



**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

1<sup>ST</sup>

day of

August

2012

by Hon **GERRY BROWNLEE**

A large, handwritten signature in black ink, appearing to read 'Gerry Brownlee', is written over the printed name.

Minister of Transport

**Civil Aviation Rules**

**Part 121, Amendment 22**

**Part 121 Air Operations - Large Aeroplanes**

*Docket 6/CAR/5*

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## **Rule objective**

The objective of amendment 22 to Part 121 is to:

- develop and provide rules that are consistent with ICAO standards and recommended practices, as well as applicable to and suitable for industry.
- address the disparity between current rule intent and rule wordings.
- provide overall review and restructure of Subparts H, I, and J to align with current drafting style.

## **Extent of consultation**

Development of the rule amendment proposal included informal discussions, meetings and emails with Air National, Air New Zealand, Jetconnect and Pacific Blue. Prior to the publication of the notice of proposed rule making (NPRM), the rule amendment project for Part 121 was undertaken in consultation with a project working group (PWG) that consisted of representatives from the aviation industry.

NPRM 10-03, containing the proposed amendment to Part 121 was issued for public consultation under Docket 6/CAR/5 on 30 November 2010.

The publication of this NPRM was notified in the Gazette on 02 December 2010. 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 36 working days was allowed for comment on the proposed rule.

## **Summary of submissions**

Two submissions (a total of 12 responses) were received on the NPRM. Some of the submissions recommended improvement on the intent of some rules while others advocated editorial changes. These changes have been made, where appropriate, to clarify the requirements of the

rule. Furthermore, the submissions have been considered and as a result the following changes were made to the draft final rules:

## **Subpart H**

- 121.503(b)(1): Inserted ‘programme’ after ‘training’ to require the certificate holder to complete all segments of the programme.
- 121.503(b)(2): Reworded to clarify that a pilot acting as a flight crew member completing a pilot line training has completed the applicable training segments (rule 121.553(c) - introduction, upgrade, transition, and recurrent), and is assessed as competent for the particular flight crew position in accordance with Subpart I or Subpart J.
- 121.503(b)(2)(iii): Removed as it is redundant.
- 121.517(2): Removed ‘current’ as this is not applicable to the reference ‘Category D flight instructor rating’.
- 121.519(2): Removed ‘current’ as this is not applicable to the reference ‘Category D flight instructor rating’.
- 121.519(3)(ii): The phrase ‘Category D flight instructor’ is inserted as an option to ‘an airline flight instructor rating’.
- 121.521: Inserted rule references to clarify the particular route checks applicable.
- 121.521(3)(i): Inserted ‘Category D flight instructor rating’ as an option to ‘airline flight instructor rating’.
- 121.523(c): Inserted ‘if a certificate holder applies to the Director in writing,’ so that the Director will only approve a pilot who does not hold a medical certificate or is not a pilot instructor or a flight examiner to conduct pilot instruction or flight examination in a flight simulator upon his/her application. All other experience or qualification variables will also need to be considered by the Director before approval is granted.

- 121.523(c)(1): Removed ‘pilot-in-command or second-in-command’ experience to ‘flight time experience in air operations’ to clarify other flight time experience are included.
- 121.527(2): Reworded to clarify a flight attendant assessor must meet the requirements of a flight attendant trainer and have completed the required flight attendant operating experience specified in rule 121.575.
- 121.529(1): Inserted provision that specifies the instructional course to be completed by a ground instructor.
- 121.529(2): Inserted provision that specifies the human factors to be completed by a ground instructor .
- 121.529(3): Included provision to further clarify experience and qualification required of a ground instructor.
- 121.531(b)(3): Removed as it is redundant.
- 121.533(b)(2)(i): Reworded to clarify that supervision of pilots completing the transition or upgrade segments of the training programme will be conducted by a pilot-in-command who meets the requirements of the pairing restrictions specified in rule 121.531.
- 121.537(b): Amended to clarify operational restrictions for the conduct of a Category II or Category III precision approach procedure or departure by the pilot-in-command qualified only as pilot flying and second-in-command qualified only as the pilot non-flying.
- 121.537(c): Inserted to clarify experience requirements as options to 121.537(b).

The CAA made further amendments as follows:

- 121.533: This rule was restructured to clarify the rule intent. It also included procedures relating to a pilot, other than a pilot-in-command, acting as pilot flying during take-off or landing.

- 121.535: changed to reflect current drafting practices and remove references to ‘limitations’ which were inadvertently included in the NPRM document.
- Added a new rule 121.541 to provide for a transitional period to allow operators time to address non-technical and human factors aspects of pilot requirements.

### **Subpart I**

- 121.553(g): Amended to clarify that a person responsible for the certificate holder’s flight attendant training programme is either a flight attendant trainer, or a flight attendant assessor, or has appropriate experience acceptable to the Director.
- 121.557(b): Insertion of the following phrases— ‘with prior acceptance of the Director’, and ‘in the holder’s exposition’ to clarify rule requirement.
- 121.559(a)(2): Reworded to clarify that a transition training is also required if there is a change to the nature of the operation or new equipment introduced which affects the operation of the aeroplane type or variant.
- 121.561(b)(1): Insertion of ‘new responsibilities’ to clarify rule requirement.
- 121.563(b): New paragraph inserted to clarify recurrent training requirements for VFR and IFR air operations.
- 121.565(c)(3): Removal of ‘flight crew supervisor’ and replaced by ‘pilot instructor’ or flight examiner’.
- 121.565(g): Added to require a certificate holder conducting training in an aeroplane to use a safe flight practice guide that is acceptable to the Director.
- 121.567(a)(1): Inserted to clarify the requirement for a pilot to complete a competency assessment prior to commencing the pilot line training.

- 121.567(a)(2): Amended to remove the requirement to have a route check .
- 121.567(d)(2): Rule wording amended to clarify that supervision is for a pilot undergoing line training for a second-in-command position.
- 121.567(d)(3): Rule wording amended to clarify that the pilot instructor must occupy a pilot station when supervising a pilot undergoing line training for a pilot-in-command position.
- 121.567(e): Removed as it is redundant.
- 121.567(f) renumbered as 121.567(e): Subparagraphs (e)(1), (e)(2), and (e)(3) added to clarify requirements for a cruise relief pilot when completing pilot line training.
- 121.567(g) now 121.567(f): 121.567(f)(1) removed and replaced.
- 121.569(a): Paragraph is split into 3 subparagraphs and the requirement to complete a route check is added.
- 121.569(b)(3): Inserted ‘operating cycles’ as an option to flight time experience required in the pilot line training.
- 121.569(b)(5): Added to clarify that if a pilot is completing a transition or upgrade training, such training must be conducted with a flight crew member who meets the requirements of the pairing rule restriction.
- 121.575(b)(1): Reworded to clarify a flight attendant providing supervision must be qualified as a flight trainer.

The CAA received a late submission regarding the requirement for an instrument rating. As a result of this submission, the CAA further reviewed rule 121.557. The logical outflow arising from such submission is to amend rule 121.557 by:

- 121.557(d): Restructured to improve clarity, and removed the requirement regarding airline pilot training programmes.



- 121.557(d)(1)(i): Reinstated the current requirement as an option so as not to disadvantage a pilot with hours acquired in single engine air transport operations.
- 121.557(d)(2)(i): New paragraph to clarify the pilot is required to hold a current instrument rating prior to commencing the introduction segment of the training programme.
- 121.557(d)(2)(ii): Amended to clarify a pilot is required to have acquired 40 hours of instrument time of which at least 10 hours are completed under the supervision of a pilot instructor.
- Added a new rule 121.579 to provide for a transitional period to allow operators time to address non-technical and human factors aspects of pilot training.

### **Subpart J**

- 121.603(f): Added to ensure that a competency assessment conducted in an aeroplane (if a suitable flight simulator is not available) is carried out in accordance with a safe flight practice guide that is acceptable to the Director.
- 121.605(c): Removed as it is redundant. The rule is covered in rule 121.503(b).
- 121.607(5): 'Human factors and crew resource management' inserted.
- 121.611: Reworded to align with standard rule drafting.
- 121.613: 'Route checks' inserted.
- Added a new rule 121.615 to allow operators time to address non-technical and human factors aspects of pilot competency requirements.

### **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 inserting a new definition in rule 121.3, and revoking Subparts H, I, and J and replacing them with new Subparts H, I, and J.

**Effective date of rule**

Amendment 22 to Part 121 comes into force on 06 September 2012.

