Proposed amendments to Auckland controlled airspace

Airspace users consultation

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Introduction

Airways Corporation of New Zealand (Airways) have submitted a petition to CAA to amend controlled airspace west of Auckland in the Auckland terminal control area between 25 and 55 NM from Auckland Airport. This airspace is over the Tasman Sea.

The reason stated for the changes is to accommodate the descent profiles of international jet aircraft arriving at Auckland from the west. At present the descent of many IFR aircraft inbound to Auckland is interrupted to remain within controlled airspace. This does affect many jet aircraft types, but it is more prevalent for A320 on the trans-Tasman routes.

For aerodynamic efficiency, modern aircraft design has resulted in a flatter descent profile than earlier model jet aircraft. Airlines are also descending at slower speeds to save fuel. A slower descent speed is closer to the optimum lift/drag speed which translates to a flatter descent profile.

Additionally, the prevailing westerly upper winds exacerbate the problem with a tailwind resulting in a flatter descent profile.

Airways advise that:

Modern aircraft descent profiles are frequently not contained within controlled airspace between approximately 50 and 25 NM from AA. Airbus aircraft are frequently levelling off at 10000ft and or 7000ft and 5000ft for airspace containment when inbound off the Tasman for NZAA RWY05R. The weather conditions in AA that dictate the use of RWY05 generally means that a low pressure system is to the NW of NZ so aircraft frequently deviate off the STAR for weather avoidance in the Tasman. Without a STAR profile for guidance aircraft have significant periods in level flight at or below 10000ft when using radar terrain to keep them in controlled airspace.

The proposed changes would be effective on 12 November 2015 in alignment with the visual navigation chart update.

