

WILLIAMTOWN (NEWCASTLE AIRPORT) AIRSPACE REVIEW

PROJECT OVERVIEW

Airservices Australia is working with the Department of Defence on a new airspace design for RAAF Base Williamtown (Newcastle Airport).

BACKGROUND

Newcastle Airport is located at Royal Australian Air Force (RAAF) Base Williamtown. The Department of Defence (Defence) provides air traffic control services to both the civilian and military aircraft that operate there. Williamtown has a single runway and is Australia's main military, fast jet training base.

In 2015, the Civil Aviation Safety Authority (CASA) and RAAF published a Joint Aeronautical Study of Williamtown Airspace, focused on improving its safety, efficiency, and future operability. The study recommended implementation of separated arrival and departure flight paths for civilian aircraft, so they can continue to fly safely and efficiently alongside the fast jet military aircraft that are based at Williamtown. A copy of the study can be viewed [here](#).

In consultation with RAAF, Airservices Australia (Airservices) has developed the proposed flight path design (also known as an airspace design). The proposed airspace design is being shared with the community throughout June and July 2022, and we welcome feedback which will be considered as the design is finalised for implementation in 2023.

This project is not related to Newcastle Airport expansion plans or proposed developments outlined in the 2036 Newcastle Airport Vision.

HOW DOES WILLIAMTOWN OPERATE NOW?

Williamtown has a single runway with two ends, known as Runway (RWY) 12 (landing and taking off facing south-east) and RWY 30 (landing and taking off facing north-west).

Flight paths closer to the airport are dictated by the runway orientation, as aircraft need to be runway aligned for a certain distance to land and depart safely.

Standard Instrument Departures (SIDs) and Standard Instrument Arrival (STARs) flight paths are used at many airports. SIDs are currently used at Williamtown to provide tracking to a variety of air routes north, west and south of Williamtown. There are currently no STARs in place at Williamtown, requiring Air Traffic Control (ATC) to tactically direct arriving aircraft from the higher level air route to the appropriate approach procedure to the runway, with no in-built separation from departing aircraft.

There are different approach procedures available to both ends of the runway at Williamtown. The use of these approaches can depend on weather conditions and the type of navigation equipment onboard the aircraft. There is Instrument Landing System (ILS) to RWY 12, and a Required Navigation Performance (RNP) to both RWY 12 and 30. Visual approaches are also available. Information on these approaches and how they operate is outlined in the [Williamtown Airspace Operations](#) fact sheet.



SIDs and STARs

A SID is a charted departure path that an aircraft follows from the runway end to where they connect into the outbound air route they will follow to their destination airport.

A STAR is a charted arrival path that an aircraft follows from the inbound air route to join the final approach to the runway.

WHAT IS CHANGING?

The proposed airspace design improves the safety and efficiency of the airspace operations by introducing new SIDs and STARs to separate civilian and military aircraft. This provides safety and operational benefits, including:

- separating civil and military aircraft operations
- providing predictable arrival and departure paths
- more efficient use of the available airspace
- reducing ATC intervention.

The proposed airspace design also includes a new type of approach procedure called a *Required Navigation Performance – Authorisation Required* (RNP-AR) approach. This approach procedure provides an extremely high degree of navigational accuracy. It allows aircraft to line up with the runway much closer to the airport than the traditional Instrument Landing System (ILS) approach. This procedure has been designed for both ends of the runway. It will provide a much shorter flight path to the runway for suitably equipped and approved aircraft (typically modern Boeing and Airbus jet airliners, but operators can fit this technology to other aircraft types). See our [Williamtown Airspace Operations](#) fact sheet for further explanation of this procedure.

To support the new flight paths that have been designed for Williamtown, Airservices and RAAF are also proposing a change to the shape and operation of the Williamtown military terminal area, to provide:

- controlled airspace protection of the new flight paths (required by the Civil Aviation Safety Authority - CASA)
- reduce the amount of restricted airspace (airspace used for military operations)
- greater access to low level airspace for general aviation operators in the Newcastle area.

Additionally, the way aircraft track to, from and over Williamtown airspace via the national air route network has been reviewed, and there will be some minor changes to support the new Williamtown SID/STAR design.

PROPOSED FLIGHT PATHS

The proposed flight paths for Williamtown will result in a change to how some communities experience aircraft operations.

Where operationally safe, flight paths have been designed to minimise impacts to communities, particularly in relation to aircraft noise. Where residential areas cannot be avoided, we have attempted to design the airspace so operations can be distributed and noise shared, and to avoid the most populated areas where possible. Noise impact assessments have been undertaken to identify the levels of aircraft noise that may potentially be experienced in different communities.

The proposed design is provided over in Figure 1.

Fact sheets on the specific changes in each Local Government Area (LGA) subject to Williamtown operations have been prepared to provide details of the changes being proposed, the altitude of aircraft in these locations, forecast noise levels and projected frequency of operations. These fact sheets can be accessed on the [Engage Airservices](#) site.

WHEN ARE THE CHANGES LIKELY TO OCCUR?

Airservices proposes to implement the new operations in 2023, subject to approval of the Airspace Change Proposal (ACP) and validation of the new instrument flight procedures by the CASA.