**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 A — General

*Rule 121.3 is amended by inserting the following new definition after the definition of net take-off flight path, take-off flight path, take-off distance, and take-off run:*

#### 121.3 Definitions

**Second-in-command** means a pilot, other than the pilot-in-command, who is required by the flight manual for the operation of an aircraft.

*Subpart H is revoked and replaced by the following new Subpart:*

### Subpart H — Crew Member Requirements

#### 121.501 Purpose

This Subpart prescribes the rules governing the assignment of crew members on an aeroplane conducting an air operation under the authority of an air operator certificate.

#### 121.503 Assignment of crew members

- (a) A holder of an air operator certificate must, for each aeroplane type operated under the authority of the certificate, assign in writing to each crew member, the operational and safety functions that each crew member is to perform during an air operation.
- (b) The certificate holder must ensure that a person is not assigned to perform the function of a crew member on an aeroplane operating under the authority of the certificate unless that person—
- (1) has completed the applicable training programme under Subpart I and is assessed as competent for the crew member position under Subpart J; or
  - (2) if a pilot acting as a flight crew member, completing the pilot line training under rule 121.567 or pilot consolidation under rule 121.569,—

- (i) has completed the applicable segments of the training programme under Subpart I; and
    - (ii) is assessed as competent for the flight crew member position under Subpart J; or
  - (3) is participating in, and is assessed as competent in accordance with an advanced qualification programme under Subpart M.
- (c) The certificate holder must not require a crew member to perform any duty during a critical phase of a flight that is not required for the safe operation of the aeroplane.
- (d) For the purpose of paragraph (c), a critical phase of a flight includes—
- (1) for flight crew members, all operations involving push back, taxi, take-off, approach and landing, and any other period when the aeroplane is operated below a height of 10 000 feet above ground level except when in cruise flight; and
  - (2) for flight attendants, all ground operations after leaving the apron area to join a main taxiway, take-off until passing a height of 1000 feet above ground level on climb, and the approach and landing phase of flight after the aeroplane has descended below a height of 5000 feet above ground level.

### **121.505 Flight crew duty assignment**

- (a) A holder of an air operator certificate must, for an air operation conducted under the authority of the certificate, assign in writing—
- (1) a pilot who meets the requirements referred to in rule 121.507 as the designated pilot-in-command; and
  - (2) any additional pilot who is required by the flight manual for the operation of the aeroplane and who must meet the requirements referred to in rule 121.507 or rule 121.509; and
  - (3) any other pilot, qualified to act as pilot-in-command or as an additional pilot under paragraph (a)(2), who is required by

the type of operation to be performed to augment the minimum flight crew specified in the aeroplane flight manual; and

- (4) if required by the type of operation, either—
- (i) a flight engineer who meets the requirements referred to in rule 121.513; or
  - (ii) a cruise relief pilot who meets the requirements referred to in rule 121.511; or
  - (iii) both a flight engineer, and a cruise relief pilot.

(b) If the number of pilots required by paragraphs (a)(1), (2), and (3) is more than 2, the certificate holder must assign in writing which of the pilots required by paragraphs (a)(2) or (3) will act as pilot-in-command if the designated pilot-in-command becomes incapacitated.

### **121.507 Pilot-in-command experience requirements**

A holder of an air operator certificate must not designate a pilot to act as pilot-in-command of an aeroplane conducting an air operation under the authority of the certificate unless the pilot—

- (1) holds a current airline transport pilot licence (aeroplane) with an applicable aircraft type rating; and
- (2) holds a current instrument rating; and
- (3) has successfully completed the applicable training and competency requirements specified in Subparts I and J, or is participating in, and is assessed as competent in accordance with an advanced qualification programme specified in Subpart M; and
- (4) has at least 1500 hours of flight time experience as a pilot, including—
  - (i) 500 hours in the type of operations to which this Part applies or in equivalent operations that are acceptable to the Director; and

- (ii) 100 hours of instrument time of which at least 50 hours must be acquired in actual flight; and
- (5) for night operations, has acquired at least 100 hours of night-flight time experience.

### **121.509 Second-in-command experience requirements**

A holder of an air operator certificate must not designate a pilot to act as second-in-command of an aeroplane conducting an air operation under the authority of the certificate unless—

- (1) the pilot holds at least a current commercial pilot licence (aeroplane) with an applicable aircraft type rating; and
- (2) the pilot holds a current instrument rating; and
- (3) the pilot—
  - (i) has successfully completed the applicable training and competency requirements specified in Subparts I and J, or is participating in, and is assessed as competent in accordance with an advanced qualification programme specified in Subpart M; or
  - (ii) has successfully completed the applicable introduction, transition, or upgrade segment of the flight crew member training programme required by Subpart I and is assessed as competent for the flight crew member position under Subpart J, and is completing the pilot line training or pilot consolidation referred to in rules 121.567 or 121.569; and
- (4) the pilot is capable, if the pilot-in-command becomes incapacitated—
  - (i) of operating the aeroplane safely under the prevailing and anticipated forecast weather conditions; and
  - (ii) of performing the functions of the pilot-in-command; and

- (iii) of landing the aeroplane at the intended destination aerodrome or at a suitable alternate aerodrome.

### **121.511 Cruise relief pilot experience requirements**

A holder of an air operator certificate must not designate a pilot to act as cruise relief pilot conducting an air operation under the authority of the certificate unless the pilot—

- (1) holds at least a current commercial pilot licence (aeroplane) with an applicable aircraft type rating; and
- (2) holds a current instrument rating; and
- (3) has completed the applicable training and competency requirements specified in Subparts I and J; and
- (4) is capable of operating the aeroplane safely in the cruise phase referred to in rule 121.533(b) until—
  - (i) the second-in-command is summoned to the flight deck, if the pilot-in-command becomes incapacitated; or
  - (ii) the pilot-in-command is summoned to the flight deck, if the second-in-command becomes incapacitated.

### **121.513 Flight engineer experience requirements**

A holder of an air operator certificate must not designate a person to act as a flight engineer on an aeroplane conducting an air operation under the authority of the certificate unless the person holds—

- (1) a current flight engineer licence with an applicable aircraft type rating and has successfully completed the applicable training and competency requirements specified in Subparts I and J; or
- (2) a current cadet flight engineer licence and is under the direct supervision of a flight engineer who holds a current flight engineer instructor rating with an applicable aircraft type rating and who has successfully completed the applicable

training and competency requirements specified in Subparts I and J.

### **121.515 Flight attendant experience requirements**

A holder of an air operator certificate must not designate a person to perform the functions of a flight attendant on an aeroplane operating under the authority of the certificate unless the person has satisfactorily completed the appropriate segments of the crew member training programme required by rule 121.553 for the aeroplane type and the assigned crew member position.

### **121.517 Line supervisory pilot experience requirements**

A holder of an air operator certificate must not designate a person to perform the functions of a line supervisory pilot unless that person—

- (1) is qualified to act as pilot-in-command of the aeroplane type performing an air operation under the authority of the certificate; and
- (2) holds a Category D flight instructor rating or an airline flight instructor rating referred to in Part 61; and
- (3) has acquired at least 2000 hours of flight time experience as a pilot including—
  - (i) 200 hours line operating flight time experience for the particular aeroplane type involved; or
  - (ii) 100 hours exercising the privileges of an airline flight instructor rating, referred to in Part 61, supervising pilots completing consolidation in an air operation on another aeroplane type under Subpart I or Subpart M; and
- (4) has completed a training course in the methods for assessing crew member competency in the technical and non-technical aspects of aircraft operation including human factors and crew resource management.



**121.519 Pilot instructor experience requirements**

A holder of an air operator certificate must not designate a pilot to perform the function of a pilot instructor in the flight crew member training programme required by this Part unless that pilot—

- (1) is qualified to act as pilot-in-command of the aeroplane type performing an air operation under the authority of the certificate; and
- (2) holds a Category D flight instructor rating, or an airline flight instructor rating referred to in Part 61; and
- (3) has acquired at least 3000 hours of flight time experience as a pilot, including—
  - (i) 500 hours line operating flight time experience for the particular aeroplane type involved; or
  - (ii) 100 hours exercising the privileges of a Category D flight instructor or an airline flight instructor rating, referred to in Part 61, instructing pilots on another aeroplane type under Subpart I or Subpart M; and
- (4) has completed a training course in the methods for assessing crew member competency in the technical and non-technical aspects of aircraft operation including human factors and crew resource management.

