Noise Action Plan for Brisbane

Alternative daytime over-water departures (legacy runway 01R) south

Current daytime operations

When the wind is blowing from the north, aircraft depart off both runways over water. Departing aircraft travelling to destinations to the south use the legacy runway (01R), in keeping with the compass model of operations.

Jet aircraft travelling to the south, climb over water to approximately 8000 feet and then turn right to cross the coastline at Wellington Point. These operations from the legacy runway occurred prior to the new parallel runway opening, but on a different alignment and at lower altitude.

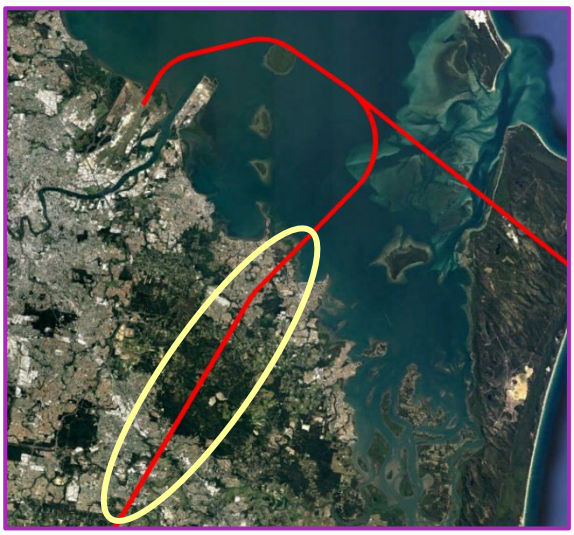
The Brisbane to Sydney and Brisbane to Melbourne route is one of the busiest air traffic routes in the country.

What is compass operations?

Compass operations involves aircraft being assigned a runway based on the direction of travel:

• aircraft travelling to and from southern and eastern ports will be allocated the legacy runway - 01R/19L

• aircraft travelling to and from northern and western ports will be allocated the new runway - 01L/19R.



The yellow circle indicates the specific flight path we are developing options for.

Noise Action Plan for Brisbane

Recommendations 2.3 d) and 3.1 u) of the *Noise Action Plan for Brisbane* focus on opportunities to improve over-water departure paths that fly over communities after they cross the coastline to increase height, maintain over water for longer, or travel further east.

In developing our response, we have focused on keeping operations over water for longer and finding areas of lower residential density to cross the coast.

airservices australia

Current Standard Instrument Departure (SID) to the south

The current daytime Standard Instrument Departure (SID) path to the south is shown in red, below.

This SID initially tracks aircraft from the legacy runway (01R) over Moreton Bay using a series of turns. Aircraft are required to climb to 5000 feet while over Moreton Bay, then cross the coastline between Wellington Point and Ormiston at 8000 feet. They continue to track in a south-west direction over Alexandra Hills at 11,700 feet and Sheldon at 13,000 feet, to join the enroute network at the SANEG waypoint near Jimboomba at 18,250 feet, where they continue their journey south.

This SID recorded 14,110 operations during 2022. This is approximately 39 operations per day on average, noting this is heavily dependent on variable weather conditions and that some days will receive higher operations, while others will have none.

Airservices has investigated options for daytime departure operations to the south, which aim to reduce the impact of these operations on the Redlands community who are also impacted by Simultaneous Opposite Direction Parallel Runway Operations (SODPROPS) at night.

One alternative option for daytime southern departure operations to the south has been developed. If adopted, this would replace the existing SID that crosses the coastline at Wellington Point.

