

Airways New Zealand

Napier Airspace Amend – Design Notes

Version 5 (reissue)

24 November 2022

Airways consulted on our proposed changes to Napier and Gisborne airspace in 2017 and 2018 to support the implementation of Performance-Based Navigation (PBN). However, due to COVID-19 and other circumstances, the implementation of PBN was delayed. Airways now intends to implement PBN at Napier and Gisborne in November 2023.

This paper resubmits *Napier Airspace Amend – Design Notes, Version 5 (5 December 2018)* as Airways' submission to CAA's *2023 Airspace Review East Coast – Gisborne and Hawke's Bay*. It explains our request for changes to Napier airspace, including our rationale for the changes to the airspace boundaries. We updated the paper to reflect changes to the Instrument Flight Procedures since December 2018, but no changes have been made to our request for Napier and Gisborne airspace nor the proposed airspace boundaries.

Summary of changes from Version 2

Since 2017, Airways has consulted several times with stakeholders on our requested changes to Gisborne and Napier airspace to support the implementation of PBN. We considered the feedback from operators and updated our request which was released again for public consultation in 2018/2019 as Version 5.

Major changes between Version 2 and Version 5 include:

- removal of our earlier requested 7500 ft CTA to the north-west of NZNR - the GENDA holding pattern is now deleted from the PBN plan so the need for airspace to contain that holding pattern is also deleted;
- less CTA is requested to the west of Napier due to the planned disestablishment of the IFR H430 RUAHI- NR-RUAHI track;
- alterations to various CTA step boundaries, which we believe would not be significantly detrimental to interested parties; and
- splitting of the 4500 ft and 6500 ft CTA to add 5500 ft and 7500 ft CTA to the south of Napier, following feedback from the paragliding/hang gliding operators.

1. Purpose of changing the airspace

In accordance with *Civil Aviation Rules (CAR) Part 71 – Designation and Classification of Airspace*, the airspace was designed to ensure instrument flight procedures (IFP) at controlled aerodromes are contained within controlled airspace.

We have requested changes to the Napier Control Zone (NR CTR) and Napier Control Area (NR CTA) to ensure the correct airspace containment of the planned new PBN IFR procedures for Napier. These PBN procedures are still in the design process and some further developments may occur which could result in some changes to the requested draft airspace layout as detailed in this paper.

Furthermore, some of the current VOR-based IFR procedures at NZNR are not correctly contained by the existing NR CTR and CTA. Therefore, to comply with the airspace design requirements in CAR Part 71, we also designed the airspace to contain the existing IFR procedures (refer to page 20) that will be retained with the new PBN procedures. Some departure procedures will need to be amended and steepened slightly to achieve containment.

Also, in accordance with CAR Part 71, Airways desire is to minimise controlled airspace, particularly control zones, as much as practical. We have updated our design to use the least amount of controlled airspace as practical to correctly contain the Napier instrument flight procedures. The diagrams in this paper are intended to show why particular boundaries are placed where they are.

For containment, the instrument flight procedures, including their lateral buffers, need to be at least 500 ft above the lower limit of CTA. Furthermore, CAR Part 71.53(c)(2) requires the CTA to be at least 700 ft above the surface of the earth. This can sometimes prevent simplifying the design of the CTA.

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2. Draft NR CTR

Diagram 2 below depicts the draft NR CTR (note, the proposed NR CTA is not depicted).

The following NR CTR sectors will require amendment (details will be provided later once confirmed):

- a. Hill Sector;
- b. Instrument Sector; and
- c. Port Sector.

The existing VOR departures, which are to be retained, are likely to require some redesign work to ensure they are contained by the proposed NR CTR below. This may result in some small increase in required climb gradient.

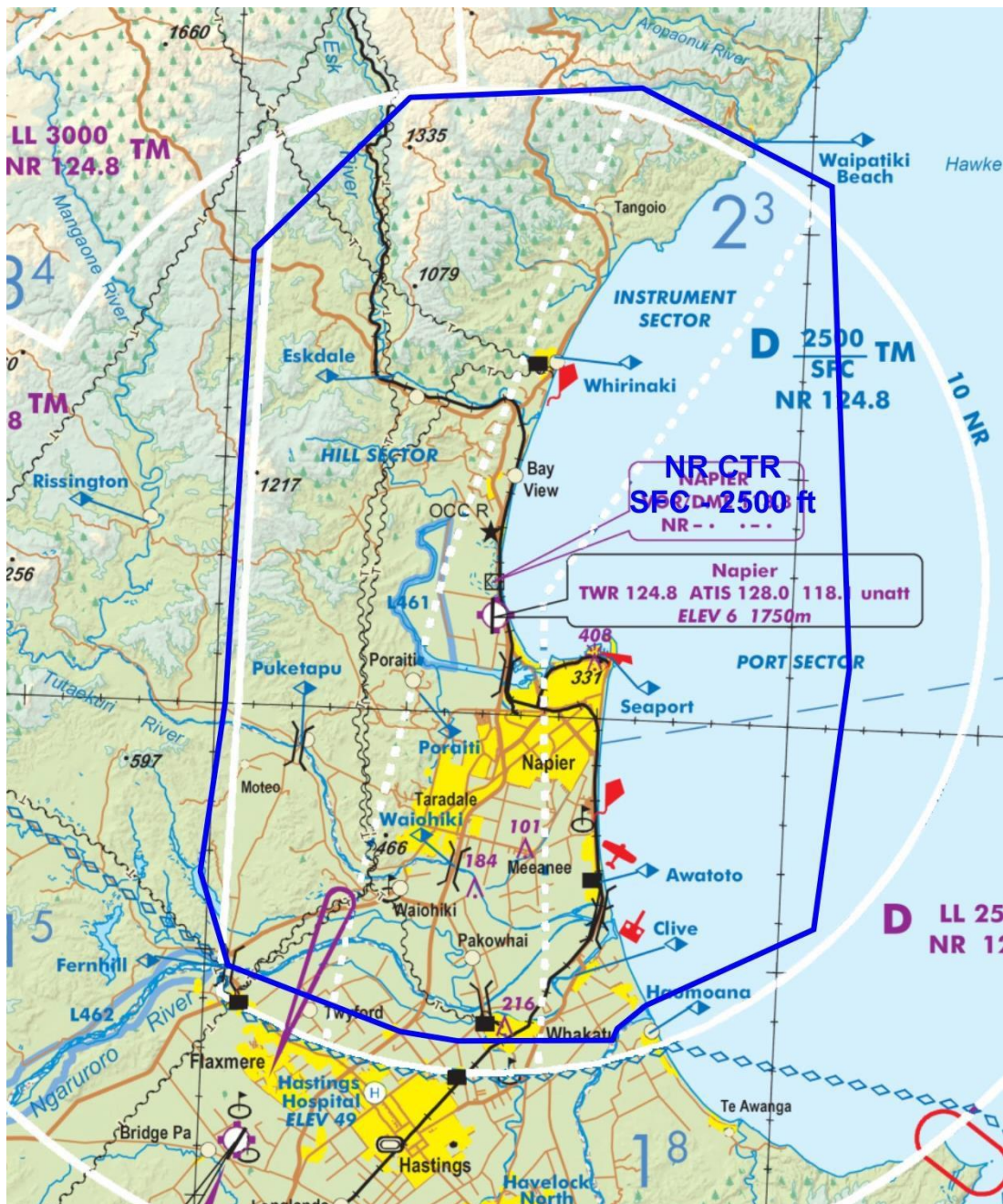


Diagram 2 - Draft NR CTR (Version 5)

3. Draft NR CTR - Southern Boundary

Diagram 3 below depicts the southern boundary of the draft NR CTR (note, the proposed CTA is not depicted).

The draft NR CTR southern boundary goes from:

- SH bridge over Ngaruroro River; to
- roundabout intersection Napier Hastings Express Way-Evenden Road; to
- intersection Pakowhai Road-Elwood Road; to
- northwest end of Mill Road bridge and over Tukituki River; then
- two straight lines that generally follow the northern bank of the Tukituki River to the coast, immediately north of Haumoana VRP; to
- a point approx. 3.8 NM seaward of the coast.

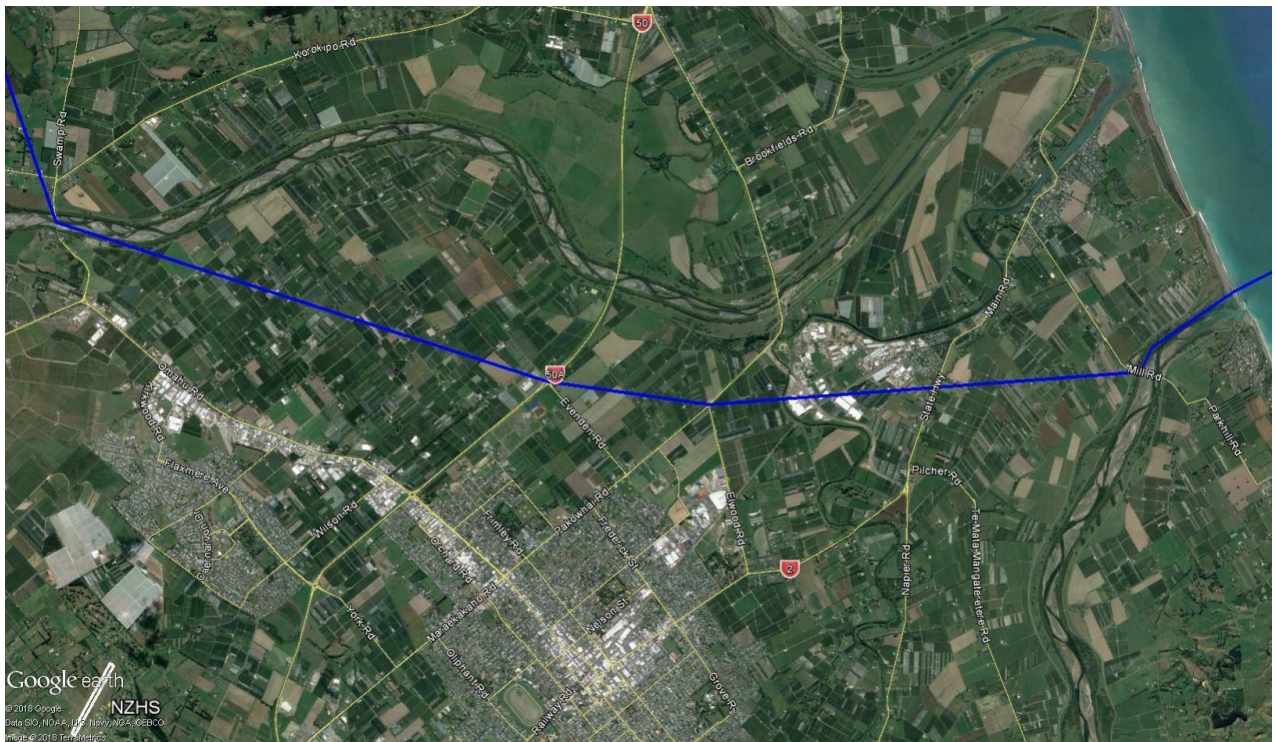


Diagram 3 – Southern boundary of the draft NR CTR

4. Draft NR CTA

Diagram 4 below depicts the NR CTA around Hastings.

