

# **ANNEX A TO MULTI-PART AC 119-11 AND 138-02 V5.0**

## **Part 121 training and checking**

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# 1 Overview

## 1.1 Purpose of this Annex

- 1.1.1 The purpose of this Annex is to provide specific guidance relating to:
- Part 121 training and checking activities
  - Part 121 training and checking personnel.
- 1.1.2 It is intended that this information complements the generic information available in Chapters 2, 3 and 4 of the main [Multi-Part AC 119-11 and 138-02 document](#).
- 1.1.3 It is recommended that person(s) read the [main Multi-Part AC document](#) first, before reading this Annex.

## 2 Part 121 training and checking activities

### 2.1 Approval under 121.010 for alternative training and checking requirements

- 2.1.1 There are two provisions that enable a Part 121 operator to apply for a regulation 121.010 of CASR approval permitting the operator to vary certain Part 121 training and checking requirements. These provisions are:
- For cabin crew members: subregulation 121.640(4) of CASR.
  - For flight crew members: section 12 of CASA EX83/21.
    - o It is CASA's intent to amend regulation 121.475 to add a similar subregulation to that used for cabin crew as per the previous bullet point.
    - o Until then, this exemption allows CASA to approve variations to a limited number of Part 121 flight crew training and checking rules.
- 2.1.2 A person is successfully participating in an operator's *approved system* if:
- the person is employed by the operator
  - the operator's training and checking system covers the operation
  - the person has met the requirements under the system for entry into the *approved system*
  - the person is permitted under the system to be assigned by the operator for duty for the operation.
- 2.1.3 To gain an approval under regulation 121.010 for the training and checking system to vary from the standard Part 121 requirements, the operator must demonstrate to CASA how their training and checking program ensures equivalent competency to that required under regulation 121.475 or 121.640 of CASR.

**Note:** Further guidance is available in the GM 121.475 and GM 121.640 entries in the Part 121 AMC/GM document.

For example:

The operator may propose a series of training and checking events over a period of 3 years which demonstrates an equivalent standard to that required by the regulations.

## 2.2 Flight crew

### 2.2.1 Holding a valid Part 121 proficiency check

- 2.2.1.1 Divisions 121.N.5 and 121.N.6 of CASR prescribe the requirements for a flight crew proficiency check. Division 5 of Chapter 12 of the Part 121 MOS details what is required for a Part 121 proficiency check (121PC) which may be completed in an aeroplane or FSTD, subject to the mandatory simulator rules of regulations 91.745 and 121.510 of CASR.

2.2.1.2 The operator can choose to meet the requirements for a valid 121PC<sup>1</sup> and a Part 61 proficiency check (61PC) in a single event. However, it's important to note that the method of calculating the 'valid to' dates for each check is different.

For example:

Flight crew are required to complete two 121PCs in a rolling 12-month period, with no more than 8 months between each check, while under Part 61 a flight crew member may require a 61PC each 12 months (e.g. an IPC), which may be conducted up to 3 months before the validity of the existing check expires to keep the same 'valid to' date.

2.2.1.3 When scheduling training and checking, the operator must consider the most limiting 'valid to' date to ensure that flight crew comply with both requirements.

2.2.1.4 To develop a combined 121PC and 61PC the operator must consider the requirements of both checks, specifically the:

- 61PC requirements in Schedule 6 of the Part 61 MOS
- 121PC requirements in Division 5 of the Part 121 MOS
- requirement for a person holding an appropriate flight examiner rating to conduct the check event.

## 2.2.2 Supervised line flying and line check

2.2.2.1 Supervised line flying exposes flight crew to the operator's line operations, while at the same time gaining the hour and sector experience requirements of subregulation 121.480(3) of CASR. However, subregulation 121.480(4) of CASR also permits an operator to request CASA approval under regulation 121.010 of CASR to vary the experience requirements of paragraph 121.480(3)(a) of CASR.

**Note:** Refer to the GM 121.480 entry in the Part 121 AMC/GM document for further information.

2.2.2.2 Both the supervised line flying and line check should be designed to validate the conversion training. Special attention should be paid to the HF and NTS competencies of the flight crew to support line operations.

2.2.2.3 In summary, supervised line flying and the line check will enable flight crew to:

- meet the operational experience requirements of the regulations
- gain knowledge of the routes and aerodromes used by the operator
- meet the conversion training requirements of subregulation 121.560(2) of CASR.

## 2.2.3 Refresher training and valid refresher check

2.2.3.1 Refresher training under regulation 121.600 of CASR can be achieved by both ground training and recurrent flight training. Typically, the systems covered in ground training would follow the 'major system failure' required by recurrent flight training. The ground component may involve both face-to-face training and CBT.

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<sup>1</sup> For further guidance on 121PC validity refer to the [Part 121 AMC and GM document](#).

For example:

An operator could develop a refresher training ground school to include, in addition to those matters required by regulation 121.600 of CASR:

- UPRT theory refresher
- dangerous goods training
- HF and NTS refresher
- DAMP training
- Extended diversion time operations (EDTO) training.

2.2.3.2 In addition to the ground component, a recurrent flight training session each 6 months can be used to supplement the ground component.

