



بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

DEPARTMENT OF CIVIL AVIATION

Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 01
Issue: 01
05 November 1991

RECORDING AND CREDITING OF PIC U/S FLIGHT TIME

1. INTRODUCTION

- 1.1 This circular stipulates the terms and conditions under which pilots may credit those hours as pilot-in-command under supervision (PIC U/S) towards meeting the licensing requirements.

2. REQUIREMENT

- 2.1 A pilot claiming time spent as co-pilot performing the duties and functions of a pilot-in-command, under supervision of the pilot-in-command, towards meeting the licence requirements, will be credited with that flight time only if:
- 2.1.1 the flight was conducted in an aircraft having a Certificate of Airworthiness which requires its flight crew to include not less than two pilots;
- 2.1.2 he has responsible for checking the accuracy of the flight plan, load sheet and the fuel calculations for the flight;
- 2.1.3 he ensured that all crew checks were carried out in accordance with the laid down operating procedures;
- 2.1.4 through out the flight he carried out all the duties and functions of pilot-in-command and conduct the take-off and landing;
- 2.1.5 he resolved all meteorological, communication and air traffic control problems;
- 2.1.6 the pilot-in-command did not have to overrule any course of action proposed or taken by the co-pilot;
- 2.1.7 the pilot-in-command certifies in the co-pilot's flying log book against the entry of that flight that it was carried out by the co-pilot acting as pilot-in-command under supervision. Such certification will be taken as confirming that all the foregoing

3. RECORDING AND CREDITING OF PIC U/S FLIGHT TIME

- 3.1 Appendix to this circular sets out the way in which flight time will be counted towards meeting the flying experience requirements.

A handwritten signature in black ink, appearing to read 'Mohamed Shareef', with a long horizontal stroke extending to the right.

Mohamed Shareef
DIRECTOR OF CIVIL AVIATION



بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

CIVIL AVIATION DEPARTMENT

Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 02
Issue: 05
21 November 2001

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 proficiency 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 flight 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 boarding of life rafts/slide rafts(when equipped)including practical training;
- i) pilot incapacitation including practical training;
- j) hijacking , bomb threat and security procedures;
- k) passenger on board medical emergency ;and
- l) 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)

- 7.1 An operator shall ensure that piloting technique and the ability to execute normal 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:

- a) For all pilots;
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
- b) For pilots operating under IFR
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;
 2. the seasonal meteorological conditions;
 3. the meteorological, communication and air traffic facilities, services and procedures;
 4. 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



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DEPARTMENT OF CIVIL AVIATION

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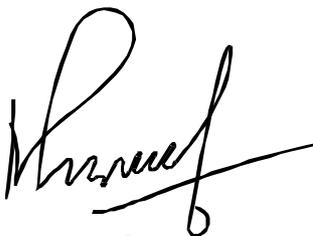
AIR SAFETY CIRCULAR

No. OPS 03
Issue: 01
31 August 1992

'HOT START' - TURBINE ENGINES

1. Incidents have occurred in the past where turbine engines have been prematurely removed as result of over temperature experienced during start, commonly known as 'HOT START'. In case of some Rolls Royce Dart 531 engines installed on HS-748 aircraft, instances were observed where Turbine Gas Temperature (TGT) had shot up beyond limits during starting. The engines were later found stiff to turn and in some cases seized. Similarly in case of Garrett TPE 331-5 engines installed on Dornier 228 aircraft, Inter-stage Turbine Temperature (ITT) was found shooting up during start in two cases and the engines starts were aborted by the pilots. Subsequently the AMEs on duty found the engines stiff to turn and the engines wer prematurely removed.
2. Strip investigation of both the failed Garrett TPE 331-5 engines, in one case by the manufactures and in the second case by their approved Overhauling Agency had revealed evidence of Hot Section distress attributed to 'Hot Start'. In the first case all the three turbine wheel assemblies and in the latter case I and III stage turbine wheels along with other associated parts were replaced. The premature replacement of the major lifed components of the engine, besides adding to the financial costs of operations, had disrupted scheduled operations of the airline.
3. It may be pertinent to mention that modern engines are highly optimized propulsion units and have to be operated as per laid down limitations. Gas Turbine engines, in particular, are sensitive to over temperature. Should the temperature be exceeded, necessary action as stipulated in the Pilot's Operating Handbook/Maintenance Manual has to be followed. The margin between the normal starting ITT and the maximum limit in case of Garrett TPE 331-5 engines is small and is of the same order as in case of many other engines.
4. It needs to be stressed that the temperature rise during a poor start or poor handling of an engine either due to an operational lapse or engineering deficiencies, is always at a high rate requiring agile monitoring and shut-down of fuel supplied in time to prevent over temperature. The time for preventing the limitations of exceeding would be of the order of a second and hence, the rate of temperature rise has to be anticipated by the operating crew/AMEs. This holds good for all gas turbine engines.

