to hangars, there is a need for support functions such as workshops, component stores and engine run facilities.

Existing Facilities

There is General Aviation maintenance activity covering line, base and heavy maintenance throughout the GA areas. Currently Airlines conduct line maintenance on the RPT apron.

2029 Development Concept

General Aviation aircraft maintenance capacity will expand in line with GA facilities expansion. Line maintenance will continue to be completed on the RPT apron.

GROUND SERVICE EQUIPMENT (GSE)

GSE includes a range of vehicle and equipment used to service aircraft between flights. GSE is used to perform a variety of functions, including starting aircraft, aircraft maintenance, aircraft refuelling, transporting freight to and from the aircraft, loading freight, transporting passengers to and from the aircraft, baggage handling, aircraft waste disposal services and food services. Provision of adequate areas adjacent to the apron for storage of GSE is necessary for efficient operations.

Existing Facilities

The existing GSE storage area lies to the north of the RPT apron and comprises an area of approximately 3600 m².

2029 Development Concept

The area required for GSE storage is dependent on a number of key factors, including peak demand, aircraft configuration, number of ground handling agents and types of equipment. Provision is made for adequate GSE facilities adjacent to the RPT apron.

FLIGHT CATERING

Uplift-catering for RPT aircraft is prepared on airport.

Existing Facilities

Currently there is only one on-airport flight catering facility located at the Airport. Unlike many aviation-related activities, there is no specific need for flight catering facilities to be located on-airport.

2029 Development Concept

Provision is made for flight catering to continue on airport if required.

UTILITIES

To ensure that Alice Springs Airport operates effectively into the future, appropriate infrastructure and utility services must be able to meet future demands.

Water Supply

Existing Services

Potable and firefighting town water are supplied by the NT Power and Water Corporation (PWC) to the Airport by underground pipes. The domestic and fire hydrant mains share the same system with pressure booster pumps activated on demand for fire requirements.

Future Extensions

Decisions regarding future water supply must depend upon the PWC. In the interim, holding tanks may be required to ensure adequate holding capacity and pressure at the airport. ASA is investigating the separation of the water reticulation system from the firefighting system. It is expected that the non-aeronautical development areas, such as the land to the north and east of the terminal building, will require a dedicated combined fire hydrant and sprinkler boosted service. The most likely design is for two fire pump stations with two storage tanks, together with a series of ring mains reticulating throughout the precinct.

Sewerage

Existing Services

The terminal and the majority of buildings within the leased area discharge into a piped sewerage system which generally uses 100 mm PVC piping. This system reticulates into an on-airport sewage treatment facility for the terminal with septic provision for users outside the terminal.

Future Extensions

The existing septic tank system is considered adequate for the foreseeable future of the airport. In due course, the existing system will be upgraded and its capacity increased to meet loads at higher demand periods.

Additional pumping stations will be required within the non-aeronautical areas to meet demand resulting from the staged development of this precinct. Several new gravity sewer mains will be required to cater for future growth.

Stormwater Drainage

Existing Services

Most drainage is via underground pipes from the terminal area into unlined drains and then into soakways. This well-established system has the potential for environmental impact involving inappropriate materials run-off and possible scouring. ASA has already established extensive monitoring and implemented a variety of controls to minimise the impact of the Airport.

Future Extensions

This system is considered adequate to meet future demand.

Electricity Supply

Existing Services

The electrical supply is provided by the PWC. The major supply is by two 22 kV mains, one of which can become redundant at any time. An additional 11 kV supply serves the north-west (Seven-Mile) side of the airport. For reasons of operational safety, the mains electricity supply is augmented by an onsite standby power generator which operates within the standards set by the CASA.

ASA has constructed a solar power station which has a 235 kW output and will generate some 28% of the peak Airport demand.

Future Extensions

It is likely that the incoming supply will be adequate in the longer term. The present system enables some redundancy if necessary. Future developments within the airport area, particularly to the north and west of the terminal, may require an upgraded or separate feed.

Communications

Existing Services

As with all other airports there is a range of communications available to airport tenants. Radio, mobile phone and land line communications are largely the responsibility of other authorities.

Future Extensions

ASA will investigate the provision of additional services to provide redundancy for the terminal and to provide 'state of the art' Information Technology and Communication (ITC) technology for future occupants. It is anticipated that demand for additional capacity can be met.

This page has intentionally been left blank

SECTION 14

Commercial Development Concept

- Of the 3550 hectares in the airport lease area, some 2000 hectares of the land are available for commercial use.
- Possible commercial developments include offices, showrooms, warehousing, large format and speciality retail, hotel and other short-stay accommodation, and cafes.
- Alice Springs Airport and the Northern Territory Government are jointly planning for the northern part of the Airport's land holding to be developed in conjunction with the nearby Arid Zone Research Institute (AZRI) land for residential and commercial development.

SECTION 14

Commercial Development Concept

Aeronautical activities require the use of a minor portion of the airport land. However, aeronautical activities will always remain the priority for ASA and there is a continuing need to eliminate the dust hazard to aircraft operations. There is land that will never be required for aeronautical purposes. In addition there is land that will not be required for aeronautical purposes for many years to come. Both categories can be considered for commercial (non-aviation) opportunities and developed for highest and best use on short, medium and long term bases.

.....

The large land holding by ASA that will never be required for aeronautical purposes is strategic to the future development of both the Alice Springs economy and community. The northern part of the Airport land holding comprises some 1500 hectares and lies on the logical southern growth corridor for future Alice Springs development.

In considering commercial development opportunities on airport land there are six primary considerations:

- Contributing to Northern Territory economic growth through developing the property business and by facilitating both the success of our business partners and the objectives of the Northern Territory Government;
- Enhancing value to our shareholders;
- Contributing to the broader economic community;
- Opportunities for solar power generation in line with Alice Springs' designation as a solar city;
- Introducing appropriate commercial uses to the 1939 Seven Mile Heritage Zone;
- Underpinning infrastructure for further aeronautical development.

COMMERCIAL DEVELOPMENT VISION

Contemporary and high quality building form which is sensitive to the natural environment and the Alice Springs climate will be encouraged. Over the planning period, ASA will require increased emphasis on sustainable design, with sustainable design techniques that consider energy and water conservation;

a particular example is building orientation that maximises natural light and minimises heat transfer.

RECENT COMMERCIAL DEVELOPMENTS

While there have been several small commercial projects there have been no significant commercial developments over the last decade.

2029 DEVELOPMENT CONCEPTS

Of the 3550 hectares in the airport lease area, some 2000 hectares (over 50 percent) of the land is available for non aeronautical use.

The 1000 hectares in the Commercial and Tourist Commercial Zones will be developed as commercial opportunities arise. Possible developments include commercial offices, showrooms, warehousing, large format and speciality retail, hotel and other short-stay accommodation, and cafes.

Service Commercial and Industrial Zones are located on the western boundary of the Airport site and abut the Stuart Highway and Maryvale Road. This area will be developed to take advantage of the prominent commercial exposure. Road access will be developed in conjunction with the NT Department of Lands and Planning and approved by them.

ASA and the Northern Territory Government are planning for the northern part of the Airport's land holding to be developed in conjunction with the nearby Arid Zone Research Institute (AZRI) land for residential and commercial development (all residential is in the Future Development Zone). This is discussed in detail in Section 8.