Notes for Diagram 4:

- a. At its closest, the 1500 ft CTA is 1.9 NM away from NZHS ARP.
- b. The eastern boundary of the 1500 ft CTA is two straight lines that generally follow the Tukituki River – the boundary could be straightened if desired.
- c. The northerly kink in the boundary between the 2500 ft and 4500 ft CTAs is at the hang glider/paraglider operators request to allow their operations to take in the northern end of Te Mata Range

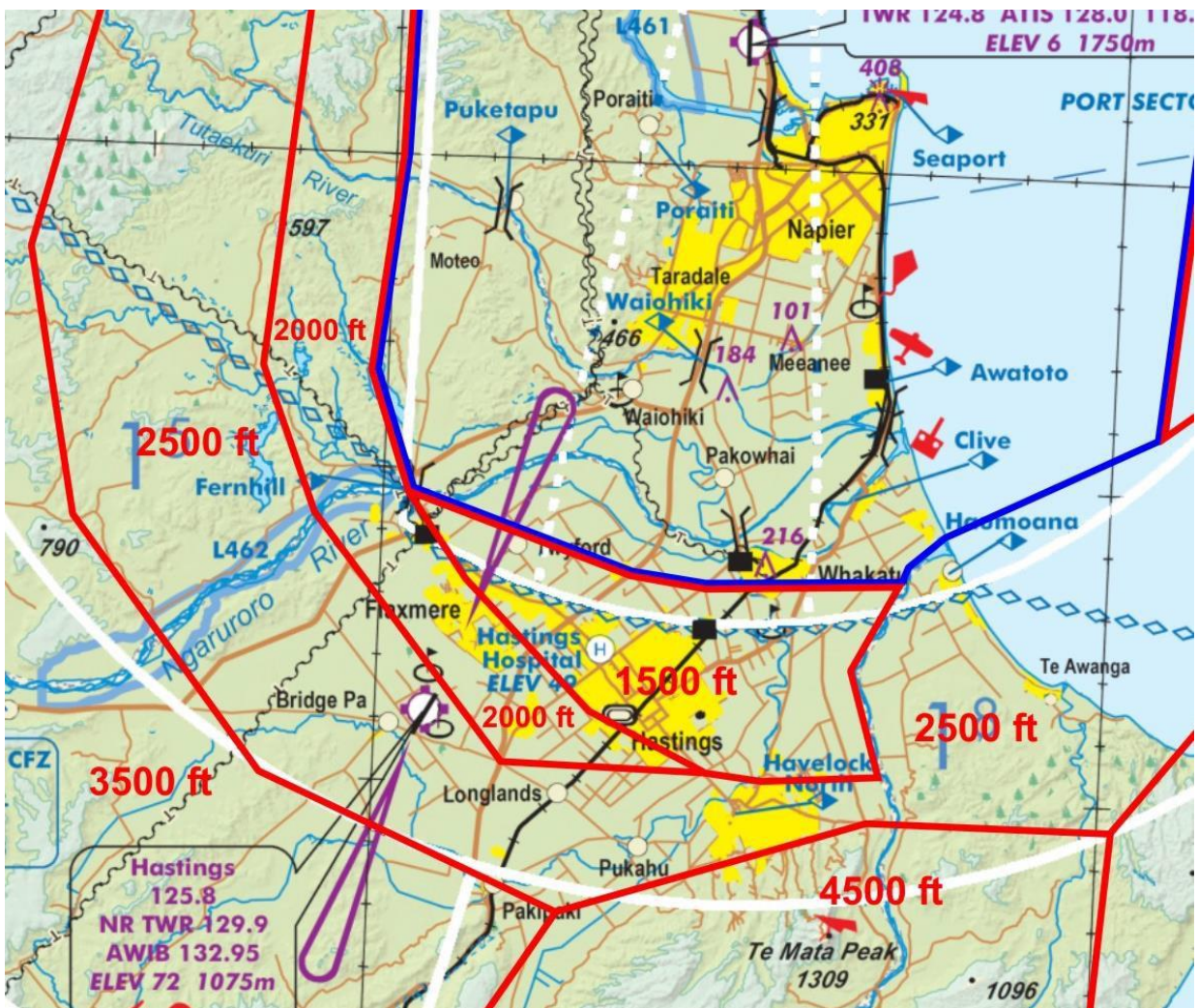


Diagram 4 - NR CTR and CTA

5. Draft NR CTA – Southern and Eastern Boundary

Diagram 5 depicts the NR CTA southern and eastern boundary.

The draft NR CTA LL 1500 ft southern and eastern boundary goes from:

- SH bridge over Ngaruroro River; to
- factory buildings on Omahu Road; to
- undefined point 0.4 NM west of racecourse; to
- roundabout intersection St. Georges Road-Havelock Road; to
- intersection Crosses Road-Napier Road; to
- undefined point east of Havelock North on western bank of Tukituki River; to
- bend in Tukituki River; to
- the northwest end of Mill Road bridge over Tukituki River

Notes for Diagram 5:

- The roundabout on Maraekakaho Road is a corner of the 2000 ft CTA.
- The north-east boundary of the golf course, which is immediately north of NZHS, generally lies along the boundary between the 2000 ft and 2500 ft CTAs, which means the golf course and NZHS are under the 2500 ft CTA.

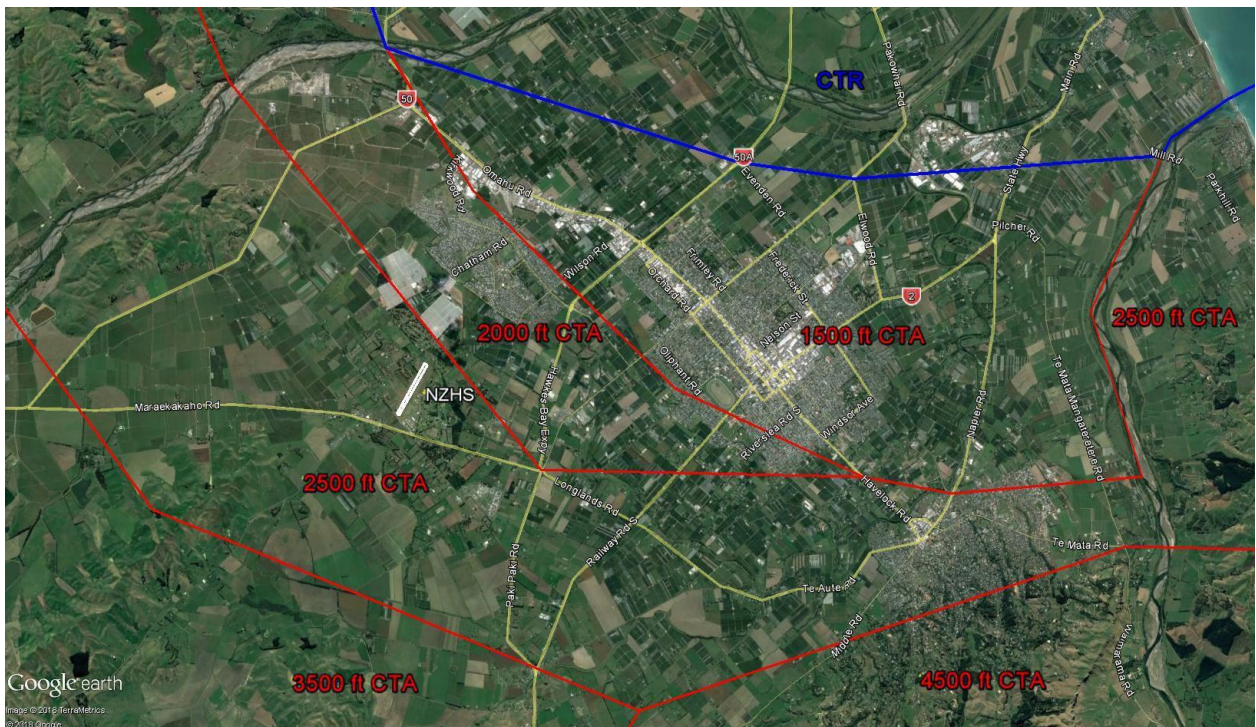


Diagram 5 - NR CTA south of Napier

6. Draft NR CTA – VOR/DME RWY 34 Approach

The 1500 ft CTA needs to contain the 2.5 NM buffer from the VOR/DME RWY 34 teardrop approach from the point where the profile descends through 2500 ft. Diagrams 6 and 7 below depict that situation for the Cat A/B approach and the Cat C approach.

Airspace containment of the approaches is based on a continuous 300 ft per NM descent profile, including around the base turn, measured from/to the runway threshold.