2.2.3.3 An example of a Part 121 recurrent training matrix is at Table 1 of section 5 of this Annex.

## 2.2.4 Recurrent training

2.2.4.1 Recurrent training under Division 121.N.6 of the CASR covers a series of activities that ensure flight crew not only remain qualified under Part 61 of CASR, but also remain competent to conduct AOC operations.

2.2.4.2 The operator's program of recurrent training is recommended to consider both day and night operations. It must include the following:

- Part 121 proficiency checks
- a line check
- refresher training and check
- annual emergency and safety equipment check
- 3-yearly emergency and safety equipment check
- SMS training
- recurrent flight training including:
  - o units of competency under the Part 61 MOS
  - o normal, abnormal, and emergency procedures
  - o UPRT, if required
  - o specific operational training to support LVO, EDTO, LAHSO, PRM etc.
  - o each major system failure at least once every 4 years
- HF and NTS training
- dangerous goods training, if required.

2.2.4.3 If a flight crew member does not pass a proficiency check or is not deemed competent at the end of a training course, the exposition should include details of the remedial training pathway to return the flight crew member to competency.

**Note:** If a flight crew member fails a 61PC (e.g. IPC), the remedial training provided to restore the flight crew member to competency is not flight training under Parts 141 and 142 of CASR.

2.2.4.4 To effectively manage recurrent training, the exposition must<sup>2</sup> also demonstrate how procedures have been developed to ensure flight crew complete required recurrent

<sup>2</sup> Subregulation 121.475(1) of CASR.

training prior to being assigned a duty. Further, the exposition must detail the process used to remove flight crew from line operations if any part of the recurrent training is not successfully completed.

## 2.2.5 Differences training

- 2.2.5.1 Differences training may be required to comply with regulation 61.200 of CASR, where a pilot is to operate a different model of aircraft that has a type rating<sup>3</sup>. Differences training for this purpose is a Part 141 or 142 activity, with their associated requirements for the individual that can conduct the differences training.
- 2.2.5.2 Another form of differences training involves familiarisation with an aircraft, where the aircraft to be flown has differences not covered by the regulation 61.200 requirement. This training is not a Part 141 or 142 activity and therefore has more flexibility for the persons who can conduct it. The operator must determine the differences that exist and develop a training program to ensure personnel are competent. The program must include, where relevant:
- emergency and safety equipment
  - system or equipment differences
  - engine differences
  - weight and balance differences
  - performance differences.

For example:

A flight crew member with a B767/757 type rating has been operating a B757-200 variant in a passenger configuration. They now wish to operate a B757-200 aircraft in a cargo configuration.

In this case differences training is not required to satisfy regulation 61.200 of CASR as the aircraft are the same variant.

However, as the cargo configuration for the aircraft is significantly different to the passenger version, flight crew will require training to satisfy subparagraph 121.475(2)(n)(ii).

## 2.3 Cabin crew

### 2.3.1 Annual training and holding a valid annual training check

- 2.3.1.1 Divisions 121.P.5 and 121.P.6 of CASR prescribe the requirements for a valid annual training check. Division 6 of Chapter 13 the Part 121 MOS details what is required for annual training.

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<sup>3</sup> Refer to Part 61 aircraft and ratings instrument for models of type rated aircraft that require differences training.

- 2.3.1.2 Operators who assign cabin crew duties on aeroplanes of different types must<sup>4</sup> ensure that cabin crew hold a valid annual training check for each type, in accordance with the requirements of Division 6 of Chapter 13 of the Part 121 MOS.
- 2.3.1.3 An operator who has standardised safety and emergency equipment fitted across aeroplane types may satisfy the requirements of regulation 121.700 of CASR in one training session; however, cabin crew are required to demonstrate the operation of doors and other exits in both normal and emergency mode on each aeroplane type.
- 2.3.1.4 The exposition must detail the differences between aeroplane types and develop the annual training and checking program to ensure cabin crew competency and manage cabin crew who hold valid annual training checks across more than one aeroplane type.

### **2.3.2 Three-yearly training and holding a valid three-yearly training check**

- 2.3.2.1 Section 13.35 of the Part 121 MOS prescribes the training required for three-yearly training and checking of cabin crew.
- 2.3.2.2 The three-yearly training and three-yearly check may be conducted concurrently with the annual training and check. The operator's exposition should detail how the training and checking system manages the requirements of each check.

### **2.3.3 Supervised line flying and line check**

- 2.3.3.1 Supervised line flying should expose cabin crew to normal line operations to ensure their competence in the management of passengers, aircraft systems, and standard operating procedures.
- 2.3.3.2 Regulation 121.645 of CASR effectively states that a cabin crew member must not be assigned duties for a flight in which they lack competency. A person's specific competencies will dictate whether a trainee cabin crew member undergoing supervised line flying can form part of the minimum required number of cabin crew members<sup>5</sup> for a flight.
- 2.3.3.3 From a safety perspective, it is critical that the duties to be performed by the cabin crew members can be carried out by a person who is competent in those duties. If a trainee is not yet competent to independently perform the duties assigned for the flight, including normal procedures, then the operator's procedures must ensure that the trainee is not included as part of the minimum crew.
- 2.3.3.4 When a trainee is included in the minimum number of cabin crew for a flight, the operator's training and checking program must detail how the crew member has been assessed as competent in the duties assigned for the flight<sup>6</sup>. Consideration must also be given to ensuring adequate supervision can be provided in all circumstances.
- 2.3.3.5 Supervised line flying and the line check should be designed to validate the conversion training. Special attention should be paid to the HF and NTS competencies of the cabin crew to support line operations.