Proposed alternative option

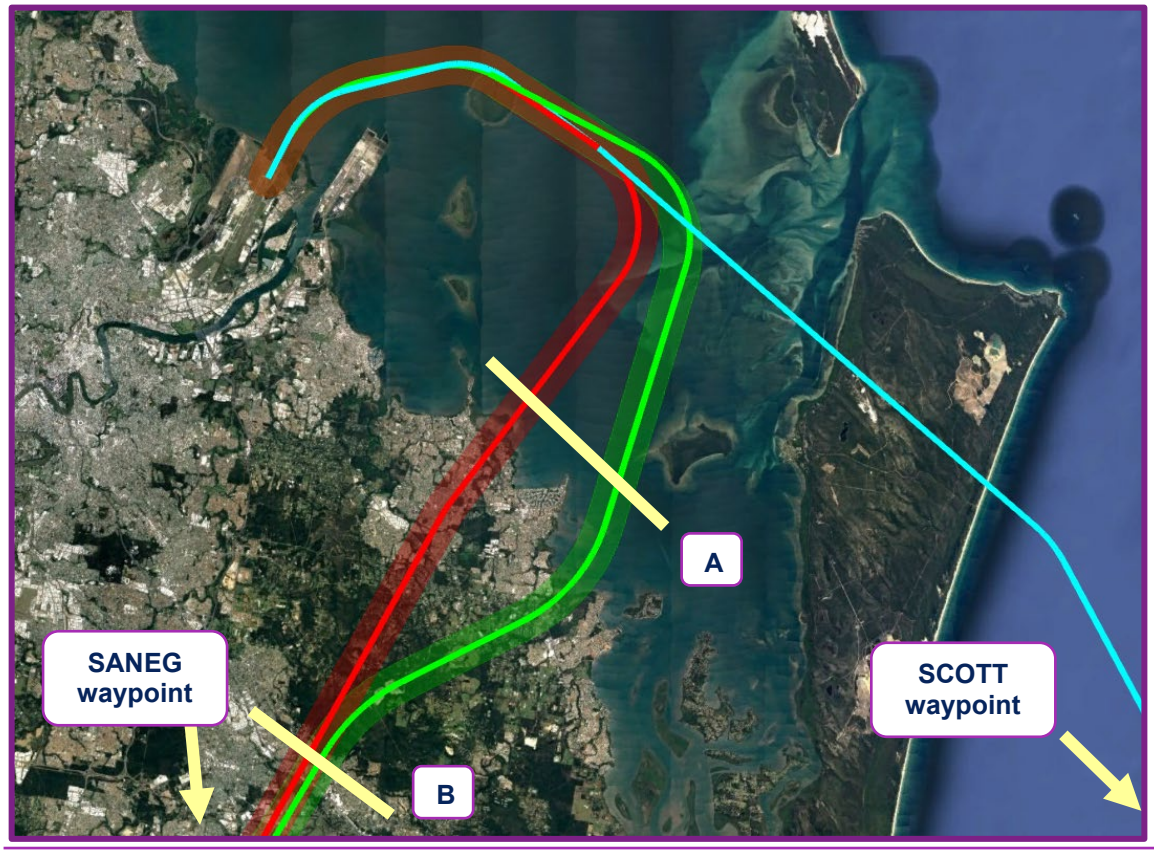
This proposed option (green) takes aircraft further over Moreton Bay enabling them to gain more altitude before crossing the coastline over greenspace south of Thornlands at 12,900 feet, almost 5000 feet higher than the current crossing point.

After crossing the coastline, the path tracks north of Mount Cotton at 14,310 feet and Daisy Hill at 16,380 feet. It then follows the current daytime path to the south over the Logan Hospital at 16,930 feet, Loganlea at 17,150 feet, Waterford West at 17,510 feet and Logan Reserve at 18,060 feet, to waypoint SANEG near Jimboomba.

The same option is presented in the *Alternative Night-time Over-water Departures (legacy runway 01R) South* fact sheet, as an alternative to the current night-time SODPROPS path to the south.

The option of using the existing SID (blue) to the south-east, which crosses over North Stradbroke Island and connects to waypoint SCOTT over water, shown in blue below, was also investigated. Due to a conflict with busy arrival routes from the south, which cross under this departure path, this cannot be progressed as a daytime option. It has been included as a night-time option, when traffic volumes are lower, to provide respite to this community.

Another option to have this SID cross the coastline further south of this proposed option was investigated. However, due to the conflict with arrival routes from the south, this cannot be safely operated.



Alphabetical markers (A, B) identify points where noise level information is provided in the table on the following page.

Note: scalable images of flight path options are available on Engage Airservices

Population comparison

The total population overflow by the current and proposed option has been assessed from runway end to the end waypoint (SANEG). A flight path width of 2km has been used to enable comparison, noting aircraft noise will extend beyond this boundary.

	Current SID	Option 1
Total flight path	80,310	47,498
Within 60dB LAMax contour	2,396	336
Within 70dB LAMax contour	85	85

Population count methodology based on Census 2021 data used with Statistical Area Level 1s (SA1s) inside the noise contours for each option.

Noise level comparison

For the purpose of noise level comparison at identified marker points, a typical domestic jet has been selected, as well as a typical international jet. The noise level represented is the maximum noise level (LAMax) expected from each aircraft.

		A	B
Typical Domestic Jet (LAmax)	**Current SID**	< 50	< 50
	Option 1	< 50	< 50
Typical International Jet (LAmax)	**Current SID**	55 - 60	< 50
	Option 1	55 - 60	< 50

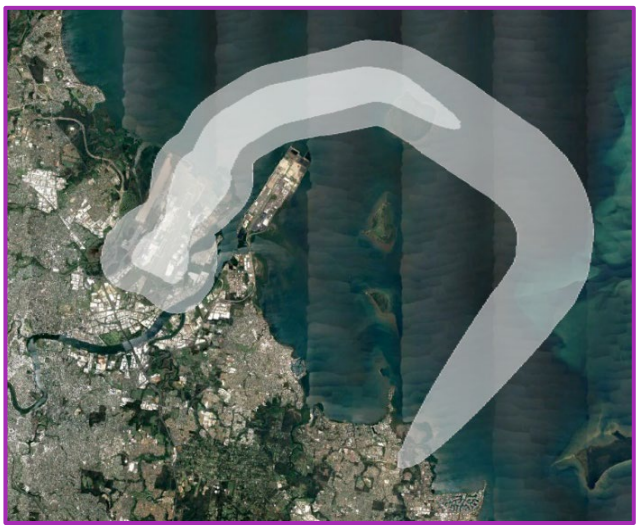
Noise levels are measured in decibels at each point, as reference in the image on the previous page.

