

SUNSHINE COAST AIRPORT EXPANSION PROJECT

AIRCRAFT NOISE INFORMATION BOOKLET

Prepared for the community by Sunshine Coast Airport to complement information in the Environmental Impact Statement for the Sunshine Coast Airport Expansion Project

SEPTEMBER 2014





Indicative proposed development at Sunshine Coast Airport

ABOUT THE TRANSPARENT OVERLAY

The transparent page opposite can be removed by tearing along the perforation. When placed over each of the 12 flight path and noise charts in this booklet you will be able to identify locations either under or in proximity to proposed new flight paths and N70 noise events experienced at each location.

The numbers on the overlay correspond to suburb names provided in the list below.

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COOLUM BEACH 32 ILKLEY 59 MOUNT COOLUM 88 RIDGEWOOD 114 * Beyond r	nap range

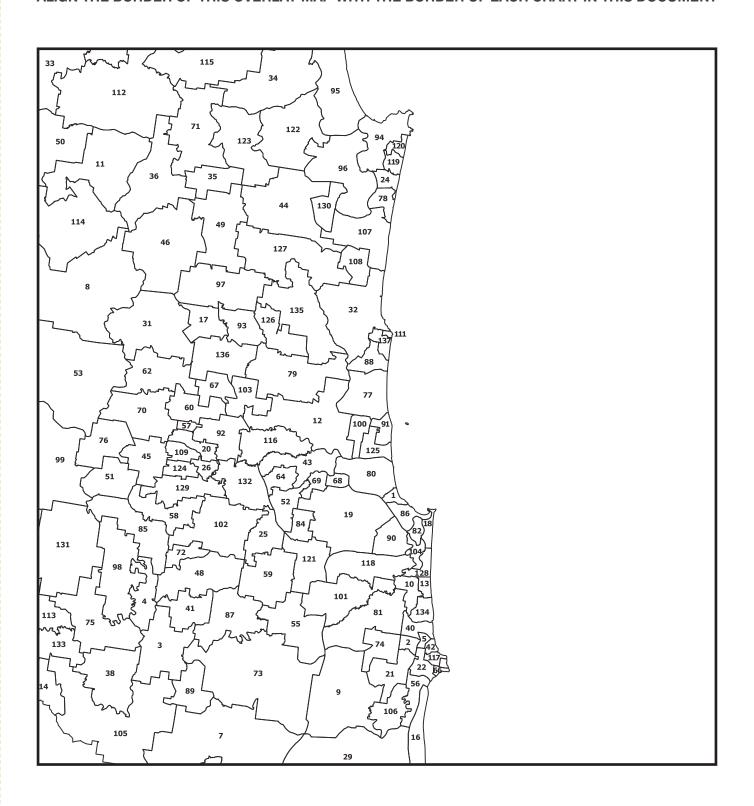
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Acknowledgements: Council wishes to thank all contributors and stakeholders involved in the development of this document.

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Google Earth maps have been used throughout this document.



INTRODUCTION

Sunshine Coast Council (SCC) is proposing to build a new 2,450 m runway, which would replace the existing north-south main runway at Sunshine Coast Airport (SCA) for the majority of aircraft arrivals and departures.

Operating in a generally east-west direction (compass bearings 130°/310°), the new Runway 13/31 would offer significant operational benefits over the existing runway (18/36), including:

Regulatory

- Removal of operating exemption requirement from the Civil Aviation Safety Authority (CASA)
- · Full compliance with international standards

Economic

- Increased operational range to access new domestic and international markets
- · Increased freight capacity
- Stimulation of Sunshine Coast tourism and commercial sectors
- Support for the Sunshine Coast regional economy
- Creation of job opportunities

Operational

 Greater reliability when operating in various wind and weather conditions

Environmental

 Reduction in the number of properties affected by aircraft noise. As the new runway has the potential to impact on Matters of National Environmental Significance, the Australian Government has requested the preparation of an Environmental Impact Statement (EIS), which will be assessed before the SCA Expansion Project (the Project) is able to proceed. Both the Australian and Queensland Governments will be involved in the EIS assessment process.

PROPOSED NEW FLIGHT PATHS

As a result of the proposed changes to the orientation of the runway, new flights paths are also proposed.

To understand the potential flight path and aircraft noise changes that would arise from the new runway, SCC has undertaken detailed studies as a part of the EIS, looking expressly at those flight paths within 40 km of the airport.

Further information on these findings can be found in the EIS within Volume D: Airspace and Aircraft Noise.

Based on the EIS research, this booklet has been developed to allow the community to more easily explore and understand the projected changes to flight paths and resulting aircraft noise.

The guide is supported by an online tool,

www.sunshinecoastairport.com.au/flightpaths

Using the online tool, visitors can review predicted aircraft traffic over specific Sunshine Coast addresses in 2012, 2020 and 2040, with and without the new runway, and compare the various scenarios for day, evening and night.

This document should be read in conjunction with the Environmental Impact Statement

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2040 With New Runway annual average night	
	21

This document comprises of a series of maps intended to illustrate to the community the flight paths for regular passenger transport heading into and out of the Sunshine Coast Airport today and those proposed for the future with the new runway operational.

The 12 maps included cover the following flight path scenarios:

2012	Current (existing main runway)	Annual average day (7am to 6pm)	
	Current (existing main runway)	Annual average evening (6pm to 10pm)	
2020	Do Minimum	Annual average day (7am to 6pm)	
	(widening of existing main runway to 45 m and retaining existing flight paths)	Annual average evening (6pm to 10pm)	
	With New Runway (new flight paths)	Annual average day (7am to 6pm)	
		Annual average evening (6pm to 10pm)	
2040	Do Minimum (widening of existing main runway to 45 m and retaining existing flight paths)	Annual average day (7am to 6pm)	
		Annual average evening (6pm to 10pm)	
		Annual average night (10pm to 7am)	
	With New Runway (new flight paths)	Annual average day (7am to 6pm)	
		Annual average evening (6pm to 10pm)	
		Annual average night (10pm to 7am)	

IMPORTANT INFORMATION ABOUT THE FLIGHT PATH CHARTS AND NOISE CONTOURS

This booklet provides information on flight paths for regular public transport only, known as RPT. It does not include helicopter flight paths, or the flight paths of small fixed wing aircraft known as General Aviation or GA.

