

# DARWIN AIRPORT

## CHANGES TO ARRIVAL PROCEDURES FROM THE SOUTH TO RUNWAY 11

From March 2020, Airservices will implement changes for aircraft arriving from the south to Runway 11 at Darwin Airport.

### WHAT IS THE CHANGE AND WHY IS IT NEEDED?

The existing RNP-AR arrival procedure which currently tracks over Port Darwin will be moved west over land. Airservices will create flight planning waypoints for the new RNP-AR arrival procedure to ensure jet aircraft flying this procedure remain in controlled airspace. The changes will enhance safety through improved separation assurance for arrivals to and departures from Runway 11 at Darwin Airport.

### WHAT IS GOING TO CHANGE?

Aircraft arriving from the south on the existing RNP-AR procedure currently track over Port Darwin before tracking around the southern edge of Wagait Beach and Mandorah on descent to Runway 11 (Figure 1 dark blue track). Aircraft arriving from the south on the existing STAR procedure (standard arrival) currently track approximately one (1) kilometre to the east of Belyuen on descent to Runway 11 (Figure 1 pink track).

Following the change, community members at Belyuen and Wagait Beach are likely to notice changes in the pattern of jet aircraft arriving from the south. The RNP-AR procedure will move west over land towards the community of Belyuen (Figure 1 yellow track) and track around the west of Wagait Beach before joining the existing RNP-AR approach segment to Runway 11.

The community of Wagait Beach will continue to experience noise levels and visually notice aircraft tracking to the west, at a height of approximately 3,500 feet on descent to Runway 11. However the community will experience a reduced duration of noise events and visibility of aircraft operations to the south, as aircraft operating on the new RNP - AR procedure will no longer track around the south of Wagait Beach.

Not all jet aircraft are equipped with the technology necessary to operate on the RNP-AR procedure. Aircraft which are RNP-AR capable can operate in accordance with a strict set of navigation parameters and follow precise curved approaches to an airport.

Aircraft which are not RNP-AR capable will continue to use the existing STAR arrival track (Figure 1 pink track). Commercial jet aircraft which commonly operate on the STAR and RNP-AR procedures include the Boeing 737-800 and the Airbus A320.

There is no change proposed to the existing STAR arrival procedure, which tracks approximately one (1) kilometre to the east of Belyuen. The Belyuen community would experience noise levels of approximately 49 dB(A) for a Boeing 737-800 aircraft operating on the STAR at or above 6,000 feet on descent to Runway 11.

When a Boeing 737-800 aircraft is operating on the RNP-AR procedure community members at Belyuen would experience noise levels of approximately 35dB(A). This is similar to the noise level experienced in a library. Aircraft flying the RNP-AR procedure will operate approximately 4.5 kilometres to the east of Belyuen, and are expected to be operating at or above 5,500 feet at new flight planning waypoint UPSEN on descent to Runway 11.

Noise levels associated with arrivals on the STAR procedure are likely to reduce the noticeability of the change in noise levels associated with the new RNP-AR procedure.

An average of six (6) aircraft per day operate on the current RNP-AR arrival path. Following the change, an average of six (6) aircraft per day will use the new RNP-AR arrival path.

However, on some days there could be a maximum of sixteen (16) arrivals on the new RNP-AR procedure.

There will be no change to arrivals operating on the STAR arrival path, with an average of eighteen (18) aircraft continuing to arrive to from the south on the STAR per day.

### **Have a question?**

For questions about this change and /or current aircraft operations, contact our Noise Complaints and Information Service (NCIS) on:

- <http://www.airservicesaustralia.com/aircraftnoise/about-making-a-complaint/>
- 1800 802 584 (free call)
- 131 450 (interpreter service)





**Figure 1:** Arrival procedures to Runway 11 from the south: existing RNP-AR (dark blue), new RNP-AR (yellow), existing STAR (pink) and aviation waypoint UPSEN.

This information is produced using Airservices Operational Data Analysis Suite (ODAS). Aircraft movement numbers are calculated on the worst case assumption that all aircraft arriving to Runway 11 at Darwin Airport will use these flight paths.

Heights are approximate and measured in feet (ft). dB(A) = Decibels adjusted to reflect the ear's response to different frequencies of sound Australian Standard 2021-2015.

As this chart is a graphical representation only it may be incomplete, contain preliminary conclusions and may change. No duty of care to you or any third party is accepted for any loss suffered in connection with the use of this document.