Commercial development opportunities exist in the Seven-Mile Heritage Zone. Developments will be compatible with the heritage value and character of the area, and in particular the military build-up of the north.

Horticultural potential exists in the eastern land holding of the airport and will be pursued.

This page has intentionally been left blank

This page has intentionally been left blank

SECTION 15

Ground Transport Master Plan Concept

- Access to Roger Vale Drive and Santa Teresa Road from the Airport complex will need upgrading during the planning period.
- The approach to development of the internal road network will be to:
 - maximise the use of existing road capacity; and
 - enhance progressively the road system capacity in line with demand.

SECTION 15

Ground Transport Master Plan Concept

EXISTING ROAD AND GROUND TRANSPORT SYSTEM

External Access and Internal Road System

Alice Springs Airport is located 14 kilometres to the south of the Alice Springs township. Roger Vale Drive (which becomes Santa Teresa Road at the airport roundabout) accesses the Airport off the Stuart Highway. The Stuart Highway, Roger Vale Drive and the Santa Teresa Road are Northern Territory Government roads.

The internal road system primarily comprises the following roads:

- Halsey Drive to the passenger terminal;
- terminal forecourt road;
- Briggs Drive to the commuter general aviation area;
- Miller Drive and Davis Drive to the main general aviation area.

The large undeveloped area bounded by Colonel Rose Drive, Stuart Highway and Roger Vale Drive (northern area) is accessed by internal tracks.

The existing external and internal road system was largely developed by the early 1990s (*refer to Figure 1*).

Existing Ground Transport and Parking

All Airport customers and staff arrive by private vehicle, taxi, private hire car, shuttle bus or tourist coach. There are no public bus services to Alice Springs Airport. Taxis and private hire cars rank in the passenger terminal forecourt.

There are 257 public and 37 staff car park spaces at the passenger terminal. Other car parking capacity is scattered throughout the Airport.

2029 DEVELOPMENT CONCEPT

Background

Alice Springs Airport has historically experienced moderate annual growth over time for both airline passenger and general aviation traffic. A moderate annual growth is projected for the planning period.

Both the existing external and internal road systems may need enhancing during the 20 year planning period.

The long term car parks are often at capacity and the short-term car parks are sometimes at or near capacity.

The Northern Territory Government document 'Alice Springs Planning for the Future Forum – Outcomes Report and Action Plan' indicates that the AZRI site, combined with ASA land, has potential for 4000 dwellings with low infrastructure costs (*refer to Figure 6, page 44*). The Alice Springs Airport land mentioned in the document is the northern area which is bounded by Colonel Rose Drive, Stuart Highway and Roger Vale Drive.

External Road Access

Access to Roger Vale Drive and Santa Teresa Road from the airport complex will probably need upgrading during the planning period to cater for developments. Any upgrading of Airport access to the external road network will be undertaken in consultation with the Northern Territory Government and Alice Springs Town Council.

Potential new intersection with Roger Vale Drive is indicated in Figure 22.

Development of any future access from the northern area to the external road network would occur in consultation with the Northern Territory Government.

There is the possibility that the Stuart Highway – Adelaide Road intersection will be redeveloped. Alice Springs Airport land spans both sides of this intersection.

Airport land abutting both the Stuart Highway and Roger Vale Drive is needed to widen road reserves.

Internal Road Network

The approach to development of the internal road network will be to:

- maximise the use of existing road capacity; and
- progressive enhancement of road system capacity in line with demand.

Expansion or upgrading of the internal road network will be dictated by aviation and commercial development and growth. In particular, expansion of the general aviation area to the west and development of the northern area would lead to new road construction.

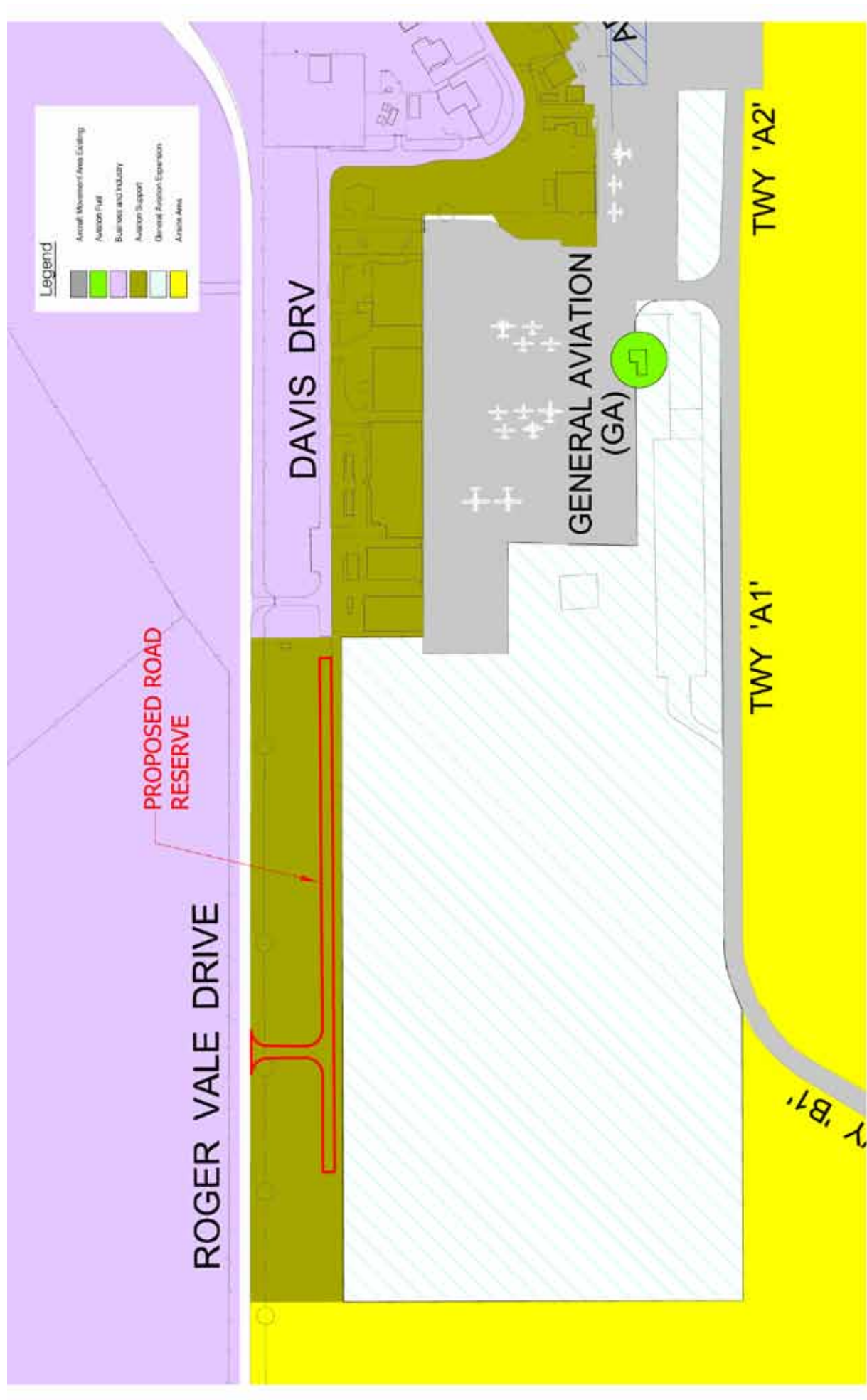
Any development of the northern area, including subdivision design, will occur in consultation with the Northern Territory Government.