This is because the flight paths for helicopters and GA are not generally affected by the proposed change in orientation of the airport's main runway. Information on helicopter and fixed wing GA can be found in Volume D of the EIS.

The N70 noise contours shown on each map represent the expected noise impacts from the operation of scheduled passenger flights. They do not reflect GA and helicopter operations as they are not generally affected by the proposed change to the orientation of the airport's main runway.

Overflight numbers represent the expected range in the number of scheduled passenger flights per day. These have been calculated accounting for variations in airport operations, including different forecast schedules for weekday and weekend periods, and airport operating mode or runway selection.

The latter is dependent on factors such as operating protocols and weather conditions, for which 10 years of meteorological data was obtained and included in the analysis.

Seasonal trends in weather conditions were considered by the analysis but ultimately little variation between summer and winter was found. Therefore, the information presented in the charts is considered to closely represent most periods throughout the year.

Proposed flight paths for community comment

SCA, in consultation with Airservices Australia and CASA have developed the proposed flight paths shown here and in the EIS.

While Airservices and CASA have agreed and confirmed in principle that the proposed new flight paths and airspace changes meet their planning requirements, these agencies would be required to complete further assessments before any changes are introduced.

In addition, the Australian Government would need to approve this work ahead of any new flight paths being flown. This would occur prior to the opening of the new runway if it was approved.

Finally, it is also worth noting that future developments in aircraft technology and changes to the Brisbane basin air traffic management network can also influence any future SCA flight paths and subsequent noise experienced on the ground.

FURTHER INFORMATION

Visit www.haveyoursay.dsdip.qld.gov.au/coordinatorgeneral/ SCAexpansion to download the EIS and to make a submission.

For aircraft noise information use the online tool at www.sunshinecoastairport.com.au/aircraftnoisetool

For queries contact **info@SCAexpansion.com.au** or the information line on 1800 210 755.

In addition to this booklet, a Summary of Major Findings for the EIS has been prepared. This is available online at

www.haveyoursay.dsdip.qld.gov.au/coordinatorgeneral/ SCAexpansion or www.sunshinecoastairport.com.au or www.sunshinecoast.qld.gov.au

PUBLIC NOTIFICATION PERIOD MONDAY 29 SEPTEMBER – THURSDAY 13 NOVEMBER 2014

The EIS will be on public display for 30 business days, during which time the Office of the Coordinator-General for the Queensland Government invites written comment on the Project from any interested person or organisation.

Written submissions can be received at the Office of the Coordinator-General up to 5pm on **Thursday 13 November 2014**.

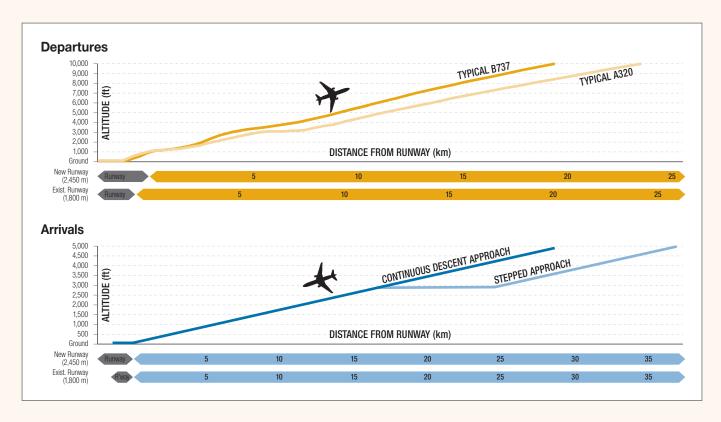
For details on how to make a submission visit www.haveyoursay.dsdip.qld.gov.au/coordinatorgeneral/ SCAexpansion

INTERPRETING THIS DOCUMENT

Each map within the guide contains the following information:

- Arrival and departure flight paths distinguished by letters, for example (A)
- Arriving and departing aircraft distinguished by symbol
- Data tables which explain flight path information including:
- Flight path type (arrival or departure)
- Expected minimum and maximum number of regular passenger transport flights on a specific path
- Percentage of Sunshine Coast Airport's regular passenger transport flights using a specific flight path
- Percentage of days with no regular passenger transport flights on the path
- N70 contours and contour key showing the expected number of noise events at or above 70 dB(A)
- Altitude and decibel key for arrivals and departures.

Refer to the pages 8 and 9 for diagrams to interpret the flight path and noise charts.



The above diagrams show typical altitudes for arrivals and departures of narrow-body jets at SCA. Note that the additional length of the new runway (2,450 m), compared with the existing runway (1,800 m), means that departing aircraft will be higher as they leave the airport. The arrival diagram shows two types of approaches that aircraft can use. The continuous descent approach is generally used by aircraft operating on a Required Navigation Performance (RNP) flight path, which allows for a more smooth descent. At the time of preparing this document Jetstar operates RNP at SCA. Other aircraft generally use the Stepped Approach as illustrated.

ABOUT THE PROPOSED NEW FLIGHT PATHS

As explained earlier in this booklet, the proposed change to the orientation of the airport's main runway to direction 13/31 also requires new flight paths to be designed.

The image opposite shows the direction of the proposed new flight paths for arrivals and departures should the new runway be approved. Distances from the new runway are shown in nautical miles. One nautical mile is equivalent to approximately 1.85 kilometres.

Chapter D2 of the EIS provides more detail on the proposed flight paths. Pages 6 and 7 of this booklet show population centres located near the proposed new flight paths and the expected altitude of aircraft as they pass those centres.

TYPICAL SOUND LEVELS

On page 9 of this document N70s are referred to. These are contours that show where events of 70 decibels or more may occur. The illustrations below describe average noise in decibels of typical day to day activities and events.

