

Advisory Circular

GUIDANCE ON CREW TRAINING FOR ANR-121 OPERATIONS

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GENERAL

Advisory Circulars (ACs) are issued by the Director-General of Civil Aviation (DGCA) from time to time to provide practical guidance or certainty in respect of the statutory requirements for aviation safety. ACs contain information about standards, practices, and procedures acceptable to CAAS. An AC may be used, in accordance with section 3C of the Air Navigation Act (Cap. 6) (ANA), to demonstrate compliance with a statutory requirement. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.

PURPOSE

This AC provides guidance to demonstrate compliance with, and information related to, the requirements on crew training for operations under ANR-121.

APPLICABILITY

This AC is applicable for the AOC holder operating in accordance with ANR-121.

RELATED REGULATIONS

This AC relates specifically to Division 9 in Part 2 of ANR-121.

RELATED ADVISORY CIRCULARS

- AC 121-9-2 Flight Crew Training for ANR-121 Operations
- AC 121-9-3 Cabin Crew Training for ANR-121 Operations
- AC 121-9-4 Flight Dispatcher Training and Appointment
- AC 121-9-5 Safety and Emergency Procedures Training
- AC 121-9-8 Training on Crew Resource Management
- AC 121-12-1 Guidance on Logs and Records for ANR-121 Operations
- AC 121-12-2 Operations Manual for Operations under ANR-121

CANCELLATION

This AC supersedes AC 121-9-1 (Rev 0). In this revision 1, GUIDANCE121REG144 has been updated to provide for a longer validity period of the approval for an instructor.

EFFECTIVE DATE

This AC is effective from 3 January 2022.

OTHER REFERENCES

Nil.

GUIDANCE 121REG143 GUIDANCE FOR REGULATION 143 OF ANR-121 – TRAINING PROGRAMME - GENERAL

1 GENERAL

- 1.1 The statutory requirements relating to crew training are specified in Division 9 in Part 2 of ANR-121. The AOC holder is required to establish training programmes for its operational staff, particularly flight crew, cabin crew and flight dispatcher (or flight operations officer). The following ACs contain some specific guidance on the training programme for respective operational staff.
- AC 121-9-2 Flight Crew Training for ANR-121 Operations
 - AC 121-9-3 Cabin Crew Training for ANR-121 Operations
 - AC 121-9-4 Flight Dispatcher Training and Appointment
 - AC 121-9-5 Safety and Emergency Procedures Training
- 1.2 While the above ACs cover mostly crew training, the AOC holder should apply the same approach for the training of other operations personnel, such as those performing loading who should undergo mass and balance training. The AOC holder should establish relevant policy and processes for training the various operations personnel.
- 1.3 The AOC holder should designate a suitably qualified person to take general charge of arrangements for training. His authority and responsibilities should be clearly defined.
- 1.4 If the AOC holder engages a separate training organisation to provide crew training, the AOC holder remains responsible to ensure the training provided and flight documentations used by that training organisation are in accordance with the training manual and any relevant documents in the AOC holder's flight safety documents system (refer to Regulation 18 of ANR-119).
- 1.5 As part of its regulatory oversight, the CAAS may observe any training or testing sessions.

2 TRAINING MANUAL

- 2.1 Regulation 143(4) of ANR-121 requires that the training programmes be incorporated as Part D of the Operations Manual. This may be generally referred to as the "Training Manual". Guidance on the development of the training manual, or Part D of the Operations Manual, and the recommended contents are provided in AC 121-12-1 and AC 121-12-2.
- 2.2 The training manual is a primary indication of how the AOC holder fulfills the requirements on training and testing. It should give formal expression to the AOC holder's training policy and requirements, together with adequate guidance to instructors and examiners.

3 OTHER TRAINING - SECURITY

- 3.1 The AOC holder may incorporate training in other areas as appropriate into the AOC holder's training programme for the crew members. Among these may be the security training that may be required by the National Civil Aviation Security Authority (NCASA).

The AOC holder is therefore reminded to adhere to training requirements that may be specified.