5. In case of Dornier 228 aircraft, the Pilot's Operating Handbook clearly describes the procedures of starting the engines and recommends aborting start of the engines immediately if any of the conditions stated therein is observed.
6. 'HOT STARTS' are normally caused by one of the following factors:
 - a) Mis-rigging of the engine / controls.
 - b) Over-fuelling either due to FCU or mismanagement of the manual fuel.
 - c) Excessive tail wind component.
 - d) Low batteries /GPU.
 - e) Improper power lever position.
 - f) Mechanical problems.
7. The **cause of the failures** of two Garrett TPE 331-5 engines as a result of 'HOT STARTS' mentioned in para 2 above was established as a result of investigation to low battery voltage and non-availability of the Ground Power Unit (GPU) at the operating station.
8. The use of Ground Power Unit for engine starting is a healthy engineering practice and the use of aircraft batteries is resorted to at times when GPU is not available or unserviceable. The use of aircraft batteries for engine starting on a regular and routine basis is neither recommended nor conducive to the health of the engine in the long run.
9.
 - a) All turbine engine Operators in the Maldives are, therefore, advised to ensure that the Ground Support infrastructure including Ground Power Unit or a ground battery cart is available at all airports / helipads they are operating and where grounds starts are undertaken on a regular basis. This requirements shall be accomplished not later than 60 days from the date of issue of the circular.
 - b) Operators are further advised to strictly adhere to the starting procedures laid down in the Pilot's Operating Handbook.



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CIVIL AVIATION DEPARTMENT
Ministry of Transport and Civil Aviation
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 05
Issue 05
23 Oct 2001

AIR OPERATOR'S CERTIFICATE

1. INTRODUCTION

- 1.1 Civil Aviation Regulations, Maldives Part 15 require that a Maldivian Aircraft shall not fly on any flight for the purpose of Public Transport except under and in accordance with the terms and conditions of an Air Operator's Certificate (AOC) granted to the operator of the aircraft by the Director, certifying that the holder of the certificate is competent to secure that aircraft operated by him on such flights as that in question are operated safely.

2. APPLICABILITY

- 2.1 This Air Safety Circular is applicable to every aircraft registered in the Maldives and engaged in public transport. It specifies the requirements for grant of an AOC by the Director after he is satisfied that the person/operator applying therefor is competent having regard in particular to his previous conduct and experience, his equipment, organisation, staffing, maintenance and other arrangements, to secure the safe operation of his aircraft for the purpose so specified.

3. GENERAL REQUIREMENTS FOR GRANT OF AN AOC

- 3.1 The issue of an AOC by the Director signifies that only the holder is considered competent to secure the safe operation of the type of aircraft mentioned in the AOC. It does not in any way relieve an operator or an aircraft commander of his responsibility for compliance with the statutory requirements and for the safe conduct of a particular flight.
- 3.2 Granting of an AOC will be dependent upon the request of the operator and may be subjected to the conditions as the Director thinks fit, examples given below.
- a) any person authorised by the Director in that regard shall have access to any premises in the occupation or control of the holder of the AOC for the purpose of examining the premises and any document, equipment, tools, material or other things of whatsoever nature, relating to the operation of aircraft thereunder kept or used or intended to be used in connection of the operation of the aircraft.