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<sup>4</sup> Paragraph 121.700(a) of CASR.

<sup>5</sup> Regulation 121.635 of CASR.

<sup>6</sup> Paragraph 119.170(2)(d) of CASR.



2.3.3.6 Supervised line flying and the line check should enable cabin crew to:

- meet the qualification and experience requirements of the regulations
- gain knowledge of the standard operating procedures used by the operator
- meet the conversion training requirements of subregulation 121.715(3) of CASR.

### 2.3.4 Recurrent training

2.3.4.1 Recurrent training under Division 121.P.6 of the CASR covers a series of activities that ensure cabin crew remain competent to conduct Part 121 operations. It includes:

- annual emergency and safety equipment check
- three-yearly emergency and safety equipment check
- line check
- HF and NTS training
- dangerous goods training.

2.3.4.2 To effectively manage recurrent training, the exposition must develop procedures to ensure that cabin crew have completed the required recurrent training prior to being assigned a duty.

2.3.4.3 The exposition must<sup>7</sup> detail the process used to remove cabin crew from line operations if any part of the recurrent training is not successfully completed.

2.3.4.4 If a cabin crew member does not pass a check or is not deemed competent at the end of a training course, the exposition should detail the remedial training pathway to return the cabin crew member to competency.

2.3.4.5 The regulated timeframes for recurrent training provide a baseline. However, operators are encouraged to use their SMS to validate the adequacy of their recurrent training and checking program in maintaining cabin crew member competency. Elements that could be considered include whether:

- there are any training gaps in the program that has been implemented.
- three years is too long for conducting recurrent training and checking considering the operator's specific type of operations (for example, an operator might determine that 2 years is more appropriate).

2.3.4.6 Specific guidance relating to the planning of Part 121 recurrent training is provided in section 5 of this Annex, including an example Table of a recurrency matrix.

### 2.3.5 Conversion and differences training

2.3.5.1 Conversion training is required to qualify cabin crew on an aeroplane type. If a cabin crew member is assigned duties for more than one aeroplane type they will require conversion training for each aeroplane type.

**Note:** For guidance on determining aeroplanes of a different type refer to the GM 121.685 entry in the Part 121 AMC/GM document.

2.3.5.2 Differences training is required for an aeroplane of the same type if:

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<sup>7</sup> Paragraph 121.645(1)(b) of CASR.

- the safety and emergency equipment is of a different kind, for which the cabin crew member has not received training
  - or
  - the cabin layout and/or equipment is sufficiently different to warrant different SOPs.
- 2.3.5.3 Subregulation 121.695(3) of CASR limits cabin crew to holding three valid annual training checks across different aeroplane types, unless the cabin crew member holds an approval under regulation 121.010 to be assigned a duty on four different aeroplane types.
- 2.3.5.4 To issue such an approval under regulation 121.010 of CASR, CASA will consider:
- o the reason for the requirement to hold a fourth annual training check
  - o any similarities between aeroplane types
  - o the experience of the cabin crew member
  - o the recurrent training program that will support the approval.
- 2.3.5.5 The operator's exposition should detail the differences between the aeroplane types and kinds of equipment used and specify the required training.

### 2.3.6 Refresher training

- 2.3.6.1 Division 121.P.4 of CASR prescribes the requirements for cabin crew recency. If an operator assigns a cabin crew member to more than one aeroplane type, the exposition must<sup>8</sup> detail how the operator will manage recency across multiple types.
- 2.3.6.2 Refresher training should take into consideration:
- the period that a cabin crew member has not flown an aeroplane type
  - whether the cabin crew member has remained recent on other aeroplane types.
- 2.3.6.3 The operator's exposition must<sup>9</sup> detail the refresher training program and should take into consideration the competencies required in the annual training program.

## 2.4 Operational safety-critical personnel

- 2.4.1 For a Part 121 operator, operational safety-critical personnel, in addition to flight and cabin crew, may include persons such as:
- flight dispatchers and/or load controllers
  - ground handling personnel
  - passenger handling agents
  - livestock handlers, such as grooms etc.
- 2.4.2 Each operator will need to consider the definition of operational safety-critical personnel to determine who falls within that category.
- 2.4.3 Unlike the Part 121 training and checking requirements for flight crew members and cabin crew members, Part 121 of CASR does not mandate any specific initial and recurrent training events for operational safety-critical personnel who are not these kinds of crew

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<sup>8</sup> Regulation 121.705 of CASR.

<sup>9</sup> Paragraph 121.705(b) of CASR.

members. Operators are required to propose the training and checking for these personnel as part of their AOC application.

