



WELLINGTON NEW ZEALAND

PURSUANT to Section 28 of the Civil Aviation Act 1990

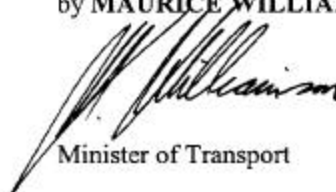
I, MAURICE WILLIAMSON, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *7* day of *July* 1999

by **MAURICE WILLIAMSON**


Minister of Transport

Civil Aviation Rules

Part 172 Amendment 1

Air Traffic Service Organisations – Certification

Docket 1295

RULE OBJECTIVE, EXTENT OF CONSULTATION AND COMMENCEMENT

The objective of Amendment 1 to Part 172 is to add technical material withheld from the original final rule due to time constraints. This material is contained in rule 172.79 and Subparts E, F, and G.

An original draft of the amendment was developed in consultation with affected industry participants. This culminated in the issue of Notice of Proposed Rule Making (NPRM) 97-7 under Docket 1295 on 4 February 1998.

The publication of this NPRM was advertised in daily newspapers in the five main provincial centres on 7 February 1998. The NPRM was mailed to 17 organisations and individuals who it was considered might wish to comment. Advice of the NPRM was also published in the Civil Aviation Rules Register Information Leaflet (CARRIL) and placed on the CAA Internet web-site.

A period of 24 days was allowed for initial comment on the proposed rule.

Only the Airways Corporation of New Zealand Limited and the ATC Council of The New Zealand Air Line Pilots' Association responded, and both organisations remained involved throughout the drafting process. All submissions and verbal comments were considered and where appropriate the proposed rules amended to take account of the comments made.

The rules as amended were then referred to and signed by the Minister of Transport.

Part 172 Amendment 1 comes into force 28 days after the date of its notification in the New Zealand Gazette.

172.3 Definitions

Insert in the correct alphabetical sequence:

TACAN means UHF tactical air navigation aid:

VORSEC means VOR/DME minimum sector xxxxaltitude chart:

VORTAC means VOR and TACAN combination:

172.75 Area and approach control services

Amend 172.75(c)(4) by deleting “Appendix A.” and inserting “Subpart E.”

172.77 Aerodrome control service

Amend 172.77(a)(4) by deleting the comma after “172.91” and adding “and 172.295;”.

Amend 172.77(a)(4) by deleting sub-paragraph (iii) and inserting:

- (iii) Document 7030; or
- (iv) Subpart E; and

Amend 172.77(f)(4) by deleting “Appendix A.” and inserting “Subpart E.”

172.79 Separation from special use airspace [Reserved]

Delete the above title and insert the following rule title and text.

172.79 Special use airspace

Each applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish systems and procedures to ensure that separation in accordance with 172.293 is provided between controlled flights and active special use airspace designated under Part 71 or 73, except when—

- (1) the pilot has approval from the controlling authority to operate in the airspace; or

- (2) in the case of a danger area or a volcanic hazard area, the pilot has notified an express intention to operate in the area; or
- (3) it is known, or reasonably believed, that the pilot of a VFR flight, or an IFR flight navigating by visual reference, is aware that the airspace is active; or
- (4) upon a request by the pilot, the flight is cleared to maintain its own separation from the airspace.

172.105 *Radio and telephone procedures*

Amend 172.105(b)(1) by deleting “[*Reserved*] ” and inserting “Subpart F; or”

172.107 *Radar services*

Amend by deleting 172.107(1) and inserting:

- (1) all radar services are provided in accordance with procedures published in—
 - (i) Document 4444; or
 - (ii) Document 7030 (as applicable to the Middle East/Asia Region); or
 - (iii) Subpart G; and

Appendix A

Delete Appendix A and insert the following:

Subpart E — Separation criteria and minima

172.251 *Vertical separation*

Within controlled airspace, vertical separation may be reduced to 500 feet when—

- (1) both aircraft are either medium or light wake turbulence category; and
- (2) the lower aircraft is a VFR or Special VFR flight, and operating at an altitude of 4500 feet or below.

