

Airways New Zealand submission to the Civil Aviation Authority's 2016 Waikato and Bay of Plenty Airspace Review

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Updated Submission

20 November 2015

This is one of three Airways submissions to the 2016 Waikato and Bay of Plenty Airspace Review.

This submission is an update to the Airways submission for Tauranga CTR and CTA dated 6 August 2015.

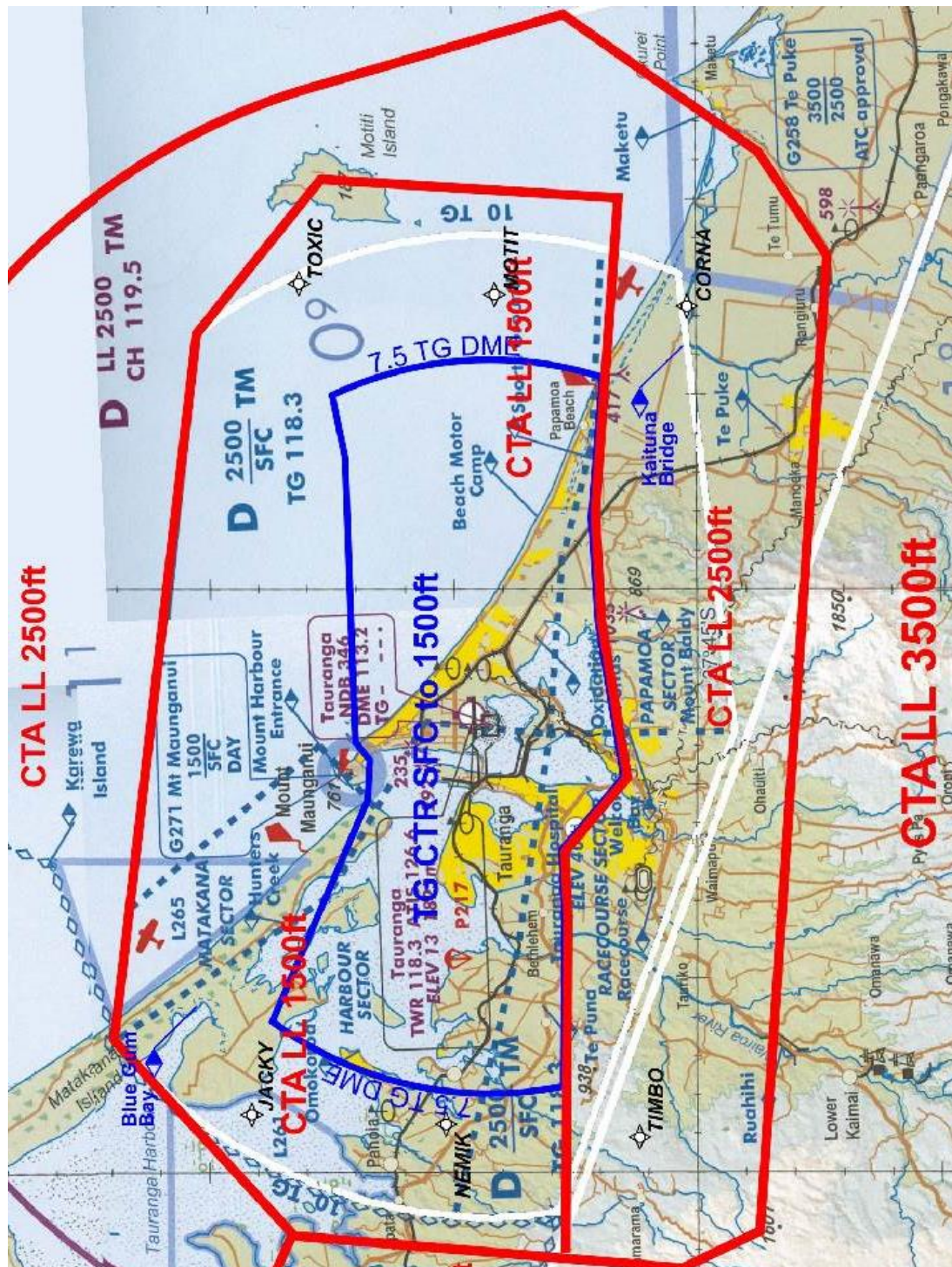
Earlier this year Airways submitted an airspace petition dated 20 March 2015 to change the TG CTR. Airways now withdraws that petition and replaces it with this submission to the CAA 2016 Waikato and Bay of Plenty Airspace Review.

Tauranga CTR and CTA Proposal

The Airways proposal for amended TG CTR is depicted on the next page and proposed CTA changes around Tauranga are depicted on page 3. Design notes follow that.