Ground Transport and Parking

No changes are anticipated in the ground transport arrangements for the planning period.

Car parking capacity will be expanded in line with demand. Long term car park capacity will be the first to be enhanced.

FIGURE 22: POTENTIAL NEW INTERSECTION WITH ROGER VALE DRIVE



SECTION 16

Environmental Management

16

- A Construction Environmental Management Plan will be developed where required.
- Alice Springs Airport strives to integrate environmental considerations into the development of facilities and services and seeks to minimise their impact on the natural environment.
- The Airport Environment Strategy establishes a framework for assessing compliance against the relevant standards and legislation.
- The Airport Environment Strategy was approved by the Minister on 17 March 2010.

Environmental Management

AIRPORT ENVIRONMENT STRATEGY (AES)

The Act and the Regulations require that beside the Master Plan, a separate Airport Environment Strategy (AES), which is a five-year strategic environmental plan for the management of Alice Springs Airport operations, be produced. Its purpose is to ensure relevant environmental standards and legislation are adhered to and establishes a framework for assessing compliance with the standards and legislation. The strategy also guides continual improvement of environmental management on the airport.

The AES is relevant to all operations on airport, including both aviation and non-aviation related activities. It has been developed alongside the Alice Springs Airport Master Plan 2009 and together these documents will provide direction for the management of the Airport site. The AES 2009 is a key document for ensuring that the forecast growth and development of Alice Springs Airport envisaged in the Master Plan is undertaken in an environmentally responsible manner.

The Airport Environment Strategy 2009 is the third AES for ASA. It was approved by the Minister of Infrastructure, Transport, Regional Development and Local Government on 17 March 2010.

The AES 2009 replaces the previous AES and is a legally binding document which will remain in force until development of the next AES in 2014.

The Act states that there is to be a final AES, as defined in Part 6 Division 2 Section 115.

The Act specifies that an Airport Environmental Strategy must set out:

- objectives for the environmental management;
- the areas if any within the airport site which are identified as environmentally significant;
- the sources of environmental impact associated with airport operations;
- the studies, reviews and monitoring to be carried out by the in connection with the environmental;
- impact associated with airport operations;
- the time frames for completion of those studies and reviews and for reporting on that monitoring;

- the specific measures to be carried out for the purposes of preventing, controlling or reducing the environmental impact associated with airport operations;
- the timeframes for completion of these specific measures;
- details of the consultations undertaken in preparing the strategy (including the outcome of the consultations).

Airport Environmental Management

ASA maintains an Environmental Management System (EMS) which is consistent with ISO 14001. The EMS provides the system by which long-term and daily environmental management can be planned, implemented and reviewed, in a cycle of continuous improvement. The EMS also guides environmental response to any future airport developments.

The AES is the cornerstone of the EMS. The AES provides strategic policies, objectives and targets for environmental management of the Airport within the EMS framework. This includes monitoring progress, reviewing performance and implementing corrective action for the strategic actions outlined in the AES.

ALICE SPRINGS AIRPORT ENVIRONMENTAL ACHIEVEMENTS

ASA is committed to creating an airport that will become an environmental management showcase. ASA is proud of its environmental performance and will continue to work closely with stakeholders to strive for improvement and incorporation of environmental considerations into all elements of its operations.

A number of environmental initiatives have been implemented at the airport resulting in what ASA believes are worthy environmental management credentials. These initiatives will be described in more detail.

Dust Control

ASA is Australia's largest airport land holding. The airport was originally a smaller land holding, however dust storms created by eight years of drought in the 1960s as well as over-grazing on the surrounding land, resulted in safety issues for aircraft and the requirement to extend the airport land holding. In 1970 a Dust Control Project was implemented to alleviate the local dust problem. The project included a range of techniques such as pitting, staggered furrows, water-ponding banks and spirals sown with a variety of grasses, shrubs and trees. In June 1984, the southern area of the airport was part of an area

identified as 'Declaration of Erosion Hazard' under the NT Soil Conservation and Land Utilisation Act. In June 2000 a soil monitoring program commenced and has continued at the airport throughout the 2004 AES period. The objective of the monitoring is to monitor soil and dust movement, to identify the extent of erosion, and to confirm whether erosion control strategies are effective. In the 2004 AES period, the airport sought expert help from the Wind Erosion Research team at Griffith University in Brisbane, and liaised with the original researcher and NT Soil Conservation Officer of the 1970s Dust Control Project to improve monitoring and management of dust issues at the Airport.

Anetyeke Garden

Educating the local community and the travelling public about Central Australia's environment is important to ASA.

The Anetyeke native plant garden and interpretive signage was installed during construction of the terminal in 1990 with the aim of raising awareness of Central Australian ecological communities. Mwerre Anetkeye is Arrernte Aboriginal language that means 'a good place to sit.'

The garden is patterned on local ecological communities including Palm Valley riverine community, Mulga depression, Witchetty bush rise and sand dunes. Wildlife is attracted to the garden, including euros, lizards and a wide range of birds.

The Anetyeke Garden is a proud feature of the Alice Springs Airport that welcomes visitors to the Red Centre. Over the years, the garden itself was enhanced and maintained but the signage became 'tired.' In July 2008, the airport commissioned local artist and designer Pauline Clack to revamp the educational signage and brochures.

The Anetyeke Garden is an important part of educational gardens throughout Alice Springs and highlights the Airport's partnerships with Greening Australia and Land for Wildlife. It also complements the Olive Pink Gardens in Alice Springs and Alice Springs Desert Park. ASA was a finalist in the Commercial/ Industry section of the 2009 Power Water Melaleuca Awards for the Anetyeke Garden project.

Supporting Research

ASA has a research site for the Centre of Integrative Study of Animal Behaviour, a research group based at Macquarie University in Sydney to study the behaviour of *Melophorous bagoti*, a desert ant. The study at the airport site commenced in 2007 and is part of a larger research in Central Australia.

The Airport is also the Balloon Launching Station for National Aeronautical and Space Administration (NASA). Managed by the University of New South Wales, the site has been used since 1974 for stratospheric balloon flights to conduct research in astronomy and astrophysics, as well as atmospheric physics.

Land for Wildlife

ASA joined a conservation network of 93 properties around Alice Springs to become a Land for Wildlife member. Land for Wildlife is a voluntary program, established for wildlife conservation on private and Crown land.

Solar Power

ASA has been involved in the Alice Solar City program in some capacity since 2006. As part of its business case put to the Australian Greenhouse Office, Alice Solar City proposed to incorporate five iconic projects as part of its bid for Alice Springs to become a federally funded solar city. The proposed Airport project, which at the time comprised a two-dish solar installation, was one of Alice Solar City's anticipated iconic projects. Since that time, ASA investigated suitable solar technology for the project and subsequently installed a solar power station approximately four times the size of the original proposed installation. The solar power station is designed for a 235kW output which meets 28% of peak Airport demand.

