



AIR NAVIGATION, AIRSPACE AND AERODROMES BRANCH

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Submitted via Major Projects portal

MAJOR PROJECTS – REQUEST FOR ADVICE - RTS - PORT BOTANY QUAYLINE EQUALISATION - CASA COMMENTS ON THE RESPONSE TO SUBMISSIONS

The Department has sent CASA a request for advice in relation to the Port Botany Quayline Equalisation Response to Submissions by AECOM of December 2025.

Section 4.2.1 of the Submissions Report advises: “that CASA has not raised objection to the Project on aviation safety grounds“. This is still the case.

However, for future reference, it may be useful to touch on issues with the original Preliminary Hazard Analysis and the Aviation Safety Technical Report. It is acknowledged that it would have been more appropriate to comment on these reports at EIS stage ... however, CASA reviews a lot of aviation assessments and it was not possible to go into detail at the time.

The Response to Submissions report 4.11.2.2 (and the Risk Analysis) advise that the probability of an aircraft strike (crash) would be:

- 1.4×10^{-11} per year (once in 71 billion years) involving explosive materials (class 1.1, 1.2 and 1.3 DG at the facilitated container terminal
- 2.9×10^{-10} per year (once in 3.4 billion years) involving ammonium nitrate (class 5.1 DG).

The conclusion does not relate to the difference in aviation risk between the existing infrastructure/berthing scenario and the proposed infrastructure/berthing scenario.

Limited information on the ships mooring at BLB3 was provided in the Hazard Analysis. This makes it difficult for stakeholders to adequately assess the safety impact of ships while moored/mooring. Factors which would help inform a basic risk assessment are:

- the duration that a ship would be present at BLB3;
- the size of the ships (height and length)
- the duration that a ship takes manoeuvring into and out of BLB3
- Any expected changes to the number or types of ships currently using the port.

It is acknowledged that the aircraft crash scenario is the ‘exception’ and the risk is low and any increase in the risk aviation safety is difficult to quantify and describe in simple terms. However, the Response to Submissions report 4.11.2.2 refers to ‘docked fuel shipping vessels’. The Hazard Analysis was based on crash frequency *per unit ground area*. A

tanker ship resembles a three dimensional structure. Considering that most aircraft would overfly BLB 3 (at a relatively low altitude), the risk of an aircraft impacting the ship structure could have been quantified or at least discounted. (Aircraft can have difficulty gaining height (eg bird strike or mechanical issue)).

The Aviation Safety Report did not address some aviation operational aspects. The position of BLB3 means that aircraft departing Runway 16L on the Kevin Seven Standard Instrument Departure will overfly the facility. The report should have addressed that departing aircraft turn left and confirmed details such as the height aircraft are expected to fly overhead the facility, the number and type of aircraft and how aircraft will behave in the event of an emergency. It should have included that Instrument Flight Departure Procedures state 'At 500ft turn LEFT ...' and how close aircraft would be to overflying BLB3.

The Aviation Report did not comment on whether airlines were consulted. Therefore, CASA consulted airlines and received the following advice from two airlines regarding their emergency procedures:

Qantaslink:

"All Q400 departures (and all turboprop I believe) from SYD use the SYD3 radar departure. The assigned heading will be an appropriate heading for outbound radial to deconflict from inbound traffic.

For minor emergencies that don't affect climb performance the aircraft would continue via the SID. If climb performance is affected, i.e. engine failure, propellor malfunction etc, the procedure is to track extended runway centreline 155deg to a safe altitude (MSA).

I don't know if this would help with site clearance but one suggestion may be to add an additional constraint on runway 16L SYD3 departure to make the turn not before departure end of the runway (DER) and not below 500ft – like the BNE4 radar SID?"

REX

"The REX Procedure is straight out on RWY HDG."

The above reassures that aircraft would normally not turn left in an emergency.

Going forward, CASA is prepared to assess piling rigs or other construction plant and equipment that may infringe on the Outer Horizontal Surface.

Yours sincerely

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