**121.521 Flight examiner experience requirements**

A holder of an air operator certificate must not designate a pilot to perform the function of a flight examiner in a route check required by rule 121.567(e)(3), rule 121.569(a)(3), or in an operational competency assessment programme required by Subpart J unless that pilot—

- (1) holds a current airline flight examiner rating referred to in Part 61; and
- (2) is qualified to act as pilot-in-command of the aeroplane type performing an air operation under the authority of the certificate; and

- (3) has acquired—
  - (i) 200 hours exercising the privileges of Category D flight instructor rating or an airline flight instructor rating, referred to in Part 61, for the particular aeroplane type involved; or
  - (ii) 100 hours exercising the privileges of an airline flight examiner rating, referred to in Part 61, on an aeroplane type to which this Part applies; or
  - (iii) other suitable experience on an aeroplane type applicable to this Part or Part 125 as acceptable to the Director; and
- (4) has completed a training course in the methods for assessing crew member competency in the technical and non-technical aspects of aircraft operation including human factors and crew resource management.

### **121.523 Simulator instructor and examiner experience requirements**

- (a) Except as provided in paragraphs (b) and (c), a holder of an air operator certificate must not designate a pilot to perform the function of a pilot instructor, or flight examiner for the purpose of giving flight instruction or conducting a flight crew member operational competency assessment in a flight simulator unless the pilot—
  - (1) meets the appropriate requirements referred to in rule 121.519 or 121.521; and
  - (2) demonstrates competency as pilot-in-command in the flight simulator to the standard required by Subpart J; and
  - (3) has received proficiency training in the operation of the flight simulator; and
  - (4) has completed a training course in the methods for assessing crew member competency in the technical and non-technical aspects of aircraft operation including human factors and crew resource management.

(b) A pilot who has previously met the requirements referred to in paragraph (a) but who no longer holds a current medical certificate may act as a pilot instructor or flight examiner in a flight simulator if the pilot maintains competency by—

- (1) undergoing training as a flight crew member in a flight simulator in accordance with the training programme required by rule 121.553; and
- (2) completing a competency assessment under Subpart J; and
- (3) completing the applicable training requirements which are otherwise necessary to maintain the currency of an airline instructor rating, or flight examiner rating, under Part 61 and this Part.

(c) Despite paragraph (a), if the certificate holder applies to the Director in writing, the Director may approve a pilot, who does not hold a medical certificate and who has not previously met the requirements referred to in rules 121.519 or 121.521, to exercise the functions of a pilot instructor or flight examiner in a flight simulator if the pilot—

- (1) has at least 5000 hours flight time experience in air operations; and
- (2) satisfactorily completes the training and competency requirements of Subpart I and J in a flight simulator of the aeroplane type; and
- (3) satisfactorily completes a course in flight instruction or flight examination that is acceptable to the Director; and
- (4) receives proficiency training in the operation of the flight simulator; and
- (5) continues to maintain competency as specified in paragraph (b).

### **121.525 Flight attendant trainer experience requirements**

A holder of an air operator certificate must not designate a flight attendant to perform the function of a flight attendant trainer in the flight

crew member training programme required by this Part unless that flight attendant—

- (1) has completed applicable training segments of the crew member training programme specified in rule 121.553; and
- (2) has completed a training course in the methods for assessing flight attendant competency in the technical and non-technical aspects of aircraft operation including human factors and crew resource management.

### **121.527 Flight attendant assessor experience requirements**

A holder of an air operator certificate must not designate a flight attendant to perform the function of a flight attendant assessor for the purpose of rule 121.611 unless the flight attendant—

- (1) has completed the training segments and course referred to in rule 121.525; and
- (2) is qualified as specified in rule 121.575.

### **121.529 Ground instructor experience requirements**

A holder of an air operator certificate must not designate a person to perform the functions of a ground instructor in its crew member training programme required by rule 121.553 for flight crew, unless that person has completed—

- (1) an instructional techniques course acceptable to the Director; and
- (2) human factors course acceptable to the Director; and
- (3) comprehensive training course in the subject matter area in which instruction is being provided.

### **121.531 Flight crew member pairing limitations**

(a) Except as may be authorised under paragraph (b), a holder of an air operator certificate must ensure that an air operation is not conducted unless at least one of the flight crew members has accumulated the following flight time experience after completing the training and consolidation requirements of Subpart I—

- (1) 75 hours in the aeroplane type that is being operated; or
- (2) 75 operating cycles in the aeroplane type that is being operated.

(b) If a certificate holder applies to the Director in writing, the Director may authorise the certificate holder to deviate from the requirements of paragraph (a) by amending the operations specifications as appropriate in any of the following circumstances:

- (1) a new certificate holder who cannot meet the minimum requirements prescribed in paragraph (a):
- (2) an existing certificate holder acquires an aeroplane type not previously authorised by the Director for use in its operations.

(c) If a flight crew member is participating in an advanced qualification programme required by Subpart M, the flight time experience referred to in paragraph (a) apply.

### **121.533 Pilot operating limitations**

(a) A holder of an air operator certificate must ensure that for an air operation conducted under the authority of the certificate, the pilot flying during each take-off and each landing is—

- (1) the pilot-in-command; or
- (2) subject to paragraph (c), a pilot other than the pilot-in-command.

(b) If a cruise relief pilot is designated for an air operation under rule 121.505(a)(4), the holder of the air operator certificate must ensure that the cruise relief pilot does not occupy a flight crew seat—

- (1) at any time when the aeroplane is operating below FL200 or below the transition level, whichever is higher; or
- (2) at any other time during the flight unless the other flight crew seat is occupied by a pilot who is—

- (i) the pilot-in-command; or
  - (ii) designated by the pilot-in-command and qualified by the holder to act as pilot-in-command in the cruise phase of the flight while supervising a cruise relief pilot.
- (c) The holder of an air operator certificate must establish procedures for ensuring that a pilot, other than the pilot-in-command, acting as pilot flying during the take-off or landing of an aeroplane is—
- (1) competent to perform the particular take-off or landing; and
  - (2) supervised by the pilot-in-command.
- (d) The procedures required by paragraph (a) must be based on risk management principles and take into account—
- (i) pilot-in-command qualifications:
  - (ii) pilot training and experience:
  - (iii) aircraft status and performance:
  - (iv) runway dimensions and conditions:
  - (v) cloud ceiling:
  - (vi) prevailing visibility:
  - (vii) crosswind component.

### **121.535 Flight crew operating multiple aeroplane types or variants**

- (a) If a holder of an air operator certificate assigns a flight crew member to operate more than one aeroplane type or more than one variant of an aeroplane type, the certificate holder must—
- (1) ensure that the flight crew member is trained and qualified to operate each aeroplane type or variant; and

- (2) establish training and competency assessment procedures acceptable to the Director, for a flight crew member to be assigned to operate more than one aeroplane type or more than one variant of an aeroplane type.
- (b) The procedures required by paragraph (a)(2) must ensure that—
- (1) before a flight crew member is assigned to operate more than one aeroplane type or variant, the flight crew member has the relevant experience, taking into account the aircraft manufacturer's recommendations; and
  - (2) a flight crew member has the sufficient experience required on one aeroplane type or variant before beginning training for another aeroplane type or variant, taking into account the manufacturer's recommendations; and
  - (3) a flight crew member who is qualified on one aeroplane type or variant is trained and qualified on another aeroplane type or variant ; and
  - (4) a flight crew member—
    - (i) has the applicable competency and recent flight experience requirements for each aeroplane type or variant; or
    - (ii) satisfactorily completes a competency assessment on one specified aeroplane type or variant that is deemed to meet the competency standard on another specified aeroplane type or variant; and
    - (iii) for the purpose of paragraph (ii), the specified aeroplane types or variants must be recommended by the aeroplane manufacturer.
- (c) The relevant experience referred to in paragraph (b)(1) must include the minimum flight time experience or operating cycles a flight crew member must complete in air operations to which this Part applies.
- (d) The experience referred to in paragraph (b)(2) must include—

- (1) the minimum flight time experience or operating cycles a flight crew member must complete in the aeroplane type already flown to which this Part applies; and
  - (2) the minimum number of hours a flight crew member must complete exclusively on the new aeroplane type or variant after commencing training for the new aeroplane type or variant.
- (e) The training and competency assessment procedures required by paragraph (a)(2) for a flight crew member to operate on more than one aeroplane type or different types of aeroplane with similar characteristics, must take into account at least the following:
- (1) the aeroplane operating procedures; and
  - (2) the aeroplane systems; and
  - (3) the aeroplane performance limitations; and
  - (4) the aeroplane handling characteristics.
- (f) Despite rule 61.37, a holder of an air operator certificate must ensure that a flight crew member other than a cruise relief pilot, assigned to act as a flight crew member on multiple aeroplane types or variants, meets—
- (1) the recent flight experience required by Part 61 for each aeroplane type or variant; or
  - (2) the recent flight experience requirements for each aeroplane type or variant as specified in the procedures required by paragraph (a)(2).