- b) any person authorised by the Director in that regard shall be permitted at any time to board and fly in any aircraft operated under the certificate, and to enter and remain on the flight deck; provided that the commander of the aircraft may refuse access to the flight deck if, in his opinion, the safety of the aircraft would thereby be endangered.
 - c) any person appointed by the Director in that regard shall be permitted to board and fly in any aircraft in which any person is given a periodical test by or on behalf of the holder of this certificate. This appointed person shall be permitted to witness the test and may for that purpose enter and remain on the flight deck; provided that the commander of the aircraft may refuse access to the flight if, in his opinion, the safety of the aircraft would thereby be endangered.
 - d) the holder of this certificate shall furnish to the Director a copy of every **Operations Manual** and of all other written instruction to his operating staff, for the time being in effect concerning the operation of the aircraft under the AOC.
 - e) every flight under the AOC shall be conducted in accordance with the provisions of the aforesaid operations manual and instructions.
- 3.3 The Director may stipulate special condition regarding operation of the aircraft in the Maldives at the time of grant of an AOC or thereafter, for compliance by the operator; examples given below.
- a) advance notice to the Director by the holder of the certificate of intended changes or abolition of the senior managerial cadre posts
 - b) advance notice to the Director by the holder of the certificate of intended changes in the employment or cessation of an outside maintenance agency for maintaining the aircraft or any part of its equipment.
 - c) geographical limits of the area of operation.
 - d) operational restrictions deemed necessary regarding use of aerodromes, minimum height or flights over prohibited islands
 - e) adherence to established air routes and reporting procedures to the ATC.
- 3.4 For grant of an AOC, the applicant shall provide Type Training or equivalent for any new aircraft brought into the State to at least one pilot and one engineer from Civil Aviation Department, from the manufacturer or a training institute approved/acceptable to Director of Civil Aviation. The applicant shall bear all the cost of training, travel, accommodation and per diem.
- 3.5 The AOC shall remain in force until revoked, suspended or varied.
- #### 4. AIRCRAFT MAINTENANCE ARRANGEMENTS
- 4.1 Requirements relating to aircraft maintenance are contained in MAR Series 'E' No. 1 under approval category "C" (Aircraft Maintenance Organisation) and Category "E" (Overhauler) which must be complied with by the operator. It is the responsibility of the operator to satisfy the Department that his maintenance support arrangements are to a satisfactory standard. The operator either may have his own maintenance organisation or may contract out his maintenance to another organisation acceptable to the Director.

- 4.2 The operator remains responsible for the safe operation of his aircraft when accomplishment of maintenance is contracted out and must therefore, be satisfied with the standards of airworthiness achieved by the contractor. However, the inspection of the maintenance infrastructure of the contractor by a Surveyor of the Department shall be necessary to ensure its adequacy and the scope of maintenance. To facilitate the inspection of contractor's maintenance facilities, the operator shall bear the cost in connection with the travel and stay of the CAD Surveyor, in case the facilities are based outside Maldives.
- 4.3 All maintenance support organisations outside Maldives should have the appropriate approvals issued by the regulatory authorities of their country and have management systems to ensure effective support and surveillance of the operator's fleet of aircraft for which they have responsibility. Quality Control and Assurance must be exercised as necessary to achieve satisfactory standards of continuing airworthiness.

5. APPLICATION FOR AN AIR OPERATOR'S CERTIFICATE

- 5.1 Operators seeking an AOC in the Maldives should apply to the Director of Civil Aviation on application form No. DCA/OPS/01 which may be obtained from his office. Fees for grant of an AOC as prescribed in the Air Safety Circular No. AW 6 shall be paid by the operator before an AOC is issued by the Director.
- 5.2 The application should be accompanied by the relevant Operations Manual, Training Manual and Engineering Exposition and should be submitted as far ahead as possible, at least 90 days prior to the proposed date for the start of operations.
- 5.3 On receipt of the application by the CAD, scrutiny of all aspects of aircraft operation including management structure, adequacy of aircraft crews and ground staff, arrangement for the training, premises; adequacy of maintenance facilities, rotables and equipment; and aircraft will be made by the Surveyors of the Department. Operator's coordination in this regard may be necessary to have further details as considered necessary by the Surveyors.
- 5.4 A proving flight on the aircraft type for which application is made, may be required if deemed necessary and will be observed by the Operations and Airworthiness surveyors of the Department.