- 2.4.4 Operators that fall within the scope of subregulation 119.170(5) of CASR must determine the training and checking requirements for these personnel and ensure their training and checking system meets the requirements of subregulation 119.170(4) of CASR.
- 2.4.5 Operational safety-critical personnel may be employed by a third-party to provide operational support to the AOC holder, for example, ground handling companies or flight dispatch companies. In many cases the third-party company will have established initial and recurrent training programs for personnel that support qualifications, such as:
- dangerous goods training
  - human factors training
  - ramp operations and equipment training etc.
- 2.4.6 Operators do not need to personally conduct this training, but they must still meet the requirements of subregulation 119.170(4) of CASR. They might include details of the training and checking in their training and checking system by reference to a third-party organisation document or by direct incorporation. Where training is provided by a third-party contractor, the operator remains responsible for ensuring that the training meets their operational needs.
- 2.4.7 Operators will need to determine whether additional training and checking, on top of the third-party organisation generic requirements, needs to be provided to cover operator-specific matters, such as:
- operator-specific communications with flight and cabin crew:
    - o cockpit-to-ground communications
    - o protocols for opening and closing cabin or cargo doors
    - o provision of load sheets and passenger manifests
    - o flight plan policies, including fuel, EDTO etc.
    - o load rejection policy
  - safety reporting between the contractor and the operator
  - process for reporting defects.
- 2.4.8 As the operator remains responsible for the competence of operational safety-critical personnel involved with their aircraft operations, it is recommended that operator's establish a robust process to ensure they are satisfied any required training and checking has been completed before third-party organisation personnel are involved in their operations.

## 3 Part 121 training and checking personnel

### 3.1 Flight crew trainers and checkers

**Note:** Read section 5 of this Annex for specific recommendations relating to conducting Part 121 check pilot training (the person(s) conducting Part 121 proficiency checks that do not hold an appropriate Part 61 flight examiner rating or, if proficiency checks are being done in a foreign jurisdiction, the foreign equivalent).

- 3.1.1 The only restriction placed on employment arrangements between operators and training and checking personnel is that flight crew member checking activities relating to the flying of an aeroplane used for passenger transport operations with a maximum operational passenger seat configuration of more than 30 seats must only be done by individuals employed by the operator<sup>10</sup>.
- 3.1.2 For all other Part 121 training and checking activities, the regulations place no restrictions on the employment arrangements between an operator and the training and checking personnel it utilises. Personnel may be permanent employees of the operator, part-time or casual, or engaged under a temporary arrangement for multiple activities, one activity, or part of an activity.
- 3.1.3 Operators may elect to use instructors or examiners who work for Part 141 or Part 142 organisations as trainers and checkers. The use of these individuals in these roles for the air operator are not Part 141 or Part 142 activities. Refer to section 2.4 of the AC for guidance about the activities which are Part 142 activities.
- 3.1.4 Flight crew with appropriate Part 61 authorisations, such as instructors and examiners, can work as trainers and checkers for more than one operator; provided they comply with each specific operator's exposition or training and checking manual, including any prerequisites for such personnel.
- 3.1.5 It should be noted that unless the instructor or examiner is going to conduct an actual air transport operation or aerial work operation for the operator, they are not required by the regulations to meet the same requirements as a line pilot.
- 3.1.6 Therefore, such individuals can only carry out in-flight training and checking activities on flights that are not air transport or aerial work. Conversely, if the training or checking activity is to be carried out by an individual during an air transport or aerial work operation, the training or check pilot must meet the operator's induction, proficiency and recency requirements to act as PIC for the flight from the seat they will be occupying during the flight.
- 3.1.7 In addition to meeting any prerequisite or ongoing requirements in the operator's exposition, persons who conduct the training and checking activities listed below must<sup>11</sup>:
- for a Part 121 proficiency check, meet one of the following requirements:
    - o hold a flight examiner rating of an appropriate kind (refer to the GM 121.580 entry in the Part 121 AMC/GM document for further information)
    - o hold an approval under regulation 121.010 of CASR (for the purposes of this AC, the term check pilot will be used for such a person)

<sup>10</sup> Subregulation 119.170(6) of CASR.

<sup>11</sup> Paragraph 121.590(1)(c) and subregulation 121.590(2) of CASR.

- o meet the requirements in section 14E of CASA EX83/21 (refer to the AMC 121.580 entry in the Part 121 AMC/GM document for further information).
  - for emergency and safety equipment training and checking, hold:
    - o an approval under regulation 121.010 of CASR (for the purposes of this AC, the term checker will be used for such a person).
- 3.1.8 Approvals under regulation 121.010 of CASR to conduct training and checking activities are not transferable. Flight crew will require the relevant authorisation for each operator.
- 3.1.9 Flight crew who conduct Part 61 flight reviews and proficiency checks must be authorised under Part 61 of CASR.
- Note:** One of the methods of Part 61 authorisation is the operator holding a regulation 61.040 approval for these Part 61 events to be done as part of the operator training and checking system. Refer to Chapter 2 of this AC (the main document outside this Annex) for information on these regulation 61.040 approvals.
- 3.1.10 The simplest solution for most operators is to use Part 61 instructors or examiners for all training and checking activities as these persons already possess skills in the delivery of training and checking.
- 3.1.11 However, these are not the only kind of persons who can deliver training and checking for operators. Operators are advised that CASA will expect persons without Part 61 competencies in the delivery of training and checking to have demonstrable and well documented skills appropriate to the activity being conducted. If the operator is training a new person to conduct training and checking activities, the operator will need to have a documented training course for these persons in their exposition.
- 3.1.12 The course of training required by flight crew to conduct training and checking activities will depend on the type of activity conducted. For those persons conducting flight crew Part 121 proficiency checks who do not hold an appropriate flight examiner rating or meet the requirements of section 14E of CASA EX83/21, and therefore would need to hold a 121.010 approval, refer to section 4 of this Annex for an explanation of the required competencies..
- 3.1.13 Flight crew whose responsibilities include operator proficiency checks, assessments of standards, conduct of repeat exercises and remedial training should demonstrate the following skill sets:
- instructional competencies
  - assessment competencies
  - competencies in managing assigned tasks in the training and checking system.