### **121.537 Flight crew conducting Category II or III precision approach and reduced take-off minima**

- (a) A holder of an air operator certificate must ensure that the pilots of an aeroplane conducting an air operation under the authority of the certificate do not perform a Category II or Category III precision approach procedure, or a departure with reduced take-off minima, unless



both the pilot-in-command and the pilot acting as second-in-command are qualified to perform the particular approach procedure or departure.

- (b) For the purpose of paragraph (a)—
- (1) where the pilot-in-command is qualified only as pilot flying for the Category II or III precision approach and reduced take-off minima, the pilot-in-command must conduct the particular approach procedure and reduced take-off minima departure as pilot flying; and
  - (2) where the second-in-command is qualified only as the pilot non-flying for the Category II or III precision approach and reduced take-off minima, the pilot-in-command must conduct the particular approach procedure and reduced take-off minima departure as pilot flying.
- (c) Despite paragraph (b), the pilot of an aeroplane may perform a Category II or III precision approach procedure or a departure with reduced take-off minima as pilot flying or pilot non-flying for the particular approach and take-off if —
- (1) the pilot-in-command and the second-in-command are qualified as specified in paragraph (a); and
  - (2) the pilot-in-command—
    - (i) is a line supervisory pilot qualified as specified in rule 121.517; or
    - (ii) a pilot instructor qualified as specified in rule 121.519; or
    - (iii) a flight examiner qualified as specified in rule 121.521.

### **121.539 Flight attendants duty assignment**

- (a) A holder of an air operator certificate must ensure that an aeroplane is not operated on an air operation carrying passengers under the authority of the certificate unless the minimum number of flight attendants carried as crew members—

- (1) is as specified by the manufacturer's recommended emergency evacuation procedures for the aeroplane configuration being used; and
- (2) is as specified by the certified design criteria for the aeroplane; and
- (3) will ensure at least 1 flight attendant is present in each occupied compartment; and
- (4) is in accordance with the minimum number specified in Table 3.

**Table 3. Required flight attendants**

<b>Aeroplane Passenger Capacity:</b>	<b>Flight Attendants required</b>
15 through 50	1
51 through 100	2
101 through 150	3
151 through 200	4
201 through 250	6
251 through 300	7
301 through 350	9
351 through 400	10
401 through 450	11
451 through 500	12
More than 500	12 plus 1 for every additional 50 passengers or component of 50 passengers in excess of 500

- (b) The certificate holder must designate—
  - (1) for each air operation requiring 2 or more flight attendants, a senior flight attendant responsible to the pilot-in-command for the operational and safety functions of each flight attendant; and
  - (2) for each air operation requiring 6 or more flight attendants, a deputy senior flight attendant.

(c) Despite paragraph (a)(4), the number of flight attendants required by Table 3 may be reduced by 1 to allow an air operation to continue if a required flight attendant becomes unfit because of sickness or injury during a duty period, if —

- (1) the requirements of paragraphs (a)(1), (2), and (3) can be met; and
- (2) the remaining flight attendants are trained and competent to operate safely with one less flight attendant in accordance with the procedures specified in the certificate holder's exposition; and
- (3) a flight attendant meeting the requirements referred to in rule 121.515 is available to replace the unfit flight attendant at the first aerodrome of landing .

#### **121.541 Transitional arrangements**

(a) Rules 121.517(4), 121.523(a)(4), and 121.525(2) do not apply to the holder of an air operator certificate until 6 September 2014.

(b) Rule 121.519(4) does not apply to the holder of an air operator certificate until 6 September 2014 provided that the holder continues to comply with rule 121.585(4) that was in force on 5 September 2012.

(c) Rule 121.521(4) does not apply to the holder of an air operator certificate until 6 September 2014 provided that the holder continues to comply with rule 121.583(5) that was in force on 5 September 2012.

*Subpart I is revoked and replaced by the following new Subpart:*

### **Subpart I — Training**

#### **121.551 Purpose**

This Subpart prescribes rules governing the establishment and implementation of training programmes specified in this Subpart for flight crew members and flight attendants who are not participating in an advanced qualification programme specified in Subpart M.

**121.553 Crew member training programme**

- (a) A holder of an air operator certificate must establish a crew member training programme under this Subpart to ensure that each flight crew member and each flight attendant assigned to act as a crew member on an aeroplane conducting an air operation, and who is not participating in an advanced qualification programme specified in Subpart M, is trained to perform their assigned functions.
- (b) The certificate holder must ensure that the training programme required by paragraph (a) is conducted safely, in a structured manner, and without unacceptable risk to the equipment and personnel, or third parties.
- (c) The certificate holder must ensure that the training programme required by paragraph (a) contains the following segments—
- (1) introduction training:
  - (2) transition training:
  - (3) upgrade training:
  - (4) recurrent training.
- (d) The certificate holder must ensure that the training programme required by paragraph (a) includes human factors as an integral component in every training segment referred to in paragraph (c).
- (e) The certificate holder must ensure that a pilot who completes an introduction training segment, a transition training segment, or an upgrade training segment also completes the pilot line training requirements specified in rule 121.567, and the pilot consolidation requirements specified in rule 121.569.
- (f) The certificate holder must ensure that the person responsible for its flight crew training programme holds a flight examiner rating.
- (g) The certificate holder must ensure that the person responsible for its flight attendant training programme is qualified as specified in rule 121.525, or rule 121.527, or has appropriate qualifications and experience that are acceptable to the Director.

- (h) The certificate holder is responsible for controlling the training programme required by paragraph (a).
- (i) The certificate holder may—
- (1) conduct the training in accordance with the training programme required by paragraph (a); or
  - (2) contract with the holder of an aviation training organisation certificate issued under Part 141, to conduct the training in accordance with the training programme required by paragraph (a) if the Part 141 certificate authorises the holder to conduct that type of training; or
  - (3) for a training conducted outside New Zealand, contract with an organisation that meets a standard equivalent to that specified in Part 141 to conduct the training in accordance with the training programme required by paragraph (a) for flight crew members.
- (j) The certificate holder must ensure that when a crew member completes a training segment of the training programme—
- (1) the training record for that crew member is updated with the details of the qualification acquired; and
  - (2) the training record and details of the qualification referred to in paragraph (1) are kept in accordance with the procedures referred to in rule 119.67; and
  - (3) the crew member is informed of the qualification.

### **121.555 Syllabus for crew member training programme**

- (a) A holder of an air operator certificate must ensure that each segment of the training programme for flight crews and flight attendants includes a syllabus that is applicable to the certificate holder's operations and is acceptable to the Director.
- (b) Each syllabus required by paragraph (a) must include at least the following elements as applicable to—

- (1) the aeroplane type to be used, including special equipment fitted for the intended operation:
- (2) the routes and aerodromes appropriate to the intended operation:
- (3) the crew member assignments, functions, responsibilities, and the relationship of these to the assignments, functions and responsibilities of other crew members, particularly in regard to abnormal or emergency procedures:
- (4) training in all types of emergency and abnormal situations or procedures caused by power plant, airframe or system malfunctions, fire or other abnormalities:
- (5) the location and operation of emergency equipment available for use by crew members:
- (6) the location and use of oxygen equipment:
- (7) the location and use of all normal and emergency exits, including evacuation slides and escape ropes:
- (8) training on human factors and crew resource management:
- (9) training in strategies to manage risks including threat and error management:
- (10) the requirements of Part 92 regarding the carriage of dangerous goods:
- (11) security training in accordance with the air operator security programme required by rule 119.75:
- (12) the certificate holder's policies and procedures appropriate to its air operations.

### **121.557 Crew member introduction segment**

- (a) Subject to paragraphs (b) and (c), a holder of an air operator certificate must ensure that a pilot or flight attendant who is not qualified and currently serving as a crew member in an air operation

under the authority of the certificate, completes the introduction segment of the training programme required by rule 121.553, and in accordance with the syllabus required by rule 121.555.

(b) The certificate holder may, with prior acceptance of the Director, vary the syllabus of the introduction segment of the training programme in the holder's exposition for a crew member if details of the variation and the reasons for the variation are recorded and certified in the crew member's record of training.

(c) The certificate holder must ensure that the introduction segment of the training programme includes training on human factors, and crew resource management.

