

# E5

IMPACT SUMMARY & MANAGEMENT FRAMEWORK

# AIRSPACE MANAGEMENT PLAN



## CONTENTS

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5.1	Introduction .....	605
5.2	Runway configuration .....	605
5.3	Modes of operation.....	605
5.3.1	Operating modes during construction.....	605
5.3.2	Operating modes post RWY 13/31 commissioning .....	605
5.3.3	Operating modes .....	606
5.3.4	Combined operating modes.....	607
5.4	Nominating Duty Runways and modes.....	607

## FIGURES

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5.3a:	Runway operating modes at SCA with the proposed RWY 13/31 .....	606
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## TABLES

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5.4a:	Draft operating plan .....	606
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## 5.1 INTRODUCTION

The safe and efficient movement of aircraft in and out of Sunshine Coast Airport (SCA) is the fundamental objective in the design, construction and operation of the new runway being proposed under the Environmental Impact Statement (EIS) for the Sunshine Coast Airport Expansion Project (the Project).

Environmental outcomes have also been considered in runway and airspace design, flight path options and the likely operating modes arising from the project.

The new 13/31 runway (RWY) necessitates changes to airspace and flight paths associated with operations at SCA. This will inevitably mean that there will be changes in the noise environment experienced by those persons living around the airport.

The airspace architecture including the future flight paths and modes of operation have been developed by Leading Edge Aviation Planning Professionals (LEAPP) as consultant to SCA and in conjunction with Airservices Australia and the Civil Aviation Safety Authority (CASA). Chapter A2 provides the detail regarding the anticipated air traffic levels at SCA as a result of the 13/31 RWY being constructed.

It should be noted that before any flight path procedure and/or modes of operation can be activated an additional detailed safety case and environmental assessment will need to be completed to the satisfaction of the relevant Commonwealth regulatory authorities.

In order to ensure that as far as is practical this future detailed assessment does not present any unforeseen operational parameters or environmental impacts the design and assessment of the airspace arrangements described in this EIS have been carried out in consultation with the relevant regulators.

Notwithstanding the foregoing, it should also be remembered that future development in aircraft and navigational systems technologies may result in changes to the proposed airspace operations and operating modes described in this chapter.

## 5.2 RUNWAY CONFIGURATION

The 13/31 RWY will be 2,450 m long and 45 m wide. It will extend in a north-westerly direction from a point approximately midway along the current main runway at SCA.

The current secondary runway at SCA, RWY 12/30 will be closed and removed prior to the commencement of the construction of the new RWY 13/31.

The location, alignment, design and construction methodology of RWY 13/31 will be such that operations on the current main runway (RWY18/36) will not be impeded during the construction of RWY 13/31.

This aspect of the Project is essential in maintaining the provision of regular public transport (RPT) services at SCA until the new runway is commissioned, and will necessitate works on the south-eastern extremities of the new runway to be conducted outside the hours of the RPT schedule.

## 5.3 MODES OF OPERATION

### 5.3.1 Operating modes during construction

As indicated previously, RWY 12/30 will be decommissioned and closed early in the construction phase, as will be the two helicopter training pads currently in use to the north of RWY 12/30.

As a result, all fixed wing operations at SCA will occur on RWY 18/36 utilising the current RWY 18/36 operating modes for the duration of the construction phase. As noted previously, construction work within the flight strip or intruding into the OLS of 18/36 will be managed to reduce potential restrictions.

General Aviation (GA) fixed wing aircraft unable to operate on RWY 18/36 will, in the case of arrivals, have to divert to alternate aerodromes such as Caloundra or Gympie and, prior to runway opening, in the case of departures, delay until suitable conditions are available.

Rotary wing operations at SCA will be largely unaffected during the construction phase as an alternate helicopter landing site will be made available.

### 5.3.2 Operating modes post RWY 13/31 commissioning

Following the commissioning of RWY 13/31 SCA will return to an operating environment where there are two active runways, the critical difference being that RWY 18/36 will be relegated to a secondary role rather than being the main runway.

All jet RPT traffic will use the new RWY 13/31, as the new runway will be:

- Longer, offering unconstrained operations
- Far more favourably aligned to the prevailing winds at SCA.