Seven-Mile Aviation Heritage Zone

The Seven-Mile Aerodrome is of historic importance because:

- association with WWII activities in the Northern Territory in general and Alice Springs in particular;
- being one of Australian's most intact Aerodromes to have survived from the WWII period; and
- association with the development of aviation services in Alice Springs

ASA is proud of its aviation heritage and the Seven-Mile Aerodrome complex. Thus, in September 2005, the former Control Tower, former Passenger Terminal and the Bellman Hangar were declared as heritage places under the *Northern Territory Heritage Conservation Act 1991*.

The Airport continues to manage the Seven-Mile Heritage Zone in accordance with the Conservation and Management Plan.

ENVIRONMENTAL MANAGEMENT OF FUTURE DEVELOPMENTS

ASA strives to integrate environmental considerations into the development of facilities and services and seeks to minimise their impact on the natural environment.

Development activities have the potential to impact upon environmental attributes addressed throughout the AES. Broadly, the likely sources of environmental impact associated with each attribute during development include:

- **Surface Water, Groundwater and Land**
 - alterations to the water table through excavation or fill/ material placement;
 - contamination by hazardous material spills or inappropriate treatment of construction water prior to release;
 - inappropriate sediment and erosion control structures resulting in increased sediment loads in water courses.

- **Flora** – vegetation clearing, introduction of disease and weeds through inadequate management of tyres, equipment and footwear.
- **Fauna** – accidental chemical spills, death or injury by machinery, and habitat loss through vegetation clearing.
- **Noise** – produced by mobile plant, power tools, site clearing and earthworks and an increase in air traffic;
- **Air Quality** – the movement of mobile plant on disturbed ground has a high potential to create dust and exhaust fumes;
- **Cultural Heritage** – inadequate awareness of the potential for cultural heritage sites and artefacts could lead to the destruction or damage of known cultural heritage sites;
- **Waste** - increase in volumes of waste generated from increased activity; and
- **Resource Use** - increase demands for resources e.g energy, water and construction materials.

ASA has developed a range of initiatives aimed at minimising the impacts of development:

- Contractors performing major works or those with potential to cause environmental harm are required to prepare a Construction EMP and are required to go through the development approval process.
- Potential developments will be assessed against data entered into the Environmental Site Register (ESR) to determine potential impacts upon sensitive areas.
- In the event that major developments are proposed in areas of intact native habitat on Airport land, a flora and fauna survey will be conducted before construction begins and management options assessed.
- Work on developments will be stopped immediately, if suspected culturally significant/heritage artefacts are found, and the relevant authority informed.

There is one recorded Aboriginal Sacred Site within the ASA leased area. This site is protected under the Northern Territory Aboriginal Sacred Sites Act and all development is prohibited on this site unless prior approval from traditional owners is obtained. Sacred Sites are otherwise managed through an Authority Certificate issued by the Aboriginal Areas Protection Authority (AAPA). Figure 6 of the approved Alice Springs Airport Environment Strategy 2009 shows environmental, cultural and heritage significant sites.

SUSTAINABILITY

Sustainable design principles will be incorporated into the design and construction of future airport expansion and commercial development as Alice Springs Airport. Planned development will work towards improving the environmental performance of the facility through the integration of energy efficient, water conservation and indoor environmental quality best practice that will complement the objectives identified in the Airport Environment Strategy.

NT Department of Planning and Infrastructure outline the principles of Water Sensitive Urban design (WSUD) as:

- Protect existing natural features and ecological processes;
- Maintain water quality hydrologic behaviour of catchments;
- Protect water quality of surface and ground water;
- Minimise demand of the reticulated water supply system;
- Minimise wastewater discharges to the natural environment; and
- Integrate water into the landscape to enhance visual, social, cultural and ecological values.

ASA applies the principles of WSUD through the implementation of the airport Environment Strategy, in particular the policies centred around the following environmental attributes:

- Section 5: Water (ground and surface) Management
- Section 6: Land
- Section 7: Biodiversity
- Section 12: Resource Use
- Section 14: Development

2029 DEVELOPMENT CONCEPT

ASA is committed to conservation practice and an environmentally sustainable airport operation. The Airport is proud of its environmental performance and will continue to work closely with its partners to incorporate environmental considerations into every aspect of its business.

A feature of ASA's development philosophy is a focus on enhancing the airport's environmental and ecological value.

Heritage

ASA is conscious of its aviation heritage in the Seven-Mile Aerodrome complex. Any developments in the Seven-Mile heritage zone will be compatible with its heritage value and character. ASA is committed to continued management of the heritage area in accordance with the Conservation and Management Plan.

Conservation

Studies have been conducted in recent years on the flora and fauna value of the extensive airport site. These studies have focussed environmental attention on areas of ecological value as identified in the Airport Environment Strategy.

Dust Management

A large portion of the airport site is identified as a Dust Suppression Zone in order to avoid the historical dust storms that plagued the airport in the 1950s and 1960s. The Dust Suppression Zone will be managed and developed consistent with minimising dust. Potential developments could include short- and long-term storage of aircraft, horticulture and plant nursery.

SECTION 17

Implementation

- The approval of the Final Master Plan does not automatically confer approval on subsequent major developments.
- Major developments must undergo the Major Development Plan (MDP) process which is the development consent process under the *Airports Act*. The MDP requires Ministerial approval under the *Airports Act 1996*.
- The MDP process incorporates further detailed assessment including community consultation, environmental studies, traffic effects and aviation impacts.
- Smaller developments are assessed by the DITRDLG appointed Airport Building Controller and Airport Environment Officer.

Implementation

IMPLEMENTATION FRAMEWORK

This Master Plan represents current views of developments expected to be realised in a staged manner, largely as a result of increased aircraft movements, passenger demand and commercial development.

Planning, by its nature, is a dynamic activity requiring continuous monitoring of changing conditions, standards and practices, and technology. Therefore, implementation of the Final Master Plan will require flexibility that takes into account fluctuations in economic activity and factors that affect air travel and commercial demand.

The Approval of the Final Master Plan does not automatically confer approval on subsequent major developments. The *Airports Act 1996* requires that certain developments must undergo a Major Development Plan (MDP) process which is subject to ministerial approval. Prior to ministerial approval, proposals are subject to further detailed assessment including community consultation, environmental studies, traffic effects and aviation impact.

Other smaller developments, that do not trigger a Major Development Plan, are subjected to ASA's internal development review process. The DITRDLG also has a role for most airport developments through its statutory office holders – the Airport Building Controller (ABC) and Airport Environment Officer (AEO). The role of the ABC is to administer the Airports (Building Control) Regulations 1996 and the AEO oversees adherence to the final approved AES and administers the Airports (Environmental Protection) Regulations 1997. Hence, a regulatory and development consent process is still applied.

REVIEW PROCESS

The *Airports Act* provides for a Final Master Plan to remain in force for five years. The Act includes additional provisions for minor amendments to the Master Plan, and for the Minister to direct another Master Plan to be prepared.

This page has intentionally been left blank

This page has intentionally been left blank

SECTION 18

Assessment of Consistency with the *Airports Act 1996*

- Alice Springs Airport 2009 Master Plan is consistent with the requirements of the *Airports Act 1996*.

