International Civil Aviation Organization

Seventh Meeting of CNS/MET Sub-Group of APANPIRG and Tenth Meeting of CNS/ATM IC Sub-Group of APANPIRG

Bangkok, Thailand, 15 – 21 July 2003

Agenda Item 2: Review action items of the 39th DGCA Conference related to CNS/ATM systems

NEW ZEALAND'S RESPONSE TO THE ACTION ITEMS ARISING FROM THE 39TH CONFERENCE OF DIRECTORS GENERAL OF CIVIL AVIATION ASIA AND PACIFIC REGIONS RELATED TO CNS/ATM SYSTEMS

(Presented by New Zealand)

SUMMARY

This paper contains extracts from the final report by New Zealand on the actions taken in response to the Action Items arising from the 39 Conference of Directors General Civil Aviation Asia and Pacific Regions held in the Republic of the Philippines in October 2002.

Action Item 39/4:—

The Conference urged all Administrations in the APAC region to extend full and continued co-operation in relevant areas of operation such as sub-regional safety initiatives, harmonisation in the implementation of ADS-B, implementation of ACAS, establishment of safety monitoring systems and in any other civil aviation field, where initiatives are taken in accordance with ICAO provisions.

Action by New Zealand

New Zealand Civil Aviation Rules amendments to prescribe requirements for the installation of airborne collision avoidance systems (ACAS/TCAS) in aircraft operating under Rules Part 121 (air transport operations and commercial transport operations using aeroplanes having a seating configuration of more than 30 seats or a payload capacity of more than 3410 kg) and Rules Part 129 (foreign air transport operations) were signed by the Associate Minister of Transport on 24 June 2003.

The amendments to Rules Part 121 will require holders of air operator certificates conducting operations under Rules Part 121 to progressively equip their aeroplanes with an ACAS to reduce the risk of mid-air collision (MAC) accidents. For aeroplanes with more than 40 passenger seats already on the New Zealand register the Rule will apply from 1 January 2005. For aeroplanes with 40 or less passenger seats already on the New Zealand register the Rule will apply from 1 January 2007. Freight-only turbo-prop aeroplanes already on the register are excluded from the Rule provided the operators implement an airborne collision risk mitigation programme that is acceptable to the Director.

The amendment to Rules Part 121 also incorporates by reference the Federal Aviation Administration (FAA) Technical Standards Order (TSO) C119b specifications for ACAS II equipment.

An amendment to Rule Part 91 clarifies transponder requirements, and the amendment to Rules Part 129 requires that certain aeroplanes operated in New Zealand by foreign operators certificated under Rules Part 129 be equipped with ACAS II.

New Zealand Civil Aviation Rules amendments to prescribe requirements for any aeroplanes to be fitted with a terrain awareness and warning system (TAWS) were signed by the Associate Minister of Transport on 24 June 2003. The amendments to Rules Part 121 will require holders of air operator certificates conducting operations under Rules Part 121 to progressively equip their aeroplanes with a TAWS to reduce the risk of controlled flight into terrain (CFIT) accidents. The Rule will apply immediately to turbine powered aeroplanes manufactured after 1 April 2002. For turbine powered aeroplanes manufactured before 1 April 2002 the Rule requires aeroplanes to be retrofitted by 1 July 2005 (for aeroplanes with more than 40 passenger seats), or 1 January 2007 (for aeroplanes already on the New Zealand register with 40 or less passenger seats). Piston powered aeroplanes will require TAWS Class B by 1 January 2007.

The amendment to Part 121 also incorporates by reference the Federal Aviation Administration (FAA) Technical Standards Orders (TSOs) C151a and C151b specifications for TAWS equipment. New Zealand is actively reviewing the implementation of safety monitoring systems.

Action Item 39/6:—
The Conference strongly urged all States to take appropriate measures and fully cooperate in the resolution of Deficiencies on a high priority basis.

Action by New Zealand

"A ***deficiency*** is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation."

In this regard the following "deficiencies" have been identified with respect to facilities, services or procedures for which New Zealand is responsible:

- Wellington International Airport runway end safety areas
- ATS Route B201
- AIP format
- Auckland International Airport — Confusion due to proximity of normal runway 05R/23L with temporary runway 05L/23R especially in low visibility conditions
- Auckland International Airport — Some aircraft movement signage is confusing due to the proximity of parallel taxiway Bravo to temporary Runway 05L/23R

Wellington International Airport runway end safety areas

With regard to the runway end safety areas at Wellington International Airport, amendments to the Civil Aviation Rules are required to implement the ICAO requirements for runway end safety areas **(RESA)** for those aerodromes serving regular international operations. A Cost Benefit Analysis has been carried out and following the briefing of the Minister of Transport on 11 June 2003 a Notice of Proposed Rule Making is being drafted for Ministry of Transport review.