The current dispensation that allows Code 4C aircraft (A320, B737) to operate on RWY 18/36 will be discontinued once the new 45 m wide Civil Aviation Safety Regulations (CASR) compliant runway is in place.

RWY 18/36 will remain available for general aviation aircraft when weather conditions make the new RWY 13/31 unsuitable for them. It is expected that RWY 18/36 would cater to around 10 per cent of GA movements at SCA.

As indicated in Chapter D2 – Airspace Architecture and Modes of Operation, aircraft approaching and departing SCA will, as is currently the case, be required to operate within the airspace management regime applied by Airservices Australia to the broader Brisbane Basin Airspace.

The reorientation of the main runway to the 128° / 308° alignment has required a redesign of the routes by which aircraft access and depart SCA and as is currently the case with RWY 18/36 wind direction will determine which operating mode and therefore which approach/departure route will be used.

As discussed in Chapter D2 the approach/departure routes have been designed to take into account the alignment of the runway, prevailing weather conditions, topography and land use.

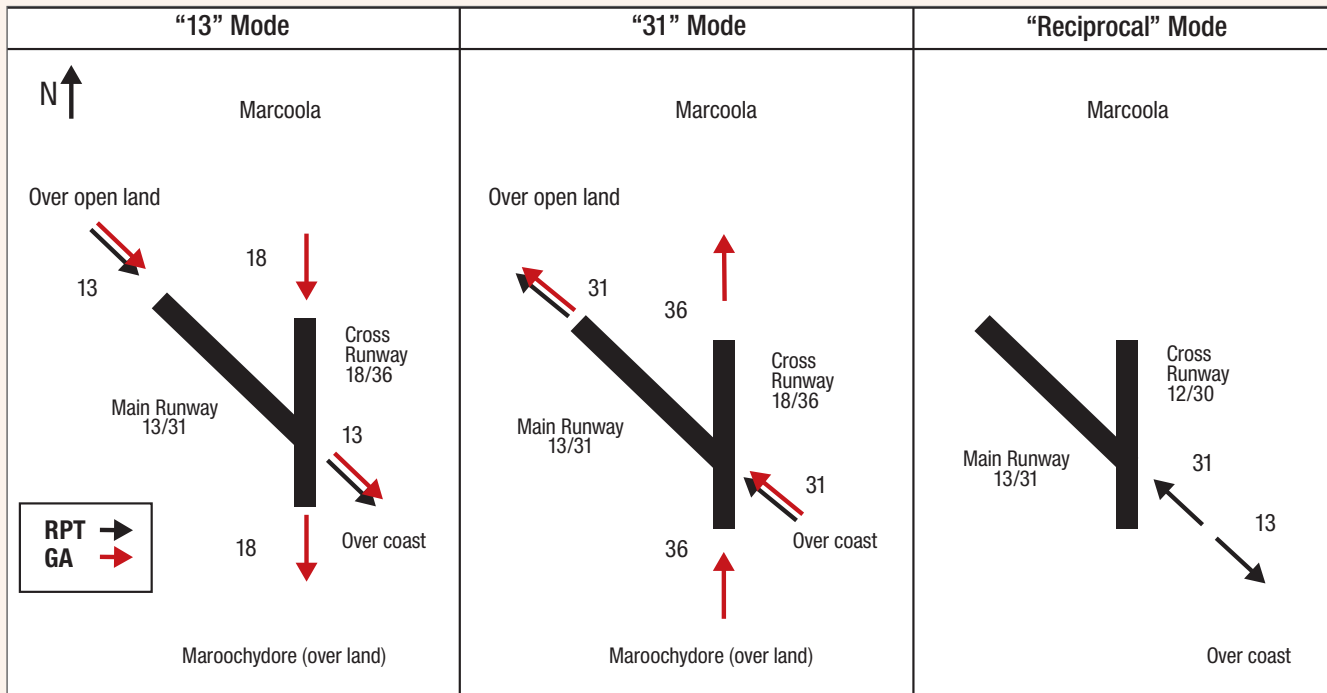
Where ever possible routes have been designed to minimise the over flight of existing and proposed urban areas (see Section 2.7.1 of Chapter D2).

