



CIVIL AVIATION DEPARMENT

Male' Republic of Maldives

AIR SAFETY CIRCULAR

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FLIGHT CREW TRAINING AND PERIODICAL TESTS

1. INTRODUCTION

- 1.1 ICAO Annex 1 and the Maldives Civil Aviation Regulations require pilots to have some recent experience and competency checks to maintain the currency of their licences.
- 1.2 ICAO Annex 6 and the Maldives Civil Aviation Regulations require Public Transport Operators to maintain flight crew training programmes, and to ensure the competence of their flight crews. This requires a more stringent level of recent experience, recurrent training, and testing.
- 1.3 The purpose of this circular is to specify:
 - a) the recent experience, and continuation of training and checking required by the Director of Civil Aviation(DCA), for the currency of a licence, and
 - b) the training and checking requirements for commercial air transport operators

2 REQUIREMENTS FOR CURRENCY OF LICENCE

- 2.1 Prior to exercising the privileges of a pilot licence, the holder must have:
 - a) i) In the case of Pilot-in-Command, carried out not less than 3 take offs and 3 landings in aircraft of the same type within the preceding 90 days and
 - ii) In the case of Co-Pilot, carried out not less than 3 take offs and 3 landings in aircraft of the same type within the preceding 90 days and
 - iii) In the case the pilot intending to carry passengers at night, carried out not less than 3 take offs and 3 landings in aircraft of the same type within the preceding 90 days,
 - b) a valid pilot profeciency check.

If the licence includes an instrument rating, the holder must have passed a competency check appropriate to the instrument rating, within the previous 12 months, or must restrict flight operations to VFR.

3 FLIGHT CREW TRAINING PROGRAMMES

- 3.1 All operators are required to establish and maintain a ground and flight training programme so as to ensure that each flight crew member is properly and adequately trained to perform the assigned duties.
- 3.2 The training programme shall consist of ground and flight training on the type of aircraft on which the fight crew member is required to serve, including instructions in the use of emergency and life saving equipment and drills in the emergency evacuation of aircraft.
- 3.3 The training should include training in all type of emergency or abnormal situations or procedures caused by power plant, airframe or systems malfunctions, fire or other abnormalities.
- 3.4 The training for each flight crew member, particularly that relating to abnormal or emergency procedures, shall ensure that each flight crew member knows the functions for which he is responsible and the relations of these functions to the function of the other crew members.
- 3.5 The training programme shall also consider training of personnel in handling and the transport of dangerous goods.
- 3.6 The training programme should be submitted to the Civil Aviation Department for approval and the training shall be given annually on a recurrent basis.

4. OPERATOR'S RESPONSIBILITY

- 4.1 The holder of a Maldives Air Operator's Certificate shall not permit any person to be a member of the crew during any flight for the purpose of commercial air transport, unless such a person has had the training, rating, experience, practice and periodical tests specified below.
- 4.2 The training and checking of flight crew may only be conducted by persons or organisations approved by the Civil Aviation Department for the purpose.
- 4.3 The operator shall maintain and preserve all records to satisfy DCA of the qualification of the crew and of the manner in which such qualification was achieved.

5. SAFETY EQUIPMENT AND EMERGENCY PROCEDURES (SEP)

5.1 This training shall include instruction in the location and operation of all emergency equipment .Training devices approved to simulate flight operating emergency condition, static aeroplane, ground demonstration, class room lectures, films or other devices may be used for training provided the methods used ensures that each crew member is adequately trained in the operation or use of all emergency equipment. Where practical training is required it shall be completed on initial training

and every two years thereafter.

- a) fire in the air and on the ground;
- b) swimming and life saving including practical training.
- c) use of fire extinguishers including practical training;
- d) operation and use of emergency exits including practical training;
- e) passenger preparation for an emergency landing or ditching,(as applicable) including practical training;
- f) emergency evacuation procedures including practical training;
- g) donning and inflation of life preservers (when equipped) including practical training;
- h) removal from stowage, deployment,inflation and bording of life rafts/slide rafts(when equipped)including practical training;
- i) pilot incapacitation including practrical training;
- j) hijacking, bomb threat and security procedures;
- k) pasenger on board medical emergency ;and
- I) special emergency procedures when the aeroplane is used on MEDVAC operations including patient evacuation in emergency situation.
- 5.2 The validity period of the check shall be 12 months, from the first day of the following month on which the check was conducted.

6. CREW RESOURCE MANAGEMENT (CRM) TRAINING

- 6.1 Many problems encountered by flight crew has very little to do with the technical aspects of the multi-personnel cockpit. Instead, problems are associated with poor group decision making, in effective communication, inadequate leadership and poor task or resource management. Hence it is of vital importance to flight safety that crew management issues be addressed effectively.
- 6.2 CRM Training programme should be a comprehensive system for improving crew performance. It should concentrate on crew member attitudes and their impact on safety .It should also address the entire crew population and use the crew as the unit of training and should not be considered as another form of individually centered crew training, neither an attempt to dictate cockpit behaviour nor a training meant only for captains and managers, and feed back exercises. The aid of video taped examples of good and bad team behaviour can be very useful.
- 6.3 CRM training should include at least three distinct phases:

Awareness phase is the first stage where instructional presentations should be mainly based on crew coordination, communication, and situational awareness, interpersonal relationships, and problem solving skill. It should provide a framework for crew members to start thinking about crew coordination problems and incidents and accidents arising from poor crew coordination.

Recurrent training and feedback phase. The CRM training should be included as a regular part of the current requirement. It should comprise of refresher practices.