ATS Route B201

With regard to ATS Route B201, ATS Route R327 was extended from FAROA via VISIK to Niue NDB effective 23 January 2003. Aircraft can flight plan from Auckland to Niue via ATS Route B575 to SELKA, then G457 to FAROA, then R327 to Niue. The route is almost a straight line and negates the need to implement ATS Route B201.

The Air Navigation Plan, Asia and Pacific Regions (Doc 9637) Table ATS 1 – ATS Routes (dated 20/1/98) and Chart ATS 3C (dated 20/1/98) should be amended accordingly.

AIP format

With regard to the AIP format, New Zealand is at present working on a revised version of the New Zealand Aeronautical Information Publication and Visual Charts which will bring the content and format of the Planning Manual, Instrument Flight Guide and Visual Flight Guide into line with the current ICAO Standards.

The effective date for AIP New Zealand has been delayed for three months until 4 September 2003 to allow the instrument approach and aerodrome charts to be amended and have the same effective date as the text. New visual navigation charts have been produced and published effective 20 March 2003.

Auckland International Airport — Confusion due to proximity of normal runway 05R/23L with temporary runway 05L/23R especially in low visibility conditions

As far as confusion due to the proximity of normal Runway 05R/23L with temporary runway 05L/23R is concerned, reference to the Instrument Flight Guide clearly indicates by way of a highlighted cautionary note that there are three modes of operation for Auckland International Airport, namely, Runway 05R/23L Normal Operations, Runway 05R/23L Special Operations (displaced threshold – reduced lengths), and Runway 05L/23R Temporary Operations, presented using white, yellow, or green pages respectively. Procedures applicable to operations on all runways are annotated “ALL RWY”. The active runway and the associated Flight Guide colour pages are broadcast on the Auckland ATIS.

A highlighted note warns that parallel runway operations are prohibited.

To ensure correct runway identification during daylight hours, the active runway is identified by sequenced strobe lights and/or runway end identifier lights. Additionally Auckland Tower monitors the approach of IFR aircraft landing at Auckland International Airport by the use of an Approach Monitoring Aid based on SSR radar derived information. The purpose of the monitoring is to ensure that aircraft are aligned for the correct runway in use. Aircraft not aligned for the correct runway at 1 NM from touchdown are instructed to carry out a mandatory GO-AROUND.

Procedures for Runway 05R/23L Special Operations (displaced thresholds – reduced lengths) — IFG yellow pages:

When the airport operator is to carrying out work on the runway, displacement of the runway 05R or 23L landing threshold is promulgated by NOTAM, normal ILS/DME approach procedures for that runway will not be available and the instrument approach, aerodrome, and ground movement charts provided on the yellow pages must be used. The displaced threshold is identified by illuminated wing bars and visual glide path information provided by PAPI. For night operations runway edge lights for the unused portion of the runway prior to the displaced threshold show red in the direction of landing and are blanked out when viewed in the reverse direction.

Procedures for Runway 05L/23R Temporary Operations — IFG green pages:

When runway 05R/23L is closed, operations continue on runway 05L/23R and are promulgated by AIP Supplement and NOTAM. Precision approach procedures are not available on runway 05L/23R and the charts provided on the green pages must be used. In addition to normal lighting the displaced threshold of runway 05L/23R is defined by illuminated wing bars at all times and visual glide path information provide by PAPI.

Low visibility take-off is not permitted below 800m, circuit training is not permitted and itinerant general aviation operations without specific approval from the airport operator are prohibited. Other restrictions may be advised by AIP Supplement or NOTAM.

Throughout the IFG pages for Auckland International Airport applicable to the mode of operation applicable at the time there are numerous highlighted caution and warning notes which alert and remind the pilot of the special circumstances, conditions and restrictions that apply.

Auckland International Airport — Some aircraft movement signage is confusing due to the proximity of parallel taxiway Bravo to temporary Runway 05L/23R
Signage was upgraded specifically for the introduction of the temporary runway. At that time, the

Civil Aviation Authority was made aware of some confusion, particularly with signage in the vicinity of the International Terminal, and this resulted in some signs being relocated. The CAA is unaware of any further concerns regarding signage being raised since that time.

Action Item 39/9:—
The Conference urged States to adhere strictly to ICAO provisions laid down in Annex 10, Volume III with regard to the adherence to the 24 bit aircraft address allocation procedures.

Action by New Zealand

Civil Aviation Rules Advisory Circular AC 91-2 , *Assignment of Mode S Address,* first published 1 April 1997, provides the procedures and practices regarding the assignment of 24 bit addresses to aircraft on the New Zealand register.

END