### 5.3.3 Operating modes

Three basic modes of operation for the proposed main RWY 13/31 and the cross-RWY 18/36 have been identified and are shown below in **Figure 5.3a**.

1. **RWY 13 Mode** – In this mode jet and turboprop aircraft arrive overland and depart overwater on RWY 13. GA light aircraft arrive over Maroocha and depart over Maroochydore on RWY 18 when RWY 13 is not suitable for operations.
2. **RWY 31 Mode** – In this mode jet and turboprop aircraft arrive overwater and depart overland on RWY 31. GA light aircraft arrive over Maroochydore and depart over Maroocha on RWY 36 when RWY 31 is not suitable for operations.
3. **Reciprocal Mode** – In this mode all aircraft arrive overwater on RWY 31 and depart overwater on RWY 13. This mode can only be used in periods of light wind conditions and low traffic demand.

Figure 5.3a: Runway operating modes at SCA with the proposed RWY 13/31



### 5.3.4 Combined operating modes

Three modes of combined runway operations will be possible at SCA as set out below:

Three modes of combined runway operations will be possible at SCA as set out below:

<p><b>Combined RWY Mode 1</b></p> <ul style="list-style-type: none"> <li>• South-east direction operations</li> </ul>	<p><u>Primary RWY 13:</u> For arrival and departures of all traffic</p> <p><u>Secondary RWY 18:</u> For limited GA light aircraft use when RWY 13 is not operationally suitable</p>
<p><b>Combined RWY Mode 2</b></p> <ul style="list-style-type: none"> <li>• North-west direction operations</li> </ul>	<p><u>Primary RWY 31:</u> For arrival and departures of all traffic</p> <p><u>Secondary RWY 36:</u> For limited GA light aircraft use when RWY 31 is not operationally suitable</p>
<p><b>Combined RWY Mode 3</b></p> <ul style="list-style-type: none"> <li>• Reciprocal overwater operations</li> </ul>	<p><u>Primary Arrival RWY 31:</u> For arrival of all traffic</p> <p><u>Primary Departure RWY 13:</u> For departure of all traffic</p> <p><u>Secondary Arrival RWY 36:</u> For limited GA light aircraft arrivals when RWY 31 is not operationally suitable</p> <p><u>Secondary Departure RWY 18:</u> For limited GA light aircraft departures when RWY 31 is not operationally suitable</p>

## 5.4 NOMINATING DUTY RUNWAYS AND MODES

The Duty Runway refers to the operating direction of the runway. Air Traffic Control (ATC) will nominate the duty runway and associated mode of operation based on weather and traffic conditions.

**Combined RWY Mode 1** – South-east direction operations, will be used when the wind is predominately from the east to south-east a coastal meteorological condition which exists for most of the year at SCA as explained in Chapter D2.

**Combined RWY Mode 2** – North-west direction operations, will be used when the wind is predominately from the north to north-west, a meteorological condition which tends to occur for a limited period during the early summer months September to December as explained in Chapter D2.

These wind directions may occur at night at any time of the year, but with reduced wind speeds due to typical coastal weather conditions where cooling of the oceans causes a shift from steady daytime onshore breezes to light night time offshore breezes.

**Combined RWY Mode 3** – Reciprocal overwater operations, will be used only in periods of very low traffic levels and calm winds to keep arriving and departing aircraft over the water as much as possible to avoid overflight of population centres on the land. These conditions will generally exist only at night time.

The proposed draft operating plan for operations with the proposed new runway are provided in **Table 5.4a**.

*Table 5.4a: Draft operating plan*

<b>Daily Operations – Monday to Sunday</b>	
<b>Day Mode</b>	<ol style="list-style-type: none"> <li>1. Combined Runway Mode 1 – south-east direction</li> <li>2. Combined Runway Mode 2 – north-west direction</li> </ol>
<b>Night Mode</b>	<ol style="list-style-type: none"> <li>1. Combined Runway Mode 1 – south-east direction</li> <li>2. Combined Runway Mode 2 – north-west direction</li> <li>3. Combined Runway Mode 3 – reciprocal overwater</li> </ol>