Dishwasher 55 dB(A)



City traffic (inside car) 85 dB(A)



Conversation 60 - 85 dB(A)



Construction site 90 dB(A)



Passenger car (60 km/h at 7 m distance)

70 dB(A)



Diesel truck (at 40 km 7 m away) 95 dB(A)



Telephone dial tone 80 dB(A)

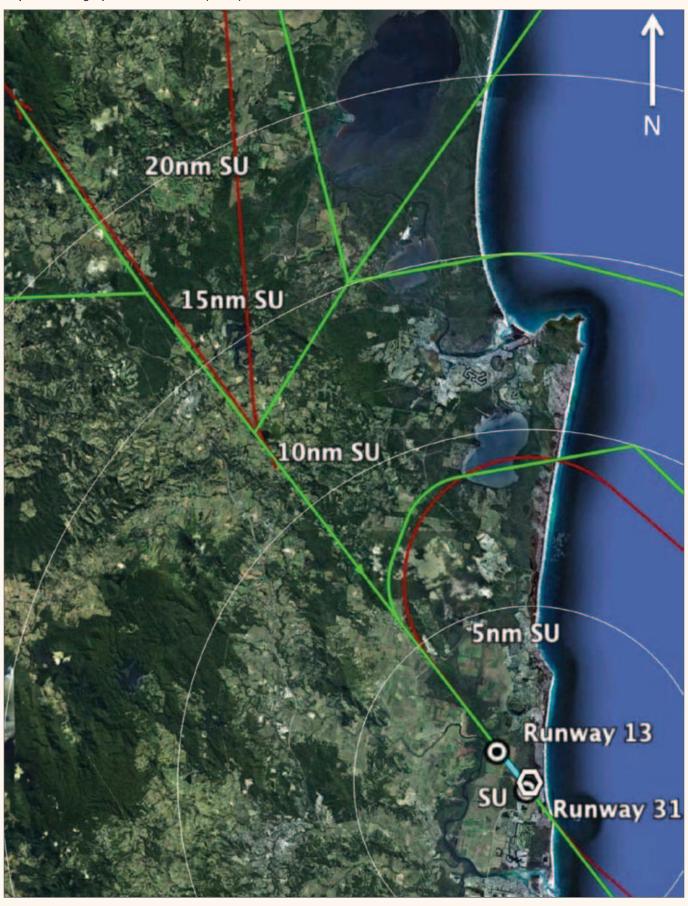


Emergency siren 140+ dB(A)

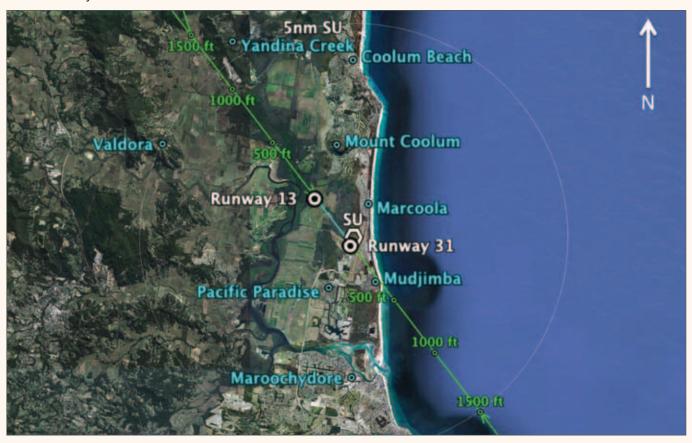


(Source: Airservices Australia)

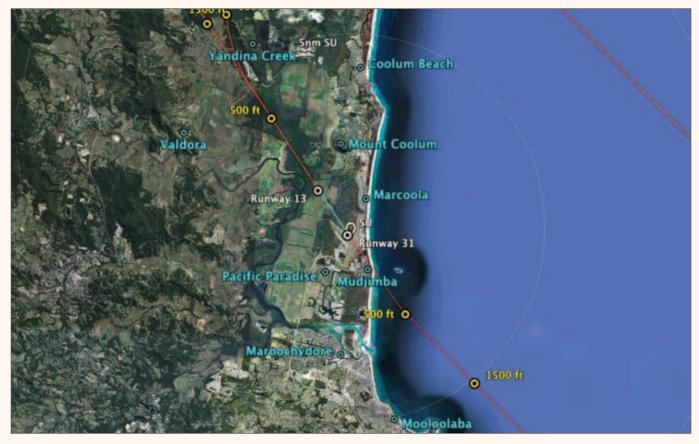
Proposed new flight paths within a 40 km (20 nm) of SCA



Areas affected by arrivals within 5 nm of SCA



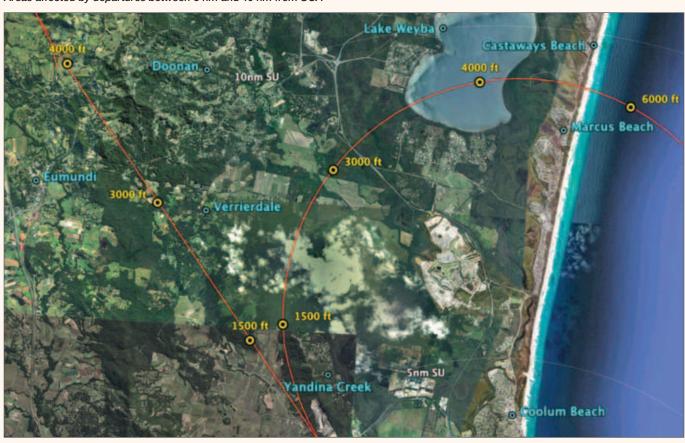
Areas affected by departures within 5 nm of SCA



Areas affected by arrivals between 5 nm and 10 nm from SCA



Areas affected by departures between 5 nm and 10 nm from SCA



UNDERSTANDING THE FLIGHT PATH AND NOISE CHARTS

There are three primary elements to each Flight Path and Noise Chart. Here we have highlighted the primary elements using a sample Flight Path and Noise Chart.