6. REQUIREMENTS FOR OPERATIONS MANUAL

- 6.1 The operator of an aircraft shall:-
- (i) make available to each member of his operating staff an operations manual, and
 - (ii) ensure that each copy of the operations manual is kept upto date, and
 - (iii) ensure that on each flight every member of the crew has access to a copy of every part of the operations manual which is relevant to his duties on the flight.
- 6.2 Each operations manual shall contain all such information and instructions as may be necessary to enable the operating staff to perform their duties as such including in particular information and instructions relating to the following matters:-
- (1) the number of the crew to be carried in the aircraft, on each stage of any route to be

- flown and the respective capacities in which they are to act, and instructions as to the order and circumstances in which command is to be assumed by members of the crew;
- (2) the respective duties of each member of the crew and the other members of the operating staff;
 - (3) such particulars, as to flight time duty limitations;
 - (4) such technical particulars concerning the aircraft, its engines and equipment and concerning the performance of the aircraft as may be necessary to enable the flight crew of the aircraft to perform their respective duties;
 - (5) the manner in which the quantities of fuel and oil to be carried by the aircraft are to be computed and records of fuel and oil carried and consumed on each stage of the route to be flown are to be maintained; the instructions shall take account of all circumstances likely to be encountered on the flight including the possibility of failure of one or more of the aircraft engines;
 - (6) the manner in which the quantity, if any, of oxygen and oxygen equipment to be carried in the aircraft,
 - (7) the check lists to be followed by the crew of the aircraft prior to and on take-off, on landing and in an emergency, so as to ensure that the operating procedures contained in the operations manual and in the flight manual or performance schedule forming part of the relevant certificate of airworthiness are complied with;
 - (8) the circumstances in which a radio watch is to be maintained;
 - (9) the circumstances in which oxygen is to be used by the crew of the aircraft, and by passengers;
 - (10) communication, navigational aids, aerodromes, local regulations, in-flight procedures, approach and landing procedures and such other information as the operator may deem necessary for the proper conduct of flight operations; the information referred to in this paragraph shall be contained in a route guide, which may be in the form of a separate volume;
 - (11) the reporting in flight to the notified authorities of meteorological observations;
 - (12) the minimum altitudes for safe flight on each stage of the route to be flown and any planned diversion therefrom, such minimum altitudes being not lower than any which may be applicable under the law of the Republic or of the countries whose territory is to be flown over;
 - (13) aerodrome operating minima for every aerodrome which the operator plans for use.
 - (14) emergency evacuation procedures, including procedures for the instruction of passengers in the position and use of emergency equipment and procedures to be adopted when the pilot in command of the aircraft becomes aware that another aircraft or a vessel is in distress and needs assistance;
 - (15) in the case of aircraft intended to fly at an altitude of more than 49000 feet the

procedures for the use of cosmic radiation detection equipment;

- (16) the labeling and marking of dangerous goods, the manner in which they must be loaded on or suspended beneath an aircraft, the responsibilities of members of the crew in respect of the carriage of dangerous goods and the action to be taken in event of emergency arising involving dangerous goods;
- (17) minimum equipment list as approved by the Director for the type of aircraft listed in the AOC. MAR series "C" No. 6 in this regard may be referred.
- (18) use and checking of altimeters - detailed instruction about altimeter setting procedures and in particular, about operator's policy regarding the use of QFE and QNH.
- (19) Mandatory occurrence reporting - procedure for reporting of all occurrences/defects, in aircraft and aircraft components which cause or might cause adverse effects on the continuing airworthiness of aircraft as defined in MAR series "C" No. 4 to the Department of Civil Aviation on Form No. DCA/OCC/01.

Provided that in relation to any flight which is not one of a series of flights between the same two places it shall be sufficient if, to the extent that it is not practicable to comply with sub-paragraphs (10) and (12), the manual contains such information and instructions as will enable the equivalent data to be ascertained before take-off.

- (20) the action to be taken in the event of unlawful interference or seizure of aircraft;
- (21) A checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage. The checklist shall be supported by guidance on the course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the aeroplane.

Note: Clarifications on any of the above requirements may be obtained from the Surveyors of the Department of Civil Aviation, if required.