For comparison, 50decibels is a similar level of noise to an air conditioner or refrigerator operating nearby, while 60decibels is similar to a normal conversation.

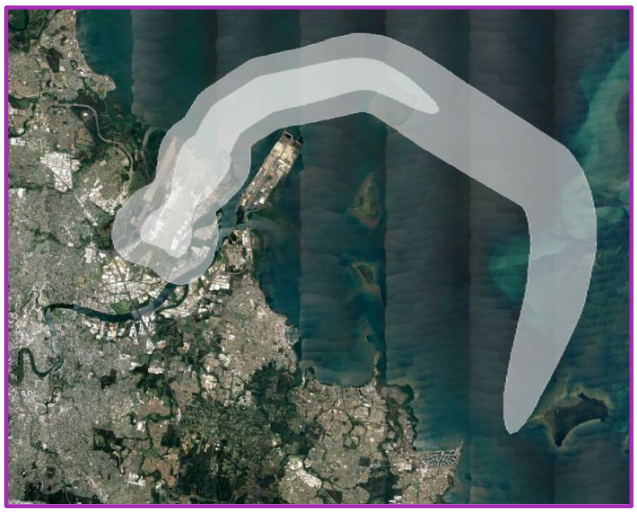
Noise contours

Single event, maximum noise level (LAMax) contours, below, have been developed for the current flight path and the proposed option based on the loudest international jet. The inner shaded shape represents the 70-decibel area and the outer shaded shape the 60-decibel area.

Current SID



Option 1



Track miles and emissions

To consider the operational implications of the current and proposed option, track miles and associated emissions based on a typical domestic jet have been calculated.

		Track miles (NM)	CO_2 (tonnes)
Typical Domestic Jet	**Current SID**	46.5	6.32
	Option 1	48.0	6.65

Note: scalable images of flight path options are available on Engage Airservices

Communities overflown

The following communities are overflown directly by the current SID and the alternative option. Other communities either side of those identified below may also notice the operations.

Current SID		Option 1	
Alexandra Hills	Meadowbrook	Bethania	Priestdale
Bethania	Mount Cotton	Buccan	Shailer Park
Birkdale	Mud Island	Chambers Flat	Sheldon
Buccan	Ormiston	Daisy Hill	Slacks Creek
Burbank	Pinkenba	Jimboomba	Stockleigh
Capalaba	Priestdale	Kingston	Tanah Merah
Chambers Flat	Shailer Park	Logan Reserve	Thornlands
Daisy Hill	Sheldon	Logan Village	Victoria Point
Jimboomba	Slacks Creek	Loganlea	Waterford
Kingston	Stockleigh	Meadowbrook	Waterford West
Logan Reserve	Waterford	Mount Cotton	
Logan Village	Waterford West	Mud Island	
Loganlea	Wellington Point	Pinkenba	

Next steps

Airservices Australia is seeking community feedback on the proposed option, to identify if it should be progressed as a preferred option to formal design and full environmental assessment.

No decision has yet been made by Airservices to implement this proposal.

Provide your feedback

You can provide feedback via our Online Form on the *Engage Airservices Noise Action Plan for Brisbane* page.

In particular, we would like to know:

1. Do you support the proposed option?
2. If so, why do you support it?
3. If not, why do you not support it?

You are also welcome to provide any other feedback you have on this option.

FIND OUT MORE

For more information on the *Noise Action Plan for Brisbane*, please scan this QR code, click here, or search https://engage.airservicesaustralia.com/nap4b in your web browser.

If you have specific questions or complaints about aircraft operations, please contact our Noise Complaints and Information Service (NCIS).

Note: scalable images of flight path options are available on Engage Airservices

Terminology explained

SID - A Standard Instrument Departure (SID) is a published route aircraft use to safely guide them through the busy airspace surrounding airports, from departure to where they transition to the enroute (high level airspace) phase of flight.

Enroute network - The enroute network is the higher level airspace flight paths that connect departure and arrival procedures between airports.

Waypoint - A waypoint is a geographical location used to define a flight path route. They are defined by geographic coordinates and typically take the form of a five letter capitalised word – SANEG, WACKO, SCOTT – so they are pronounceable and distinct to air traffic controllers or pilots whose first language may not be English.

Mode – Different arrival and departure operation options usually linked to time of day, air traffic volume, wind direction and runway availability.

LAMax – LAMax is the maximum noise level during a single noise event. This has been used in information materials to present the loudest aircraft movement likely to be experienced, based on the loudest aircraft type. It does not represent the likely noise level of all aircraft movements.

1 foot = 0.3048 metres.

Please note: All altitude figures presented are based on a typical domestic jet using an average of movements over a three-month period.