172.253 Composite visual separation

An aerodrome controller may apply a composite of geographical and visual separation, provided instructions are issued as necessary to maintain adequate separation, between—

- (1) an aircraft continuously in sight of the controller, and within 10 nm of the aerodrome; and
- (2) an aircraft not in sight of the controller, but whose current position has been determined by radar or a pilot position report.

172.255 Visual separation beyond the vicinity of an aerodrome

Separation minima may be reduced by approving visual separation when, by day—

- (1) a specific request is made by a pilot; and
- (2) each aircraft is under the control of—
 - (i) the same operating position; or
 - (ii) physically adjacent operating positions, provided both controllers agree; and
- (3) each aircraft remains in VMC; and
- (4) either—
 - (i) each aircraft is continuously visible to the pilot of the other aircraft and both pilots concur with the application of visual separation; or
 - (ii) the pilot of a following aircraft reports the preceding aircraft is in sight and that pilot can maintain visual separation from the preceding aircraft.

172.257 Longitudinal separation by time

When separating aircraft that are on the same track, and on the opposite sides of an NDB, VOR, or VORTAC, at which both aircraft are required to report, 5 minutes minimum separation may be applied, provided—

- (1) one aircraft is in level flight and the other aircraft is climbing or descending to achieve vertical separation; and
- (2) the preceding aircraft has passed the NDB, VOR, or VORTAC by at least 5 minutes; and
- (3) confirmation is obtained from the following aircraft that it has not yet reached the NDB, VOR, or VORTAC.

172.259 Longitudinal separation by distance

(a) A minimum separation of 20 nm may be applied, between aircraft climbing or descending on the same track, provided separation is assured by obtaining frequent, and immediately consecutive, DME readings from both aircraft.

(b) A minimum separation of 10 nm may be applied—

- (1) between aircraft climbing or descending on the same track provided—
 - (i) the preceding aircraft maintains a true airspeed speed of 20 knots or more faster than the following aircraft; and
 - (ii) the effect of slant-range is taken into consideration; and
 - (iii) separation is assured, by obtaining frequent, and immediately consecutive, DME readings from both aircraft; or
- (2) when changing from longitudinal to vertical separation, where the following aircraft is instructed to reach a vertical separation level 10 nm prior to the last DME report of the preceding aircraft; or

- (3) when separating an aircraft beyond, and flying away from, a DME or TACAN arc, from an aircraft on the arc, using the same DME.

172.261 Lateral separation

(a) GPS distance may be used, in lieu of DME distance, in the provision of lateral separation when—

- (1) both aircraft are flying tracks based on the same navigation aid; and
- (2) the GPS distance reported is from the same navigation aid on which the lateral separation is based.

(b) Lateral separation may only be applied in accordance with criteria and minima approved —

- (1) by the holder of an air navigation service organisation certificate issued under Part 173; or
- (2) under rule 19.155(b).

172.263 Separation between aircraft on an instrument approach

Successive aircraft may be cleared for an instrument approach when the leading aircraft—

- (1) has crossed the middle marker of an ILS or LLZ approach or the final NDB of a twin NDB or VOR/NDB approach, provided separation can be maintained in the event of a missed approach; or
- (2) is on final approach and has crossed the radio navigation aid from which the initial approach of the following aircraft commences, and the missed approach procedure is separated from the initial, intermediate, and final approach.

172.265 Reduced radar separation

The Director may approve a reduction of the standard 5 nm minimum radar separation prescribed in Document 4444 Part VI paragraph 7.4.1, in accordance with paragraph 7.4.2 of that document.

172.267 Radar separation from an unidentified controlled flight

- (a) A minimum radar separation of 5 nm may be applied between an identified aircraft and an unidentified controlled flight entering or about to enter radar coverage, in accordance with the provisions of Document 4444 Part VI paragraph 7.3.7 a) and b); or
- (b) Radar separation may be applied between a previously identified aircraft which has since passed out of radar cover, and a following identified aircraft, provided the following aircraft can achieve the appropriate vertical separation at least 5 nm before the position at which the preceding aircraft passed out of radar cover; or
- (c) Radar separation may be applied between aircraft on reciprocal tracks, when an identified aircraft is at least 5 nm past the position at which a previously identified aircraft passed out of radar cover; or
- (d) A minimum radar separation of 5 nm may be applied between an identified aircraft and the cleared route of an unidentified controlled VFR flight.

