Adelaide Airport Capacity Enhancement (ACE)

Strategic Initiatives

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Version Final

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Change summary

Version	Date	Change description
0.1	20/11/2015	Initial draft for review
0.2	27/04/2016	Version 2 for review
0.3	02/05/2016	Version 3 for review (DG inputs)
0.4	03/05/2016	Version 4 for review (KQ & GM inputs)
0.4a	27/05/2016	Version 4a for review (LB inputs)
0.5	31/05/2016	Final (Adelaide ACE Management Committee)

Appendix 1 – Adelaide ACE initiatives

Background

The goal of ACE is to identify opportunities to improve efficiency and to increase the utilisation of existing assets and infrastructure to drive airspace and airport efficiency and maintain runway capacity. Terminal airspace capacity in Adelaide remains in the short term the most significant restriction on aerodrome capacity.

Adelaide Aerodrome capacity is primarily impacted by:

- Taxiway constraints in relation to Terminal 1 apron and the soon to be commissioned RFDS Apron.

- Adjacent airspace and traffic related issues which restricts the ability to fully achieve aerodrome capacity:

  o Proximity of Parafield and Edinburgh aerodromes and related flights.

  o Edinburgh Restricted areas access limitations and impact on availability of AD SIDs an STARs.

  o Air work, including survey and flying training related activity in and around the AD CTR.

  o VFR CTR transits.

  o Proximity of the City of Adelaide and public event related activities.

Strategic Objectives

Adelaide ACE has the following strategic objectives:

1. Optimise arrival pair spacing and departure flow.

2. Improve utilisation of runways, taxiways and associated ground infrastructure.

Strategic objectives are supported by performance objectives which are enabled by performance or capacity initiatives. Performance objectives are a desirable change that when delivered contribute to one or more strategic objectives.

Performance Objectives:

1. Minimum arrival – arrival spacing.

2. Minimum arrival – departure – arrival spacing.

3. Minimum departure – departure spacing.

4. Improved Terminal manoeuvring area (TMA) design.

5. Arrival/Departure balancing.

6. Reduce Line up time (LUT).

7. Reduced Pilot Reaction Time (PRT).

Appendix 1 – Adelaide ACE initiatives (continued)

Airspace, ATC & Flight Crew Efficiency Initiatives

1. STAAS (Standard Terminal Area Arrival Speeds).

2. Improved pilot runway occupancy and response times.

3. Develop segregated flight paths in the North Western Sector (SIDs and STARs).

4. Specify arrival spacing requirements and align arrival flow rates.

5. Increased access to military airspace.

6. Improved TWR/TCU coordination to improve dynamic traffic management to optimize arrival spacing to suit demand.

7. Implement Maestro into Adelaide.

8. Implement Auto Release.

9. Standardise Pilot and ATC performance.

10. Develop airspace and flight paths that segregate Edinburgh, Parafield and Adelaide traffic.

11. Tactically increase arrival flow rate during periods of low departure demand.

12. Improve speed control procedure at the Feeder Fix.

13. Reduce turboprop pilot reaction times.

14. Turbo Prop Standard Instrument Departures.

15. Refine management of special events, (e.g. Tour Down Under, Clipsal), survey and air work training related activity to minimise impact on core traffic.

16. Create non Jet Runway 23 SID for use in morning shoulder periods to facilitate divergent westerly track (e.g. at track 220 then at 1DME track 240) from Runway extended centreline.

Airfield Efficiency Initiatives

1. Extension of taxiway T through to taxiway E.

2. High speed exit taxiway's near E1 for runway 05 landing and between F4 and E for runway 23 landing.

3. Extend taxiway L or K through to runway 23 allowing for multiple points for departures and more flexibility for runway 05 landings.

4. Extend RWY 12/30 which will allow jets to use the runway for arrivals or departures. Using the crossing runway for landings or departures reduces the spacing required between the landings on the other runway.

5. A hard stand area away from the main taxiways and runways for engine runs. Currently, the only place for full power jet engine run ups is runway 12.

6. Increase in parking for freight aircraft etc. Possibly apron areas on the east side of the runway will reduce conflictions caused when towing aircraft between the terminal and the hangers.

7. Fillet on F4 to allow RFDS to vacate and F4 and safely turn onto F5 then to their parking.

8. Address airfield choke point at Taxiway A4 and 5.

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