SECTION 18

Assessment of Consistency with the *Airports Act 1996*

TABLE 27: ASSESSMENT OF THE CONSISTENCY WITH THE *AIRPORTS ACT 1996* AND ASSOCIATED REGULATIONS

LEGISLATION	FINAL DETAILS IN SECTION OF THE MP
AIRPORTS ACT 1996	
70 Final Master Plan	
(1) For each airport, there is to be a final master plan.	Noted – see Section 3
(2) The purpose of the final master plan for an airport are:	
(a) To establish the strategic direction for efficient and economic development at the airport over the planning period of the plan; and	Section 5, 8, 9, 12, 13, 14 and 15
(b) To provide for the development of additional uses of the airport site; and	Section 8, 9, 13, 14 and 15
(c) To indicate to the public the intended uses of the airport site; and	Section 8, 9, 13, 14 and 15
(d) To reduce potential conflicts between uses of the airport site, and to ensure that uses of the airport site are compatible with the areas surrounding the airport.	Section 8, 10 and 11
71 Contents of draft or final master plan	
(2) In the case of an airport other than joint-user airport, a draft or final master plan must specify:	
(a) the airport-lessee company's development objectives for the airport; and	Section 5
(b) the airport-lessee company's assessment of the future needs of civil aviation users of the airport, and other users of the airport, for services and facilities relating to the area of the airport site leased to the company; and	Section 8, 9, 12, 13, 14 and 15
(c) the airport-lessee company's intentions for land use and related development of the area of the airport site leased to the company, where the uses and developments embrace airside, landside, surface access and land planning/zoning aspects; and	Section 8, 9, 12, 13, 14 and 15
(d) an Australian Noise Exposure Forecast (in accordance with regulations, if any, made for the purpose of this paragraph) for the areas surrounding the airport; and	Section 11
(da) civil flight paths (in accordance with regulations, if any, made for the purpose of this paragraph) at the airport; and	Section 11
(e) the airport-lessee company's plans, developed following consultations with the airlines that use the airport, local government bodies in the vicinity of the airport and the Department of Defence, for managing aircraft noise intrusion in areas forecast to be subject to exposure above the significant ANEF levels; and	Section 11
(f) the airport-lessee company's assessment of environmental issues that might reasonably be expected to be associated with the implementation of the plan; and	Section 16
(g) the airport-lessee company's plans for dealing with the environmental issues mentioned in paragraph (f) (including plans for ameliorating or preventing environmental impacts); and	Section 16
(h) if a draft environment strategy for the airport has been approved—the date of the approval; and	Section 16
(j) such other matters (if any) as are specified in the regulations.	See below
Matters provided by regulations	
(4) The regulations may provide that the objectives, assessments, proposals, forecasts and other matters covered by subsection (2) or (3) may relate to one or more of the following:	
(a) the whole of the planning period of the plan;	Section 3
(b) one or more specified 5-year periods that are included in the planning period of the plan;	No such periods specified in the regulations.
(c) subject to any specified conditions, a specified period that is longer than the planning period of the plan.	No such periods specified in the regulations.
(5) The regulations may provide that, in specifying a particular objective, assessment, proposal, forecast or other matter covered by subsection (2) or (3), a draft or final master plan must address such things as are specified in the regulations.	

LEGISLATION	FINAL DETAILS IN SECTION OF THE MP
Plan to address consistency with planning schemes	
(6) In specifying a particular objective or proposal covered by paragraph (2)(a) or (c) or (3)(a) or (c), a draft or final master plan must address the extent (if any) of consistency with planning schemes in force under a law of the State or Territory in which the airport is located.	Section 8 and 20
Company to have regard to Australian standard	
(8) In developing plans referred to in paragraph (2)(e) and (3)(e), an airport-lessee company must have regard to Australian Standard AS2021—1994 (“Acoustics—Aircraft noise intrusion—Building siting and construction”) as in force or existing at that time.	Section 11
AIRPORT REGULATIONS 1997 – REG 5.02	
Contents of draft or final master plan	
(1) For paragraphs 71(2)(j) and (3)(j) of the act, the following matter are specified:	
(a) Any changes to the OLS or PANS-OPS surfaces for the airport concerned that is likely to result if development proceeds in accordance with the master plan	Section 10
(b) For an area of an airport where a change of use of a kind described in subregulation 6.07 (2) of the Airport (Environment Protection) Regulations (see Note 1) is proposed:	No such changes of use proposed.
(i) The contents of the report of any examination of the area carried out under regulation 6.09 of those Regulations; and	As above
(ii) The airport-lessee company’s plans for dealing with any soil pollution referred to in the report	As above
(2) For section 71 of the Act, an airport master plan must, in relation to the landside part of the airport, where possible, describe proposals for land use and related planning, zoning or development in an amount of detail equivalent to that required by, and using terminology (including definitions) consistent with that applying in, land use planning, zoning and development legislation in force in the State or Territory in which the airport is located.	Section 8 and 20
(3) For subsection 71(5) of the Act, a draft or final master plan must:	
(a) address any obligation that has passed to the relevant airport-lessee company under subsection 22(2) of the Act or subsection 26(2) of the Transitional Act; and	Section 8
(b) address any interest to which the relevant airport lease is subject under subsection 22(3) of the Act, or subsection 26(3) of the Transitional Act; and	Section 8
(c) if the development proposed in the plan relates to Canberra Airport-comply with and otherwise not be inconsistent with the National Capital Plan prepared under Part III of the <i>Australian Capital Territory (Planning and Land Management) Act 1988</i> .	N/A
(4) In subregulation (1):	
OLS and PANS-OPS surface have the same meanings as in the Airports (Protection of Airspace) Regulations.	Noted

Note 1

Subregulation 6.07 (2) – Airport Environment Protection) Regulations

A change of use to which paragraph (1) 9d) applies is a change that necessitates greater environmental protection measures because the use will result in the land being used in a way, or for a purpose, that will, or is reasonable likely to, cause greater harm:

- (a) to an aspect of the environment; or
- (b) to the health, safety or, in any respect, the welfare or, human beings.

This page has intentionally been left blank

SECTION 19

Acronyms

19

SECTION 19

Acronyms

AAPA	Aboriginal Areas Protection Authority
ABC	Airport Building Controller
ADG	Airport Development Group
AEO	Airport Environment Officer
AES	Airport Environment Strategy
ALC	Airport-Lessee Company
ANEC	Aircraft Noise Exposure Concept
ANEF	Australian Noise Exposure Forecast
ARFFS	Aviation Rescue and Fire Fighting Service
ASA	Alice Springs Airport Pty Ltd
ATC	Air Traffic Control
AZRI	Arid Zone Research Institute
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations
CAT	Category
CBD	Central Business District
CCTV	Closed Circuit Television
CTAF	Common Traffic Advisory Frequency
CTFR	Counter Terrorism First Response
DIA	Darwin International Airport Pty Ltd
DITRDLG	Department of Infrastructure, Transport, Regional Development and Local Government
DME	Distance Measuring Equipment
DPI	Department of Planning and Infrastructure
EDMP	Exposure Draft Master Plan
EMS	Environmental Management System
ERSA	EnRoute Supplement Australia
ESR	Environmental Sites Register
FAC	Federal Airports Corporation
FATO	Final Approach and Take Off
FID	Flight Information Displays
FSC	Full Service Carriers
FTE	Full-time Equivalent
GA	General Aviation
GDP	Gross Domestic Product
GSE	Ground Service Equipment
GSP	Gross State Product
HAL	High Intensity Approach Lighting