172.269 Radar separation from holding aircraft

A minimum radar separation of 5 nm may be applied between an identified aircraft that is not holding, and other identified aircraft that are holding, notwithstanding that individual identity of the holding aircraft may be lost.

172.271 Formation flights

Separation need not be applied between individual aircraft in formation flight when—

- (1) prior notice of the flight has been given to ATC by the formation leader; or
- (2) the flight consists of an aircraft in distress and its escort.

172.273 Reduced runway separation – general

The reduced runway separation prescribed in 172.275 to 172.279 inclusive may be applied when—

- (1) visibility is at least 5 km and the pilot is in a position to make an early assessment of conditions on the runway; and

- (2) braking action is unlikely to be adversely affected by runway contaminants; and
- (3) specified longitudinal distances are able to be readily determined by the aerodrome controller by reference to prominent markers or features; and
- (4) pertinent traffic information is issued; and
- (5) except in the case of 172.275(1), the separation is applied by day.

172.275 Reduced runway separation – departure versus departure

Provided the conditions in 172.273 apply, a following aircraft may be cleared for take-off when —

- (1) the runway is longer than 1800 metres, and the preceding aircraft is airborne and has reached a point at least 1800 metres ahead of the following aircraft; or
- (2) both aircraft have an MCTOW of 7000 kg or less, and the preceding aircraft is airborne and has reached a point at least 1000 metres ahead of the following aircraft; or
- (3) both aircraft have an MCTOW of 2300 kg or less, and the preceding aircraft is airborne and has reached a point at least 600 metres ahead of the following aircraft; or
- (4) the aircraft is a microlight, and the preceding aircraft is airborne.

172.277 Reduced runway separation – arrival versus departure

Provided the conditions in 172.273 apply, an arriving aircraft may be permitted to cross the runway threshold to land when—

- (1) the departing aircraft is airborne, and has reached a point beyond the expected landing roll of the arriving aircraft; or
- (2) both aircraft have an MCTOW of 2300 kg or less, and the departing aircraft is accelerating and has reached a point at least 600 metres ahead of the arriving aircraft.

172.279 Reduced runway separation – arrival versus arrival

Provided the conditions in 172.273 apply, the following aircraft may be permitted to cross the runway threshold to land when both aircraft have an MCTOW of—

- (1) 7000 kg or less, and the preceding aircraft —
 - (i) has landed; and
 - (ii) has commenced a turn to vacate the runway without stopping or backtracking; or
- (2) 2300 kg or less, and the preceding aircraft —
 - (i) has landed; and
 - (ii) can vacate the runway without backtracking; and
 - (iii) has reached a point ahead of the following aircraft where, in the opinion of the aerodrome controller, there is no risk of collision.

172.281 Operations on parallel runways

Same direction parallel runway operations may be permitted by day when—

- (1) the aerodrome control provider and the aerodrome operator are the same, or there is written agreement between them regarding the operation; and
- (2) the visibility is at least 5 km; and
- (3) neither runway is adversely affected by contaminants; and
- (4) both aircraft are in two-way communication with aerodrome control; and
- (5) pertinent traffic information is issued; and
- (6) the adjacent runway edges are clearly defined; and
- (7) one of the following applies—

- (i) the adjacent edges of the two runways are not less than 165 metres apart; or
- (ii) both aircraft have an MCTOW of 5700 kg or less, and the adjacent edges of the two runways are not less than 90 metres apart; or
- (iii) both aircraft have an MCTOW of 2300 kg or less, and the adjacent edges of the two runways are not less than 60 metres apart.

172.283 Separation from an aircraft dumping fuel

The minimum separation from an aircraft dumping fuel is—

- (1) 5 nm horizontally; or
- (2) 2000 feet vertically; or
- (3) 1000 feet vertically when below flight level 290 and the aircraft dumping fuel is the lower aircraft

172.285 Separation involving military aircraft

The separation criteria and minima prescribed in these rules shall be applied to military aircraft unless there is written agreement between the ATS provider and the New Zealand Defence Force, or a military agency of a foreign state, authorising the use of reduced military separation when it is—

- (1) between military aircraft; and
- (2) agreed to by the pilots of the aircraft involved; and
- (3) in accordance with the written agreement.

