



PURSUANT to Sections 28, 29 and 30 of the Civil Aviation Act 1990

I, GERRY BROWNLEE, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *26th* day of *NOVEMBER* 2012

by **Hon GERRY BROWNLEE**

A handwritten signature in blue ink, appearing to read 'Gerry Brownlee', is written over the printed name. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Minister of Transport

Civil Aviation Rules

Part 121, Amendment 23

Air Operations – Large Aeroplanes

Docket 7/CAR/1

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Rule objective

The objective of amendment 23 to Part 121 is to improve protection from aviation security threats affecting the travelling public.

The amendment addresses the requirement for strengthened flight crew compartment barriers on aircraft of more than 30 passenger seats, including those that operate domestically.

Extent of consultation

Development of the rule amendment proposal included informal discussions, meetings and emails with Air New Zealand, Air Nelson, Mount Cook Airline, Air Chathams, Vincent Aviation, Air Freight, Auckland International Airport, Rotorua Airport, Christchurch International Airport, Dunedin Airport, Qantas, LAN Chile, and Avsec. Prior to the publication of the notice of proposed rulemaking (NPRM), the Security Rules Update amendment project was undertaken in consultation with a project working group (PWG) that consisted of representatives from the aviation industry. The PWG also had support from the New Zealand Air Line Pilots Association.

A Notice of Proposed Rulemaking, NPRM 12-01, containing the proposed amendment to Part 121 was issued for public consultation under Docket 7/CAR/1 on 9 February 2012.

The publication of this NPRM was notified in the Gazette on 9 February 2012 and advertised on 10 February 2012 in the following metropolitan and regional newspapers: The New Zealand Herald, The Dominion Post, The Press, the Otago Daily Times, The Waikato Times, The Daily Post, the Manawatu Standard, and the Southland Times. 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 28 days was allowed for comment on the proposed rule.

Summary of submissions

Seven written submissions and two emailed comments were received on the NPRM. These submissions and comments have been considered and as a result the following changes have been made to the final rules:

121.357(c) – deleted as it was repetition of an aircraft certification requirement.

121.357 – added paragraph to exclude the General Dynamics Allison Convair 440/580 aircraft from the requirement to install a strengthened flight deck door until 31 December 2020 provided specified conditions are met.

The term “flight crew compartment” was adopted as the preferred term instead of “flight deck” and “flight compartment” which also occur through Part 121. Consequently, the term was adopted in rules 121.77, 121.85, 121.99, 121.101, 121.357, 121.361, and 121.367. Note that the term “cockpit” remains in the tables of Appendix B to retain consistency with the source documents.

121.101 was reworded to replace “person” with “crew member”, remove the reference to opening the door; and paragraph (2) was deleted as it was redundant.

An editorial change was made to clarify the requirements of rule 121.357(d).

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

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 amending existing rules 121.77, 121.85, 121.357, 121.361, and 121.367; and inserting new rules 121.99, 121.101, and 121.103.

Effective date of rule

Amendment 23 to Part 121 comes into force on 16 January 2013.

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 121 Air Operations – Large Aeroplanes

Subpart B — Flight Operations

Rule 121.77 is revoked and replaced by the following rule:

121.77 Flight check system

(a) A holder of an air operator certificate must ensure that flight crew members have available for use a flight check system that includes—

- (1) instructions and guidelines for the safe and efficient management of the flight crew compartment; and
- (2) methods used to conduct the flight safely.

(b) The certificate holder must ensure that the system enables safe real-time decision making and aeroplane management by conforming with the principles—

- (1) contained in the aeroplane flight manual; and
- (2) contained in the manufacturer's technical and safety instructions; and
- (3) of crew resource management; and
- (4) of human factors and psychology; and
- (5) of ergonomics.

(c) The certificate holder must ensure that the system includes—

- (1) an expanded checklist in the operations manual; and
- (2) scan checks; and
- (3) a quick reference handbook; and
- (4) a checklist for procedures, including emergency procedures.

(d) The certificate holder must ensure that the system contains procedures, available for use at each flight crew member's duty station, to be followed by them—

- (1) prior to and during take-off; and
- (2) in flight; and
- (3) on landing; and
- (4) during normal, non-normal, and emergency situations.

Rule 121.85 is revoked and replaced by the following rule:

121.85 Flight crew compartment admission

(a) A holder of an air operator certificate must ensure that at least one forward-facing observer's seat is available in the flight crew compartment, on an aeroplane performing air operations, that is suitable for use while conducting en-route inspections.

(b) A person performing an air operation must ensure that no person, other than the flight crew members assigned to the flight, is admitted to, or carried in, the flight crew compartment, or occupies a pilot seat, unless that person is permitted by the pilot-in-command, and is—

- (1) a crew member; or
- (2) an authorised representative of the Director; or
- (3) permitted by the holder of the air operator certificate in accordance with procedures specified in the certificate holder's exposition.