HV	High Voltage
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
ILS	Instrument Landing System
ITC	Information Technology and Communications
JDSRF	Joint Defence Research Facility
LCC	Low Cost Carrier
MAX	Maximum
MDP	Major Development Plan
MOS	Manual of Standards
MP	Master Plan
MTOW	Maximum Take Off Weight
N70	Noise Events Louder than 70dB(A)
NASA	National Aeronautical and Space Administration
NTAPL	Northern Territory Airports Pty Ltd
NDB	Non-Directional Beacon
NT	Northern Territory
NTG	Northern Territory Government
OLS	Obstacle Limitation Surfaces
PANS-OPS	Procedures for Air Navigation Services – Aircraft Operations
PAPI	Precision Approach Path Indicator
PCN	Pavement Classification Number
PDMP	Preliminary Draft Master Plan
PWC	Power and Water Corporation
RPT	Regular Public Transport
RAAF	Royal Australian Air Force
SRA	Security Restricted Area
TFI	Tourism Futures International
TSP	Transport Security Program
TWY	Taxiway
T-VASIS	T-Visual Approach Slope Indicator System
US	United States
USAAF	United States of America Air Force
VHF	Very High Frequency
VOR	Very High Frequency Omnidirectional Range
WSUD	Water Sensitive Urban Design

This page has intentionally been left blank

This page has intentionally been left blank

SECTION 20

Definitions of Land Uses

20

SECTION 20

Definitions of Land Uses

Note:

Black denotes those Zones and Land Uses identical to the NT Planning Scheme

Red denotes those Zones and Land Uses that have been amended from those in the NT Planning Scheme to appropriately reflect on-site aviation and non-aviation land uses and activities

Blue denotes independent definitions for aviation zones and land uses

agriculture	means, as a commercial enterprise: (a) the growing of crops, pasture, timber trees and the like, but does not include a plant nursery or horticulture; (b) the keeping and breeding of livestock; but does not include intensive animal husbandry or stables.
animal boarding	means premises used as a commercial enterprise for the accommodation or breeding of domestic animals.
aviation activity	means any activity for the arrival, departure, movement or operation of aircraft and includes aircraft aprons, helipads, heliports, runways, taxiways, areas set aside for the parking and or storage of aircraft either short or long term, and the like.
aviation support facility	means any aircraft maintenance facility, engine-run area, ground support equipment, transport depot and associated ground base activities necessary for the orderly and efficient operation of aviation activity.
Bed and breakfast	Temporary accommodation for travellers provided within a dwelling by the resident of that dwelling.
business sign	means a device using words, letters or images exhibited for the purpose of advertising, announcement or display restricted to the name of the business carried on and the nature of the services or goods available, on the land on which the sign is erected, and includes, where a number of persons are carrying on different businesses on that land, a sign identifying the place.
caravan park	means land used for the parking of caravans or the erection or placement and use of tents or cabins for the purpose of providing accommodation.
caretaker's residence	means a dwelling which is ancillary to the lawful use of the land on which it is erected and which is used by the caretaker of the land.
car park	means the parking of motor vehicles, including buses and trucks, otherwise than as an ancillary use of land.
child care centre	means premises used for the caring for 17 or more children.
community centre	means a building or part of a building designed or adapted primarily to provide facilities for social, sporting or cultural purposes but does not include premises licensed under the <i>Liquor Act</i> .
dependant unit	means a dwelling ancillary to and constructed on the same site as a single dwelling for the purpose of providing accommodation for a dependant of a resident of the single dwelling.
dwelling	means a building, or part of a building, designed, constructed or adapted as a self-contained residence.
Domestic livestock	means the keeping, exercising or training, other than as a commercial enterprise, of any of the following: — Horses or other equine animals; — Ox, buffalo or other bovine animals; — Camels; — Pigs.
Education establishment	means an academy, college, kindergarten, lecture hall, technical college or university, but does not include a place of worship.
Fuel depot	means a depot for the storage or sale of solid, liquid or gaseous fuel, but does not include a service station.
General aviation and support facilities	means any aviation and aviation related use of the land. General aviation commonly refers to that part of the aviation industry that engages in activity other than scheduled commercial airline activity. This may include charter operations, aeromedical operations, agricultural aviation businesses, aviation-based firefighting services, training and aerial work such as aerial photography and surveying. It also includes private, business, recreational and sports aviation activity and supporting businesses such as maintenance providers.
General industry	means an industry other than a light industry or a rural industry.

Group home	means a dwelling: (a) occupied by persons who are not necessarily related and who live together as a single household, with or without paid supervision or care; (b) where management of the household is assisted by a community organisation, education establishment, or recognised religious or charitable organisation, or a department or institutional establishment of the Crown' but does not include supporting accommodation.
Helipad	means a place not open to the public, used for take-off and landing of helicopters.
Heliport	means a place not open to the public, used for the take-off and landing of helicopters whether or not it includes: (a) a terminal building; (b) facilities for parking, storage or repair of helicopters.
Home-based child care centre	means the caring in a dwelling for six to a maximum of 16 children including children who reside in the dwelling, by a person who resides in the dwelling.
Home-based contracting	Means the storage on the site of a dwelling of materials and/or vehicles associated with a business operated by a person resident in the dwelling, but which business does not operate on the site of the dwelling.
Home occupation	means an occupation or profession which is carried on in a dwelling or on the site of a dwelling, by a person resident in the dwelling, and may include the caring for up to five children including children who reside in the dwelling.
Horticulture	means the commercial cultivation of fruit, vegetables, flowers and the like.
Hostel	includes boarding houses, guest houses, lodging houses and other premises used to provide board or lodging with communal toilet, ablution, dining or cooking facilities but does not include bed and breakfast accommodation or a group home.
Hotel	means premises which require a licence under the <i>Liquor Act</i> and where, as a principal part of the business, alcoholic beverages are ordinarily sold to the public for consumption on the premises whether or not accommodation is provided for members of the public and whether or not meals are served, but does not include a licensed club, motel or restaurant.
Industry	includes the following operations: (a) the carrying out of a process of manufacture whether or not to produce a finished article; (b) the dismantling of an article, machinery or vehicle; (c) the treatment of waste materials; (d) the packaging of goods or machinery; (e) the process of testing or analysis of an article, goods or materials; (f) the storage of goods, equipment or vehicles not in association with any other activity on the site, but not including transport terminal, vehicle sales and hire or warehouse; and if on the same land as any of the operations referred to in paragraphs (a) to (f) above: (g) the storage of goods used in conjunction with or resulting from any of the above operations; (h) the provision of amenities for persons engaged in the operations; (i) the sale of goods resulting from the operations; (j) any work of administration or accounting in connection with an operation; (k) an industry or class of industry particularly described in this Scheme, but does not include motor body works, motor repair station or a home occupation.
intensive animal husbandry	means: (a) the keeping and feeding of animals, including poultry and pigs, in sheds, stalls, ponds, compounds or stockyards; (b) aquaculture; as a commercial enterprise.
leisure and recreation	means the provision indoors or outdoors of recreation, leisure or sporting activities and includes cinemas, theatres, sporting facilities and the like as a commercial enterprise but does not include a licensed club or community centre.
licensed club	means premises used as club rooms which require a licence under the <i>Liquor Act</i> .
light industry	means an industry in which the process carried on, the machinery used and the goods and commodities carried to and from the premises on which the industry is sited are not of such a kind as are likely to adversely affect the amenity of the surrounding locality by reason of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit, oil or otherwise.
medical clinic	means a building or place used by one or more medical practitioners, physiotherapists, dentists or persons ordinarily associated with health care, or their employees, but does not include a hospital.
Medical consulting rooms	Means a room or suite of rooms on the site of a single dwelling used by a resident of that dwelling for the purposes of his or her work as a medical practitioner, dentist or person ordinarily associated with health care.
motel	means premises wholly or principally used for the accommodation of travellers and the vehicles used by them, whether or not the building is also used to provide meals to the travellers or to members of the general public and whether or not the premises are licensed under the <i>Liquor Act</i> , but does not include bed and breakfast accommodation.
motor body works	means premises for repairing the body work of motor vehicles and includes body building, panel beating or spray painting of motor vehicles.
motor repair station	means premises used for carrying out repairs to motor vehicles but does not include a motor body works or a transport terminal.