Flight paths – appearing as coloured swathes overlaid on a map of the Sunshine Coast

The flight paths in this booklet, each denoted by a capital letter, show three important pieces of information:

- Whether aircraft are using the flight path for arrival or departure, illustrated by the direction of the aircraft icon and the colour scheme of the path
- The approximate altitude of aircraft as it comes into or out of Sunshine Coast Airport shown through a colour gradient that can be interpreted by using the altitude legend on each chart
- The potential width of the flight path.



Data tables – appearing at the bottom of each Flight Path and Noise Chart

At the bottom of each Flight Path and Noise Chart you will find specific details about how the flight paths will be used by aircraft, including:

- The expected minimum and maximum number of flights that are likely to use the flight path per day
- The percentage of all jet aircraft flights that this path is likely to carry during the period of time being reported on
- The percentage of days within the period of time being reported on when the flight path is expected to experience no flights.

WITH NEW RUNWAY ANNUAL AVERAGE DAY (7AM TO 6PM) N70 5 events The N70 contour lines will 10 events show you: 20 events Where overflights generating noise of 70 dB(A) or more are N70 noise contours - appearing as contour lines overlaid likely to occur on the flight paths

A method of communicating the noise impacts of flight paths has been developed by the Australian Government in consultation with industry and the community, including the N70 contour.

An N70 diagram, illustrated as contour lines over a map of the Sunshine Coast, shows the area within which a stated number of flights generating noise of 70 decibels (dB(A)) or more occur in a specified period of time.

An aircraft noise event of 70 dB(A) or above is one that may disturb conversation, television viewing or using the telephone inside a house with open windows. Please refer to page 4 for typical noise levels from common activities.

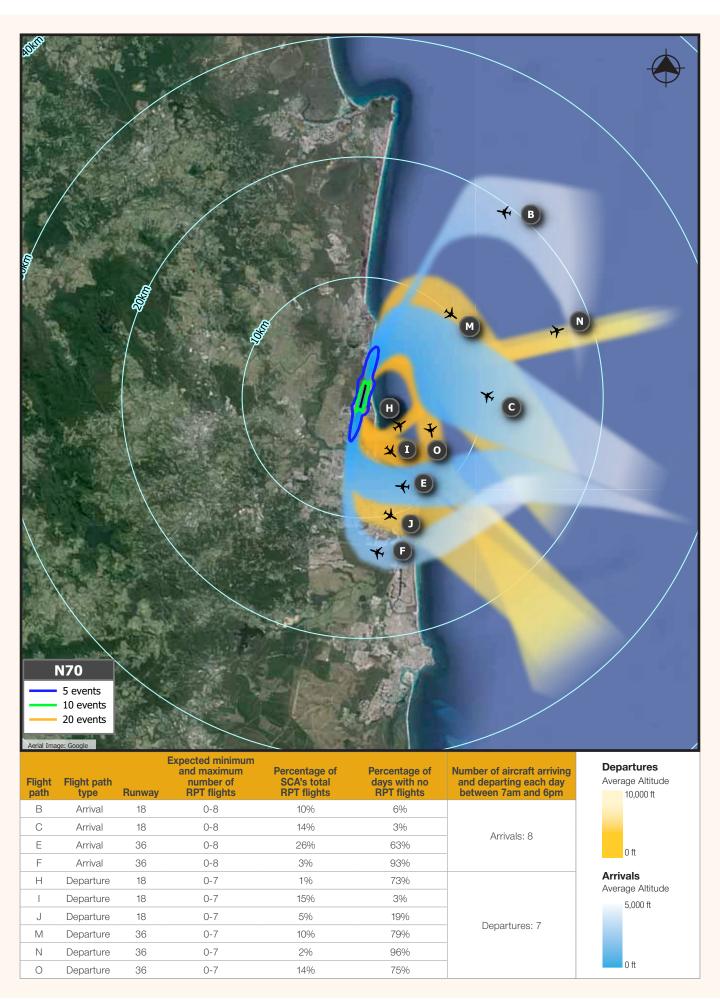
They describe the number of noise events (N) exceeding an outdoor maximum noise level of 70 dB(A).

An N60 noise contour is shown on the two charts in this booklet representing night time operatons with and without the runway in 2040. The N60 shows the area within which a stated number of flights generating noise of 60 dB(A) or more occur in the more noise sensitive night time period.

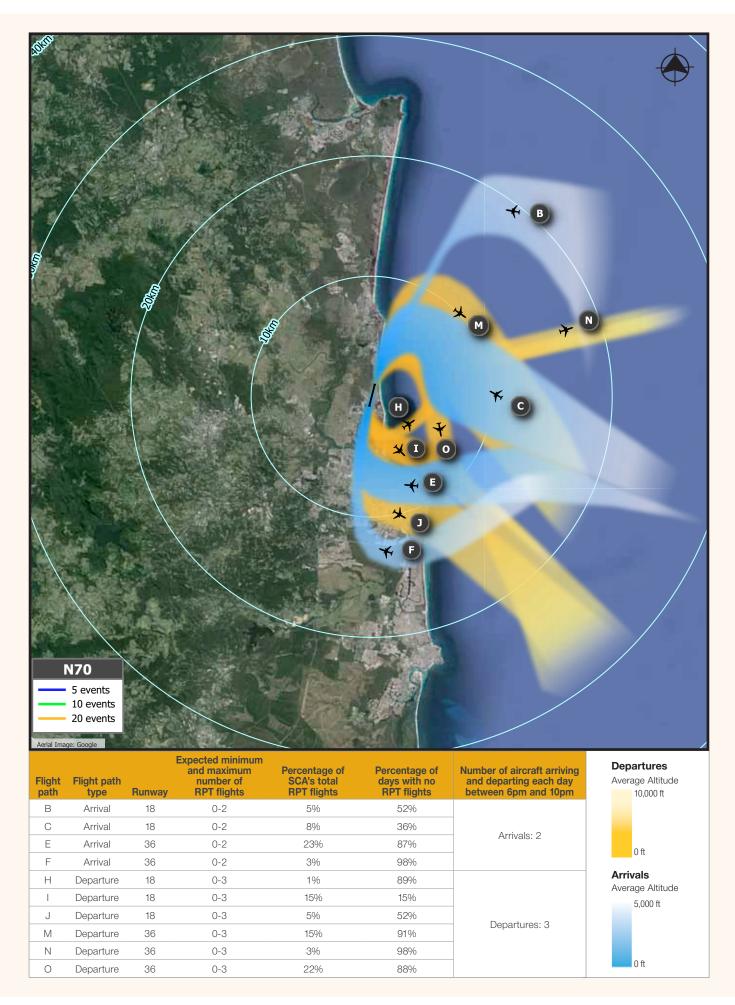
- By matching the colour of the contour line with the N70 legend, you can see the predicted number of overflights of 70 dB(A) or greater that are likely to occur
- The time period (day, evening or night) to which the N70 contours relate is noted at the top of each chart.