## 3.2 Cabin crew trainers and checkers

- 3.2.1 Cabin crew trainers and/or checkers should demonstrate the following skill sets:
- instructional competencies
  - assessment and testing competencies
  - competencies in managing assigned tasks in the training and checking system.

- 3.2.2 Personnel who conduct training and/or checking involving safety or emergency equipment must<sup>12</sup> hold an approval under regulation 121.010 of CASR.
- 3.2.3 Personnel who conduct other training and/or checking activities must<sup>13</sup> be appointed by the operator in accordance with the exposition.
- 3.2.4 The Part 121 check pilot training program mentioned in section 4 of this AC could be modified to work for cabin crew check personnel. Modules 1 to 6 of that program could be used to develop the training program for cabin crew checkers, provided the practical elements in Module 7 were modified to suit the role of a cabin crew checker.

### **3.3 Other operational safety-critical personnel training and checking personnel**

- 3.3.1 Training and checking personnel who conduct training and assessment of operational safety-critical personnel who are not flight crew members or cabin crew members are recommended to demonstrate appropriately similar competencies as those required for cabin crew.
- 3.3.2 As always, the operator's exposition must<sup>14</sup> detail their qualifications, training, and assessment.

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<sup>12</sup> Subregulations 121.640 (3) and (4) of CASR.

<sup>13</sup> Regulation 119.170(3) of CASR.

<sup>14</sup> Regulation 119.170 of CASR.

## 4 Part 121 check pilot training

### 4.1 General

- 4.1.1 Training and checking personnel are required to complete a course of training.<sup>15</sup> The personnel require competencies in both instruction and assessment. The training program should be tailored to the qualifications of, and the activities performed by, the training and checking personnel.

For example:

A check pilot who holds a current Instructor rating with MEA CLR and IR-A training endorsements and a Flight Examiner rating and associated flight test endorsements would only require training that covers the policies and procedures of the training and checking system.

A check pilot who does not hold these Part 61 qualifications would require training that covers the competencies associated with the qualification, in addition to training on the system.

- 4.1.2 The syllabus overview presented in section 4.2 is designed for check pilots who conduct recurrent and non-recurrent training and checking of a Part 61 qualified flight crew member.
- 4.1.3 The syllabus consists of modules and the operator may choose to have a required prior learning process that allows students to skip some modules. The syllabus is designed to prepare a check pilot who has not held a Part 61 flight instructor rating and/or a flight examiner rating.

### 4.2 Check pilot training syllabus overview

- 4.2.1 The following syllabus overview is a list of topics that should be considered when developing the training program for training and checking personnel. In addition, the operator will need to develop a course schedule, course notes, competency standards and assessment.

#### 4.2.2 Theory (approximately 3 to 4 days)

##### Module 1 - Introduction

- Overview of the regulations
- Overview of the training and checking organisation
- Role and responsibilities of training and checking personnel
- Personal characteristics of an effective check pilot<sup>16</sup>:
  - interpersonal skills

<sup>15</sup> Subparagraph 119.170(2)(c)(i) of CASR.

<sup>16</sup> Other 'soft' skills such as empathy, being a good role model and being able to make a good first impression may also be useful characteristics of an effective check pilot.

- self-managed professional development
- high personal standards and knowledge
- Role of the check pilot during instruction and assessment:
  - explanation
  - demonstration
  - performance
  - supervision
  - evaluation
  - fault analysis (diagnosis)
  - competency assessment
  - supporting student self-assessment.

### **Module 2 - Learning principles**

- How people learn:
  - definition of learning
  - useful senses in instruction
  - useful senses in a theory lesson
  - useful senses in a skill lesson
- The laws of learning:
  - readiness
  - effect
  - exercise
  - primacy
  - intensity
- Levels of learning:
  - rote
  - understanding
  - application
  - correlation
  - learning plateaus
- Knowledge transfer and habit formation
- Reinforcement
- Behavioural change.

### **Module 3 - Instructional techniques**

- Lecture
- Theory and skill lessons
- Group learning
- Guided discussion
- Briefing/debriefing techniques
- Behavioural objectives
- Domains of learning:
  - cognitive (knowledge)
  - affective (attitudes, beliefs and values)
  - psychomotor (physical skills)



- Barriers to effective learning
  - lack of common experience
  - confusion
  - abstractions
- Instructional process
  - preparation
  - presentation
  - application
  - review and evaluation.

