

2 February 2019

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### **ANEF CONTOUR ASSESSMENT – PROPOSED TWEED VALLEY HOSPITAL SITE**

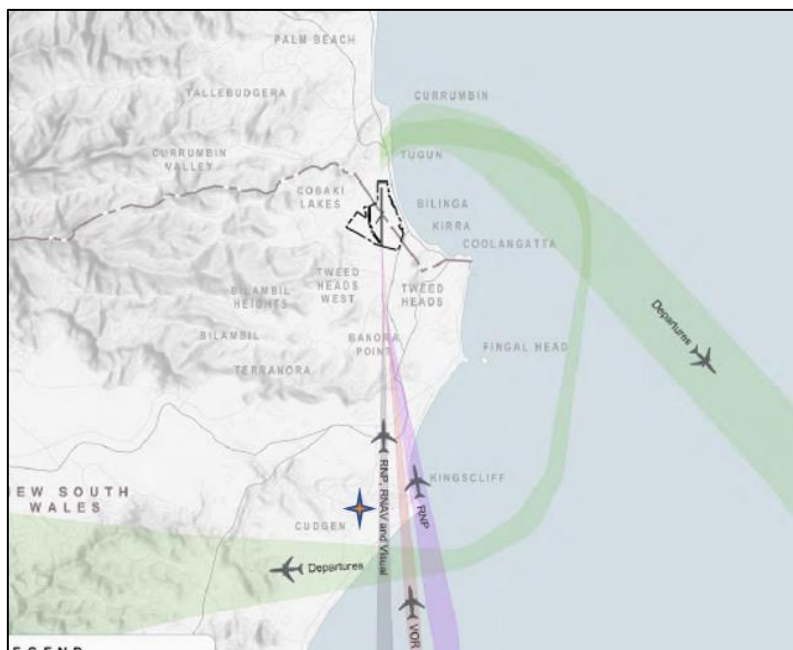
Your email dated 30 January requested AviPro look at the ANEF contours for the Gold Coast Airport (GCA) per the request from NSW Health Infrastructure.

As discussed, it is highly unlikely that the noise measurements from jet aircraft flight operations emanating from operations to/from GCA would be at a level that would cause concern or exceed allowed levels. I also mentioned that the most accurate source for this analysis would be the noise consultants you have engaged.

That said, the following high-level assessment is provided from readily available material from the GCA Master Plan.

#### **GCA Flight Paths**

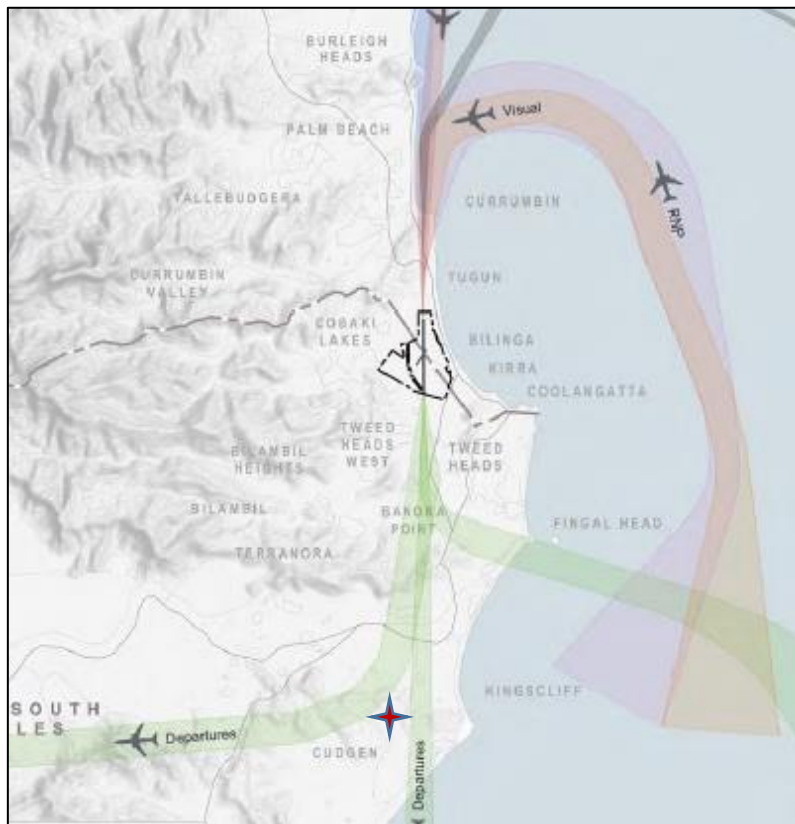
The following image illustrated the flight paths regularly used by aircraft approaching GCA from the south (nearby or in the vicinity of the Hospital Site). Image 1 illustrates the Runway 32 (northerly landing direction) approach and departure paths from aircraft arriving from or departing to, the south.