Diagram 6 and Diagram 7 below show that the 1500 ft CTA boundary cannot be moved any further northeast away from NZHS.

The 1500 ft and 2000 ft CTA boundaries also need to contain the 2.5 NM buffer from the arc approach below 3000 ft as shown on Diagrams 8 and 9 below.

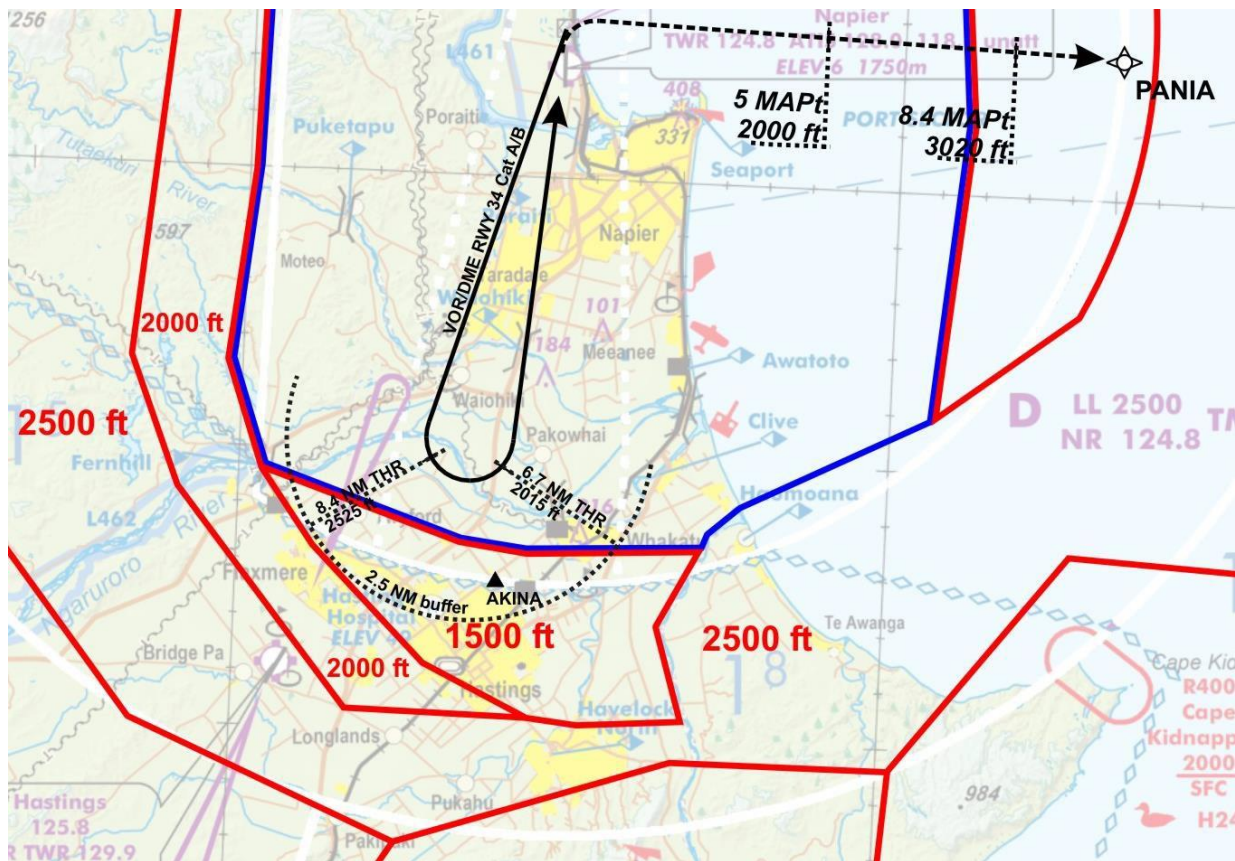


Diagram 6 - the 1500 ft CTA needs to contain the 2.5 NM buffer for the VOR/DME teardrop approach to RWY 34 Cat A/B from the point where the profile descends through 2500 ft.

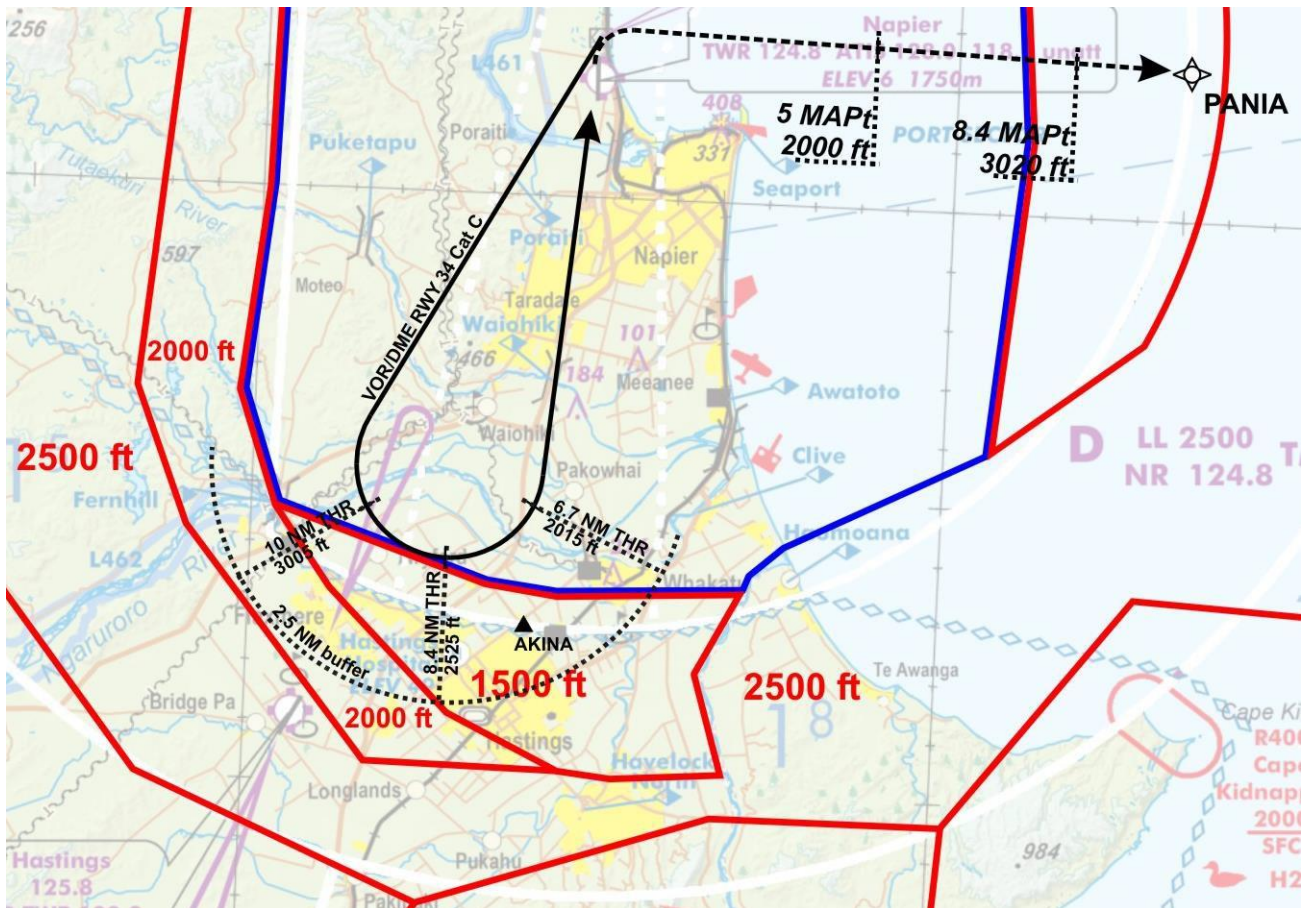


Diagram 7 - The 1500 ft CTA also needs to contain the 2.5 NM buffer for the VOR/DME teardrop approach to RWY 34 Cat C from the point where the profile descends through 2500 ft; also shows the 2000 ft CTA is containing the 2.5 NM buffer of the approach.