#### **Module 4 - Questioning techniques**

- Key questions
- Open and closed questions
- The strategic pause
- Socratic questioning and Socratic circles
- Types of questions to avoid:
  - puzzle
  - oversize
  - toss-up
  - bewilderment
  - trick questions
  - irrelevant questions.

#### **Module 5 - Assessment techniques**

- Purpose of assessment:
  - skills
  - competency
  - proficiency
- Principles of effective assessment:
  - validity
  - reliability
  - flexibility
  - objectivity
- Types of assessment:
  - recognition of prior learning
  - diagnostic assessment
  - traditional assessment
  - formative assessment
  - summative assessment
  - authentic or holistic assessment
- Evidence assessment methods:
  - direct evidence:
    - o direct observation
    - o direct questioning
    - o demonstration of specific skills

- indirect evidence:
  - o assessment qualities of the final product
  - o review of previous checks undertaken
  - o written tests of underpinning knowledge
- rules of evidence:
  - o valid
  - o sufficient
  - o current
  - o authentic
- Grading.

### **Module 6 - Assessor biases**

- Personal bias error
- Confirmation bias
- Central tendency error
- Generosity error
- Severity error
- Halo effect
- Leniency
- Stereotyping
- Logic error
- Error of narrow criterion
- Error of delayed grading
- Bias blind spot
- Fundamental attribution error.

### **Module 7 - Conduct of non-recurrent and recurrent training and checking**

- Pre-activity briefing:
  - outline the objective of the activity
  - outline the exercises to be assessed
  - outline the required standards
  - oral evaluation
  - confirms crew coordination, i.e. who is PIC
  - takeover procedure and actual emergency procedures.
- In-aircraft activities:
  - training and checking-specific weight and balance/performance
  - training and checking-specific fuel policy
  - training and checking-specific checklists
  - method of conducting simulated emergencies, such as:
    - o engine failure
    - o limited panel instrument flying
    - o flight outside the normal envelope, i.e. stalls etc.
  - HF and NTS skills, specifically:
    - o communication
    - o situational awareness

- o workload management
- conduct of line checks:
  - o establishing PIC protocols
  - o conduct of the line check from a control seat
  - o conduct of a line check from an observers seat
  - o actions in the event of an actual emergency/abnormal event.
- In-FSTD activities:
  - general safety:
    - o OH&S requirements
    - o centre evacuation procedures
  - FSTD-specific safety features:
    - o Fitted emergency equipment
    - o FSTD escape procedures
    - o Emergency Motion and control loading cut-off switches
    - o Phone location and contact numbers
  - simulator sickness and related conditions
  - use of the instructor operator station (IOS):
    - o explanation of Instructor’s panel and simulator equipment
    - o use of the master reset function
    - o how to configure and set up the IOS:
      1. aircraft set up
      2. visual conditions lighting and weather set up
      3. reposition, slew, position and flight freeze
      4. malfunction index and setup features
      5. recording data and events
      6. lesson plan use
  - FSTD training and checking techniques:
    - o structured timing of events
    - o realistic communications such as ATC, ground personnel, cabin crew, etc.
    - o UPRT-specific training
    - o in-seat training
    - o remedial training
- Post-session activities:
  - debriefing techniques
  - assessment and grading
  - handling unsatisfactory performance
  - paperwork and forms
- Reporting of FSTD faults.

### 4.2.3 Practical module – in-aircraft training and checking

4.2.3.1 Line training and checking is conducted during normal line operations, therefore it does not involve emergency or abnormal activities. The number of sectors will depend on the complexity and nature of the operation. In a multi-crew environment, a line check flight should be over multiple sectors to allow assessment of both pilot flying and pilot monitoring roles.

4.2.3.2 As a minimum (for this example program), the trainee should:

- observe 2 line training and/or checking flights
- conduct at least 2 line training and/or checking flights, until competency demonstrated, under the supervision of a check pilot approved by the operator to conduct that training
- conduct a line check under the assessment of a check pilot approved by the operator to conduct that check.

### **Training and assessment to conduct a proficiency check and/or remedial training**

- 4.2.3.3 The conduct of proficiency checks/remedial training in an aircraft involve simulated abnormal and emergency activities which must be carefully managed by the check pilot. For this reason, the training program should reference the competencies required by a Part 61 flight instructor training endorsement relevant to the type of training, for example, IR-A and CLR MEA.
- 4.2.3.4 The training below is for a check pilot who does not hold a flight instructor rating with the associated training endorsement. Required prior learning can be used for check pilots who hold equivalent Part 61 qualifications.
- 4.2.3.5 The number of training flights required to ensure the individual is competent to conduct proficiency checks/remedial training will vary depending on the nature of the operations. The program below is based on observing two proficiency checks, followed by 10 hours of training delivered over five sessions, and an assessment flight conducting a proficiency check under supervision:
- observe two proficiency checks
  - receive training in the following competencies:
    - o deliver the pre-flight briefing
    - o conduct proficiency check in accordance with the exposition/operations manual
    - o conduct remedial training in accordance with the exposition/operations manual
    - o manage PIC responsibilities effectively
    - o manage any contingencies and any abnormal or emergency situations effectively
    - o manage intervention and recovery techniques
    - o demonstrate the ability to accurately assess the performance of the pilot under check in accordance with Schedule 8 of the Part 61 MOS
    - o manage the proficiency check/remedial training to ensure operations are conducted safely
    - o accurately grade the exercises in accordance with the exposition/operations manual.
  - assessment flight conducting a proficiency check under supervision.
- 4.2.3.6 Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe are simulated and limited to those described in the AFM.