(c) A person performing an air operation must ensure that all persons admitted to the flight crew compartment or occupying a pilot seat are familiarised with the appropriate safety procedures specified in the certificate holder's exposition.

Insert the following new rule after rule 121.97:

121.99 Securing the flight crew compartment door

The pilot-in-command of an aeroplane performing an air transport operation carrying passengers must ensure that the flight crew compartment door is closed and locked when all the external doors have been closed following embarkation until an external door is opened for disembarkation, except to permit entry or exit of a person permitted by the pilot-in-command.

Insert the following new rule after new rule 121.99:

121.101 Monitoring the area outside the flight crew compartment door

The pilot-in-command of an aeroplane performing an air transport operation carrying passengers must ensure that a crew member does not unlock the flight crew compartment door unless the crew member uses a visual device and an audio procedure acceptable to the Director to verify that—

- (1) the area outside the flight crew compartment door is secure; and
- (2) the person seeking to have the flight crew compartment door opened is not being forced to do so.

Insert the following new rule after new rule 121.101:

121.103 Discreet communication with a flight crew member

A holder of an air operator certificate who conducts an air transport operation carrying passengers must establish procedures that are acceptable to the Director for ensuring that a flight attendant can discreetly notify a flight crew member if suspicious activity or a security breach is detected in the cabin.

Subpart F — Instruments and Equipment

Rule 121.357 is revoked and replaced by the following rule:

121.357 Additional equipment

(a) A holder of an air operator certificate must ensure that an aeroplane operated under the authority of the certificate is equipped with—

- (1) a windshield wiper or equivalent for each pilot station; and
- (2) a door between the passenger and flight crew compartments, with a means of locking that prevents a person from opening it without the permission of the pilot-in-command; and
- (3) for each door that separates a passenger compartment from another compartment, except the flight crew compartment, that has emergency exit provisions—
 - (i) a key, readily available for each crew member; and
 - (ii) a placard that indicates the door must be open during take-off and landing.

(b) A holder of an air operator certificate who conducts an air transport operation carrying passengers must ensure that—

- (1) the door required by paragraph (a)(2)—
 - (i) meets the requirements of USA Title 14 Code of Federal Regulations §25.795(a)(1), (2), and (3) in effect on 15 May 2009; and
 - (ii) can be locked and unlocked from either pilot seat; and
- (2) a means is provided for monitoring the area outside the flight crew compartment for the purpose of identifying a person requesting entry to the flight crew compartment, or for detecting suspicious behaviour or a potential threat.

(c) Paragraph (b) does not apply to a holder of an air operator certificate who conducts an air transport operation carrying passengers in a General Dynamics Allison Convair 440/580 aeroplane until 31 December 2020 if—

- (1) the details specified under rule 47.55(b) in respect of that aeroplane already appear in the New Zealand Register of Aircraft on 16 January 2013; and
 - (2) the holder has established procedures that are acceptable to the Director in respect of managing the risk of unauthorised entry to the flight crew compartment.
- (d) A holder of an air operator certificate must ensure that a signal or confirmation system associated with a method established for communications between a flight attendant and a flight crew member must be operable from each flight crew member seat.

Rule 121.361 is revoked and replaced by the following rule:

121.361 Instrument flight rules

- (a) Except as provided in paragraph (b), a holder of an air operator certificate must ensure that every aeroplane that is operated under IFR under the authority of the certificate is equipped with—
- (1) the following that must be in addition to, and independent of, the instruments and equipment required under Subpart F of Part 91:
 - (i) a means of indicating airspeed, calibrated in knots, with a means of preventing malfunctioning due to either condensation or icing;
 - (ii) a means of indicating sensitive pressure altitude, calibrated in feet; and
 - (2) spare bulbs for flight crew compartment instrument illumination; and
 - (3) spare fuses.
- (b) An additional means of indicating aeroplane attitude, powered by a power source that is separate from the power source for the attitude indication required under Subpart F of Part 91, may be installed in lieu of the additional means of indicating airspeed required by paragraph (a)(1)(i).

Rule 121.367 is revoked and replaced by the following rule:

121.367 Protective breathing equipment

A holder of an air operator certificate must ensure that every aeroplane that is operated under the authority of the certificate is equipped with protective breathing equipment that—

- (1) is conveniently located and easily accessible to each—
 - (i) flight crew member at his or her normally seated position; and
 - (ii) crew member; and
- (2) is installed—
 - (i) in the flight crew compartment; and
 - (ii) in every passenger compartment within 1 metre of each required hand held fire extinguisher or at some other distance from the fire extinguisher that is acceptable to the Director; and
 - (iii) in a galley that contains a hand held fire extinguisher; and
- (3) is accessible to crew outside each Class A, B and E cargo compartment.