No noise contour appears on charts where there are five events or less of 70 dB(A).

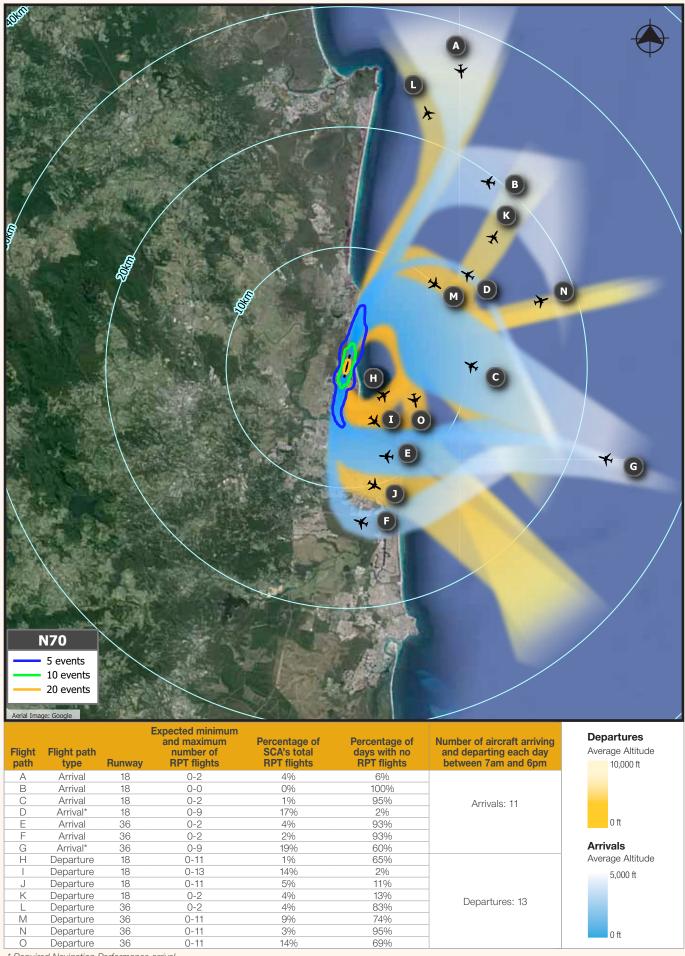
2012 CURRENT ANNUAL AVERAGE DAY (7AM TO 6PM)



