



PURSUANT to Section 28 of the Civil Aviation Act 1990

I, HARRY JAMES DUYNHOVEN, Minister for Transport Safety,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *16th* day of *May* 2006

by **HARRY JAMES DUYNHOVEN**

A handwritten signature in black ink, appearing to read 'Harry James Duynhoven', is written over the printed name.

Minister for Transport Safety

Civil Aviation Rules

Part 77, Amendment 2

Objects and Activities Affecting Navigable Airspace

Docket 3/CAR/4

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Rule objective

The objective of Amendment 2 to Part 77 is to make editorial and minor technical changes as part of a general rule fix up project.

Extent of consultation

A Notice of Proposed Rulemaking, NPRM 05-07, containing the proposed changes to Part 77 was issued for public consultation under Docket 3/CAR/4 on 23 June 2005.

The publication of this NPRM was notified in the *Gazette* on 23 June 2005 and advertised in the daily newspapers in the five main provincial centres on 25 June 2005. The NPRM was published on the CAA web site and mailed to identified stakeholders including representative organisations who were considered likely to have an interest in the proposal.

A period of 37 days was allowed for comment on the proposed rule.

New Zealand Transport Strategy

The development of the NPRM and the proposed rule changes takes into account the objectives of the New Zealand Transport Strategy (NZTS) and the provisions of the Civil Aviation Amendment Act (No 2) 2004.

Summary of submissions

Nine written submissions were received on the NPRM. Two submissions were received on the proposed amendments to Part 77 and as a result one change has been made to the original rule proposals. The CAA Manager of Aeronautical Services submitted concerns on proposed changes to rule 77.5(2) and 77.19(h)(4) as they may impact on the CAA's ability to determine some structures as hazards. As a result the proposed changes to these two rules have been removed and the current rule wording retained.

These changes were notified in the Summary of Public Submissions which was published on the CAA web site on 25 October, 2005.

The rule as amended was then referred to Parliament's Regulations Review Committee before being signed by the Minister for Transport Safety.

Examination of submissions

Submissions may be examined by application to the Docket Clerk at the Civil Aviation Authority between 8:30 am and 4:30 pm on weekdays, except statutory holidays.

Insertion of Amendments

The amendments to the rules in this Part are reflected by the revocation of the existing rule and the substitution of the new rule.

Effective date of rule

Amendment 2 to Part 77 comes into force on 22 June 2006.

Availability of rules

Civil Aviation Rules are available from–

CAA web site: <http://www.caa.govt.nz/>

Freephone: 0800 GET RULES (0800 438 785)

Part 77 Objects and Activities Affecting Navigable Airspace

Rule 77.5 is revoked and the following new rule is substituted:

77.5 Notice of construction or alteration of structure

A person proposing to construct or alter a structure must notify the Director of the proposal in accordance with rule 77.13 if the proposed structure or alteration to a structure—

- (1) extends more than 60 m in height above the ground level at its site; or
- (2) exceeds the general tree height in the area by 18 m and is located in an area of low level aerial activity or other low flying activity, or in a low flying zone or low level route as prescribed under Part 71; or
- (3) is located below the approach or take-off surfaces of an aerodrome as outlined in figures A.1 and A.2 of Appendix A, and extends to a height greater than a surface, outlined in Appendix A, extending outward and upward at 1 of the following:
 - (i) a slope of 1:83 from the fan origin of the takeoff surface of a runway where the runway is used or intended to be used by aircraft with a MCTOW above 5700 kg;
 - (ii) a slope of 1:50 from the fan origin of the takeoff surface of a runway where the runway is used or intended to be used by aircraft with a MCTOW at or below 5700 kg;
 - (iii) a slope of 1:25 from the nearest point of the safety area of a heliport; or
- (4) penetrates the conical, inner horizontal, or transitional side surface of an aerodrome as—
 - (i) outlined in figure A.1 of Appendix A; or

- (ii) specified in Part 139; or
- (iii) as defined in the local district scheme.

Rule 77.7 is revoked and the following new rule is substituted:

77.7 Notice of use of a structure discharging efflux, a light, or a laser

(a) A person proposing to use a structure must notify the Director of the proposal in accordance with rule 77.13 if—

- (1) the structure may discharge efflux at a velocity in excess of 4.3 m per second through an obstacle limitation surface of an aerodrome; or
- (2) the structure may discharge efflux at a velocity in excess of 4.3 m per second higher than 60 m above ground level.