(d) A pilot may not commence an introduction segment of the training programme under paragraph (a) unless—

(1) the pilot—

- (i) has acquired at least 500 hours of flight time experience as pilot, including at least 100 hours of flight time in air operations; or
- (ii) has acquired at least 500 hours of flight time experience as a pilot on a multi-engine aeroplane type; and

(2) the pilot—

- (i) holds a current instrument rating; and
- (ii) has acquired at least 40 hours of instrument time of which at least 10 hours were completed under the supervision of an appropriately qualified flight instructor; and

(3) the pilot has acquired at least 25 hours of night flight time experience for air operations at night.

**121.559 Crew member transition segment**

(a) Subject to paragraph (b), a holder of an air operator certificate must ensure that a pilot or flight attendant who is qualified and currently acting as a crew member on an air operation under the authority of the certificate completes the transition segment of the training programme required by rule 121.553 if—

- (1) the crew member is changing from one aeroplane type or variant to another type or variant ; or
- (2) there is a change to the nature of the operation, or new equipment is introduced, which affects the operation of the aeroplane type or variant.

(b) The transition segment of the training programme referred to in paragraph (a) must address at least the following—

- (1) the use of all safety and emergency equipment and procedures applicable to the aeroplane type or variant; and
- (2) new procedures or equipment introduced on the existing aeroplane type or variant; and
- (3) any required human factors and crew resource management training brought about by the different aeroplane, equipment, or procedures.

**121.561 Crew member upgrade segment**

(a) Subject to paragraph (b), a holder of an air operator certificate must ensure that a pilot or flight attendant who is qualified and currently acting as a crew member on an air operation conducted under the authority of the certificate completes the upgrade segment of the training programme required by rule 121.553 on the same aeroplane type if—

- (1) for pilots, the crew member is changing from one crew position to a more responsible crew position, and;
- (2) for flight attendants, the flight attendant is upgrading to a role of increased responsibility.



(b) The upgrade training must address the use of all safety and emergency equipment and procedures applicable to the new flight crew position for pilots, and the more responsible role for flight attendants on the aeroplane for which the upgrade is sought and must—

- (1) include training on human factors, and crew resource management, with particular emphasis on the changes brought about by the different flight crew position and new responsibilities; and
- (2) include training in supervisory skills.

### **121.563 Crew member recurrent segment**

(a) A holder of an air operator certificate must ensure that a pilot or flight attendant of an aeroplane operating under the authority of the certificate completes the recurrent segment of the training programme required by rule 121.553 in order for the crew member to be current, and proficient on the aeroplane type, crew member position, and type of operation in which the crew member serves.

(b) The holder of an air operator certificate must ensure that the recurrent segment includes flight training for flight crew members—

- (1) every 6 months for an air operation conducted under IFR; and
- (2) every 12 months for an air operation conducted under VFR.

(c) The holder of an air operator certificate must ensure that an air operator completes a recurrent segment of the training programme using the training equipment specified in rule 121.565.

(d) The holder of an air operator certificate must ensure that the recurrent segment of the training programme addresses training on human factors and crew resource management.

### **121.565 Flight crew training equipment**

(a) A holder of an air operator certificate must ensure that the crew member training programme required by rule 121.553 for flight crew members includes both ground and flight instruction using—

- (1) training devices; and
  - (2) a flight simulator for the aeroplane type being used.
- (b) The certificate holder must ensure that each flight simulator and each training device that is used in its training programme is—
- (1) approved for use by the certificate holder; and
  - (2) approved for the aeroplane type, and if applicable, the particular variant within that type, for which the training or check is being conducted; and
  - (3) approved for the particular manoeuvre, procedure, or crew member function involved; and
  - (4) specified in the exposition required by rule 119.81.
- (c) The certificate holder must ensure that any flight simulator or training device used for flight training in the training programme, —
- (1) maintains the performance, functional, and other characteristics that are required for approval; and
  - (2) is modified to conform with any modification to the aeroplane being simulated that results in changes to performance, functional, or other characteristics required for approval; and
  - (3) is given a functional pre-flight check before being used, and any discrepancy detected during use is logged by the appropriate pilot instructor or flight examiner at the end of each training or flight assessment.
- (d) When flight crew training is conducted using equipment or resources that are not used solely for training, the certificate holder must ensure that sufficient access is available to the equipment or resource to enable the training to be completed—
- (1) without unplanned interruption; and

- (2) in an environment that is conducive to the objective and safety outcome of the training task.
- (e) The certificate holder must ensure that for each aeroplane type operated under the authority of the certificate, a flight simulator for that aeroplane type is used for the flight crew training components of the training programme.
- (f) Despite paragraph (e), if a flight simulator for a particular aeroplane type is not available, the certificate holder may apply to the Director to amend the training programme to conduct training in an aeroplane.
- (g) The certificate holder must ensure that training conducted in an aeroplane referred to in paragraph (f) is carried out in accordance with a safe flight practice guide that is acceptable to the Director.

### **121.567 Pilot line training**

- (a) A holder of an air operator certificate must ensure that a pilot, other than a cruise relief pilot, who under rule 121.557 completes the introduction segment, or under rule 121.559 completes the transition segment, or under rule 121.561 completes the upgrade segment of the training programme required by rule 121.553—
  - (1) completes a competency assessment under Subpart J before commencing the pilot line training specified in paragraph (b); and
  - (2) completes the pilot line training specified in paragraph (b).
- (b) The pilot line training required by paragraph (a)(2) must comprise of:—
  - (1) following introduction training segment—
    - (i) for multi-engine turbo prop powered aeroplanes – 20 hours including 10 take-offs and landings of which at least 6 take-offs and landings must be as pilot flying; and

- (ii) for turbojet and turbofan powered aeroplanes – 25 hours including 10 take-offs and landings of which at least 6 take-offs and landings must be as pilot flying; and
  - (iii) for all aeroplanes, including those referred to in paragraphs (i) and (ii) – 4 operating cycles of which at least 2 must be as pilot flying;
- (2) following the transition or upgrade training segment—
  - (i) for multi-engine, turbo prop powered aeroplanes – 12 hours including 10 take-offs and landings of which at least 6 take-offs and landings must be as pilot flying; and
  - (ii) for turbojet and turbofan powered aeroplanes – 20 hours including 10 take-offs and landings for the pilot-in-command of which 6 take-offs and landings must be as pilot flying; or 10 hours including 10 take-offs and landings for second-in-command of which 6 take-offs and landings must be as pilot flying; and
  - (iii) for all aeroplanes, including those referred to in paragraphs (i) and (ii) – 4 operating cycles of which at least 2 must be as pilot flying.
- (c) The pilot line training specified in paragraph (b) must be—
  - (1) acquired in an aeroplane conducting an air operation; and
  - (2) conducted under the supervision of an instructor—
    - (i) who meets the requirements referred to in rule 121.519; or
    - (ii) who is approved by the Director to conduct specific training for the introduction of a new aeroplane type.
- (d) For the purpose of paragraph (c)(1), the pilot instructor required by paragraph (c)(2)—

- (1) must act as pilot-in-command at all times; and
  - (2) must occupy a pilot station when supervising a pilot undergoing line training for a second-in-command position; and
  - (3) must occupy a pilot station when supervising a pilot undergoing line training for a pilot-in-command position, until the pilot acquiring the experience has—
    - (i) made at least 2 take-offs and landings as pilot flying in the aeroplane type for which the pilot-in-command qualification is required; and
    - (ii) demonstrated to the pilot instructor the ability to perform the duties of a pilot-in-command for that aeroplane type; and
  - (4) may occupy the observer's seat if the requirements of paragraph (3) are met.
- (e) A holder of an air operator certificate must ensure that a cruise relief pilot, completes the introduction segment referred to in rule 121.557, or completes the transition segment referred to in rule 121.559—
- (1) completes a competency assessment under Subpart J before commencing the pilot line training specified in paragraph (b); and
  - (2) completes at least 6 operating sectors as a cruise relief pilot occupying either pilot station; and
  - (3) completes a route check under Subpart J following the pilot line training specified in paragraph (2).
- (f) The pilot line training required by paragraph (e)(2) for a cruise relief pilot must be conducted—
- (1) under the supervision of a pilot instructor who meets the requirements referred to in rule 121.519; and

- (2) on air operations in the particular aeroplane type that the training relates to.

### **121.569 Pilot consolidation**

(a) A holder of an air operator certificate must ensure that a pilot, other than a cruise relief pilot, who completes an introduction segment required by rule 121.557, a transition segment required by rule 121.559, or an upgrade segment required by rule 121.561 of the training programme required by rule 121.553—

- (1) completes the applicable pilot line training required by rule 121.567, and a route check under Subpart J for the transition and upgrade segments, before commencing the consolidation specified in paragraph (b); and
- (2) completes at least 100 hours of flight time experience or 75 operating cycles in the applicable crew position under paragraphs (b) and (c) for consolidation of a pilot's knowledge and skills; and
- (3) completes a route check under Subpart J following consolidation for an introduction segment.