2012 CURRENT ANNUAL AVERAGE EVENING (6PM TO 10PM)

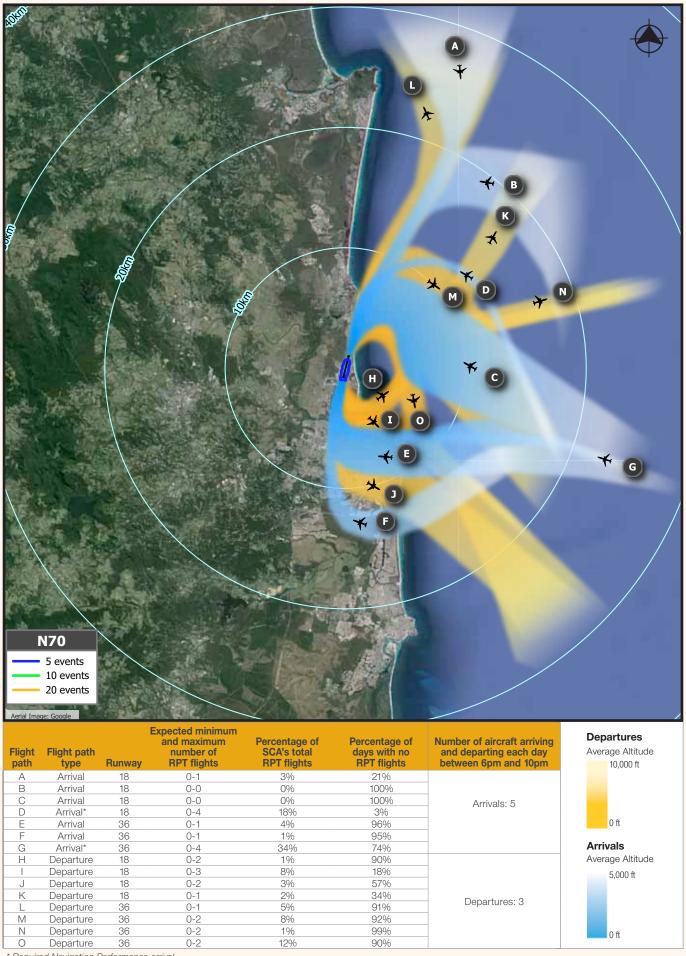


2020 DO MINIMUM ANNUAL AVERAGE DAY (7AM TO 6PM)



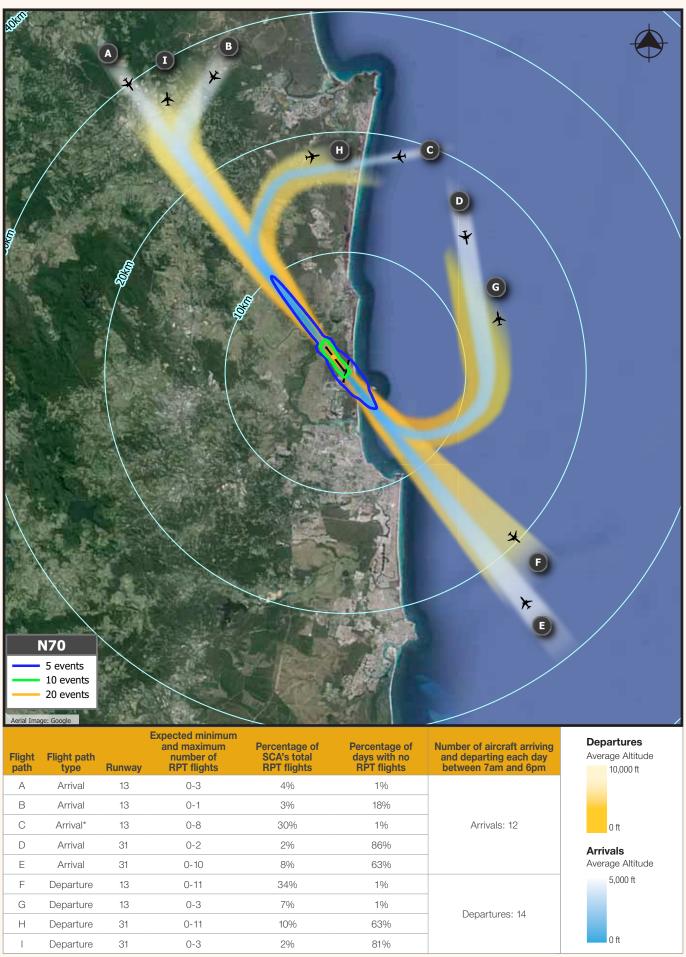
^{*} Required Navigation Performance arrival

2020 DO MINIMUM ANNUAL AVERAGE EVENING (6PM TO 10PM)



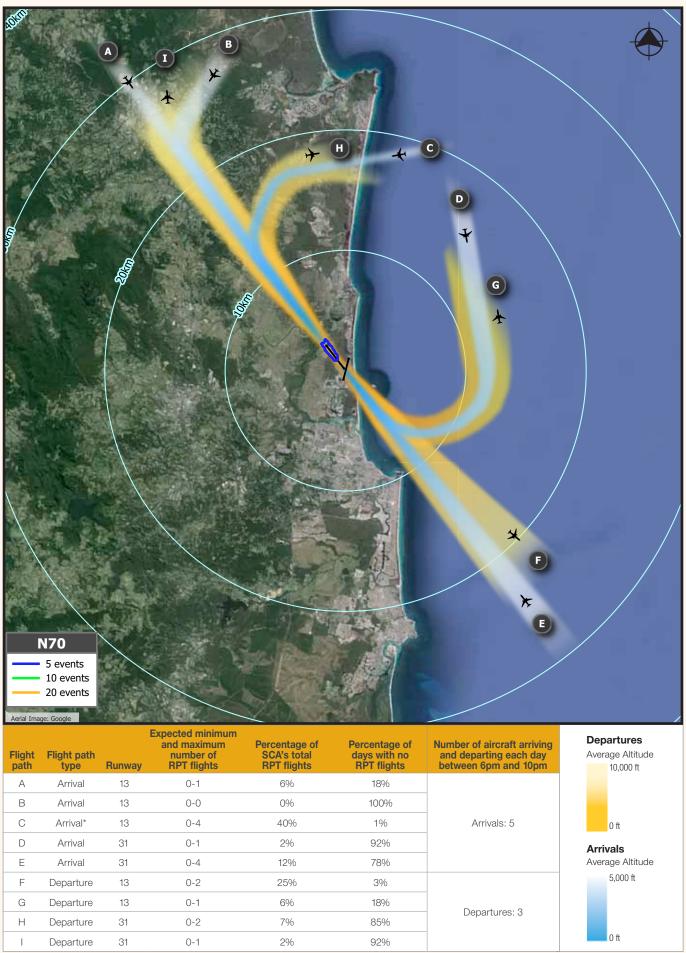
^{*} Required Navigation Performance arrival

2020 WITH NEW RUNWAY ANNUAL AVERAGE DAY (7AM TO 6PM)



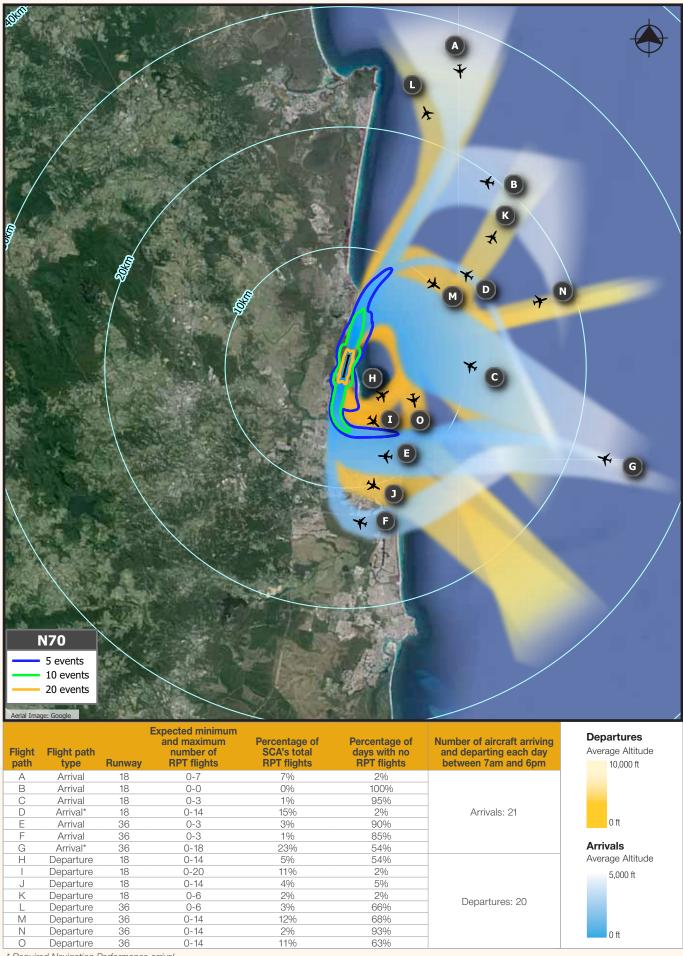
^{*} Required Navigation Performance arrival