### **4.2.4 Practical module – in-FSTD training and checking**

- 4.2.4.1 The program below is based on observing two proficiency checks, followed by training delivered over three sessions, and an assessment flight conducting a proficiency check under supervision:
- observe two proficiency checks

- conduct three proficiency checks/remedial training sessions under the supervision of a qualified check pilot until competency is demonstrated; the following competencies are required:
  - o deliver pre-session briefing
  - o conduct FSTD safety briefing
  - o conduct session in accordance with the lesson plan
  - o provide accurate ATC clearances etc. to support the exercise
  - o provide other communications in a realistic manner, i.e., ground and/or cabin crew
  - o use real time as far as possible
  - o demonstrate the ability to effectively manage the IOS
  - o demonstrate the ability to accurately assess the performance of the pilot under check in accordance with Schedule 8 of the Part 61 MOS
  - o provide remedial training as required
  - o accurately grade the exercises in accordance with the exposition/operations manual.

#### **4.2.5 Final assessment**

- 4.2.5.1 The HOTC or a nominated check pilot is to conduct a final assessment of the individual as a training and checking pilot in the competencies required. If successful, the HOTC or nominated check pilot must advise CASA that the individual is ready for a flight test and approval under regulation 121.010 of CASR.

## 5 Part 121 recurrent training for flight crew

5.1.1 The matrix in Table 1 provides guidance for the planning of recurrent training required by Division 121.N.6 of CASR. It has been developed to support a multi-crew operation of a generation 4 jet<sup>17</sup> aircraft conducting the following types of operations:

- EDTO
- LVO
- PRM approach
- LAHSO.

**Notes:**

1. The matrix in Table 1 is an example based on generic aircraft systems. The operator will need to determine whether the planned activities will fit into a 4-hour session and adjust accordingly.
2. The matrix in Table 1 is based on recurrent training that has not been granted an approval under regulation 61.040 of CASR. To be granted such an approval, the operator must meet all the requirements described in Chapter 7 of this AC.
3. Each column referring to an IPC must include required elements of a 121PC.

5.1.2 All the recurrent training activities are conducted in a qualified FSTD.

5.1.3 The operator's training and checking system provides for two sessions annually, session A and session B, conducted in the FSTD as follows:

**Session A**

Day 1 - Recurrent and refresher training.

Day 2 - IPC and 121PC conducted concurrently.

Conducted by a Part 61 flight examiner with an IR-A flight test endorsement. The flight examiner will arrange for a flight test number at least 24 hours prior to the proficiency check. The proficiency check will be conducted in accordance with Schedule 6, Appendix 1 of the Part 61 MOS and Chapter 23 of the Flight Examiners Handbook.

**Session B**

Day 1 - Recurrent and refresher training.

Day 2 - 121PC

Conducted by a flight examiner or simulator check pilot in accordance with the company training and checking procedures. The 121PC will also fulfil the requirements for an annual LVO proficiency check.

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<sup>17</sup> ICAO Doc 9995, Manual of Evidence-based Training.

Table 1: Part 121 recurrent training matrix

Exercise	Year 1		Year 2				Year 3				Year 4					
	Fuel system		Hydraulic system				Electrical system				Pressurisation system					
	Session 1A		Session 1B		Session 2A		Session 2B		Session 3A		Session 3B		Session 4A		Session 4B	
	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC
<b>Line-oriented flight</b>																
LOE		C+F				C+F				C+F				C+F		
LOFT			C+F				C+F				C+F				C+F	
EDTO-specific LOE	C+F				C+F				C+F				C+F			
Crew member as PF	C		F		C		F		C		F		C		F	
<b>Take-off</b>																
NORMAL		C+F				C+F				C+F				C+F		
RTO		C		C		C		C		C		C		C		C
ENG FAIL after V <sub>1</sub> and prior to V <sub>2</sub>		C+F		C+F		C+F		C+F		C+F		C+F		C+F		C+F
ENG FAIL after V <sub>2</sub>	C		F						C		F					
LVO				C				C				C				C
NIGHT		F		C		F		C		F		C		F		C
CROSSWIND		C		F		F		C	F			F		F		C
RNP EOSID				C				F				C				F
<b>Enroute</b>																
Hazardous weather		C+F				C+F				C+F				C+F		