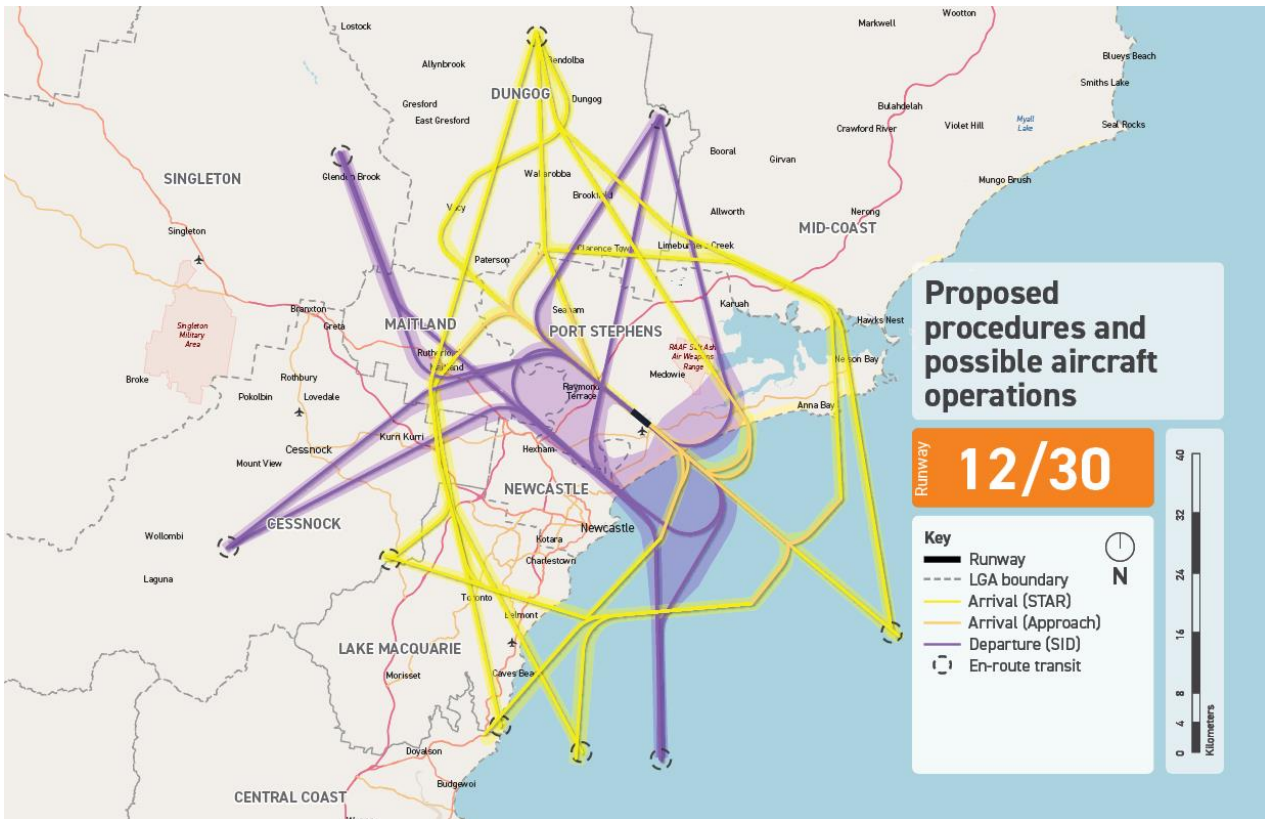


Figure 1: Proposed procedures and possible aircraft operations

DESIGN DEVELOPMENT

In designing airspace changes, safety is always our number one priority. The design for the proposed flight paths has been developed according to Australian and international flight path design standards. Airservices must ensure all operational requirements of the airspace and military operations are met. The environment, sensitive habitats, and registered heritage sites are also considered.

Airservices develops flight path designs according to published [Flight Path Design Principles](#), which prioritise safety and operational compliance, and strive to balance other competing priorities including efficiency for airlines and air traffic control, fuel burn and carbon emissions, and the impact on the community.

The [Williamstown Airspace Review Flight Path Design Principles Report](#) details the efforts made to consider each of the Principles, including how we have minimised the impact of operations on the community.

ENGAGEMENT TO DATE

Airservices undertook pre-design community engagement in 2021 to introduce the project, explain its purpose, and to identify matters of interest to the community. Feedback was on a variety of topics including:

- aircraft noise concerns, particularly in relation to any increase or newly affected locations
- flight path location and the impact this may have on property values, health and daily life due to noise
- impact of circling aircraft waiting to land at Newcastle Airport
- need for clear images of the new flight paths that can be zoomed in to view the specific towns affected
- limiting night time aircraft movements
- need to maximise operations over the water rather than over land

- need to consider sensitive locations, including Glen Rock State Recreation Reserve, Awabakal Nature Reserve, Barrington Tops National Park and Mt Royal National Park, as well as school and aged care facilities
- impact of aircraft noise on tourism in specific locations including Clarence Town and East Maitland.

WHAT'S NEXT?

The proposed new airspace design is now available for community review and comment. Airservices will consider all feedback received as the design is finalised. Where possible, changes will be made to the proposed design to address community concerns or areas of interest, however it is not possible to avoid operations in all locations.

Airservices will be hosting flight path change consultation sessions in each LGA. The dates and locations for these will be available on [Engage Airservices](#). A range of feedback mechanisms are also provided on this site.

HOW CAN I FIND OUT MORE?

In July 2022 we will be holding community consultation sessions to explain the design, answer questions and take your feedback. Please visit <https://engage.airservicesaustralia.com/williamtown> and register to receive alerts on the time and location of these sessions.