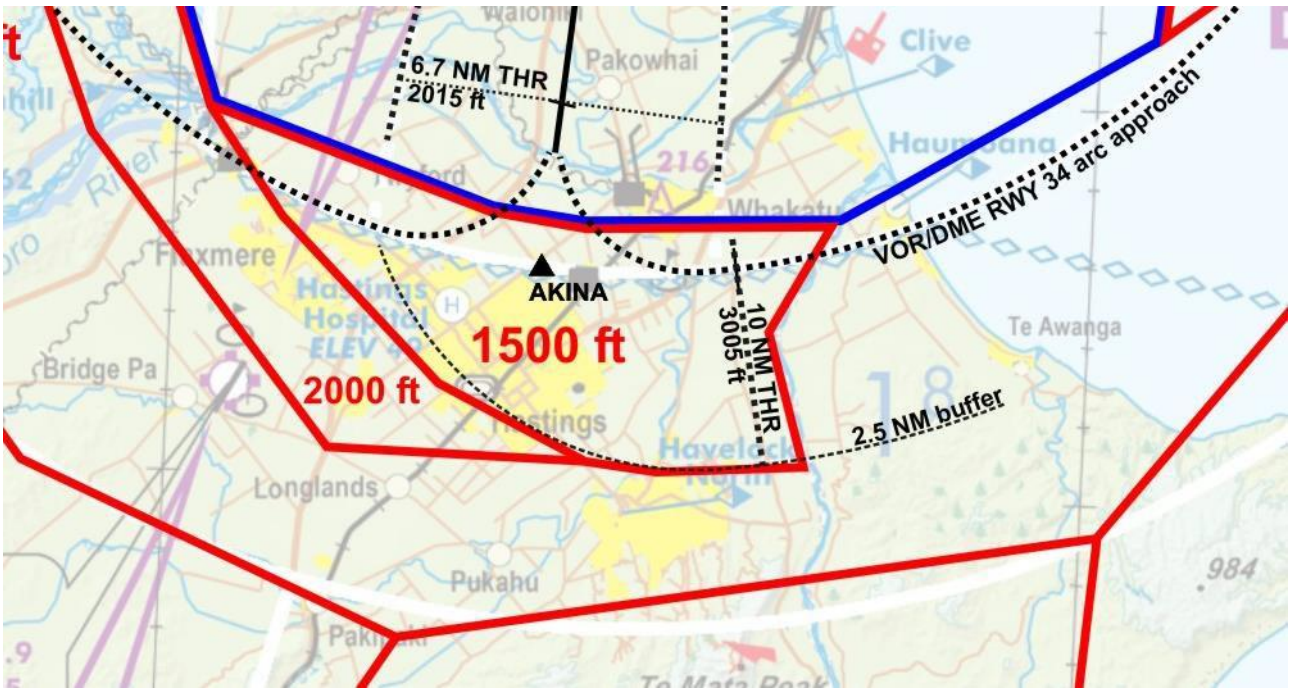


Diagram 8 - the 1500 ft CTA contains the arc approach below 3000 ft

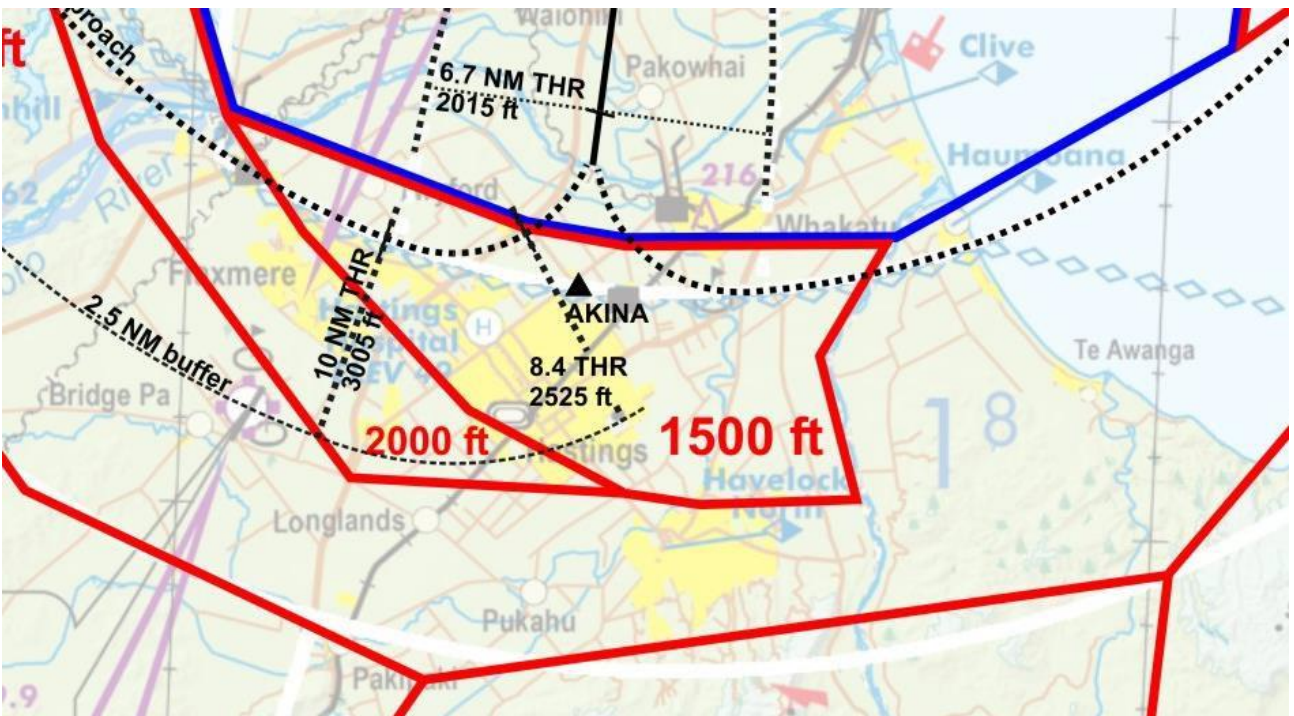


Diagram 9 - the 2000 ft and 1500 ft CTA contains the arc approach below 3000 ft

7. Draft NR CTR and CTA to the east and south

The planned new PBN RNAV RWY 34 departure to the south determines the CTR eastern boundary and influences the location of the 4500 ft and 5500 ft CTAs to the south.

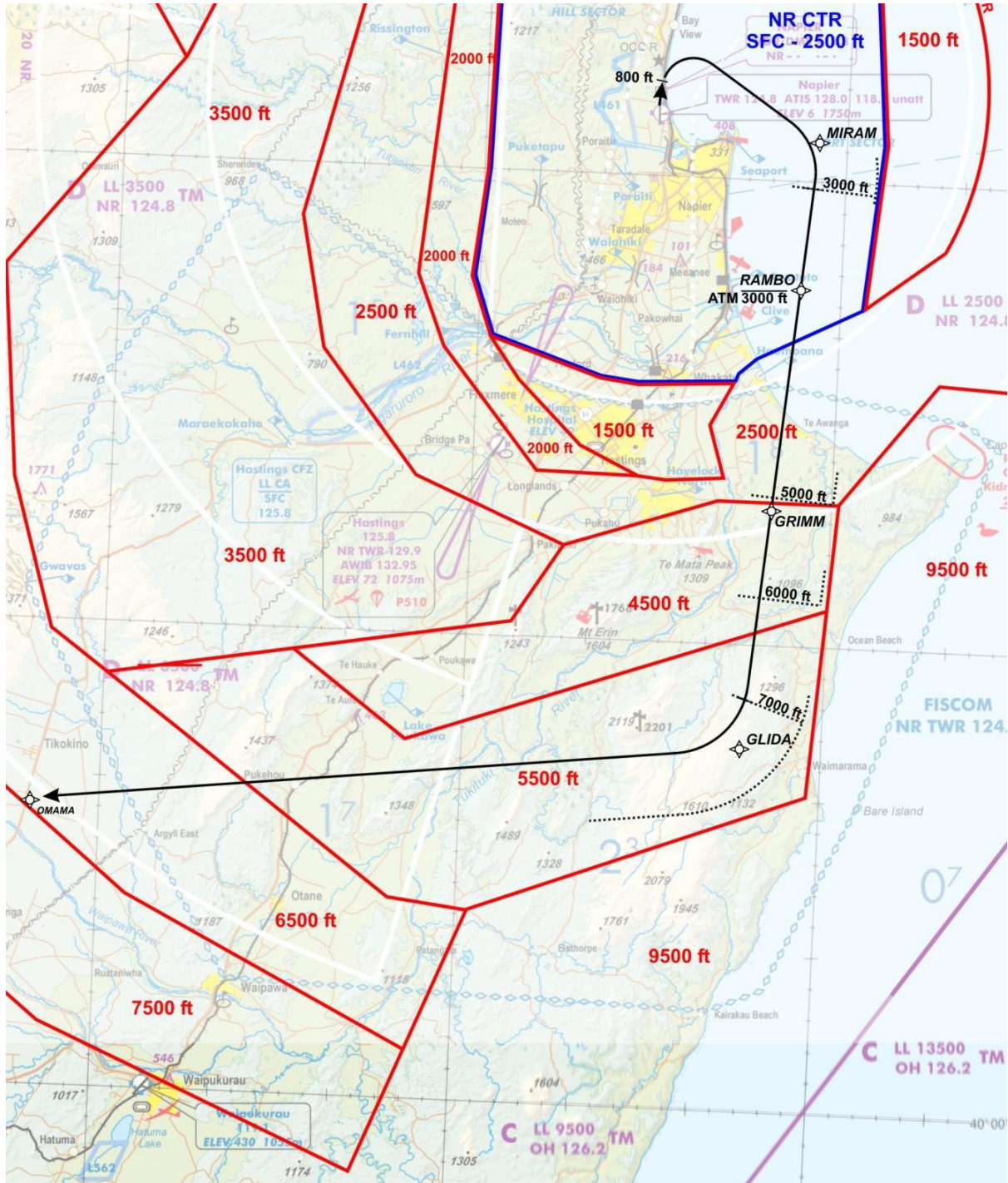


Diagram 10 - the draft CTA contains the planned new PBN departures to the south off RWY 34.

8. Draft NR CTR and CTA to the south-west

The planned new PBN RNAV RWY 16 departures require the CTR to be expanded westward slightly and influences the location of the CTA steps to the south-west as shown on Diagram 11 below.

Except where otherwise specified, a departure climb profile of 300 ft per NM measured from the upwind threshold is used for airspace containment design. A 2 NM buffer is applied for RNAV departures, and a 5 NM buffer is applied for conventional IFR routes.