(b) A person proposing to operate a light or a laser must notify the Director in accordance with rule 77.13 if—

- (1) because of its glare or affect on a pilot's vision, the light or laser is liable to endanger aircraft; or
- (2) for a laser, it would produce exposures in navigable air space exceeding the maximum permissible exposure defined for that laser in NZS/AS 2211; or
- (3) it is likely to endanger aircraft by being mistaken for—
 - (i) a light or part of a system of lights established or approved for display at or near an aerodrome; or
 - (ii) a light marking a hazard in navigable airspace.

Rule 77.9 is revoked and the following new rule is substituted:

77.9 Notice of use of weapons

A person, or a person representing an organisation, must notify the Director in accordance with rule 77.13 if the person or organisation

proposes to use a weapon that fires or launches a projectile that has a trajectory higher than—

- (1) 45 m if within 4 km of an aerodrome boundary; or
- (2) 120 m if more than 4 km from an aerodrome boundary.

Rule 77.11 is revoked and the following new rule is substituted:

77.11 Notice of use of pyrotechnics

A person must notify the Director in accordance with rule 77.13 if the person proposes to stage a pyrotechnics display that involves the firing or launching of a projectile that has a trajectory higher than—

- (3) 45 m if within 4 km of an aerodrome boundary; or
- (4) 120 m if more than 4 km from an aerodrome boundary.

Rule 77.13 is revoked and the following new rule is substituted:

77.13 Notice requirements

(a) Subject to paragraphs (b) and (c), a person required to notify the Director under rules 77.5, 77.7, 77.9, or 77.11 must complete form CAA 24077/01 and submit it to the Director at least—

- (1) 90 days before the proposed date of commencement of construction, or alteration, under rule 77.5; or
- (2) 5 working days before the proposed date of use under rules 77.7, 77.9, or 77.11.

(b) In the case of an emergency involving essential public services, public health, or public safety, that requires immediate construction or alteration of a structure, or use of a structure, light, laser, weapon, or pyrotechnic—

- (1) the notice requirements in paragraph (a) do not apply; and
- (2) the person responsible for the construction, alteration, or use must complete form CAA 24077/01 and submit it to the

Director within 5 working days after the construction, alteration, or use.

(c) A person proposing to use a light, laser, weapon, or pyrotechnic, in a control zone prescribed under Part 71 during times when the appropriate ATS is on watch—

- (1) is not required to provide notice under paragraph (a); and
- (2) must not use the light, laser, weapon, or pyrotechnic in the control zone without prior authorisation from the ATC unit responsible for that airspace which must be given at least 5 working days before the commencement of the use.

Rule 77.15 is revoked and the following new rule is substituted:

77.15 Additional notice requirements

(a) A person who is required to notify the Director under rules 77.5 and 77.7 must, if required by the Director, notify the Director in writing of the actual commencement date of the construction, alteration, or use, as applicable.

(b) A person who is required to notify the Director under rule 77.5 regarding the construction or alteration of a structure must notify the Director in writing within 5 working days when the structure has reached its greatest height.

(c) The notice required by paragraph (b) when the structure reaches its greatest height must include a registered surveyor's determination of the height and position of the structure, and proof of compliance with any marking and lighting requirements imposed by the Director under rule 77.21(d).

(d) A person who abandons a project to construct or alter a structure that is the subject of a notice under rule 77.5 must notify the Director in writing within 5 working days after the project is abandoned.

(e) A person who dismantles a structure or is responsible for a structure that is destroyed must, if the structure met the criteria for notification under rule 77.5, notify the Director in writing of the

dismantling or destruction of the structure within 5 working days after the structure is dismantled or destroyed.

Rule 77.19 is revoked and the following new rule is substituted:

77.19 Standards for determining hazards

(a) The Director must determine a structure to be a hazard in navigable airspace if it is 120 m or higher above ground level at its site.

(b) The Director must determine the use of a structure to be a hazard in navigable airspace if the structure will or may discharge efflux at a velocity in excess of 4.3 m per second through the obstacle limitation surfaces applicable to an aerodrome.

(c) The Director must determine the use of a structure to be a hazard in navigable airspace if the structure will or may discharge efflux at a velocity in excess of 4.3 m per second higher than 120 m above ground level.