multiple dwellings	means a building or a group of buildings on a site which individually or collectively contain more than one dwelling (including service apartments) but does not include a dependant unit.
navigational aids	means any aircraft surveillance equipment, control towers, radars, visual and non-visual navigation aids and the like.
office	means a building or part of a building used for the conduct of administration whether public or otherwise, the practice of a profession, or the carrying on of mercantile, banking, insurance, legal, clerical or similar services, but does not include a home occupation.
passenger terminal	means premises used as a railway or bus station, shipping passenger terminal, airline passenger terminal, hoverport or heliport.
place of worship	means premises used as a church, chapel, mosque, temple, synagogue or place of religious instruction or worship or for the purpose of religious training.
plant nursery	means premises principally used for the growing and/or display of plants for sale, whether or not seeds, equipment, soil, sand, rocks, railway sleepers or other associated products are displayed or sold, but does not include the use of land for agriculture or horticulture.
promotion sign	means a device using words, letters or images exhibited for the purpose of advertising, announcement or display which contains information relating to: (a) goods, services or products not provided, produced or sold; (b) events or activities which are not carried on; (c) on the land or in the building on which the sign is constructed or erected.
recycling depot	means premises used for the collection, storage or sale of scrap metals, waste paper, rags, bottles or other scrap material or goods, or used for dismantling, storage or salvaging of machinery whether or not parts of them are for sale.
restaurant	means premises (other than a shop, or part of a hotel or a motel) in which meals are served to the public whether or not the premises provides a drive-through service or requires a licence under the <i>Liquor Act</i> .
retail agricultural stall	means a building used for the display and retail sale of agricultural, market garden or horticultural produce grown on the land on which the building is erected.
rural industry	means an industry which involves the treatment, processing or packing of primary products transported to the site where the goods and commodities carried to or from the premises on which the industry is sited, are not of such a kind as are likely to adversely affect the amenity of the surrounding locality.
service station	means premises used for the sale by retail of fuels, oils and other products for use in connection with the operation of motor vehicles, whether or not it includes convenience shopping, but does not include a fuel depot, motor repair station or motor body works.
shop	means premises used for the display and sale by retail or for hire of goods or services but does not include a restaurant, retail agricultural stall, service station, showroom sales or vehicle sales and hire.
short-stay accommodation	means hotel and/or motel style accommodation which has been specifically designed for short stay business or tourist accommodation and which is not subject to a residential lease.
showroom sales	means the sale or hire in premises of goods of a bulky nature including: (a) furniture, floor coverings, furnishings, household appliances or camping gear; (b) materials, tools, equipment or machinery for use in industry, commerce, the trades, primary production, medical purposes or party hire.
single dwelling	means a building containing one dwelling only.
stables	means premises used for the keeping, exercising or training of horses or other animals of burden but does not include domestic livestock or intensive animal husbandry.
supporting accommodation	means: (a) a convalescent or nursing home, an orphanage, a children's home, an institution for poor or disadvantaged persons or a home for the care of aged persons; or (b) premises used by people moving from their homes or an institution and living for a short time in shared, supporting or rehabilitating accommodation, but does not include a group home.
transport terminal	means premises used for the: (a) loading, discharge or storage of goods in the course of the transport of those goods by air, road, rail or ship; (b) garaging and basic maintenance of fleet vehicles; (c) servicing, repair and garaging of buses.
utilities and infrastructure	means a road, traffic lights, stormwater drains, disposal of sewage and waste water, facilities for the reticulation of services, telecommunications facilities, electricity substations and electricity transmission facilities, including sustainable generation systems, and the like.
vehicle sales and hire	means premises used wholly or principally for the display for sale by retail or for rental of motor vehicles, caravans, trailers, farm machinery or boats but does not include motor body works, motor repair station, a shop or showroom sales.
veterinary clinic	means premises used for the medical treatment of animals, whether or not the animals are boarded there as part of the treatment.
warehouse	means premises used for the bulk storage of goods, or the display and sale of goods by wholesale.

SECTION 21

Glossary and Aviation Terminology

21

SECTION 20

Glossary and Aviation Terminology

AIRCRAFT NOISE TERMS

Aircraft Noise Exposure Concept (ANEC)

A set of contours based on hypothetical aircraft operations at an airport in the future. As ANEC maps are based on hypothetical assumptions and may not be subject to review or endorsement, they have no official status and cannot be used for land use planning purposes. An ANEC, however, can be turned into an ANEF.

Australian Noise Exposure Forecast (ANEF)

A set of contours showing future forecasted levels of exposure to noise. The ANEF is the only type of noise map intended to be used to assist land-use planning decisions. ANEF maps are subject to technical review and endorsement by Airservices Australia.

Flight path

These maps provide an indication of where aircraft fly and how many overflights there are over a particular period.

N70 Chart

N70 Chart provides a guide to aircraft noise which is more explanatory than an ANEF. N70 refers to the number of noise events louder than 70 dB(A) over a particular period. The level of 70 dB(A) has been chosen because it is equivalent to the single event level of 60dB(A) specified in the Australian Standards AS2021 as the indoor design sound level for normal domestic areas in dwellings.

AIRFIELD TERMS

Aerodrome/Airport

A defined area of land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aircraft Operator

A person, organisation or enterprise engaged in, or offering to engage, in aircraft operation.

Airport Operator

Any owner, licensee, authority or corporation, or any other body which has legal responsibility for a particular aerodrome (e.g. Alice Springs Airport Pty Ltd).

Airside

The movement area of an airport, adjacent terrain and buildings or portions thereof, access to which is controlled.

Aprons

An apron is a defined area for aircraft parking. An apron area enables passengers to board or disembark from an aircraft, the loading of freight onto or unloading freight from an aircraft, the refuelling, parking or carrying out of maintenance on aircraft in between flights.