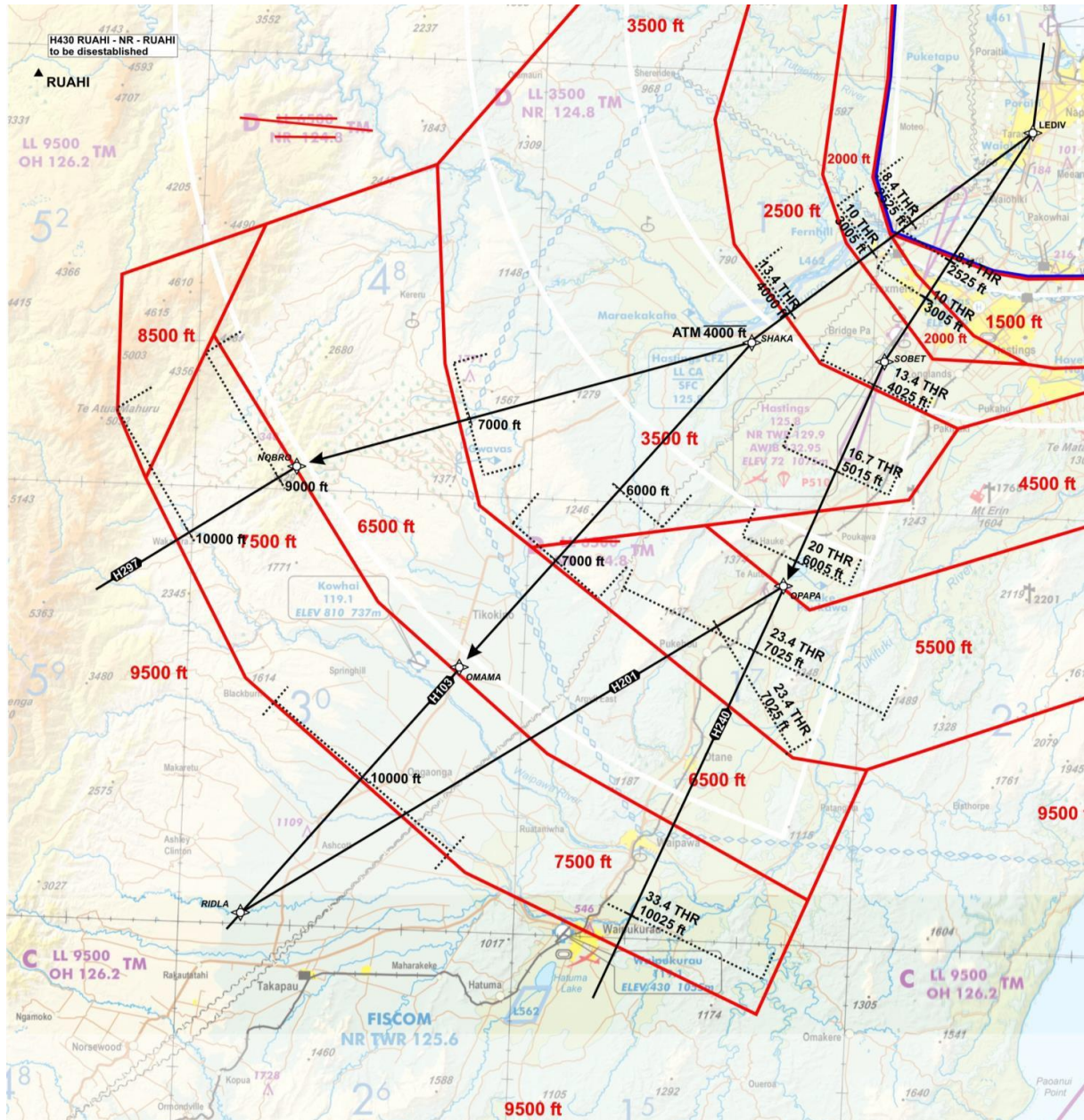


Diagram 11 - a portion of the draft NR CTA to the south-west with the planned new PBN RNAV departures to the south.

The existing RWY 16 MIKE 3 departure to OPAPA – RIDLA influences the CTA design as shown on Diagram 12 below.

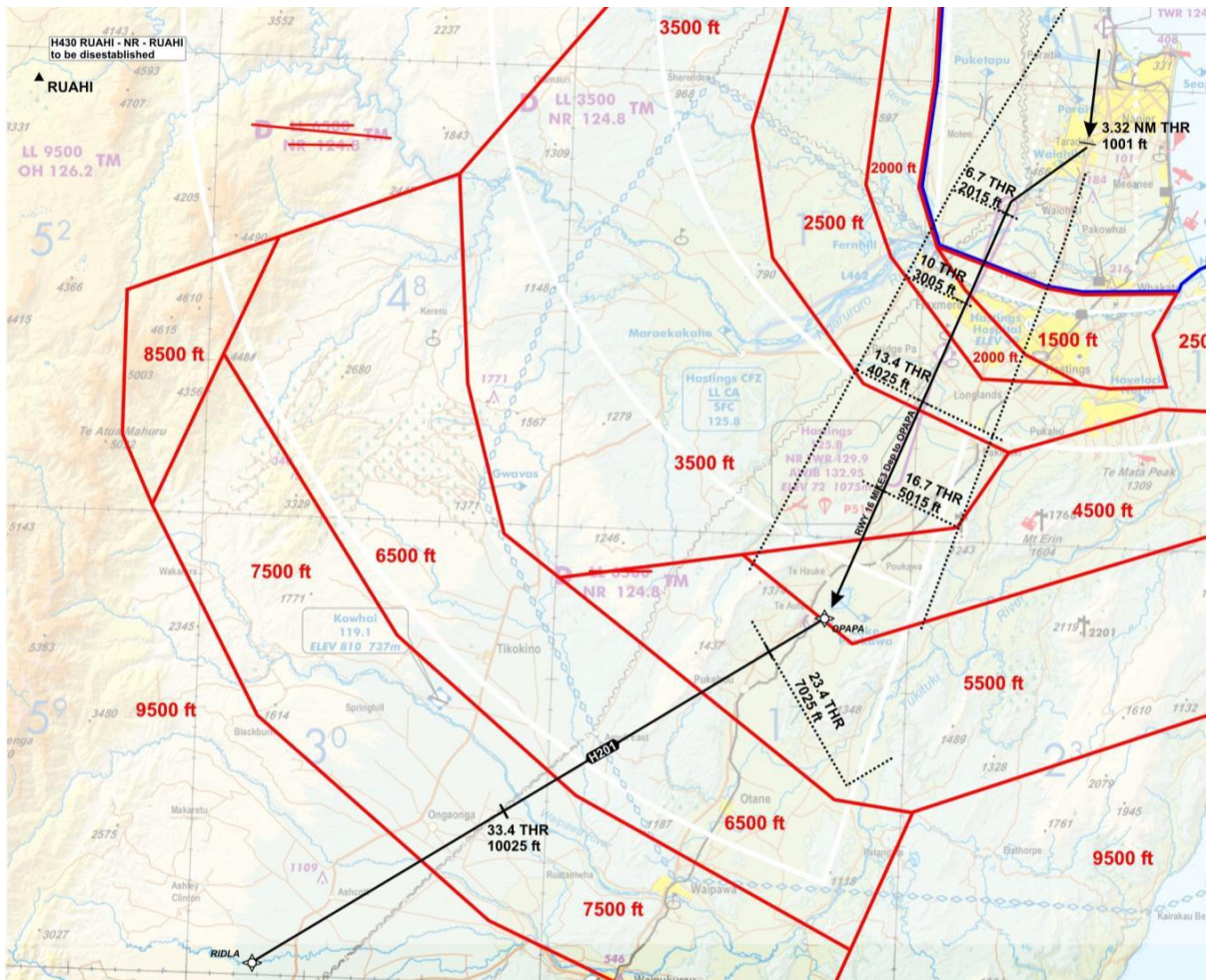


Diagram 12 - a portion of the draft NR CTA to the south-west with the RWY 16 Mike 3 departure to OPAPA-RIDLA

The CTA needs to be expanded westward to correctly contain the RWY 16 MIKE 3 departure to NOSAM. A small 8500 ft CTA block is used to minimise the extra CTA over the Ruahine Ranges.

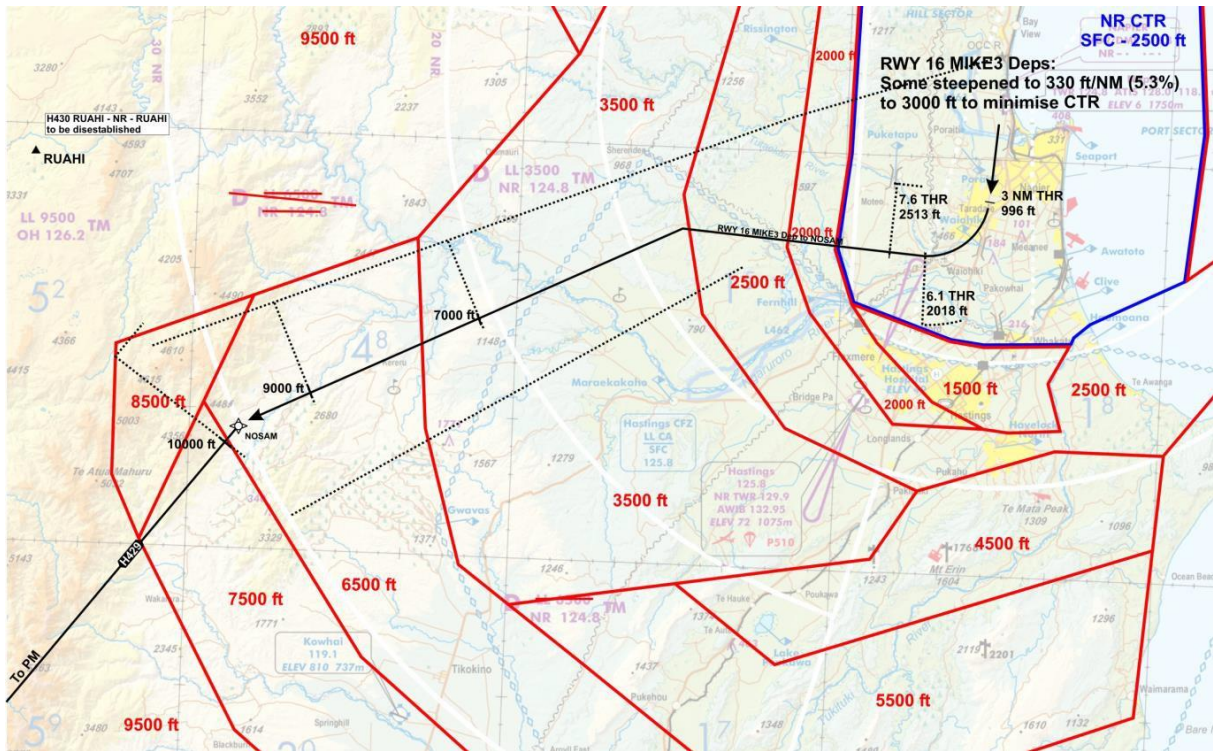


Diagram 13 - the draft NR CTA to the south-west with the RWY 16 MIKE 3 departure to NOSAM.