(b) A pilot undergoing consolidation of knowledge and skills required by paragraph (a)—

- (1) must complete the 100 hours of flight time or 75 operating cycles within 120 days from the completion of the introduction or transition segment of the training; and
- (2) must operate exclusively during the consolidation period on the one aeroplane type that the training relates to; and
- (3) may count the flight time or operating cycles accumulated for the pilot line training required by rule 121.567 towards meeting the requirement under paragraph (a); and
- (4) if the pilot is undertaking the consolidation following the completion of an introduction segment of the training programme, the flight experience required by paragraph (a) must be conducted under the supervision of—

- (i) a line supervisory pilot who meets the requirements referred to in rule 121.517; or
  - (ii) a pilot instructor who meets the requirements referred to in rule 121.519; or
- (5) if the pilot is undertaking the consolidation following the completion of a transition or an upgrade segment of the training programme, the flight experience required by paragraph (a) must be conducted with—
- (i) a flight crew member who meets the requirements referred to in rule 121.531(a); or
  - (ii) a line supervisory pilot who meets the requirements referred to in rule 121.517; or
  - (iii) a pilot instructor who meets the requirements referred to in rule 121.519.
- (c) If the consolidation of the pilot's knowledge and skills cannot be completed within the 120 days as required by paragraph (b)(1), the period for completing the consolidation may be extended by up to 30 days if the pilot—
- (1) continues to meet all other requirements of the training programme; and
  - (2) satisfactorily completes a refresher course acceptable to the Director or a line operating flight supervised by—
    - (i) a line supervisory pilot who meets the requirements referred to in rule 121.517; or
    - (ii) a pilot instructor who meets the requirements referred to in rule 121.519; or
    - (iii) a flight examiner who meets the requirements referred to in rule 121.521.

**121.571 Flight engineer consolidation**

(a) A holder of an air operator certificate must ensure that a flight engineer, who completes an introduction segment required by rule 121.557 or a transition segment required by rule 121.559 of the training programme required by rule 121.553, completes consolidation in accordance with the consolidation programme established by the certificate holder.

(b) The consolidation programme required by paragraph (a) must—

- (1) specify a minimum number of flying hours or operating cycles to be completed exclusively on the particular aeroplane type; and
- (2) specify a maximum period of time for completing the consolidation; and
- (3) specify supervisory requirements during the period of consolidation; and
- (4) include a competency assessment requirement at the completion of the consolidation.

(c) The consolidation programme required by paragraph (a) must be acceptable to the Director and be included in the certificate holder's exposition.

**121.573 Flight attendant training programme**

A holder of an air operator certificate must ensure that the crew member training programme required by rule 121.553 for flight attendants addresses at least the following—

- (1) the authority structure of the aeroplane crew members:
- (2) training on human factors and crew resource management as may be applicable to the tasks assigned to the flight attendant position:
- (3) crew member assignments, functions, and responsibilities during emergency situations:



- (4) procedures for passenger handling, including emergency procedures and procedures to be followed in dealing with special classes of passengers according to the certificate holder's exposition:
- (5) the briefing of passengers:
- (6) the location and operation of emergency equipment available for use by flight attendants or other crew members:
- (7) the correct use of cabin equipment and controls:
- (8) the location and use of oxygen equipment:
- (9) the location and use of all normal and emergency exits, including evacuation slides and escape ropes:
- (10) first aid training in accordance with ICAO Doc 7192-AN/857 Part E-1 Cabin Attendants' Safety Training Chapter 8:
- (11) the certificate holder's documentation and procedures:
- (12) applicable Civil Aviation Rules and supporting documentation.

### **121.575 Flight attendant operating experience**

(a) A holder of an air operator certificate must ensure that a person is not designated to perform the functions of a flight attendant on an aeroplane being operated under the authority of the certificate unless that person—

- (1) has completed the applicable segment of the crew member training programme as required by rule 121.553; and
- (2) immediately following the completion of an introduction segment required by rule 121.557 or a transition segment required by rule 121.559 of the training programme specified in rule 121.553—
  - (i) completes 5 hours line operating flight time experience, including at least 2 operating cycles, on

the aeroplane type, and in the crew member position that the person is assigned to serve in; or

- (ii) has appropriate flight attendant operating experience acceptable to the Director on another aeroplane type operating under this Part, and in the crew member position that the person is assigned to serve in.

(b) The line operating flight time experience required by paragraph

(a)(2)(i)—

- (1) must be accumulated under the supervision of a person who meets the requirements referred to in rule 121.525; and
- (2) may include not more than 2.5 hours flight time experience conducted in a full scale, type specific, cabin training device acceptable to the Director.

### **121.577 Crew members training records**

A holder of an air operator certificate must maintain a record of all training and consolidation required by this Subpart that each of its crew members undertakes as specified in rule 119.67.

### **121.579 Transitional arrangements**

The following rules do not apply to the holder of an air operator certificate until 6 September 2014:

- (1) 121.553(d):
- (2) 121.555(b)(8):
- (3) 121.557(c):
- (4) 121.559(b)(3):
- (5) 121.563(d):
- (6) 121.573(2).

*Subpart J is revoked and replaced by the following new Subpart:*

## **Subpart J — Crew Member Competency Requirements**

### **121.601 Purpose**

This Subpart prescribes the rules governing the operational competency assessment of flight crew members and flight attendants who are trained under Subpart I.

### **121.603 General**

- (a) A holder of an air operator certificate must establish a crew member operational competency assessment programme under this Subpart to ensure that each person who is assigned to perform the function of a crew member on an aeroplane operating under the authority of the certificate is competent to perform his or her assigned crew member function.
- (b) The crew member operational competency programme must be—
- (1) acceptable to the Director; and
  - (2) controlled by the certificate holder; and
  - (3) specific to each aeroplane type or variant; and
  - (4) completed in a flight simulator when completing flight crew competency assessments required by rules 121.607 (2), (3) and (5).
- (c) The certificate holder may—
- (1) implement the crew member operational competency assessment programme required by paragraph (a) under the authority of the certificate; or
  - (2) contract with the holder of an aviation training organisation certificate issued under the Act and Part 141, to conduct the operational competency assessments in accordance with the crew member competency assessment programme required

by paragraph (a), if the aviation training organisation certificate authorises the holder to conduct the competency assessments; or

- (3) for an operational competency assessment conducted outside New Zealand, contract with an organisation that meets an equivalent standard specified in Part 141 to conduct the assessment in accordance with the applicable requirements specified in the crew member competency programme required by paragraph (a).

(d) The certificate holder must ensure that the person responsible for the flight crew member competency assessment programme holds a flight examiner rating.

(e) Despite paragraph (b)(4), if a flight simulator is not available for the aeroplane type, the certificate holder may apply to the Director to amend the competency assessment programme for the aeroplane type to conduct the competency assessment without the use of a flight simulator.

(f) The certificate holder must ensure that a competency assessment referred to in paragraph (e) is completed in accordance with a safe flight practice guide that is acceptable to the Director.

### **121.605 Operational competency assessment programme responsibilities**

(a) A holder of an air operator certificate must be ultimately responsible for the adequacy and implementation of the operational competency assessment programme required by rule 121.603.

(b) The certificate holder must ensure that a crew member who is subject to an operational competency assessment is assessed in accordance with the programme.