172.287 Separation of successive IFR departures

A following IFR aircraft may be cleared for take-off when—

- (1) the initial departure track differs by at least 30 degrees from the departure track of the leading aircraft, and visual observation by the aerodrome controller confirms that the leading aircraft—

- (i) has turned to clear the departure track of the following aircraft; or
 - (ii) has reached a point where adequate separation will exist from the following aircraft, or
- (2) the initial departure track differs by at least 20 degrees from the departure track of the leading aircraft; and
- (i) radar identification will be established within 1 nm of the end of the runway used for takeoff; and
 - (ii) the leading aircraft is 1 nm ahead of the following aircraft, and confirmed by visual or radar observation as having turned to clear the departure track of the following aircraft.

172.289 Helicopters and unpowered aircraft

The runway separation required by 172.77(a)(4) may be waived or varied to take account of the particular operating characteristics of helicopters and unpowered aircraft, provided safety is not jeopardised.

172.291 Wake turbulence separation

A specific pilot request for a waiver from any wake turbulence separation may be granted provided—

- (1) the air traffic controller does not prompt, instigate, or invite a pilot to request a waiver from wake turbulence separation; and
- (2) when the other aircraft is an ICAO heavy category or B757 aircraft, the air traffic controller reminds the pilot requesting the waiver of the category or type of the other aircraft.

172.293 Separation from active special use airspace

(a) Except as provided in paragraph (b), when applying the separation required by 172.79, the minimum separation shall be—

- (1) when aircraft within the active special use airspace may be operating in IMC—
 - (i) 1000 feet vertical separation up to FL290; or

- (ii) 2000 feet vertical separation above FL 290; or
 - (iii) 5 nm radar separation; or
- (2) when aircraft within the active special use airspace are operating in VMC—
- (i) 500 feet vertical separation up to FL290; or
 - (ii) 1000 feet vertical separation above FL290; or
 - (iii) radar separation of 1 nm plus the accuracy tolerance of the radar system in use; or
- (3) achieved by the use of minima or procedures approved—
- (i) by the holder of an air navigation service organisation certificate issued under Part 173; or
 - (ii) under rule 19.155(b); or
- (b) When no separation minimum or procedure is specified under subparagraphs (a)(1), (2), or (3), separation shall be achieved by keeping controlled flights clear of active special use airspace.

172.295 Christchurch International Airport grass runway operations

At Christchurch International Airport, for operations on grass runway 02/20 in accordance with the procedures published for that runway in Part 93, procedures for the provision of the runway separation required by 172.77(a)(4), are not required provided—

- (1) take-off and landing clearances are issued; and
- (2) the aerodrome operator concurs with the non-provision of runway separation.

[Until the relevant procedures are published in Part 93, procedures approved by the Director, and published in the NZAIP Christchurch Aerodrome charts, shall apply]

Subpart F — Standard phraseology

172.351 Applicability

(a) This subpart prescribes standard phraseology to be used in the particular circumstances stated, in accordance with the requirements of 172.105.

(b) In this subpart, words in brackets indicate an appropriate insertion is required and an oblique stroke indicates a choice is required to be made from the alternatives separated by the stroke.

172.353 Controller/pilot phraseology

(a) Unavailability of route or cruising level

When it is not possible to clear a flight via the preferred route or cruising level:

“(route and/or level) *NOT AVAILABLE DUE* (reason)”

(b) Block levels

(1) When approving a requested block level:

“*MAINTAIN BLOCK* (level) *TO* (level)”

(2) When cancelling a block level:

“*CANCEL BLOCK CLEARANCE ...*”

(c) DME climbs and descents

(1) When authorising a DME step climb procedure:

“*CLIMB ABOVE DME STEPS*” or

“*CLIMB ABOVE VORSEC DME STEPS*”

(2) When authorising a DME step descent procedure:

“DESCEND DME STEPS TO (level)” or

“DESCEND VORSEC DME STEPS TO (level)”

(d) **Visual departures**

When authorising a visual departure:

“VISUAL DEPARTURE”

(e) **Holding**

When issuing a holding instruction where more than one holding pattern is published for a specified geographical location:

“HOLD AT (designator). ENTER THE (descriptor) HOLDING PATTERN”

(f) **Precautionary holding**

When issuing a holding instruction to New Zealand operators, when that instruction is likely to be cancelled before the aircraft reaches the designated holding point:

“PRECAUTIONARY HOLD”

(g) **Runway operations**

(1) When approving a request for a stop and go landing:

“CLEARED STOP AND GO”

(2) When emphasising the runway to be used for landing:

“RUNWAY (designator) CLEARED TO LAND”

(3) When an expeditious take-off is required:

“CLEARED IMMEDIATE TAKE-OFF”

(h) **Land and hold short operations**

When requiring an aircraft to terminate its landing run in less than the available runway length:

“LAND AND HOLD SHORT BY (taxiway or other specified point)”

(i) **Visual separation**

When requiring a pilot to maintain visual separation from another aircraft:

“MAINTAIN VISUAL SEPARATION FROM (traffic) TO/UNTIL (clearance limit)”

(j) **Terrain clearance**

- (1) When advising a pilot that a descent clearance is based on a radar terrain contour map use the suffix:

“... RADAR TERRAIN”

- (2) When requiring pilots to arrange their own terrain clearance:

“MAINTAIN TERRAIN CLEARANCE VISUALLY”

(k) **Confirmation of unlawful interference**

When seeking verification that the SSR transponder Mode A code 7500 has been set intentionally:

“CONFIRM SQUAWKING 7500”

(l) **Helicopter operations**

When approving helicopter operations at a controlled aerodrome, but outside the manoeuvring area:

“LAND/TAKEOFF/AIR TAXI AT YOUR DISCRETION”

(m) **Traffic avoidance advice**

When initiating, or responding to a request for, traffic avoidance advice:

“SUGGEST”

(n) **Traffic information**

When indicating there is no pertinent IFR traffic information:

“NO REPORTED IFR TRAFFIC”

(o) **Joining the circuit**

- (1) When instructing an aircraft to make the standard overhead joining procedure:

“MAKE STANDARD OVERHEAD JOIN”

- (2) When instructing an aircraft to cross over the aerodrome, then follow specific joining instructions:

“CROSS OVERHEAD, JOIN (specific instructions)”

172.355 ATS co-ordination phraseology

(a) **Release instructions to aerodrome control**

- (1) When there are no restrictions:

“RELEASED”

- (2) When the aircraft is to be held on the ground:

“HOLD”

- (3) When a release is based on clock time:

“CLEARANCE VALID/EXPIRES AT (time)”

- (4) When a release is based on time interval:

“*RELEASED* (number of minutes) *MINUTES BEHIND* (leading aircraft)”

- (5) When a release is based on the application of vertical separation:

“*RELEASED AFTER* (leading aircraft callsign) *HAS PASSED* (level)”

- (6) When a release is subject to aerodrome control providing separation from specified traffic, where *RYS* means “*Released, your separation*”:

“*RYS* (callsign of conflicting traffic) (details of conflicting traffic, if not already passed)”

(b) Clarification of responsibility for providing separation

When assigning or clarifying who is providing separation, and to acknowledge the arrangement:

“*MY SEPARATION/YOUR SEPARATION* (callsign of conflicting traffic)”

(c) Co-ordination between radar controllers

- (1) When effecting a radar transfer of control:

“*RADAR RELEASE* (details)”

- (2) When radar identity only is being transferred:

“*RADAR IDENT* (details)”

(d) **Negotiation of revised estimate messages**

(1) Invitation by transferring controller:

“*WILL YOU ACCEPT* (details)”

(2) Refusal by accepting controller:

“*NEGATIVE, WILL ACCEPT* (alternative details)”

Subpart G — Radar procedures

172.401 Verification of SSR transponder Mode C level information

(a) Subject to paragraph (b), aerodrome control may verify the Mode C level information of a departing aircraft when the tower radar indicates a positive rate of climb from the aerodrome elevation.

(b) Mode C information shall not be used when the displayed level varies by more than 300 feet from the aerodrome elevation during the take-off roll.