Proposed new TG CTR

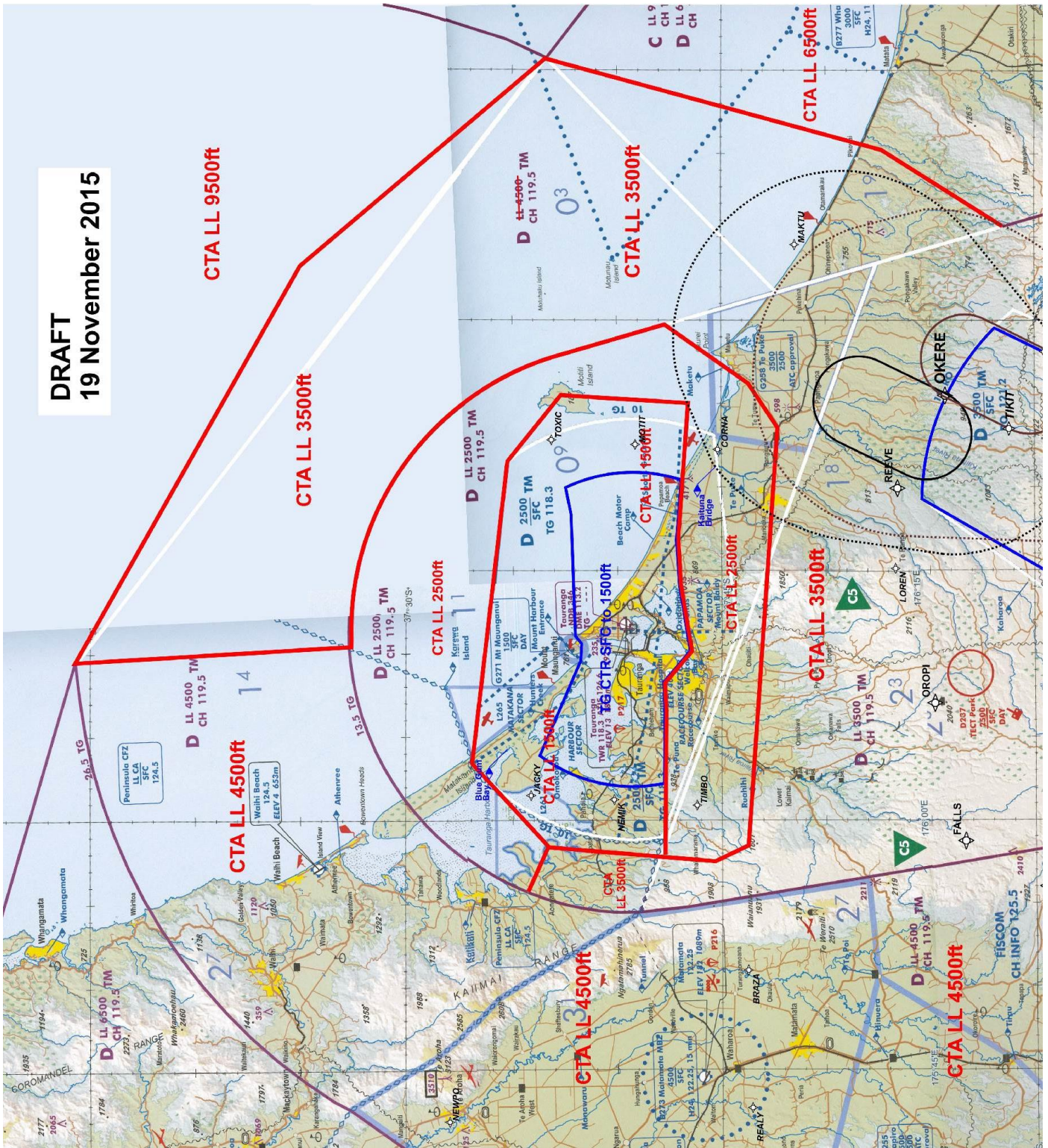
The diagram below shows the proposed new TG CTR (blue line). Some of the proposed new CTA is also depicted (red lines). The white lines are the portions of the existing airspace boundaries that would be deleted.



Note the proposed new visual reporting points 'Blue Gum Bay' on Matakana island and 'Kaituna Bridge' to the southeast of Tauranga.

Proposed new CTA around Tauranga

DRAFT
19 November 2015



Design Notes

1. The design reduces the size of the TG CTR as much as practical to contain the existing NDB/DME approaches and new PBN approaches and departures and provide suitable containment of circuit operations at TG.

The design would require the existing NDB/DME approaches to be amended so that they turned inbound at 2,000ft or above.