Consultation Details

(This statement does not form part of the rules contained in Part 108. It provides details of the consultation undertaken in making the rules.)

A Notice of Proposed Rulemaking, NPRM 12-01 Security Rules Update, containing the proposed rules was issued for public consultation under Docket 7/CAR/1 on 9 February 2012.

Submissions were received from Airways, Avsec, Chatham Islands Enterprise Trust, Christchurch International Airport, Federation of Air New Zealand Pilots, New Zealand Airports Association, and Qantas.

In addition to the seven formal submissions two organisations commented informally; and those comments have been included in this summary as they also resulted in changes being made to the proposed rules.

The submissions relevant to Part 121 were as follows:

Subject area

Flight deck barriers for all-cargo aircraft

One submitter questioned the need for hardened doors to be installed on all-cargo aircraft.

CAA Response

The CAA confirms its intention that all-cargo aircraft are not required to install a strengthened flight deck door; and will retain the proposed wording on the basis that rule 121.357(b) does not apply to all-cargo operations because they are not carrying any passengers.

Flight deck barrier for the Convair aircraft

One submission was received from the Chatham Islands Enterprise Trust regarding the requirement for strengthened flight deck doors. The submitter objected to the requirement for the following reasons—

- The capital expenditure that would be needed to install strengthened doors in the Air Chathams Convair aircraft would result in a fare increase of between 2% and 5%; which, in dollar terms, equates to an increase of between \$12.60 and \$31.50. These costs would be borne primarily by the Chatham

Island residents and businesses. The submitter noted that the point of unsustainable security measures, on a cost/benefit basis, was effectively set when a 2006 option for passenger screening that would cost \$5.31 per passenger per flight, was rejected.

- The Chatham Islands are less likely to attract a malicious passenger or passengers, and the vast majority of passengers are known to the airline and can be positively identified by the crew. On this basis, the submitter questioned whether the benefits outweighed the costs; and also whether the proposal to install strengthened flight deck doors was the most effective, efficient and proportional response to the security threat.
- The threat to airline viability is detrimental to the Island's commercial sector as an air freight capability supports the transport of live or chilled seafood; and there is no all-weather freight alternative. The industry currently suffers with lower catches and market returns, and higher fuel costs, and increased transport costs will have a negative impact. The submitter also notes that there is a wider issue that costs associated with flight deck protection from passengers should not be reflected in freight costs.
- Fare increases will have a detrimental effect on tourism – 68% of customer feedback is that the travel cost is already too high.
- The submitter also argued that 93% of the flights operated to and from the Chatham Islands carried less than 30 passengers.

CAA Response

In light of this submission, the CAA considered the following factors as drivers to review the proposed rule—

- *The fare increase is inequitable in terms of magnitude relative to the price that has been incurred on mainland New Zealand services;*
- *The cost will be applied predominantly to a single, small community that is reliant on air travel to service non-*

discretionary personal needs (e.g. dental, medical and professional services) and commercial needs (e.g. transport of live and chilled seafood).

- *The aircraft type has a limited service life and alternative security measures, appropriate to the risk, are available.*

The CAA will alter the proposed rule to exclude a currently registered General Dynamics Allison Convair 440/580 from the requirement to install a strengthened flight deck door until 31 December 2020 provided the operator can satisfy the Director that the risk of unauthorised entry to the flight deck can be mitigated.

Flight deck access

One submission was received regarding flight deck access in the case of total flight crew incapacitation.

CAA Response

The CAA further researched the submission topic and found that the requirements of proposed rule 121.357(c) are addressed in the aeroplane design rules, specifically 14 CFR § 25.772(c) for an aeroplane type certified on the basis of USA standards or CS 25.772(c) on the basis of European standards. In light of the submission, the CAA has reviewed the proposal and removed paragraph 121.357(c).

However, the CAA sympathises with the submitter's concerns and will provide guidance material to enable an operator to satisfactorily maintain the intent of the design rules by the introduction of company procedures. An example of this kind of guidance can be found in Transport Canada's Commercial and Business Aviation Advisory Circular 0216 which says on the topic of incapacitation:

...procedures shall consider pilot incapacitation for the following situations:

- a. both pilots are in the flight deck and one pilot becomes incapacitated; and*
- b. one pilot is out of the flight deck and the pilot remaining at the controls becomes incapacitated. For aircraft not equipped with a*

means to access the flight deck from the passenger compartment, such as a key pad, a third crew member must be brought into the flight deck prior to the pilot leaving in order to protect access to the flight deck. [emphasis added]