172.403 Speed control

Speed control shall not be applied or continued after a point 4 nm from the runway threshold on final approach.

CONSULTATION DETAILS

(This statement does not form part of the rules contained in Part 172. It provides details of the consultation undertaken in making the rules.)

Background to the Rules

The new rules are structured in a manner similar to the Federal Aviation Regulations (FAR) of the FAA, and aim to achieve maximum harmonisation whilst allowing for national variations. Close co-operation is also being maintained with the Civil Aviation Safety Authority of Australia to ensure maximum harmonisation with their regulatory code. NZ legislation is being generated where necessary for the areas not presently covered.

New Zealand's revised legislation is published as Civil Aviation Rules (CAR) which are divided into Parts. Each Part contains a series of individual rules which relate to a particular aviation activity.

Accompanying most Parts will be at least one associated Advisory Circular (AC) which will expand, in an informative way, specific requirements of the Part and acceptable means of compliance. For instance, an AC may contain examples of acceptable practices or procedures which would meet the requirements of a particular rule.

The objective of the new rules system is to strike a balance of responsibility between the State authority and those who provide services and exercise privileges in the civil aviation system. This balance must enable the State authority to set standards for, and monitor performance of, aviation participants whilst providing the maximum flexibility for the participants to develop their own means of compliance.

Section 12 of the Civil Aviation Act 1990 requires participants in the aviation system to carry out their activities safely and in accordance with the relevant prescribed safety standards and practices. Section 28 of the Act empowers the Minister to make ordinary rules. Specific powers relating to the provision of an air traffic service are contained in Sections 30(a)(viii) and 30(b) of the Act.

Notice of Proposed Rule Making

To provide public notice of and opportunity for comment on the proposed new rules, the Authority issued Notice of Proposed Rule Making 97-7 under Docket 1295 on 4 February 1998. This Notice proposed the introduction of Civil Aviation Rules Part 172 Amendment 1.

The primary purpose of this amendment was to complete Part 172 by adding, in Appendices A, B, and C, technical material withheld from the final rule due to time constraints. These appendices have now become Subparts E, F, and G.

It was also intended to amend the existing rule regarding records, to facilitate the work of the CAA enforcement unit, by placing additional obligations on certificate holders.

Supplementary Information

The comments made on the Notice of Proposed Rule Making are available in the rules docket for examination by interested persons. A report summarising each substantive contact with the Civil Aviation Authority contact person concerning this rule making has been filed in the docket.

Availability of the Document

Any person may view a copy of these rules at Aviation House, 1 Market Grove, Lower Hutt or on the CAA Internet page at <http://www.caa.govt.nz> Printed copies may be obtained from Publishing Solutions Ltd, PO Box 983, Wellington 6015, Telephone 0800 800 359.

Summary of Comments on Docket 1295 NPRM

1 General comments on the NPRM

Copies of the NPRM were sent to 17 organisations or individuals who it was considered might wish to comment. Replies were received from the Airways Corporation of New Zealand Limited (ACNZ) and the ATC Council of the New Zealand Air Line Pilots' Association (ALPA).

1.1 Limitation on provision of separation

Both ACNZ and ALPA were strongly in favour of a statement in the rule clarifying responsibility in regard to the provision of separation between an aircraft within controlled airspace and another aircraft outside controlled airspace. A good example of this situation is when aircraft flying in opposite directions are expected to pass outside but near to the boundary of controlled airspace.

The ACNZ *Manual of Air Traffic Services* (MATS) contains the following statement:

Flights operating outside controlled airspace are considered to be separated from flights within controlled airspace, except that flights entering or leaving controlled airspace shall be provided with separation from flights operating within controlled airspace while they are within an area of conflict.

CAA response: In the airspace context, air traffic control provides separation between controlled flights operating within controlled airspace. A flight is controlled, and therefore subject to a clearance from air traffic control, because it is operating in controlled airspace. It is axiomatic that a flight outside controlled airspace is uncontrolled, and not required to be provided with separation by air traffic control.

This is not to say that pilots receive no assistance in this type of situation. The flight information service element of an air traffic service is required to provide timely flight information to flights operating outside controlled airspace, and rules regarding cruising levels are designed to minimise potential conflict. Appropriate airspace and air-route design can also play a part in reducing possible route conflicts.