### **121.607 Flight crew competency assessments**

A holder of an air operator certificate must ensure that—

- (1) each pilot acting as pilot-in-command of an aeroplane conducting an air operation under the authority of the certificate has, within the immediately preceding 12 months,

passed a route check conducted in an aeroplane including an aerodrome proficiency check that is administered by a flight examiner and that—

- (i) consists of at least 1 flight over 1 route segment and 1 or more landings at aerodromes representative of the operations to be flown; and
  - (ii) establishes that the pilot can satisfactorily perform the duties and responsibilities of a pilot-in-command of an aeroplane performing an air operation appropriate to the type of air operations authorised by the certificate holder's operations specifications; and
- (2) each pilot acting as a flight crew member of an aeroplane conducting an air operation under VFR has, within the immediately preceding 12 months, successfully completed a competency assessment administered by a flight examiner that covers procedures, including emergency procedures, human factors, crew resource management, and the pilot's flying skill for the aeroplane type normally used by the pilot to conduct an air operation under the authority of the certificate; and
  - (3) each pilot acting as a flight crew member of an aeroplane conducting an air operation under IFR has, within the immediately preceding 6 months, successfully completed a competency assessment administered by a flight examiner that—
    - (i) covers procedures, including emergency procedures, appropriate to the equipment fitted to the aeroplane and to the type of operations to which the pilot is assigned by the certificate holder; and
    - (ii) includes human factors and crew resource management; and
  - (4) each pilot acting as a flight crew member of an aeroplane conducting an air operation has, within the immediately

preceding 12 months, successfully completed a written or oral test of the pilot's knowledge of the following:

- (i) the relevant Civil Aviation Rules:
  - (ii) the certificate holder's operations specifications and exposition:
  - (iii) the aeroplane systems, performance, operating procedures, and the content of the flight manual for each aeroplane type normally flown by the pilot:
  - (iv) navigation, air traffic control, and meteorology:
  - (v) special flight operations as appropriate to the type of operation normally conducted by the pilot:
  - (vi) new equipment, procedures, and techniques:
  - (vii) location and operation of emergency equipment fitted to an aeroplane of the type normally flown by the pilot; and
- (5) each flight engineer acting as a flight crew member of an aeroplane conducting an air operation has, within the immediately preceding 12 months, completed a competency assessment administered by a flight engineer examiner that covers procedures, including emergency procedures, human factors, and crew resource management appropriate to the equipment fitted to the aeroplane and to the type of operations to which the flight engineer is assigned by the certificate holder; and
- (6) each flight engineer acting as a flight crew member of an aeroplane conducting an air operation has, within the immediately preceding 12 months, successfully completed a written or oral test of the flight engineer's knowledge of the following:
- (i) the relevant Civil Aviation Rules:

- (ii) the certificate holder's operations specifications and exposition:
- (iii) the aeroplane systems, performance, operating procedures, and the content of the flight manual for each aeroplane type that the flight engineer is normally assigned to:
- (iv) special flight operations that are appropriate to the type of operation that the flight engineer is normally assigned to:
- (v) new equipment, procedures, and techniques.

### **121.609 Pilot instructor, Line supervisory pilot, Simulator instructor and Flight examiner competency assessments**

A holder of an air operator certificate must ensure that the pilot instructor, line supervisory pilot, simulator instructor and flight examiner receive instruction and maintain proficiency as appropriate in—

- (1) the methods of imparting instruction on how to operate, and how to ensure the safe operation of a particular aeroplane type; and
- (2) the methods for evaluating and assessing flight crew competency in the technical and non-technical aspects of aircraft operation including human factors and crew resource management; and
- (3) the methods of recovery from mishandled, non-normal, and emergency manoeuvres; and
- (4) the operation of the aeroplane used or flight simulator approved by the Director, and its equipment, including operational flight, procedures and manoeuvres under normal, non-normal, and emergency conditions.

### **121.611 Flight attendant competency assessments**

A holder of an air operator certificate must ensure that each flight attendant acting as a crew member of an aeroplane conducting an air

operation has, within the immediately preceding 12 months, successfully completed a competency assessment, including a flight assessment administered by a flight attendant assessor who meets the requirements referred to in rule 121.527, which includes at least the following areas appropriate to the person's assigned duties and responsibilities:

- (1) the authority of the pilot-in-command:
- (2) passenger handling, including procedures to be followed in handling persons whose conduct might jeopardise safety:
- (3) crew member assignments, functions, and responsibilities during emergencies, including evacuation of persons who may need assistance:
- (4) human factors and crew resource management:
- (5) the briefing of passengers:
- (6) the use of cabin equipment and controls:
- (7) the location and operation of items of emergency equipment:
- (8) the location and operation of oxygen equipment:
- (9) the location and operation of every normal and emergency exit, including evacuation chutes and escape ropes:
- (10) the seating of a person who may need assistance:
- (11) first aid training in accordance with ICAO Doc 7192-AN/857 part E-1 Chapter 8; and
- (12) for a senior flight attendant and his or her deputy, ability to supervise a flight attendant carrying out his or her duties.

### **121.613 Competency and testing records**

A holder of an air operator certificate must maintain an accurate record of all the competency assessments, route checks, and tests undertaken by each of its crew members in accordance with the procedures established under rule 119.67.



**121.615 Transitional arrangements**

(a) Rules 121.607(3)(ii), 121.609(2), and 121.611(4) do not apply to the holder of an air operator certificate until 6 September 2014.

(b) Rule 121.607(2) does not apply to the holder of an air operator certificate until 6 September 2014, provided that the holder continues to comply with rule 121.607(2) that was in force on 5 September 2012.

(c) Rule 121.607(5) does not apply to the holder of an air operator certificate until 6 September 2014, provided that the holder continues to comply with rule 121.607(5)(i) that was in force on 5 September 2012.

## **Consultation Details**

*(This statement does not form part of the rules contained in Part 121. It provides details of the consultation undertaken in making the rules.)*

A Notice of Proposed Rulemaking, NPRM 10-03 *Part 121 Large Aeroplanes* containing the proposed rules was issued for public consultation under Docket 6/CAR/5 on 30 November 2010.

Two submissions comprising a total of 12 responses to the NPRM were received. They were from Air New Zealand, and Jetconnect.

## **Subject Area**

The submissions covered a number of technical subject areas as well as rule wordings with some overlap across some submissions.

## **Rule 121.517 Line supervisory pilot experience requirements and rule 121.519 Pilot instructor experience requirements**

The submitter stated:

“121.517(3)(ii) and 121.519(3)(ii): Both rules initially require the possession of a Category D flight instructor rating or an airline flight instructor rating (refer [2]) in both rules. However in (3)(ii) of both rules only an airline flight instructor rating is mentioned. A Category D rating should also be included.”

## **CAA Response**

*The CAA reviewed the submission and agreed, for clarity and consistency, that ‘an airline flight instructor rating’ needs to be added where a ‘Category D Flight instructor’ is used in the rule.*

## **Rule 121.521 Flight examiner experience requirements**

The submitter stated:

“121.521(1) and (3)(i) and (ii) and other rule parts 121.517 and 121.519) recognise that a Category D flight instructor rating or an airline flight instructor rating may be used. This rule should also include the words Category D flight instructor rating. Rule 121.517 and 121.519 also prefix Category D flight instructor rating with the word ‘current’ there are no currency requirements for a Category D.”

**CAA Response**

*The CAA agrees that the proposed rule lacks consistency and will add “Category D flight instructor rating” as an option to an airline flight instructor rating.*

*In addition, the CAA agrees that the use of the phrase “current on the aeroplane type” is not appropriate, and proposes to amend rule 121.527(b) as follows: ‘is qualified in accordance with rule 121.575’.*

**Rule 121.523 Simulator instructor and examiner experience requirements**

The submitter claims 5000 hours in air operations is excessively high for a simulator instructor and examiner flight experience as stipulated in the above proposed rule. The submitter stated:

“The possession or not of a medical certificate is not all that relevant for determining whether a person is qualified for instructor/examiner duties. It is also noted that the term 5000 hours in “air operations” is used whereas 121.517 and 121.519 use the terms 2000 or 3000 hours “flight time experience” as a pilot. I think we understand what the rule is trying to achieve but it would seem unlikely that a person who does not meet the requirements of 121.519 which requires 3000 hours flight time experience and 500 hours in the particular type or 100 hours as an instructor on another type under 121 would be able to meet the 5000 hours in Air Operations requirement. To gain 5000 hours in Air Operations as PIC or second in command would suggest that the person has worked for and gained Airline experience maybe in Part 121 or maybe under Part 125. To have gained 5000 hours in Air Operations a person would in almost certainly have surpass the 3000 hour and 500 hours of flight time experience on type requirement in 121.519. We would suggest that because there are so many variables to a person’s background experience that may or may not make them suitable for Instructor/Examiner duties a hard and fast rule is not appropriate. We suggest that the Rule 121.523(c) be amended along the following lines.

121.523(c) “In spite of paragraph (a) the Director may, upon application, approve a pilot, who does not hold a medical certificate and who has not previously met the requirements of Rules 121.519 or 121.521 to exercise the functions of a pilot instructor or flight examiner in a flight simulator.”

### **CAA Response**

*After reviewing the submission regarding the requirement for “5000 flight time experience in air operations”, the CAA will maintain this level of experience for the following reasons:*

*This is a unique situation where a pilot without any instructor or flight examiner experience has lost their medical and is being considered as a pilot instructor or a flight examiner in a flight simulator. If a pilot is unable to maintain currency in an aeroplane then they need to be able to fall back on reasonable experience in air operations supplemented with simulator and ground training. A pilot with less than the prescribed experience in air operations and without pilot instructor or flight examiner experience will not be effective in this role. The addition of this rule provides flexibility over existing rules while establishing a minimum baseline of experience.*

*In addition, the CAA agrees with the submission to include the phrase “upon application” and will amend the proposed rule 121.523(c) accordingly.*

### **Rule 121.527 Flight attendant assessor experience requirements**

The submitter stated:

“The proposed rule 121.527(b uses the term “current on the aeroplane type” to my knowledge there is no stipulation anywhere in the rules as to what is considered to be current on type”.