- 3.2 For information, the security training programme may include the following elements:
- (a) Determination of the seriousness of any occurrence.
 - (b) Crew communication and coordination.
 - (c) Appropriate self-defense responses.
 - (d) Use of non-lethal protective devices assigned to crew members whose use is authorised by the NCASA.
 - (e) Potentially disruptive passengers.
 - (f) Understanding of behavior of terrorists so as to facilitate the ability of crew members to cope with hijacker behavior and passenger responses.
 - (g) Live situational training exercises regarding various threat conditions.
 - (h) Flight deck procedures to protect the aeroplane.
 - (i) Aeroplane search procedures and guidance on least-risk bomb locations where practicable.
 - (j) Recognition of firearms, explosives and incendiary devices and their components.
 - (k) Instructions and guidance for searching a bomb and/or inspecting an aircraft for concealed weapons, explosives, and other dangerous devices.
 - (l) Policy and procedures in relation to a bomb threat or warning when the aircraft is on ground or in flight.
 - (m) Instructions and guidance on appropriate course of action to be taken should a bomb or suspicious object be found.
 - (n) Information on the least risk bomb location specific to the aeroplane.
 - (o) Discreet communication to flight crew by cabin crew in the event of suspicious activity or security breaches in the passenger cabin.
- 3.3 The AOC holder could also be expected to provide the crew members with an annual recurrent security training that covers the following topics:
- (a) Current threat assessment.
 - (b) Review of recent incidents: lessons to be learned.
 - (c) Government advice.
 - (d) Reminders of company emergency procedures, manual amendments, etc.
 - (e) Update of initial training course as appropriate.

**GUIDANCE 121REG144 GUIDANCE FOR REGULATION 144 OF ANR-121 –
TRAINING EQUIPMENT**

- 1 Regulation 144(2) of ANR-121 requires an AOC holder to obtain an approval from the Director-General of Civil Aviation for the use of simulated equipment or apparatus and for the training personnel who will be required to use and control such equipment or apparatus during the training specified in regulation 150.
- 2 CAAS' approval of the use of simulation equipment or apparatus is typically for a period of 12 months. The AOC holder may apply for renewal of the approval one month before expiry.
- 3 For an apparatus or equipment to be used for practical emergency survival training and testing, it should accurately represent the aircraft in the following aspects:
 - (a) layout of the cabin in relation to exits, emergency exits, galley areas and safety equipment stowage. Dimensions should be an accurate representation typical of aircraft in the fleet;
 - (b) both cabin crew and passenger seat positioning, with particular accuracy where these are immediately adjacent to exits;
 - (c) seat dimensions and seat pitch;
 - (d) operation of exits and emergency exits in all modes of operation particularly in relation to its method of operation and mass and balance;
 - (e) extent of movement and associated force of all controls for all equipment and services;
 - (f) provision of emergency equipment of the type provided in the aircraft;
 - (g) all cabin markings;
 - (h) all cabin lightings;
 - (i) cabin crew communications equipment and associated control panels;
 - (j) evacuation slides, including normal and standby methods of operation; and
 - (k) height and angle of inflated evacuation slides.
- 4 For the purpose of paragraph 2(b) in Reg 144 of ANR-121, the AOC holder should satisfy itself that the nominated person (e.g. instructor) has the relevant qualifications and experience (refer to AC 121-9-5 for details). The AOC holder should list all approved instructors in the training manual. CAAS may issue an approval that is valid for:
 - (a) Up to 12 months for an instructor with less than two years of relevant experience; or
 - (b) Up to 24 months for an instructor with two or more years of relevant experience.
- 5 The AOC holder may arrange to use the apparatus or instructor of another Singapore AOC holder. Such arrangements will be assessed and, where appropriate,

incorporated under the approval under Regulation 144(2). The training provided must comply with the training manual and operating procedures of the AOC holder whose crew is being trained.

- 6 Certain limitations and conditions of use may be included in the approval(s) as items covered in the apparatus may be restricted if significant differences of cabin layout and equipment exist.