Continuing Reinforcement Phase. Even though crew members feel that they have learnt valuable lessons, their insights often than not, tend to fade rapidly. In order to counteract this negative concept, CRM training should be reinforced and

counteract this negative concept, CRM training should be reinforced and intergrated into the current training programme. It is also unrealistic to expect a short training programme to reverse what had developed over a crew members life time.

6.4 An Operator shall ensure that all crew members have under gone a CRM training, and that they have recurrent CRM practice 12 months thereby making CRM a part of the Emergency training as specified in part 5 of this circular.

7. PILOT PROFICIENCY CHECKS (PPC)

- An operator shall ensure that piloting technique and the ability to execute normal 7.1 emergency procedures is checked in such a way as to demonstrate the pilot's competence.
- 7.2 The content of the check shall be not less than:
 - For all pilots; a)

Technical knowledge on type, including limitations and emergency procedures Pre flight inspection

Two take offs (normal, rejected, or cross wind)

Engine failure after take off or missed approach

Steep turns through not less than 180 degrees, left and right.

Approaches to the stall in two different configurations

Two landings (normal, cross wind, flapless, or rejected)

Engine handling

Aerodrome operation and ATC compliance

For pilots operating under IFR b) Knowledge of ATC procedures (SID)

Tracking using two different aids

Holding using two different aids

Two different approaches

Missed approach

Circling approach

Two engine failures (in cruise, on approach, or on missed approach)

Part a) Shall be done on all types flown by the pilot.

Part b) shall be done by pilots operating the aircraft on IFR and shall be type specific.

7.3 The intervals between such checks shall be:

Pilots operating under IFR - 6 months

Pilots operating under VFR- 12 months

7.4 The validity period of every check shall be 6 months, or 12 months, as the case may be, from the first day of the following month on which the check was conducted.

Note: A pilot's ability to carry out normal and emergency manoeuvres and procedures shall be tested in the aircraft in flight or by means of flight simulators approved by the Civil Aviation Department for the relevant parts of the checks.

8. PILOT LINE CHECKS

- 8.1 An operator shall ensure that pilots receive annual line checks on representative transport flights. The validity period of every check shall be for 12 months from first day of the following month on which the check was conducted.
- 8.2 The line check shall include flight planning, weight and balance, crew co-ordination, compliance with SOPs, compliance with ATC instructions, passenger considerations, and other normal line activities. One line check is considered to cover all aircraft types flown by the pilot.
- 8.3 Newly hired Flight Crew shall be trained by Civil Aviation Department approved persons and shall be released online after being checked by a DCP.

9. PILOT-IN-COMMAND ROUTE AND AIRPORT QUALIFICATION

- 9.1 An operator shall not utilize a pilot as pilot-in-command of an aircraft on a route or route segment for which that pilot is not currently qualified until such pilot has complied with 9.2 and 9.3.
- 9.2 Each such pilot shall demonstrate to the operator an adequate knowledge of:
- 9.2.1 The route to be flown, and the aerodromes which are to be used. This shall include knowledge of:
 - 1. the terrain and minimum safe altitudes;
 - the seasonal meteorological conditions;
 - 3. the meteorological, communication and air traffic facilities, services and procedures;
 - the search and rescue procedures;
 - 5. the navigational facilities and procedures, including any long range navigation procedures, associated with the route along which the flight is to take place.
- 9.2.2 Procedures applicable to flight paths over heavily populated areas and areas of high air traffic density, obstruction, physical layout, lighting, approach aids and arrival, departure, holding and instrument approach procedures, and applicable operating minima.
 - *Note:* That portion of the demonstration relating to arrival, departure, holding and instrument approach procedures maybe accomplished in an appropriate training device which is adequate for this purpose.
- 9.3 A pilot in command shall have made an actual approach in to each aerodrome of landing on the route, accompanied by a pilot who is qualified for the aerodrome, as a member of flight crew or as an observer on the flight deck, unless:
- 9.3.1 The approach to the aerodrome is not over difficult terrain and the instrument approach procedures and aids available are similar to those with which the pilot is familiar, and a margin to be approved by the Civil Aviation Department is added to the normal operating minima or there is reasonable certainty that approach and landing can be made in visual meteorological conditions; or

- 9.3.2 The descent from the initial approach altitude can be made by day in visual meteorological conditions; or
- 9.3.3 The operator qualifies the pilot-in-command to land at the aerodrome concerned by means of an adequate pictorial presentation; or
- 9.3.4 The aerodrome concerned is adjacent to another aerodrome at which the pilot-in-command is currently qualified to land.
- 9.4 The operator shall maintain a record, sufficient to satisfy the Civil Aviation Department of the qualification of the pilot and of the manner in which such qualifications has been achieved.
- 9.5 An operator shall not continue to utilize a pilot as pilot-in-command on a route unless within the preceding twelve months, the pilot has made at least one trip between the terminal points of that route as pilot member of the flight crew, or as a check pilot, or as an observer on the flight deck. In the event that more than twelve months elapsed in which pilot has not made such a trip on a route in close proximity and over a similar terrain, prior to again serving as a pilot-in-command on that route, the pilot must re-qualify in accordance with 9.2 and 9.3.

10. RECORDS

- 10.1 All relevant information relating to the periodical tests enumerated above shall be included in the operation/training manual of the operator.
- 10.2 The personal log books of the crew must contain an endorsement by an approved check pilot / check flight engineer who supervised the periodical tests, certifying the tests were performed satisfactorily.

11. EFFECTIVITY

This circular comes into effect from 01 January 2002.

12. CANCELLATION

This circular cancels the latest OPS 02, issue 04 dated 01 July 2001 which should be destroyed.

Mahmood Razee

DIRECTOR GENERAL OF CIVIL AVIATION