The statement in the MATS is acceptable to CAA but it is not a requirement. Consideration was given to incorporating the first part of the statement, ie; “Flights operating outside controlled airspace are considered to be separated from flights entering or leaving controlled airspace ...” as an explanatory statement within the rule. The CAA view is that this should be self evident and inclusion in the rule is not necessary.

2 Specific comments on the NPRM

2.1 172.115 Records

Both ACNZ and ALPA took strong exception to the draft amendments to this rule and submitted wide-ranging comments opposing the proposal. Both organisations said the amendment came at a particularly inappropriate time relative to an MOT led industry discussion on the use of recorded data in aviation.

ALPA considered that the amendment was contrary to the spirit of Annex 13 of the Chicago Convention. ACNZ considered a serious risk to safety would arise in that operators might be “defensive” in their communications with ATC, in the knowledge that ATC held evidence available for CAA enforcement action. ALPA expressed similar concern, suggesting that a likely practical consequence of the rule change would be a reluctance by VFR pilots both to make radio reports and to activate their transponder, with a resulting downgrading of the ability of ATC to provide accurate traffic information.

Both commenters saw the need to be involved in further discussion on this topic.

CAA response: The proposed change has been withdrawn from this amendment pending further consideration and consultation.

2.2 172.291 (NPRM A.15) Wake turbulence separation

ALPA advocated the use of conservative values for wake turbulence separations, and the withdrawal of a pilot’s ability to waive wake turbulence separation.

ACNZ noted that ICAO, the United Kingdom, and the United States all had different wake turbulence categories, and requested that New Zealand continue to apply the ICAO weight categories. In noting that the NPRM draft removed the New Zealand dispensation regarding aircraft up to 25,000 kg MCTOW, ACNZ requested a new lower dispensation be applied when a leading aircraft was up to 17,000 kg MCTOW.

CAA response: Following the issue of the NPRM, CAA became aware of new more conservative wake turbulence separation to be applied by the

FAA from February 1998. These new separations included wake turbulence separation between FAA “small” category aircraft, and a restriction on pilot waivers where the leading aircraft was a “heavy” category or Boeing 757 aircraft. These new separations arose from further research and concern regarding wake turbulence incidents and accidents.

CAA has decided to continue to allow any pilot to waive the applicable wake turbulence separation, based on the premise that a pilot is best placed to assess the possible impact of any wake turbulence, and arrange his or her flight profile to avoid it. With this unrestricted right of waiver in place it is considered both unnecessary and unwise to approve any reduction of the ICAO wake turbulence minima applied by air traffic control.

Explanatory notes

After the NPRM was issued development of the amendment continued, with a high degree of cooperation from both ACNZ and ALPA, and full agreement being reached in many areas.

New material has been added, and some rules combined or deleted. In addition the change from appendices to subparts necessitated consequential changes from the style of numbering used in the NPRM. Given all these changes it is considered desirable to outline here the origin of the rules, with some additional expansion where this is seen as useful. The rule numbers are those appearing in the final document.

172.79 Separation from special use airspace

The topic was introduced at the request of ACNZ. CAA and ALPA concur with the need to address this area, which receives only passing reference in ICAO documentation. Knowledge of both FAA and ACNZ practice assisted the development of this rule.

172.253 Composite visual separation

This non-ICAO New Zealand-developed concept has been used successfully for over 20 years.

172.255 Visual separation beyond the vicinity of an aerodrome

This is an extension of an ICAO concept applying within the vicinity of an aerodrome. Any possibility of abuse of this rule as a shortcut to the provision of separation is avoided through the stringent conditions attached, in particular the requirement for a specific pilot request.

172.257 Longitudinal separation by time**172.259 Longitudinal separation by distance**

These separations are generally minor variations on ICAO criteria and minima, previously approved by CAA or its predecessors.

172.261 Lateral separation

The use of GPS in lieu of DME has already been approved by CAA. The development of most lateral separations requires appropriate specialist knowledge, hence the references in paragraph (b). The promulgation in a rule of detailed location and procedure specific separations, by charts or tables, is considered both inflexible and unnecessary.