(d) The Director must determine the use of a light to be a hazard in navigable airspace if an analysis discloses that its use will constitute a hazard in navigable airspace.

(e) The Director may determine, based on the circumstances of each proposal, the use of a laser to be a hazard in navigable airspace if its use will produce exposures in navigable airspace exceeding the maximum permissible exposure defined for that laser in NZS/AS 2211.

(f) The Director must determine the use of a weapon to be a hazard in navigable airspace if an analysis discloses that its use will constitute a hazard in navigable airspace.

(g) The Director must determine the use of pyrotechnics to be a hazard in navigable airspace if an analysis discloses that their use will constitute a hazard in navigable airspace.

(h) The Director may determine, based on the circumstances of each proposal, a structure to be a hazard in navigable airspace if—

- (1) it is located within an instrument flight procedures area that is specified in ICAO document 8168–OPS/611, including

standard arrival routes, initial, intermediate, final, visual and missed approach segment areas, departure areas and standard instrument departure routes, and would result in—

- (i) the vertical distance between any point on the structure and an established minimum instrument flight altitude within that area or segment being less than obstacle clearance required for the instrument flight procedure; or
 - (ii) additional or new ceiling or visibility restrictions or a change in flight procedures applicable to departures within that area; or
- (2) it is located within an IFR en-route obstacle clearance area, including evaluated routes on NZ en-route and area charts but excluding charted routes as published in the AIPNZ, and would necessitate an increase in an existing or planned minimum obstacle clearance altitude; or
 - (3) it exceeds the general tree height by 18 m and is located in an area of low level aerial activity or other low flying activity, or in a low flying zone or low level route as prescribed under Part 71; or
 - (4) it protrudes through the obstacle limitation surfaces of an aerodrome.

Consultation Details

(This statement does not form part of the rules contained in Part 77. It provides details of the consultation undertaken in making the rules.)

Comments arising from the NPRM

The rule amendment was developed under docket 3/CAR/4 and published as NPRM 05-07. The consultation details relating to docket 3/CAR/4 are detailed in each affected rule.

Nine written submissions were received on the NPRM and two commented on the proposed amendments to Part 77.

CAA Manager Aeronautical Services submits that the proposed change to 77.5(2) removing the words “located in an area of low flying activity” will impact on the CAA’s ability to determine structures in certain areas as hazards. It is submitted that there are now a number of structures being erected in areas that VFR traffic use in marginal weather and if these structures are between 60 and 120 metres then rule 77.19 cannot be enacted.

***CAA comment:** The CAA has reviewed the impact of these changes and although the CAA believes that the Director is not limited by rule 77.19 this interpretation is not clear in Part 77. The CAA will retain the wording of current rules 77.5(2) and 77.19(h)(4) in regard to “low level aerial activity or other low flying activity” with the intention of reviewing Part 77 in due course.*

77.13(c). **Airways Corporation of New Zealand** submit that they consider that it is appropriate that there is direct communication between the person proposing to use a light, laser, weapon, or pyrotechnic and the ATC unit under this rule. However they consider that the procedure should require the Director to be informed first and to make a safety assessment and inform ATC. They further submit that many proposals will require specialist evaluation to determine if safety is affected; such evaluation is the responsibility of the Director. An Advisory Circular should be promulgated in order to clarify what is acceptable in the interests of flight safety.

***CAA comment:** The CAA does not agree that the CAA needs to make a safety assessment of activities covered by rule 77.13(c). The Air Traffic*

Services (ATS) unit on watch is in the best position to judge the effect of these activities on the operation of air traffic at the specified time. Presently the CAA is notified on form CAA 24077/01 but the CAA has no power under 77.13(c) to take any action. This proposed rule amendment requires the person proposing to use a light, laser, weapon or pyrotechnic in a control zone prescribed in Part 71 to obtain ATS authorisation thereby ensuring the air traffic services providers are aware of the activity and can take appropriate steps in relation to air traffic activities . The CAA agrees that publishing of guidance material for ATS providers and users of airspace is appropriate and are in the process of developing advisory material in conjunction with the Airways Corporation of NZ.

The comments and all background material used in developing these rules are held on the docket. The docket is available for public inspection at Aviation House, 10 Hutt Road. Persons wishing to view the docket should contact the Docket Clerk on Phone 64-4-560-9603 and ask for docket 3/CAR/4.