2. The proposed CTR has an upper limit of 1500ft and would require the addition of a new CTA with lower limit of 1500ft and the extension of the CTA LL 2500ft around to the south of Tauranga.
3. Airspace containment criteria applied

NDB approach inbound legs	NDB splay
NDB approach outbound and base turn legs	2.5 NM buffer from nominal track
RNAV approach inbound legs	VOR splay
Missed approach tracks - NDB and RNAV	2 NM buffer between nominal track and airspace boundary
Proposed new RNAV SID departure tracks	2 NM buffer between nominal track and airspace boundary
Proposed new RNAV approach tracks	2 NM buffer between nominal track and airspace boundary

4. Aerodrome 'Vicinity'

The northern boundary of the new CTR is not closer to Tauranga RWY 25/07 than 2.14 NM – i.e. there is at least a 2 NM buffer between RWY 07/25 and the northern boundary.

The southern boundary provides for containment of IFR cat A and B circling (2.66 NM radius centred on the RWY 07 and 25 thresholds).

5. Additional CTA

This design provides for additional CTA LL 2500ft to the south of Tauranga in order to contain proposed new PBN (RNAV) approaches and departures.

The CTA to the northeast and east outside 13.5 NM would be lowered to 3500ft to contain proposed new PBN IFR holding patterns at Tauranga and Rotorua.

6. Containment of instrument flight procedures

The requested new CTR and CTAs contain IFPs as follows;

NDB/DME RWY 07: This approach needs to be amended so that it turns onto the inbound track at 2,000ft or above which would occur at around 6.7 NM TG DME on the existing 2.9° profile. If this proposal is successful Airways intend to amend the approach as above.

With that change, the nominal track of the outbound leg and the base turn would be contained by the new CTA 1500ft to 2500ft. However, a small portion of the 2.5 NM buffer would not be contained. This is similar to the lack of full containment provided by the existing airspace. This proposal is submitted on the presumption that continuation of this existing slight lack of containment would continue to be acceptable for this legacy approach.

The missed approach track to BELET would be contained in accordance with the 300ft per NM policy.

NDB/DME RWY 25: The nominal track of this approach would be contained by the new airspace. However, a small portion of the 2.5 NM buffer from the base turn would not be contained. This is similar to the existing situation with the existing airspace. This proposal is submitted on the presumption that continuation of this existing slight lack of containment would continue to be acceptable for this legacy approach.

The missed approach track to DOTAR would be contained in accordance with the 300ft per NM policy with the exception that the nominal track would close to 1.9 NM (less than the default 2 NM) from the northern CTR boundary for a short distance along Matakana Island. This is done in order to utilise the prominent geographical feature of the point on Matakana Island.

NDB RWY 25: The nominal track of the outbound leg and base turn would be contained by the new CTA LL 1500ft however, similar to the existing situation, a small portion of the 2.5 NM buffer would not be contained.

The missed approach would be contained by the new CTR and the new CTA LL 1500ft.

RNAV (GNSS) RWY 07: The inbound leg of this approach would NOT be contained by the new CTR. It is proposed that this approach is withdrawn and replaced with a new PBN RNAV approach that is more lined up with the RWY. This approach would be contained by the proposed CTR and CTA.

RNAV (GNSS) RWY 25: This approach would NOT be contained by the new CTA LL 1500ft and new CTR. It is proposed that this approach is withdrawn and replaced with a new PBN RNAV approach that is more lined up with the RWY. This approach would be contained by the proposed CTR and CTA.

Departures RWY 07 (including Omni Departures): This departure would NOT be contained by the new CTA and new CTR. It is proposed that this departure is withdrawn and replaced with a new PBN RNAV departures. This departure would be contained by the proposed CTR and CTA.

Departures RWY 25 (including Omni Departures): This departure would NOT be contained by the new CTA and new CTR. It is proposed that this departure is withdrawn and replaced with a new PBN RNAV departures. This departure would be contained by the proposed CTR and CTA.

7. Proposed new Visual Reporting Points (VRP)

Two new VRP are proposed - these are:

1. "KAITUNA BRIDGE". A new bridge which is on the newly built Eastern Highway crossing the Kaituna River.

Location; S37 44' 46.83" E176 21' 15.48"

2. "BLUE GUM BAY". A point at the southern end of the estuary to the north-west of Tauranga.

Location; S37° 34' 45.98" E176° 04' 20.42"

8. Consequential changes

1. Existing Tauranga CTR Sectors:

The existing CTR Sectors within the current CTR can be disestablished.

2. NZG271 Mt. Muanganui:

With the introduction of the new CTR NZG271 would lie outside controlled airspace and could be disestablished.