GUIDANCE 121REG146 GUIDANCE FOR REGULATION 146 OF ANR-121 –TRAINING INSTRUCTORS

- 1 Regulation 146 of ANR-121 requires the AOC holder to develop a process for appointing appropriately qualified instructors to conduct training. The process should clearly describe the selection criteria and means of ensuring that the process continually complies with the requirements of ANR-121.
- 2 The AOC holder should maintain details of each instructor, including his curriculum vitae, for review by CAAS.
- 3 Besides ensuring that the instructors are qualified to conduct training, the AOC holder will be expected to arrange, where necessary, training in instructional techniques.
- 4 The following contains more specific information for the various instructors:
 - AC 121-9-4 for the Appointment of Instructors for Flight Dispatchers;
 - AC 121-9-5 for the Appointment of Instructors for Safety and Emergency Procedures

GUIDANCE 121REG147 GUIDANCE FOR REGULATION 147 OF ANR-121 – CREW MEMBER TRAINING PROGRAMME

- 1 The AOC holder should refer to the following ACs for specific guidance on the training programme for respective operational staff.
 - AC 121-9-2 Flight Crew Training
 - AC 121-9-3 Cabin Crew Training
 - AC 121-9-4 Flight Dispatcher Training and Appointment

GUIDANCE 121REG148 GUIDANCE FOR REGULATION 148 OF ANR-121 – PILOT TRAINING

1 The AOC holder should refer to AC 121-9-2 for guidance on flight crew training.

GUIDANCE 121REG149 GUIDANCE FOR REGULATION 149 OF ANR-121 – CABIN CREW TRAINING

1 The AOC holder should refer to AC 121-9-3 for guidance on cabin crew training.

GUIDANCE 121REG150 GUIDANCE FOR REGULATION 150 OF ANR-121 – SAFETY AND EMERGENCY PROCEDURES TRAINING

1 The AOC holder should refer to AC 121-9-5 for guidance on Safety and Emergency Procedures Training.

GUIDANCE 121REG151 GUIDANCE FOR REGULATION 151 OF ANR-121 – CREW RESOURCE MANAGEMENT TRAINING REQUIREMENT

1 The AOC holder should refer to AC 121-9-8 for guidance on Crew Resource Management training.

GUIDANCE 121REG154 GUIDANCE FOR REGULATION 154 OF ANR-121 – CREW MEMBER INTRODUCTION SEGMENT

1 The AOC holder should refer to the following ACs for specific guidance on the introduction training segment for respective operational staff.

- AC 121-9-2 Flight Crew Training for ANR-121 Operations
- AC 121-9-3 Cabin Crew Training for ANR-121 Operations

GUIDANCE 121REG155 GUIDANCE FOR REGULATION 155 OF ANR-121 – CREW MEMBER TRANSITION SEGMENT

1 The AOC holder should refer to the following ACs for specific guidance on the transition training segment for respective operational staff.

- AC 121-9-2 Flight Crew Training for ANR-121 Operations
- AC 121-9-3 Cabin Crew Training for ANR-121 Operations

GUIDANCE 121REG156 GUIDANCE FOR REGULATION 156 OF ANR-121 – CREW MEMBER UPGRADE SEGMENT

- 1 The AOC holder should refer to the following ACs for specific guidance on the upgrade training segment for respective operational staff.
 - AC 121-9-2 Flight Crew Training for ANR-121 Operations
 - AC 121-9-3 Cabin Crew Training for ANR-121 Operations

GUIDANCE 121REG157 GUIDANCE FOR REGULATION 157 OF ANR-121 – CREW MEMBER RECURRENT SEGMENT

- 1 The AOC holder should refer to the following ACs for specific guidance on the recurrent training segment for respective operational staff.
 - AC 121-9-2 Flight Crew Training for ANR-121 Operations
 - AC 121-9-3 Cabin Crew Training for ANR-121 Operations
 - AC 121-9-5 Safety and Emergency Procedures Training

GUIDANCE 121REG158 GUIDANCE FOR REGULATION 158 OF ANR-121 – CONSOLIDATION

- 1 The AOC holder should refer to the following ACs for specific guidance on the consolidation training segment for respective operational staff.
 - AC 121-9-2 Flight Crew Training for ANR-121 Operations
 - AC 121-9-3 Cabin Crew Training for ANR-121 Operations

GUIDANCE 121REG164 GUIDANCE FOR REGULATION 164 OF ANR-121 – TRAINING RECORDS

- 1 The AOC holder's training record system should enable him to monitor a trainee's progress through each stage of training. The system should capture details of training such as, where applicable, the number of times each exercise in base and line training was covered and should include information about the results of tests. Records should incorporate certificates indicating the competence of examinees to perform the duties in respect of which they have been tested.