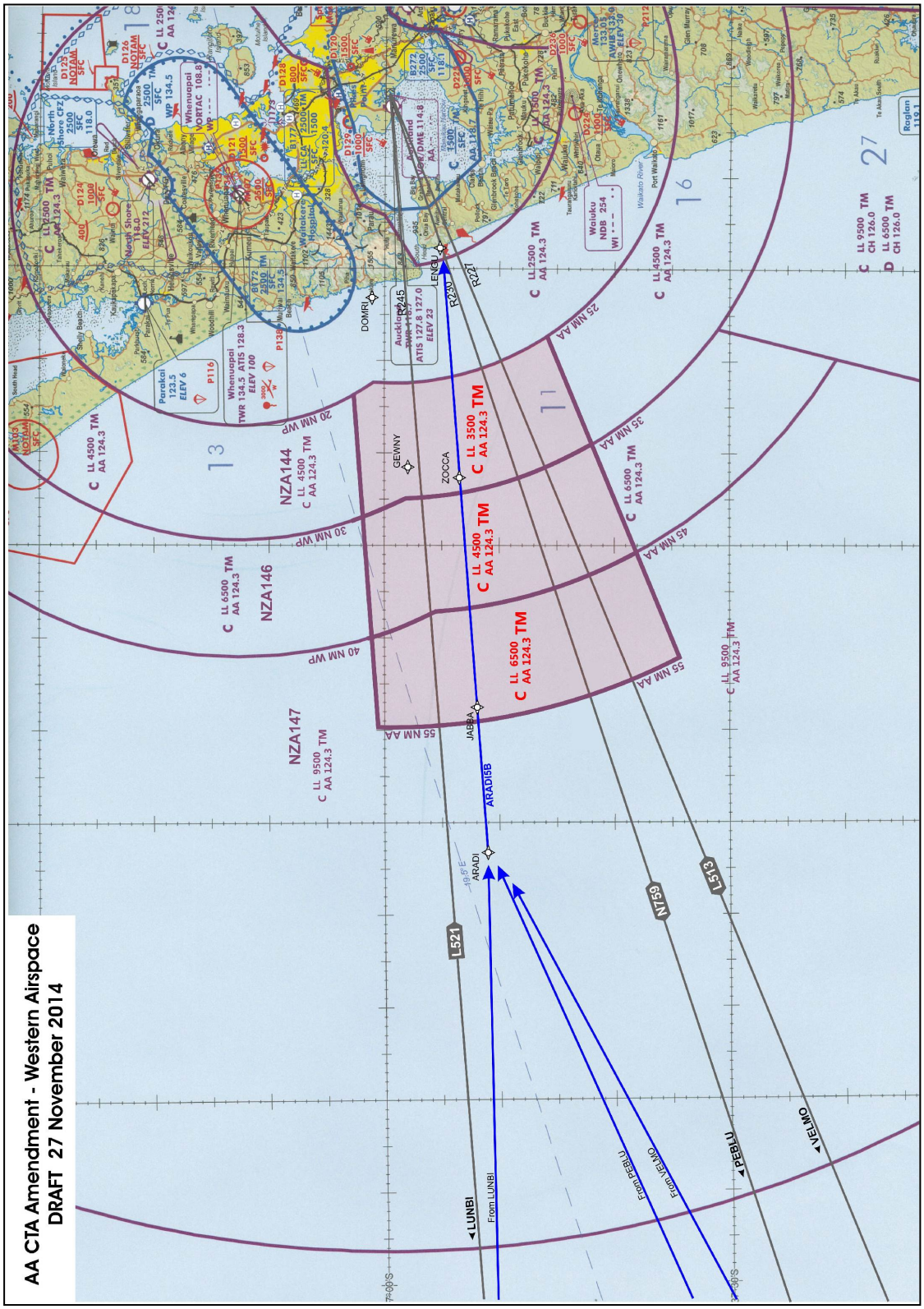
Proposed changes

The proposed new CTA steps will allow improved descent profile for aircraft inbound to NZAA and allow uninterrupted descent on the following instrument flight procedures with a minimum 5 NM lateral buffer:

- L521
- N759
- L513
- LUNBI direct to LENGU
- PEBLU direct to LENGU
- VELMO direct to LENGU

· ARADI5B STAR

The proposed changes are as per the shaded areas in the diagram below (lower limits in red):



Possible effects to non-airline operations

Airways considered the likely effect the proposed airspace would have on general aviation.

The closest point of the lowered airspace is 9 NM seaward of the coast where it is very rare for VFR aircraft to be operating. The change in the lower level of controlled airspace is 1000 ft from 4500 ft to 3500 ft AMSL.

Those that are operating are either low level on fish-spotting operations or have contact Auckland ATC to obtain a clearance through the Auckland CTA.

The expected effect on general aviation operations would be minimal.

Consultation undertaken by Airways

Airways have consulted with Air New Zealand and the Royal New Zealand Air Force.

Air New Zealand support the proposed changes for the reasons stated in section 1 above. They advise that the introduction of the B787 will also increase the problem as this type is designed to utilise the benefits of continuous descent operations:

"*…a small amount of thrust on to ensure the aircraft descends at a constant speed. The thrust is used to stay at the programmed descent speed when the actual descent winds vary from the forecast winds*."

The RNZAF did not respond, but it is Airways understanding that the amendments will not affect RNZAF operations.

Summary

The proposed changes are intended to enable continuous descent profiles without the need for levelling off with consequent increase in power settings as well as allowing more direct routing while remaining within controlled airspace. This would result in better aircraft efficiencies by reducing fuel burn. It would also reduce the workload in the cockpit at the critical arrival phase and lessen the ATC workload of monitoring of the aircraft's profile and descent instructions.

Consultation list

Electronic notification of the consultation will be sent to subscribers to the CAA email Notification Service for Airspace Notifications Areas NZ1, NZ2 and NZ3.

Submissions

Prior to making a designation or classification of airspace, Civil Aviation Rule 71.9 requires the Director to consult with all parties that may be affected within the aviation industry.

This document forms part of the consultation process. Submissions are sought from any interested person, organisation or representative group to provide further information relevant to this proposal.

Submissions are accepted either electronically or via mail.

Please address submissions to:

Group Executive Officer
Aviation Infrastructure and Personnel
Civil Aviation Authority of New Zealand
PO Box 3555
Wellington 6140

Fax: 04 569 2024

Email: dianne.parker@caa.govt.nz

Reference – Auckland control areas proposed amendment.

Closing date for submissions is Thursday 18 March 2015.

Further information

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