### **CAA Response**

*The CAA agrees that the use of the phrase “current on the aeroplane type” is not appropriate and will amend rule 121.527(b) to clarify that a flight attendant assessor has prescribed flight attendant operating experience in accordance with proposed rule 121.575’.*

**Rule 121.529 Ground instructor experience requirements**

The submitter claimed the use of the term “holds appropriate qualifications” is vague and needs to be stated in the rule to indicate what the phrase means. The submitter stated:

“The rule uses the phrase “holds appropriate qualifications” it needs to be stated in the rule what “appropriate qualifications” are as do other rules for instructors/examiners etc.”

**CAA Response**

*The CAA reviewed the proposed rule and will clarify the qualifications required which are training in instructional techniques, human factors, and comprehensive training course in the subject matter area in which instruction is being provided.*

*The CAA will amend the proposed rule accordingly.*

**Rule 121.533 Pilot operating limitations**

The submitter provided input for proposed rule 121.533 *Pilot operating limitations*. The submitter claimed a pilot, after a successful completion of a route check preceding pilot line training, should be able to conduct take-offs and landings with certain restrictions in order to complete consolidation. Upon satisfactory completion of such route check, the pilot should then be able to conduct take-offs and landings between route check and 100 hours or 75 operating cycles on the aeroplane type to complete consolidation. The submitter stated:

“121.533 require any pilot, other than the PIC, can only complete the take-off and landing if they are with a trainer or after they have completed line training as well as consolidation. Under the new rule the consolidation can be flown with line PICs so (unless with a trainer) the other pilots cannot do the take-off or landing during the period between route check and 100 hours or 75 sectors) on type. I’m not convinced this is the intent of consolidation. If a pilot has been assessed competent on a route check as Pilot Flying during take-off and landing he/she should be able (with certain restrictions, perhaps as

currently required) to complete take-offs and landings during consolidation.

### **CAA Response**

*The CAA recognises the conduct of take-offs and landings are an important part of consolidation and that they must be performed while completing consolidation to complete the required 100 hours or 75 operating cycles on the aeroplane type. However, in order to mitigate the risk associated with a pilot new to an aircraft type, certain restrictions need to be applied to a pilot when conducting the take-offs and landings during consolidation. In the case of a pilot completing consolidation following and introduction training segment, take-offs and landings must be conducted under the supervision of an instructor or line supervisory pilot. In the case of a pilot completing consolidation following a transition or upgrade segment, take-offs and landings must be conducted under the supervision of a pilot-in-command who meets the experience requirements as specified in rule 121.531. Such restrictions will need to be reflected in the certificate holder's exposition.*

*The CAA will amend the proposed rule accordingly.*

### **Rule 121.537 Flight crew conducting Category II or III precision approach and reduced minima take-off**

The submitter stated that the proposed rule 121.537 only permits the pilot-in-command (PIC) to be the pilot flying during a reduced visibility take-off. It then appears to state that a non-qualified second-in-command (SIC) can conduct the take-off, provided they have been qualified in the simulator and the PIC is an instructor.

The submitter claimed that provided the SIC has been qualified in the simulator either pilot should be allowed to conduct a reduced visibility take-off, as is currently permitted in the existing rule.

### **CAA Response**

*The proposed rule has been amended to allow a pilot acting as second-in-command to conduct a Category II or III approach or reduced visibility take-off as pilot flying provided this pilot is appropriately*

*trained and qualified as pilot flying and the pilot-in-command is appropriately trained and qualified as pilot non-flying for the applicable procedure to be flown. The proposed rule also provides flexibility that is not included in the current rule. The proposed rule allows a pilot to conduct a Category II or III approach or reduced visibility take-off as pilot flying or pilot non-flying provided the pilot-in-command is a line supervisory pilot, pilot instructor, or flight examiner. In this case, the pilot must still be qualified for the particular approach procedure or departure, but may not have received training for the specific role of pilot flying or pilot non-flying, as applicable.*

### **Rule 121.565 Flight crew training equipment**

The submitter stated:

“Rule 121.565(c)(3) is introducing a previously unused term of ‘flight crew supervisor’ the wording should perhaps be “logged by the appropriate Instructor or Examiner”.

### **CAA Response**

*The CAA reviewed wording in the proposed rule and, for consistency, will replace ‘flight crew supervisor’ with ‘pilot instructor or flight examiner’.*

*The CAA supports the submission and will amend the proposed rule accordingly.*

### **Rule 121.567 Pilot Line Training**

The submitter stated that for a new pilot, a competency check as opposed to a route check should be conducted upon completion of pilot consolidation. Such competency check will ensure a pilot is ready for unrestricted duties in line operations while under the supervision of a qualified instructor.

The submitter stated:

“It is not realistic to conduct a route check on a pilot who is undergoing introduction training immediately following the completion of the line training segment. The line check for introduction candidates needs to be conducted following

completion of the pilot's consolidation. The consolidation phase is all about preparing a pilot (particularly an introduction candidate) to be released to unrestricted line operations whilst under the supervision of an instructor. The line check at the completion of the consolidation phase is a check of competency that they are ready for unrestricted line operations. A route check following the transition or upgrade segments is realistic as the pilot is already within the particular airlines system and therefore has a lot less to "take on board" than a person off the street completing introduction training."

### **CAA Response**

*The CAA agrees with the submission regarding the timing of the route check. The proposed rule will be amended to show that the route check for a pilot undergoing introduction training must be conducted following completion of consolidation, and the route check for a pilot undergoing transition or upgrade training must be conducted following pilot line training. The proposed rules will also be amended to clarify that an operational competency check (OCA) must be completed in a flight simulator prior to pilot line training. This is to ensure that a pilot has demonstrated competence to a flight examiner prior to acting as a crew member in air operations.*

*The CAA will amend rule 121.567 (a) to indicate the correct timing of the operational competency assessment, and will also amend rule 121.569(a) to indicate the timing of the route check.*

*In addition, the CAA will amend rule 121.567(e) to indicate the requirement for competency assessment and route check for a cruise relief pilot under training.*

### **Rule 121.569 Pilot consolidation**

The submitter asserted the phrase "or operating cycles" needs to be included in paragraph (b)(3). This is because international airlines tend to use the hours option whereas regional airlines tend to use the operating cycles option.

### **CAA Response**

*The CAA agrees with this submission and will amend proposed rule 121.569(3) to include 'or operating cycles'.*



**Rule 121.569 Pilot consolidation, and Rule 121.531 Flight crew member pairing limitations**

The submitter stated reference for requiring no trainer after route check should also be included in proposed Rule 121.531.

“Flight crew member pairing limitations” to ensure the requirements during pairing restrictions are also required during consolidation. This would remove the potential where inexperienced pilots could be crewed together during consolidation”.

**CAA Response**

*After reviewing the above proposed rules, the CAA agrees and will amend proposed rule 121.569(b)(5) to include pairing limitations in the proposed pilot consolidation rule.*

**Rule 121.553(g) Crew member training programme**

The submitter stated:

“Is it the intent of this paragraph that the Senior Person - Training be qualified as a flight attendant trainer, or would an appropriately qualified delegate that reports directly to the Senior Person - Training satisfy the requirement?” As Jetconnect Senior Person - Training, my portfolio covers pilots and flight attendants. I hold a current flight examiner rating and have a cabin crew Learning and Development Manager reporting to me who holds a Company flight attendant trainer qualification.”

**CAA Response**

*The CAA reviewed the proposed rule and will clarify that the person who will be responsible for the flight attendant training programme is either a flight attendant trainer, or a flight attendant assessor, or has appropriate qualifications and experience acceptable to the Director.*

**Draft AC121-4 Training and assessment of Human Factors and Crew Resource Management**

A submitter enquired when this AC is due to be published for comments. The submitter stated it is endorsing the inclusion of human factors training and assessment in its operation and reviewing the draft AC prior to the NRPM cut-off date would be instructive in order to gain an understanding of acceptable means of compliance with the rule.

**CAA Response**

*The CAA is completing work on AC121-4 Training and Assessment of Human Factors and Crew Resource Management and plans to deliver the draft AC for public consultation by end of June 2011.*