172.263 Separation between aircraft on an instrument approach

This long-established separation is now “grandfathered” into the rule.

172.265 Reduced radar separation**172.267 Radar separation from an unidentified controlled flight****172.269 Radar separation from holding aircraft**

ICAO Document 4444 requires the state ATS authority (CAA) to specifically endorse some radar separations, and also allows states to develop some additional separation criteria, based on the basic 5 nm minimum separation. All the criteria and minima in this rule have been in use in New Zealand for some time and are validated by inclusion here.

Two 1 nm radar separations previously approved and in use were found to be inconsistent with ICAO prohibition of the use of radar separation of less than 2.5 nm. One of these separations has been restructured as 172.287(2).

172.271 Formation flights

This rule is required to avoid the situation whereby flights flying in formation were, as individual controlled flights, required to be separated from each other.

172.273 – 172.279 Reduced runway separation

Document 4444 provides considerable leeway for states to prescribe lower runway separation minima, after consultation with operators. ACNZ have been proactive in consulting with operators and seeking approval for several reduced minima, particularly in situations where only light aircraft are involved. This rule brings together various lower minima previously approved, or now approved following representations from ACNZ. They are in most cases comparable with runway separations in use in Australia or the United States.

One reduced minima already in use, and now included as rule 172.275(1) does not comply with the ICAO requirement that reduced runway minima only apply by day. This separation is also in use by night in Australia and the United States and its retention was sought by ACNZ. With no adverse comment evident, and no clear indication of the reason for the ICAO limitation, it was decided to validate current practice.

172.281 Operations on parallel runways

While the criteria for the establishment and use of parallel runways is contained in Part 139 it is necessary for aerodrome control providers to know when they can treat parallel runways as two independent runways for runway separation purposes. The figures were derived from existing NZ approvals, and FAA and ICAO documentation.

172.283 Separation from an aircraft dumping fuel

This rule adopts current FAA practice. The topic is not addressed by Document 4444.

172.285 Separation involving military aircraft

This rule endorses the long established concept of providing reduced separation when requested by the relevant military agency, but only between participating military aircraft.

172.287 Separation of successive IFR departures

The 30 degree case is a long-standing New Zealand standard now “grandfathered” into the rule. The new 20 degree case is based on Canadian and FAA practice, and replaces a 1 nm radar separation referred to earlier.

172.289 Helicopters and unpowered aircraft

Runway separations are formulated for situations involving two powered fixed-wing aircraft and previously aerodrome controllers have used their discretion when dealing with helicopters, gliders, and parachutists. This rule will allow this discretion to continue to be applied.

172.295 Christchurch International Airport grass runway operations

This rule is needed to allow the continuance of long established practice regarding the non-provision of runway separation between aircraft using the parallel grass runway 02/20 at Christchurch International Airport. Procedures to be observed by pilots, currently promulgated in the NZAIP “Christchurch Aerodrome” charts will be validated by inclusion in Part 93.

172.353 Controller pilot phraseology**172.355 ATS co-ordination phraseology**

The controller/pilot and inter-ATS phraseologies listed cover situations which arise routinely in New Zealand but are not adequately covered in ICAO documents. In the interests of harmonisation, and non-proliferation of local variations, current Australian and FAA phraseologies were considered in formulating this subpart. Most of these phraseologies are already in use by ACNZ. Others have been modified, in consultation with ACNZ, to better align with ICAO standard phraseology

172.401 Verification of SSR transponder Mode C operation

ICAO Document 4444 permits state ATS authorities to prescribe additional material relating to the use of radar in aerodrome control. This method of Mode C verification, already in use by ACNZ, is validated by this rule.

172.403 Speed control

This rule converts an ICAO recommendation, already followed by ACNZ, into a rule.

Transitional arrangements

Transitional arrangements were put in place, through the grant of exemption 98/EXE/136, which allowed the ACNZ to continue to use procedures published in their operational manuals, but not endorsed in Part 172 until this amendment is in force.

Conclusion

The Authority concludes from this consultation, which has continued throughout the rule production process, that the participants in the consultation process, and the industry generally, favour the direction of this amendment.