9. Draft CTA to the north and west

The protection areas for the planned new PBN RNAV holding patterns at HILLS and GAGES influences the extent of the 3500 ft CTA and 5500 ft CTA as depicted on Diagram 14 below. HILLS holding pattern will be contained 6000 ft and above. GAGES holding pattern contained 4000 ft and above.

The IFR route H430 RUAHI-NR-RUAHI will be disestablished. This reduces the need for CTA to the west of NR.

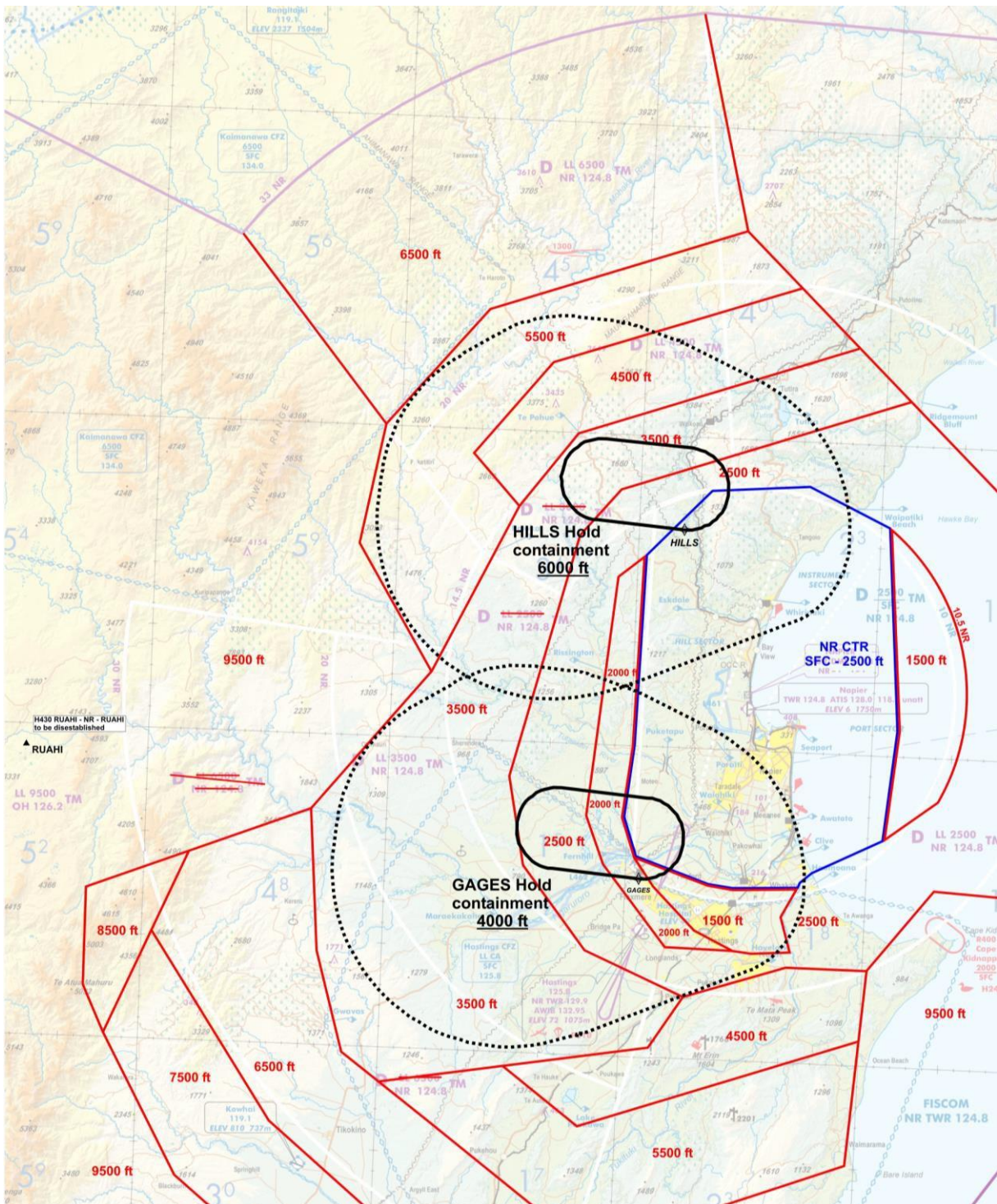


Diagram 14 - The draft NR CTA to the west; the new RNAV holds at HILLS and GAGES with their protection areas (the black dotted line) are depicted.

The PBN RNAV GENDA arrival to RWY 16 and RWY 34 and 16 departures to the north determine the CTA boundaries to the north.

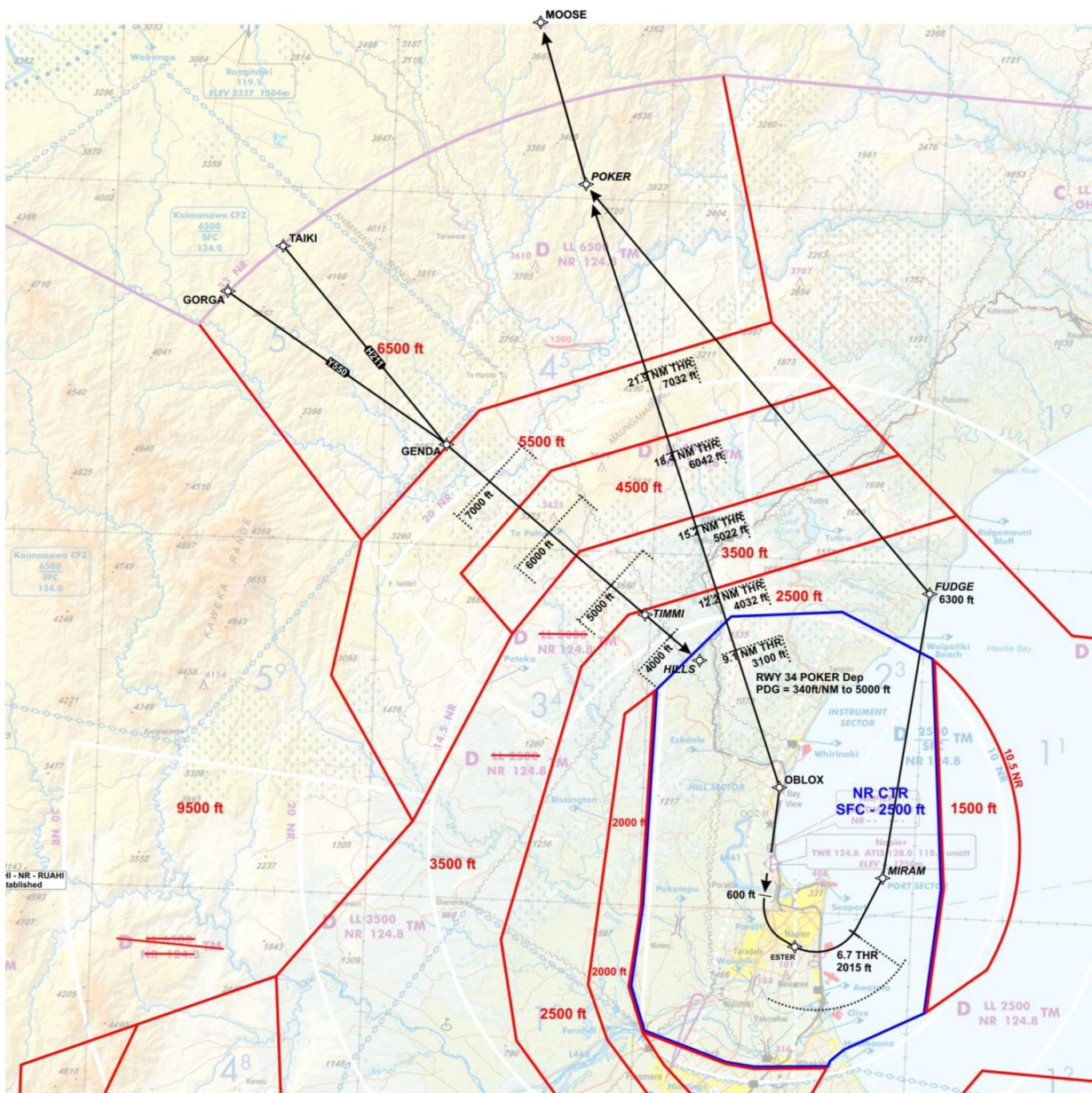


Diagram 15 - the draft NR CTA to the north.
 The new RNAV GENDA arrival, RWY 34 north departure and RWY 16 north departure are depicted.

10. Draft NR CTA to the east

The 2500 ft CTA to the east contains the PANIA holding pattern as shown in Diagram 16 below.

IFR waypoint DOMON on H467 is at least 4.1 NM away from the 2500 ft CTA boundary. IFR flights holding at DOMON below 9500 ft should be able to remain outside controlled airspace.

IFR waypoint BEVER on H386 is 0.9 NM north of the 2500 ft CTA boundary. We are unsure if IFR flights holding at BEVER below 9500 ft will be able to remain outside controlled airspace, particularly when navigation tolerance for the route and waypoint is considered.

The airspace is not designed to contain IFR routes from NR to the east, such as H467 to GOTNO and Q712 via NONAT to the Chatham Islands. These routes are almost exclusively used by aircraft intending to operate below 9500 ft (or FL245 to the Chatham Islands) outside controlled airspace. The route to the Chatham Islands is also rarely flown these days.