**Image 1: Runway 32 South – Arrivals and Departures**

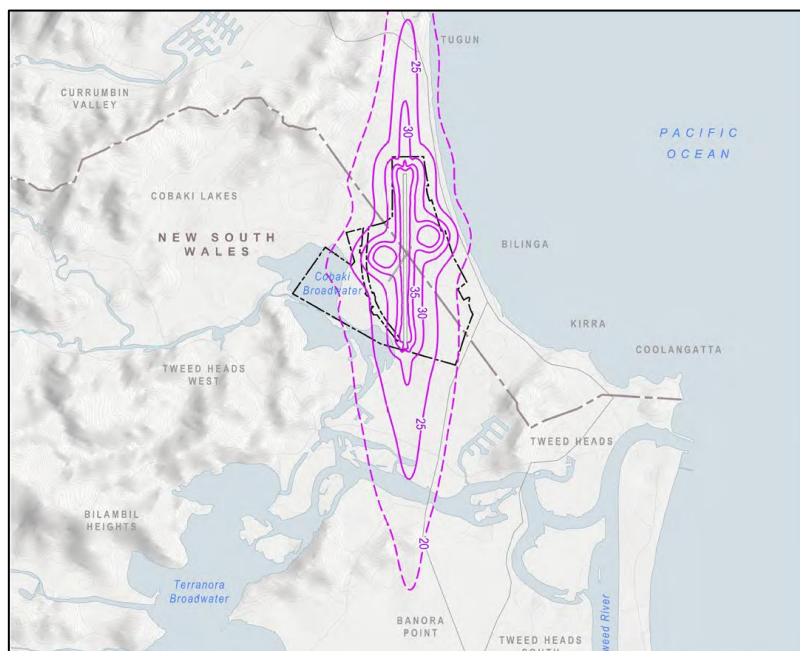
Image 2 illustrates the Runway 14 (southerly landing direction) approach and departure paths.

In both cases, the location of the Hospital Site is indicated by a red and blue star.