General Aviation

General aviation commonly refers to that part of the aviation industry that engages in activity other than scheduled commercial airline activity. This may include charter operations, aero medical operations, agricultural aviation businesses, aviation-based fire-fighting services, training and aerial work such as aerial photography and surveying. It also includes private, business, recreational and sports aviation activity and supporting businesses such as maintenance providers.

Gate

Physical location where passengers depart/arrive at the terminal to access aircraft either directly from contact stands or by walking from remote stands.

Landside

Those parts of an aerodrome not considered airside, that is, areas normally accessible to the general public.

Manoeuvring areas

Those parts of an aerodrome used for the take-off, landing and taxiing of aircraft, excluding aprons.

Movement areas

Those parts of an aerodrome used for the take-off, landing taxiing and parking of aircraft (i.e. the manoeuvring area plus the aprons).

Runways

Defined area provided for the landing and take-off of aircraft. Alice Springs Airport has two runways, which are identified by international convention by a two-part designator derived from the direction in which the aircraft is flying:

- Runway 12/30 is the main east-west runway
- Runway 17/35 is the secondary north-south runway.

Runway strips

Defined area surrounding a runway, provided to reduce the risk of damage to aircraft running off runways and also to provide obstacle-free airspace for aircraft flying over the area during take-off and landing operations.

Stand/Bay

Physical location where an aircraft parks, also referred to as an aircraft parking position.

Taxiways

Taxiways are defined paths providing safe and expeditious surface movement of aircraft between the runway and aprons.

Thresholds

Thresholds are the points on the runway for which the landing distance available to an aircraft is measured. A threshold is determined with reference to obstacle-free approach gradient required for the particular category of runway. Where there is no obstacle infringement, the threshold and runway end normally coincide. Where obstacles infringe the approach surface it is necessary to displace the threshold to achieve the required obstacle free gradient.

This page has intentionally been left blank

SECTION 22

Figures and Tables

22

SECTION 22

Figures and Tables

FIGURES

Figure 1: Current Alice Springs Airport Layout (2009)	10
Figure 2: 2029 Alice Springs Airport Development Concept.....	11
Figure 3: Airport Land Use Zone Plan.....	12
Figure 4: Airport Lease Boundary.....	15
Figure 5: Master Plan Process Outline.....	23
Figure 6: Land Use and Proposed NT Government AZRI Area Plan.....	45
Figure 7: 2029 Airfield Development Concept.....	59
Figure 8: OLS Current and Future.....	64
Figure 9: PANS-OPS Current and Future.....	65
Figure 10: Endorsed 2049 ANEF.....	70
Figure 11: 2024 ANEF vs 2049 ANEF.....	71
Figure 12: 2049 Flight Paths Runway 12 Arrivals.....	72
Figure 13: 2049 Flight Paths Runway 12 Departures.....	73
Figure 14: 2049 Flight Paths Runway 30 Arrivals.....	74
Figure 15: 2049 Flight Paths Runway 30 Departures.....	75
Figure 16: 2049 Flight Paths Runway 12/30 Circuits.....	76
Figure 17: 2049 Flight Paths Runway 17 Arrivals and Departures.....	77
Figure 18: 2049 Flight Paths Runway 35 Arrivals and Departures.....	78
Figure 19: N70 and Swoosh Paths Runway 30.....	79
Figure 20: N70 and Swoosh Paths Runway 12.....	80
Figure 21: 2029 Terminal Expansion Concept.....	83
Figure 22: Potential new Intersection with Roger Vale Drive.....	96

TABLES

Table 1: Consultation Team	14
Table 2: Annual Airport-related Business Impacts 2009.....	34
Table 3: Airport-enabled Tourism Impact on the NT Economy	34
Table 4: Estimated Airport-related Business Impact in 2029-30	34
Table 5: Estimated Airport-enabled Tourism Impact in 2029-30	35
Table 6: Forecast Passenger Movements	39
Table 7: Forecast Aircraft Movements	40
Table 8: Aviation Activities Zone.....	46
Table 9: Terminal and Facilities Zone.....	46
Table 10: Airport Reservation Zone.....	47
Table 11: Commercial Zone.....	47
Table 12: Service Commercial Zone	48
Table 13: Tourist Commercial Zone	48
Table 14: Future Development Zone.....	49
Table 15: Light Industry Zone.....	49
Table 16: General Industry Zone.....	50
Table 17: Heritage Zone.....	50
Table 18: Horticultural Zone.....	51
Table 19: Dust Suppression Zone.....	51
Table 20: Water Management Zone.....	52
Table 21: Code Number.....	54
Table 22: Code Letter	54
Table 23: Runway Data	55
Table 24: Taxiway Data.....	56
Table 25: Terminal Apron Aircraft Parking Demand.....	58
Table 26: Building Site Acceptability based on ANEF Zones	68
Table 27: Assessment of the consistency with the <i>Airports Act 1996</i> and associated Regulations	106

This page has intentionally been left blank

This page has intentionally been left blank

SECTION 23

References

23

SECTION 23

References

- ACIL Tasman, March 2009, *Economic significance of Alice Springs Airport*
- Airbiz, April 2009, *Master Plan – Terminal and Airside Report*
- Airbiz, June 2009, *Alice Springs 2049 ANEF Report*
- Airport Development Group, 2005, *Annual Report 2004/2005*
- Airport Development Group, 2006, *Annual Report 2005/2006*
- Airport Development Group, 2007, *Annual Report 2006/2007*
- Airport Development Group, 2008, *Annual Report 2007/2008*
- Airservices Australia, 2003, *Guidelines for the Production of Noise Contours for Australian Airports*
- Airservices Australia, March 2009, *Departure and Approach Procedures Darwin*
- Australian Standard AS2021-2000, 2000, *Acoustics – Aircraft noise intrusions – Building siting and construction*
- Civil Aviation Safety Authority, 2008, *Manual of Standards 139 - Aerodromes*
- Demeyne Aviation, March 2009, *Alice Springs Airport General Aviation Area Master Plan*
- Department of Infrastructure, Transport, Regional Development and Local Government, 2007, *Airport Development Consultation Guidelines*
- Department of Planning and Infrastructure, February 2009, *Northern Territory Planning Scheme – Alice Springs*
- ASA, 2004, *Alice Springs Airport Final Environment Strategy 2004*
- ASA, 2004, *Alice Springs Airport Final Master Plan 2004-2024*
- ASA, 2009, *Alice Springs Airport Aerodrome Operations Manual*
- International Air Transport Association (IATA), 2004, *Airport Development Reference Manual 9th Edition*
- International Civil Aviation Organisation (ICAO), 2008, *Annex 16 – Environment Protection Volume I – Aircraft Noise*
- Sinclair Knight Merz, 1999, *Alice Springs Airport Final Master Plan*
- Sinclair Knight Merz, 1999, *Alice Springs Airport Final Environmental Strategy*
- Tourism Futures International, January 2009, *Masterplan for Darwin & Alice Springs Airports – A Report for Northern Territory Airports Pty Ltd*

This page has intentionally been left blank

This page has intentionally been left blank



Alice Springs
Airport

ALICE SPRINGS AIRPORT

Santa Teresa Road
Northern Territory 0870

PO Box 796 Alice Springs
Northern Territory 0871

Tel: +61 8 8951 1211
www.alicespringsairport.com.au