2020 WITH NEW RUNWAY ANNUAL AVERAGE EVENING (6PM TO 10PM)



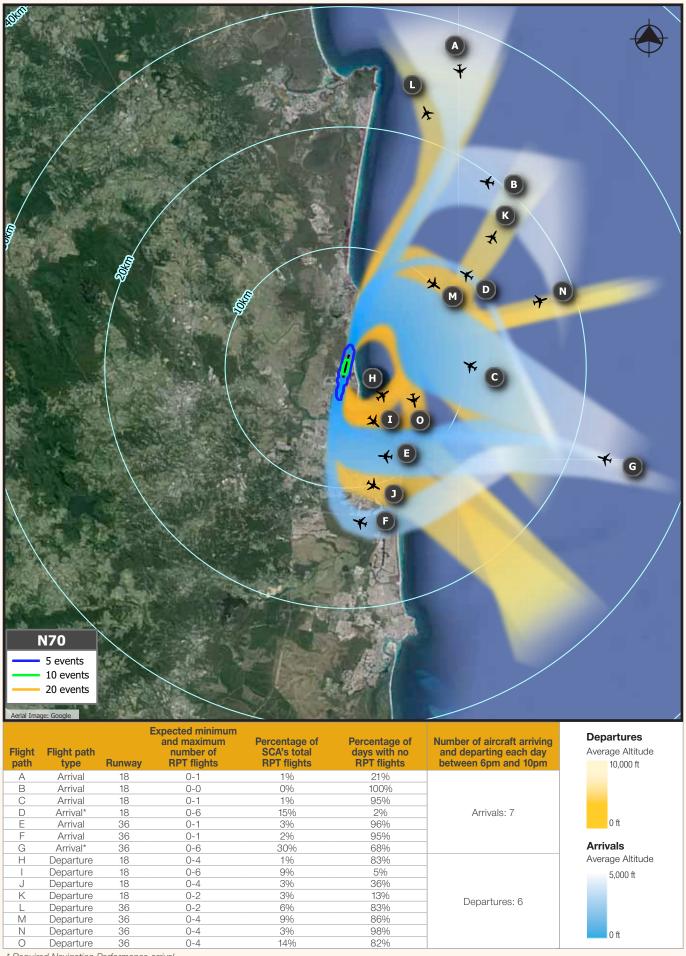
^{*} Required Navigation Performance arrival

2040 DO MINIMUM ANNUAL AVERAGE DAY (7AM TO 6PM)



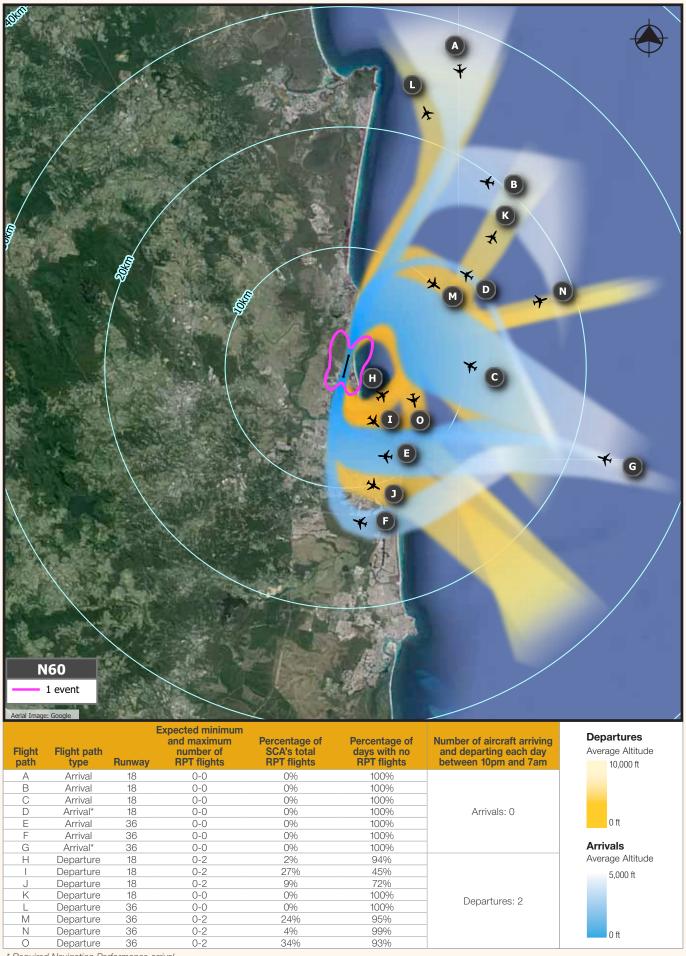
^{*} Required Navigation Performance arrival

2040 DO MINIMUM ANNUAL AVERAGE EVENING (6PM TO 10PM)



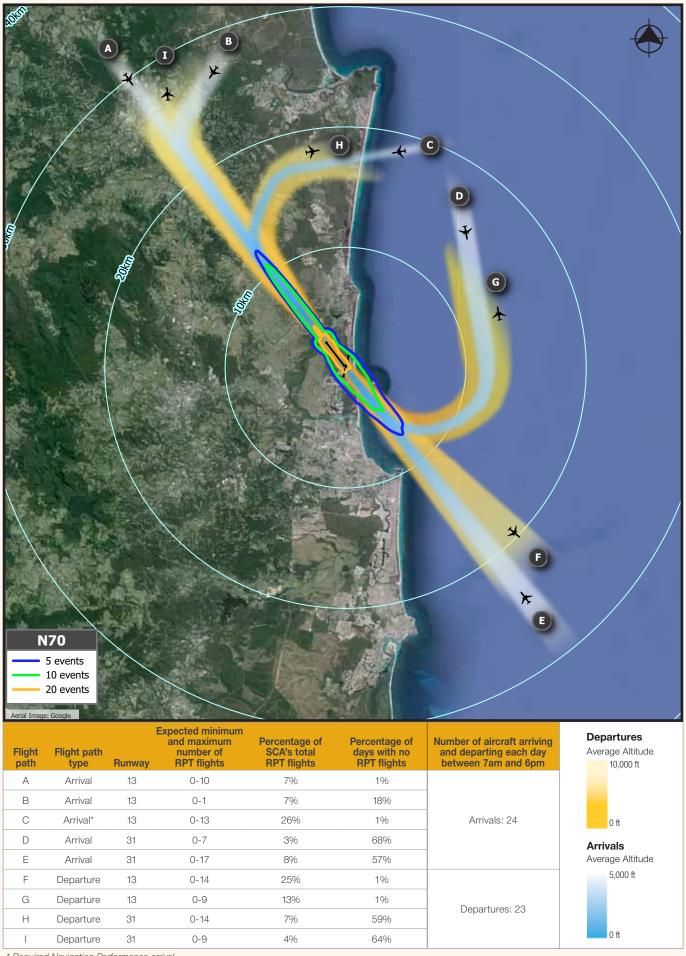
^{*} Required Navigation Performance arrival