**Image 2: Runway 14 South – Arrivals and Departures**

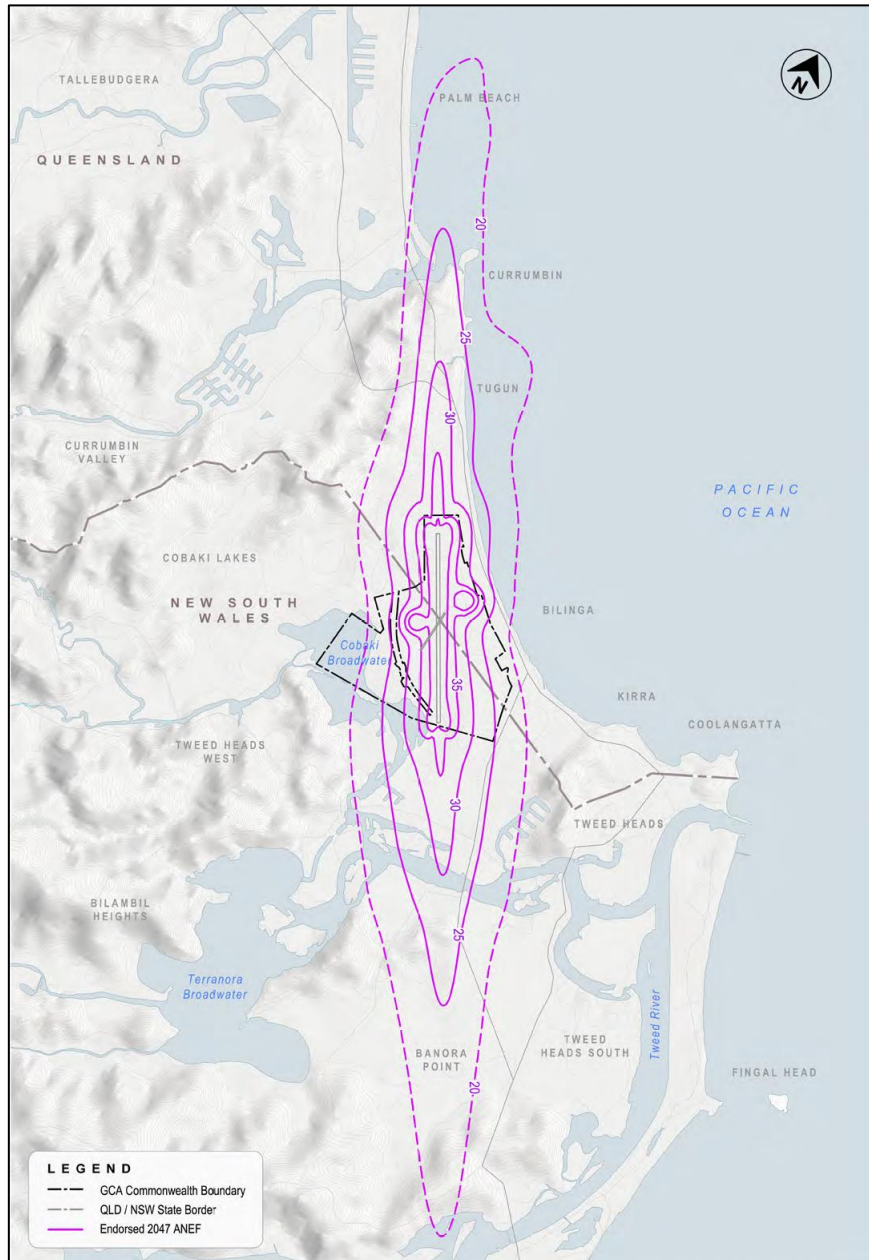
The GCA Master Plan has also provided illustrations of the actual (year 2015) and projected (year 2047) ANEF noise contours. These contours tend to follow the frequently utilised approach and departure paths illustrated in Images 1 and 2.



**Image 3: Year 2015 ANEF Footprint**

Image 3 shows the 2015 ANEF 20 contour ending at Banora Point. Therefore, the Hospital Site is outside the 2015 ANEF 20 Contour according to the GCA Master Plan Image 5.5.

Image 4 illustrates the 2047 ANEF 20 contour ending at the Tweed River slightly south of Fingal Head. Still well north of the proposed Hospital Site. Therefore, the Hospital Site is outside the 2047 ANEF 20 Contour according to the GCA Master Plan Image 5.6.



**Image 4: Year 2041 ANEF Footprint**

## Conclusion

The source for the ANEF Contour imagery was the GCA Master Plan, 2017.

Our assessment of this document shows that the proposed Hospital Site is outside the year 2015 and year 2047 ANEF 20 Contours. In other words, any jet aircraft noise levels associated with approach or departure to GCA are below the ANEF 20 measurement level.

### **Recommendation**

Should TSA require further or more detailed analysis of the ANEF measurement at the Hospital Site, it is recommended the noise consultant be tasked with attaining the measurements and providing analysis.

A handwritten signature in black ink, appearing to read "S. Graham".

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