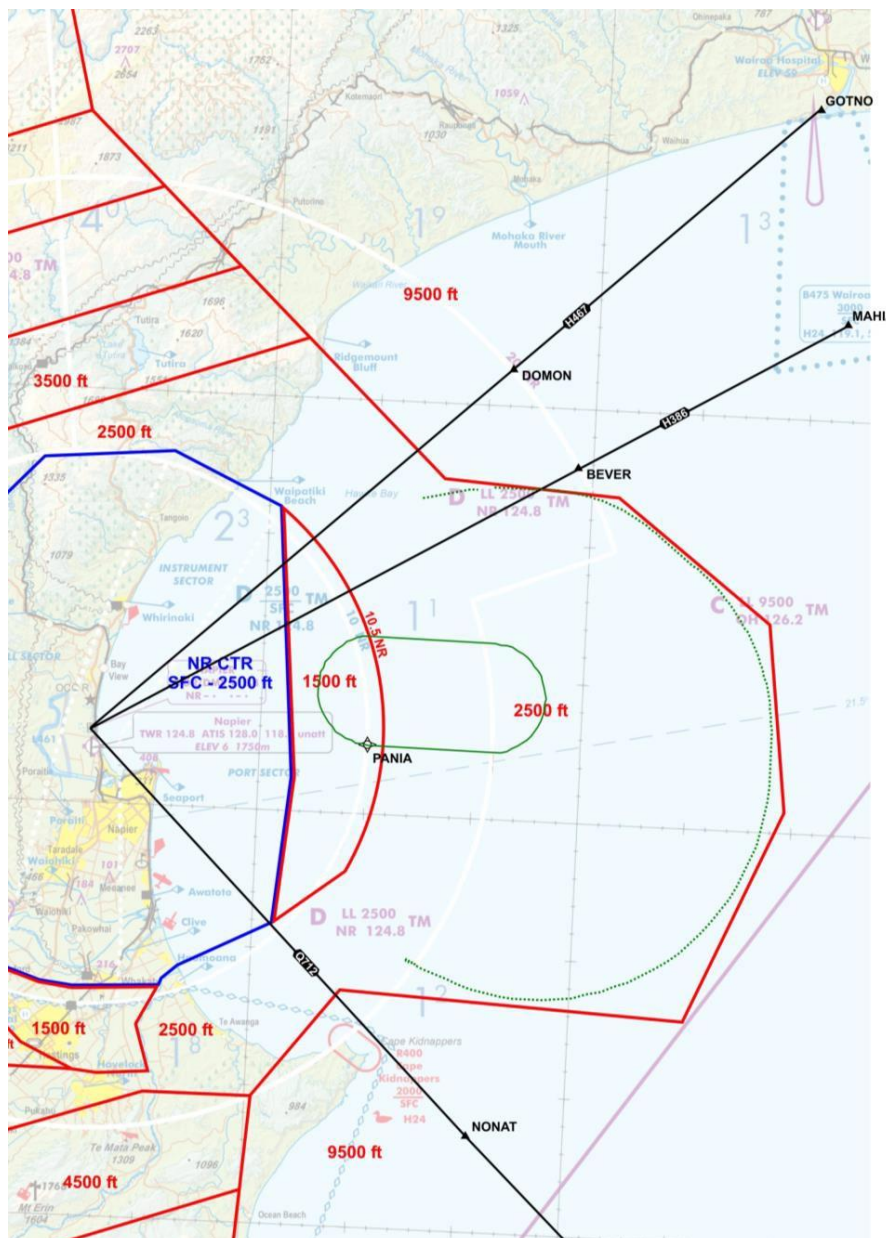


Diagram 16 - the draft NR 2500 ft CTA to the east is needed to contain the PANIA hold.

11. Possible simplified NR CTA

The draft NR CTA to the south of Napier includes a 5500 ft CTA step and a 7500 ft CTA step. These were added to the Airways requested draft in response to the feedback received from the hang gliding/paragliding operators.

The current CTA layout allows their operations from the Burma Road site to be up to 6500 ft to the south. To contain the new PBN procedures and to correctly contain existing procedures, the CTA needs to be lowered in this area. The extra 5500 ft CTA step reduces the impact of the requested lowered airspace on their operations from Burma Road.

The operators also advised that some of their operations extend south to the Waipawa/Waipukurau area where the current CTA is LL 9500 ft. The lowered CTA is needed in this area, but to reduce the impact on operations, the 7500 ft CTA was added to the Version 5 draft design.

The addition of the 5500 ft and 7500 ft CTA steps adds some complexity to the draft airspace layout – as does the smaller 8500 ft CTA step over the Ranges. However, the layout/design is no worse than the CTA steps to the north of Napier.

If CAA and/or interested parties wanted to reduce complexity to the south, the removal of the 5500 ft, 7500 ft and/or 8500 ft CTAs would not impact on the airspace needed to contain the IFR procedures. The airspace would look as shown in Diagram 17 below. Airways would agree to those changes if that is what is determined to be the required outcome.

Simplification of the CTA steps to the north of Napier is not possible due to the rising terrain and the requirement that the lower limit of CTA is at least 700 ft above terrain.



Diagram 17 - possible simplified CTA to the south of Napier without the 5500 ft, 7500 ft and 8500 ft CTA steps.

12. Containment of IFR procedures NR CTR and CTA (Version 5)

1. The draft NR CTR and CTA (Version 5) is designed to contain the following NR instrument flight procedures:
 - a. NAPIER TWO DELTA arrival
 - b. NAPIER TWO ALFA arrival
 - c. VOR/DME RWY 16 approach but AROPA hold disestablished
 - d. VOR/DME RWY 34 approach but AKINA hold disestablished
 - e. Approach Cat A, B and C circling area (west of 16/34)
 - f. NR VOR overhead holds at 4000 ft and above
 - g. 16 MIKE THREE departure but with steepened initial gradient
 - h. 34 MIKE THREE departure but with steepened initial gradient
 - i. 34 NOVEMBER THREE departure to OPAPA, RIDLA, APITI, NOSAM but may require slightly steepened gradient
 - j. New RNAV (GNSS) STARs to RWY 16 and 34
 - k. New RNAV (GNSS) approach RWY 16
 - l. New RNAV (GNSS) approach RWY 34
 - m. New RNAV (GNSS) departures from RWY 16 and 34

2. The following NR instrument flight procedures are not fully contained by the CTR and CTA:
 - a. VOR RWY 34 (non DME) approach - containment not assured
 - b. 16 NOVEMBER THREE departure to NONAT, BEVER, DOMON – containment only as far as the 2500 ft CTA boundary as explained earlier.
 - c. 34 NOVEMBER THREE departure to NONAT, BEVER, DOMON – containment only as far as the 2500 ft CTA boundary as explained earlier.
 - d. Evaluated Climb Sector (R005-R200) – containment varies depending on radial.

3. The following existing NR instrument flight procedures will be disestablished:
 - a. H430 route RUAHI – NR - RUAHI
 - b. OPAPA ONE CHARLIE arrival
 - c. NAPIER TWO CHARLIE arrival
 - d. NAPIER TWO BRAVO arrival
 - e. RNAV (GNSS) Arrivals RWY 16
 - f. RNAV (GNSS) Arrivals RWY 34
 - g. RNAV (GNSS) RWY 16 approach
 - h. RNAV (GNSS) RWY 34 approach
 - i. 16 LIMA THREE departure
 - j. 34 LIMA THREE departure
 - k. RNAV (GNSS) LEDIV TWO departure
 - l. RNAV (GNSS) OBLOX TWO departure
 - m. AKINA and AROPA holds

13. Draft NR CTR and CTA (Version 5) Definitions

NR CTR

All that airspace bounded by a straight line from:

S39° 18' 56.33" E177° 00' 35.60" to;
S39° 28' 36.79" E177° 01' 34.02" to;
S39° 34' 02.34" E177° 00' 59.31" to;
S39° 35' 45.84" E176° 56' 38.63" Northern bank Tukituki River Mouth to;
S39° 36' 09.09" E176° 55' 52.89" Northern bank Tukituki River to;
S39° 36' 20.39" E176° 55' 46.35" Western end Mill Rd bridge
over Tukituki River to; S39° 36' 34.55" E176° 51' 44.83"
Intersection Pakowhai Rd-Elwood Rd to;
S39° 36' 24.63" E176° 50' 14.51" Roundabout intersection Napier Hastings Express
Way-Evenden Rd to; S39° 35' 16.01" E176° 45' 40.03" SH bridge over Ngaruroro
River to;
S39° 33' 20.90" E176° 44' 48.90" to;
S39° 29' 56.36" E176° 45' 13.19" to;
S39° 20' 43.94" E176° 45' 35.32" to;
S39° 17' 26.78" E176° 49' 24.29" to;
S39° 17' 01.90" E176° 55' 25.36" to;
S39° 18' 56.33" E177° 00' 35.60"

Vertical limits: SFC to 2500 ft

Classification: Class D

ATC Authority: NR Tower 124.8

NR CTA 1500 ft East of the coast

All that airspace bounded by the arc of a circle of 10.5 NM radius centred on

S39° 27' 14" E176° 52' 08" NR VOR/DME from;
S39° 18' 56.33" E177° 00' 35.60" clockwise to;
S39° 32' 02.18" E177° 04' 12.85" then a straight line from;
S39° 32' 02.18" E177° 04' 12.85" to;
S39° 34' 02.34" E177° 00' 59.31" to;
S39° 28' 36.79" E177° 01' 34.02" to;
S39° 18' 56.33" E177° 00' 35.60"

Vertical limits:

1500 ft to 2500 ft

Classification:

Class D

ATC Authority: NR Tower 124.8

NR CTA 1500 ft South of NR

All that airspace bounded by a straight line from;
S39° 36' 20.39" E176° 55' 46.35" Western end Mill Rd bridge
over Tukituki River to; S39° 37' 54.13" E176° 54' 50.29" to;
S39° 39' 33.77" E176° 55' 30.51" to;
S39° 39' 44.07" E176° 53' 02.08" Intersection Crosses Road-Napier Road to;
S39° 39' 34.04" E176° 51' 52.40" Roundabout intersection St.Georges Rd-Havelock Rd to;
S39° 38' 40.80" E176° 49' 25.24" to;
S39° 36' 41.73" E176° 46' 47.61" factory buildings on Omahu Road to;
S39° 35' 16.01" E176° 45' 40.03" SH bridge over Ngaruroro River to;
S39° 36' 24.63" E176° 50' 14.51" Roundabout intersection Napier Hastings Express
Way-Evenden Rd to; S39° 36' 34.55" E176° 51' 44.83" Intersection Pakpwhai Rd-
Elwood Rd to;
S39° 36' 21.82" E176° 55' 51.57" Mill Rd bridge over Tukituki River