2040 DO MINIMUM ANNUAL AVERAGE NIGHT (10PM TO 7AM)



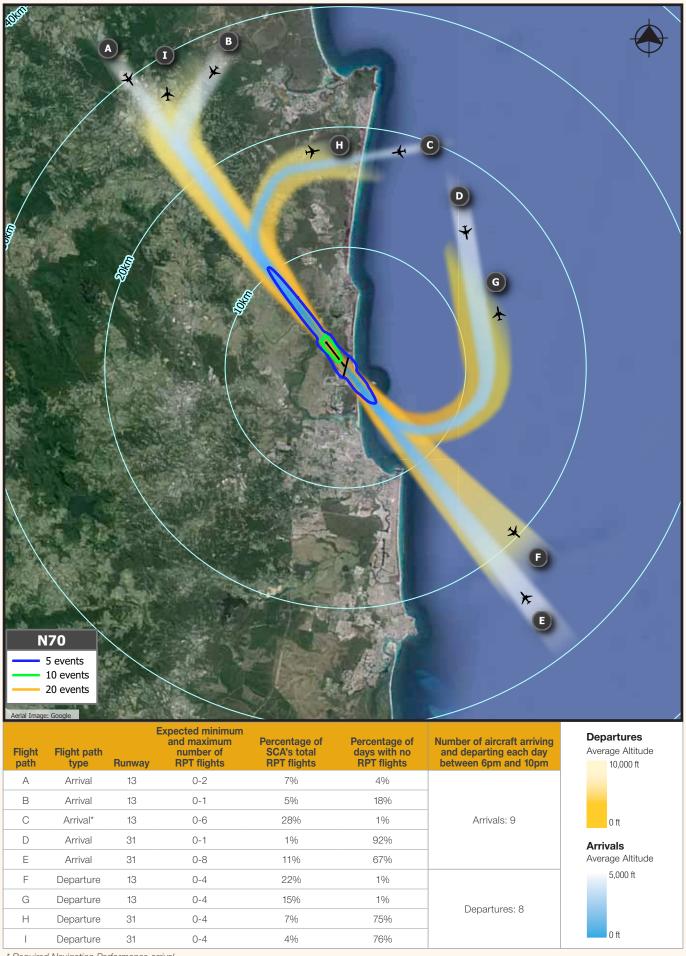
^{*} Required Navigation Performance arrival

2040 WITH NEW RUNWAY ANNUAL AVERAGE DAY (7AM TO 6PM)



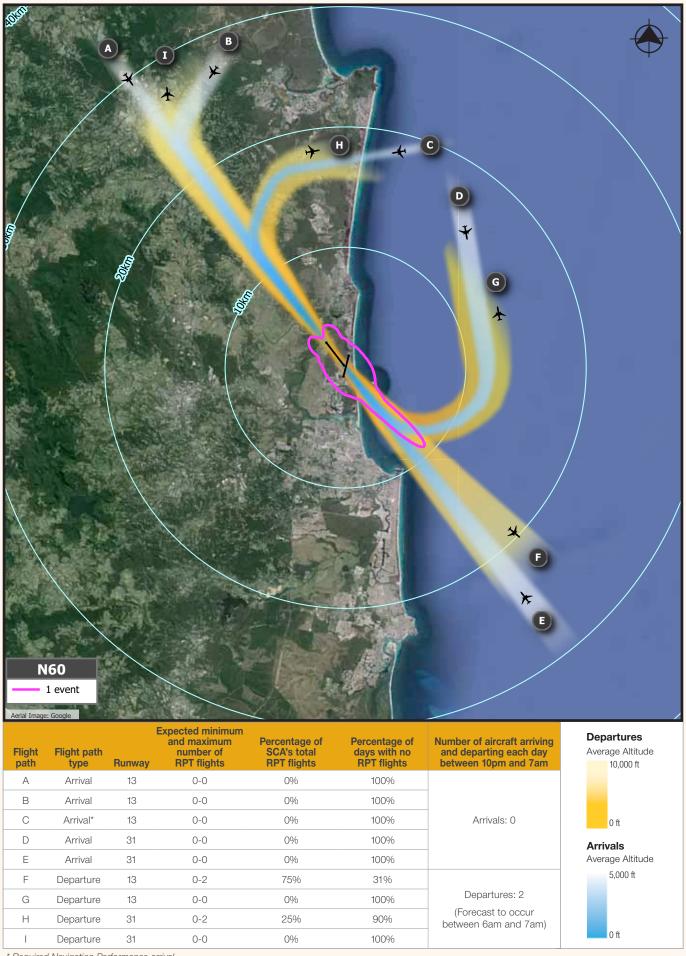
^{*} Required Navigation Performance arrival

2040 WITH NEW RUNWAY ANNUAL AVERAGE EVENING (6PM TO 10PM)



^{*} Required Navigation Performance arrival

2040 WITH NEW RUNWAY ANNUAL AVERAGE NIGHT (10PM TO 7AM)



^{*} Required Navigation Performance arrival





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