Exercise	Year 1		Year 2				Year 3				Year 4					
	Fuel system		Hydraulic system				Electrical system				Pressurisation system					
	Session 1A		Session 1B		Session 2A		Session 2B		Session 3A		Session 3B		Session 4A		Session 4B	
	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC
Navigate		C+F				C+F				C+F				C+F		
<b>Approaches</b>																
MANUAL FLIGHT/THRUST		C+F				C+F				C+F				C+F		
ILS APCH – 3D		C		F				C				C				C
GLS APCH – 3D		F				C										
CAT I – 3D		C		F		C+F										
CAT II – 3D				C				C				C				C
CAT III – 3D				C				C				C				C
RNP APCH – LNAV/VNAV (3D)		F				F						F				F
RNP AR APCH -3D				C				C				C				C
PRM APCH – 3D					C+F											
LLZ APCH – 2D																
VOR APCH – 2D		C				F										
NDB APCH – 2D			C+F					C			C+F					
RNP APCH – LNAV – 2D		F		C		C		F								
ALL ENG MISSED APCH	C		F													
HOLDING		C+F				C+F				C+F				C+F		



Exercise	Year 1				Year 2				Year 3				Year 4			
	Fuel system				Hydraulic system				Electrical system				Pressurisation system			
	Session 1A		Session 1B		Session 2A		Session 2B		Session 3A		Session 3B		Session 4A		Session 4B	
	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC
OEI		C+F		C+F		C+F				C+F		C+F		C+F		C+F
OEI MISSED APCH		C+F		C+F		C+F		C+F		C+F		C+F		C+F		C+F
CIRCLING		C+F				C+F				C+F				C+F		
<b>Landing</b>																
NORMAL																
OEI		C+F		C+F		C+F		C+F		C+F		C+F		C+F		C+F
CROSSWIND		C		F												
NIGHT		C+F						C+F		C+F						C+F
MANUAL THRUST		C+F				C+F				C+F				C+F		
LAHSO																
<b>Manoeuvre base sequences</b>																
Limited panel I/F		C+F				C+F				C+F				C+F		
Unusual attitude recovery – full panel		C+F				C+F				C+F				C+F		
Unusual attitude recovery – limited panel		C+F				C+F				C+F				C+F		
Turbulence Penetration		F				C				F				C		
Volcanic Ash Encounter										C+F						
Windshear (T/O or LDG)		C				F				C				F		

Exercise	Year 1				Year 2				Year 3				Year 4			
	Fuel system				Hydraulic system				Electrical system				Pressurisation system			
	Session 1A		Session 1B		Session 2A		Session 2B		Session 3A		Session 3B		Session 4A		Session 4B	
	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC
TCAS / ACAS			C				F				C				F	
GPWS / TAWS				C+F												
Upset awareness	C+F												C+F			
Upset prevention	C+F												C+F			
Upset recovery	C+F												C+F			
<b>Normal/abnormal/emergency procedures (conducted as a crew exercise)</b>																
Autoflight			C				C				C				C	
Manual thrust		C+F			C+F				C+F				C+F			
ENG FIRE/SEV Damage/Separation		C	F						C		F					
Brakes – A/Skid fault				CR												
Cabin Emergency	CR												CR			
Cold Weather Operations											CR					
Crew Incapacitation			CR													
CTAF Operations			CR								CR					
Flight control abnormal landing						CR		CR								
Electrical abnormal/Emergency								CR		CR						
Hydraulics System				CR		CR										

Exercise	Year 1				Year 2				Year 3				Year 4			
	Fuel system				Hydraulic system				Electrical system				Pressurisation system			
	Session 1A		Session 1B		Session 2A		Session 2B		Session 3A		Session 3B		Session 4A		Session 4B	
	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC
Emergency descent													CR			
Dual Engine failure					CR											
Cross bleed start									CR							
Navigation system	CR															
Pax evacuation																
Pressurisation													CR		CR	
PRM Breakout Procedure					CR											
Smoke/fumes	CR										CR					
Fuel abnormal	CR		CR													
Start abnormal	CR														CR	
Start with external power					CR				CR							
<b>Systems review (conducted as a crew exercise)</b>																
Auto Flight																
Communications																
Electrical									CR		CR					
Fire Protection			CR										CR			
Flight Controls							CR									
Flight Management Systems	CR															

Exercise	Year 1				Year 2				Year 3				Year 4			
	Fuel system				Hydraulic system				Electrical system				Pressurisation system			
	Session 1A		Session 1B		Session 2A		Session 2B		Session 3A		Session 3B		Session 4A		Session 4B	
	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC	RT	IPC	RT	121PC
Fuel	CR		CR													
Hydraulics					CR		CR									
Ice & Rain protection					CR											
Navigation	CR															
Oxygen													CR		CR	
Pneumatics													CR		CR	
Power Plant					CR											
Landing Gear					CR		CR									
<b>If required operations from both seats (events not from pilot's normal seat)</b>																
ENG FAIL (after V <sub>1</sub> and prior to V <sub>2</sub> )		C+F		C+F		C+F		C+F		C+F		C+F		C+F		C+F
OEI 3D or 2D APCH		C+F		C+F		C+F		C+F		C+F		C+F		C+F		C+F
OEI MISSED APCH (from minima)		C+F		C+F		C+F		C+F		C+F		C+F		C+F		C+F
OEI - LANDING		C+F		C+F		C+F		C+F		C+F		C+F		C+F		C+F