Vertical limits: 1500 ft to 2500 ft
Classification: Class D
ATC Authority: NR Tower 124.8

NR CTA 2000 ft

All that airspace bounded by a straight line from;
S39° 20' 43.94" E176° 45' 35.32" to;
S39° 29' 56.36" E176° 45' 13.19" to;
S39° 33' 20.90" E176° 44' 48.90" to;
S39° 35' 16.01" E176° 45' 40.03" SH bridge over Ngaruroro River to;
S39° 36' 41.73" E176° 46' 47.61" factory buildings on Omahu Road to;
S39° 38' 40.80" E176° 49' 25.24" to;
S39° 39' 34.04" E176° 51' 52.40" Roundabout intersection St.Georges Rd-Havelock Rd to;
S39° 39' 29.90" E176° 47' 40.62" Roundabout intersection Maraekakaho Rd-Paki Paki Rd to;
S39° 35' 36.22" E176° 43' 37.74" to;
S39° 33' 16.28" E176° 42' 23.00" to;
S39° 21' 47.84" E176° 43' 49.76" to;
S39° 20' 43.94" E176° 45' 35.32"

Vertical limits: 2000 ft to 2500 ft
Classification: Class D
ATC Authority: NR Tower 124.8

NR CTA 2500 ft

All that airspace bounded by a straight line from;

S39° 22' 24.22" E177° 23' 32.05" to;
S39° 29' 07.49" E177° 24' 43.10" to;
S39° 36' 58.97" E177° 20' 18.29" to;
S39° 36' 12.82" E177° 04' 18.92" to;
S39° 40' 19.55" E177° 00' 15.03" to;
S39° 40' 15.84" E176° 55' 16.45" Intersection Te Mata Rd-Waimarama Rd-River Rd to;
S39° 41' 54.99" E176° 48' 57.61" to;
S39° 39' 53.33" E176° 42' 37.95" to;
S39° 35' 51.59" E176° 38' 47.28" to;
S39° 31' 36.73" E176° 37' 37.25" to;
S39° 19' 54.68" E176° 41' 22.34" to;
S39° 17' 36.25" E176° 43' 53.89" to;
S39° 12' 44.20" E177° 01' 35.73" to;
S39° 17' 42.87" E177° 08' 05.25" to;
S39° 18' 02.31" E177° 16' 09.16" to;
S39° 22' 24.22" E177° 23' 32.05"

Vertical limits: 2500 ft to 9500 ft

Classification: Class D

ATC Authority: NR Tower 124.8

NR CTA 3500 ft

All that airspace bounded by a straight line from;

S39° 10' 14.98" E176° 58' 05.66" to;
S39° 12' 44.20" E177° 01' 35.73" to;
S39° 17' 36.25" E176° 43' 53.89" to;
S39° 19' 54.68" E176° 41' 22.34" to;
S39° 31' 36.73" E176° 37' 37.25" to;
S39° 35' 51.59" E176° 38' 47.28" to;
S39° 39' 53.33" E176° 42' 37.95" to;
S39° 41' 54.99" E176° 48' 57.61" to;
S39° 44' 28.49" E176° 46' 55.68" to;
S39° 45' 36.59" E176° 37' 56.21" to;
S39° 46' 34.96" E176° 30' 12.63" to;
S39° 45' 09.17" E176° 27' 42.86" to;
S39° 40' 20.59" E176° 25' 59.25" to;
S39° 33' 29.19" E176° 25' 16.15" to;
S39° 26' 45.07" E176° 32' 26.57" to;
S39° 18' 31.64" E176° 37' 28.29" to;
S39° 15' 00.7" E176° 40' 56.7" Te Pohue VRP to;
S39° 10' 14.98" E176° 58' 05.66"

Vertical limits:

3500 ft to 9500

ft Classification:

Class D

ATC Authority: NR Tower 124.8

NR CTA 4500 ft north of NR

All that airspace bounded by a straight line from;
S39° 07' 29.97" E176° 54' 27.50" to;
S39° 10' 14.98" E176° 58' 05.66" to;
S39° 15' 00.7" E176° 40' 56.7" Te Pohue VRP to;
S39° 18' 31.64" E176° 37' 28.29" to;
S39° 16' 05.48" E176° 34' 34.15" to;
S39° 11' 35.18" E176° 39' 13.05" to;
S39° 07' 29.97" E176° 54' 27.50"

Vertical limits: 4500 ft to 9500 ft
Classification: Class D
ATC Authority: NR Tower 124.8

NR CTA 4500 ft south of NR

All that airspace bounded by a straight line from;
S39° 40' 19.55" E177° 00' 15.03" to;
S39° 43' 43.01" E176° 59' 57.56" to;
S39° 48' 21.45" E176° 42' 44.78" to;
S39° 45' 36.59" E176° 37' 56.21" to;
S39° 44' 28.49" E176° 46' 55.68" to;
S39° 41' 54.99" E176° 48' 57.61" to;
S39° 40' 15.84" E176° 55' 16.45" Intersection Te Mata Rd-Waimarama Rd-River Rd to;
S39° 40' 19.55" E177° 00' 15.03"

Vertical limits: 4500 ft to 9500 ft
Classification: Class D
ATC Authority: NR Tower 124.8

NR CTA 5500 ft north of NR

All that airspace bounded by a straight line from;
S39° 04' 51.70" E176° 50' 57.38" to;
S39° 07' 29.97" E176° 54' 27.50" to;
S39° 11' 35.18" E176° 39' 13.05" to;
S39° 16' 05.48" E176° 34' 34.15" to;
S39° 18' 31.64" E176° 37' 28.29" to;
S39° 26' 45.07" E176° 32' 26.57" to;
S39° 20' 38.69" E176° 27' 50.75" to;
S39° 14' 53.21" E176° 29' 06.16" to;
S39° 09' 07.29" E176° 35' 06.99" to;
S39° 04' 51.70" E176° 50' 57.38"

Vertical limits:
5500 ft to 9500
ft Classification:
Class D
ATC Authority: NR Tower 124.8

NR CTA 5500 ft south of NR

All that airspace
bounded by a straight
line from; S39° 43'
43.01" E176° 59' 57.56"
to;
S39° 49' 50.35" E176° 59' 23.36" to;
S39° 53' 49.22" E176° 45' 23.77" to;
S39° 53' 29.35" E176° 42' 16.38" to;
S39° 46' 34.96" E176° 30' 12.63" to;
S39° 45' 36.59" E176° 37' 56.21" to;
S39° 48' 21.45" E176° 42' 44.78" to;
S39° 43' 43.01" E176° 59' 57.56"

Vertical limits: 5500 ft to 9500 ft
Classification: Class D
ATC Authority: NR Tower 124.8

NR CTA 6500 ft north of NR

All that airspace bounded by a straight line from;
S38° 54' 22.7" E176° 47' 43.0" existing NZA443 seq 1 point to;
S39° 04' 51.70" E176° 50' 57.38" to;
S39° 09' 07.29" E176° 35' 06.99" to;
S39° 14' 53.21" E176° 29' 06.16" to;
S39° 05' 55.3" E176° 19' 39.8" existing NZA443 seq 4 point then;
the arc of a circle of 33 NM radius centred on S39° 27' 14" E176° 52'
08" NR VOR/DME from; S39° 05' 55.3" E176° 19' 39.8" clockwise to;
S38° 54' 22.7" E176° 47' 43.0" existing NZA443 seq 1 point

Vertical limits: 6500 ft to 9500 ft
Classification: Class D
ATC Authority: NR Tower 124.8

NR CTA 6500 ft south of NR

All that airspace
bounded by a straight
line from; S39° 53'
49.22" E176° 45' 23.77"
to;
S39° 58' 19.64" E176° 43' 04.27" to;
S39° 53' 41.83" E176° 31' 09.29" to;
S39° 48' 45.11" E176° 23' 27.16" to;
S39° 39' 46.39" E176° 15' 37.30" to;
S39° 35' 48.86" E176° 17' 48.00" to;
S39° 33' 29.19" E176° 25' 16.15" to;
S39° 40' 20.59" E176° 25' 59.25" to;
S39° 45' 09.17" E176° 27' 42.86" to;
S39° 46' 34.96" E176° 30' 12.63" to;

S39° 53' 29.35" E176° 42' 16.38" to;
S39° 53' 49.22" E176° 45' 23.77"

Vertical limits: 6500 ft to 9500 ft
Classification: Class D
ATC Authority: NR Tower 124.8

NR CTA 7500 ft

All that airspace bounded by a straight line from;
S39° 58' 19.64" E176° 43' 04.27" to;
S40° 02' 16.57" E176° 40' 56.52" to;
S39° 57' 55.13" E176° 27' 45.19" to;
S39° 51' 22.97" E176° 17' 31.30" to;
S39° 44' 47.73" E176° 12' 51.35" to;
S39° 39' 46.39" E176° 15' 37.30" to;
S39° 48' 45.11" E176° 23' 27.16" to;
S39° 53' 41.83" E176° 31' 09.29" to;
S39° 58' 19.64" E176° 43' 04.27"

Vertical limits: 7500 ft to 9500 ft
Classification: Class D
ATC Authority: NR Tower 124.8

NR CTA 8500 ft

All that airspace bounded by a straight line from;
S39° 35' 48.86" E176° 17' 48.00" to;
S39° 39' 46.39" E176° 15' 37.30" to;
S39° 44' 47.73" E176° 12' 51.35" to;
S39° 42' 23.02" E176° 11' 27.36" to;
S39° 37' 48.98" E176° 11' 23.07" to;
S39° 35' 48.86" E176° 17' 48.00" to;

Vertical limits: 8500 ft to 9500 ft
Classification: Class D
ATC Authority: NR Tower 124.8