- 6.3 Notwithstanding paragraph 6.2 the operations manual shall not be required to contain any information or instructions available in a flight manual accessible to the persons to whom the information or instructions may be required.

6.4 APPROVAL OF OPERATIONS MANUAL.

- (a) An aircraft shall not fly unless, not less than 90 days prior to such flight, the operator of the aircraft has furnished to the Director a copy of the whole of the operations manual for the time being in effect in respect of the aircraft.
- (b) Any amendments or additions to the operations manual shall be furnished to the Director by the operator before or immediately after they come into effect:

Provided that where an amendment or addition relates to the operation of an aircraft to which the operations manual did not previously relate, that aircraft shall not fly for the purpose of public transport until the amendment or addition has been furnished to the Director.

- (c) Without prejudice to the foregoing paragraphs the operator shall make such amendments or additions to the operations manual as the Director may require for

the purpose of ensuring the safety of the aircraft or of persons or property carried therein or the safety, efficiency or regularity of air navigation.

7. TRAINING MANUAL

7.1 The operator of a Maldivian aircraft shall not permit any person to be member of the crew thereof during any flight for the purpose of public transport (except a flight for the sole purpose of training persons to perform duties in aircraft) unless such person has had the training, experience, practice and periodical tests required by the Director in respect of the duties which he is to perform and unless the operator has satisfied himself that such person is competent to perform his duties, and in particular to use the equipment provided in the aircraft for that purpose.

7.2 In compliance of the statutory requirement as given in para 7.1 above, the operator of every Maldivian aircraft flying for the purpose of public transport shall:

- a) make a training manual available to every person appointed by the operator to give or to supervise the training, experience, practice or periodical tests as required to perform his duties.
- (b) ensure that each copy of that training manual is kept upto date.

7.3 CONTENTS OF TRAINING MANUAL

The training manual shall contain all such information and instructions as may be necessary to enable a person appointed by the operator to give or to supervise the training, experience, practice and periodical tests as required to perform his duties as such including in particular:-

- (1) Requirements in respect of the qualifications, training and experience of training staff;
- (2) A comprehensive statement of the duties and responsibilities of all training staff, which should include their names, the type of training and/or testing which they may conduct, and the types of aircraft on which they are authorised;
- (3) Minimum standards of experience and of initial and periodical training to be met by all aircraft crews for each type of aircraft used by the operator;
- (4) Detailed syllabii and specimen record forms for all training and testing;
- (5) Arrangements for administering and recording the periodical tests of all aircraft crews;
- (6) Methods of simulating instrument flight conditions;
- (7) Methods of simulating engine failure;
- (8) Procedures for touch-and-go or stop-and-go landings, including flap settings, minimum runway lengths, brake cooling requirements and handling techniques;
- (9) Limitations on training and testing in the course of flights for the purpose of public transport. Note particularly that the simulations of instrument flight conditions and of emergencies affecting the flight characteristics of the aircraft is prohibited in the course of flights for the public transport of passengers.

- (10) Instructions covering retesting and retraining after unsatisfactory performance or periods off flying due to illness or other causes.
- (11) The use of flight simulators.

7.4 Details of flight crew training and periodical tests required to maintain validity of flight crew licences are given in Air Safety Circular No. OPS 2 dated 3 May 1992 which may be referred.

Note: Clarification on any of the above requirements may be obtained from the Surveyors of the Department of Civil Aviation, if required.

7.5 APPROVAL OF TRAINING MANUAL

- (a) An aircraft shall not fly unless, not less than 30 days prior to such flight, the operator of the aircraft has furnished to the Director copy of the whole of his training manual relating to the crew of that aircraft.
- (b) Any amendments or additions to the training manual shall be furnished to the Director by the operator before or immediately after they come into effect:

Provided that where an amendment or addition relates to training, experience, practice or periodical tests on an aircraft to which the training manual did not previously relate, that aircraft shall not fly for the purpose of public transport until the amendment or addition has been furnished to the Director and duly approved by him.

- (c) Without prejudice to the foregoing sub-paragraphs the operator shall make such amendments or additions to the training manual as the Director may require for the purpose of ensuring the safety of the aircraft or of persons or property carried therein or the safety, efficiency or regularity of air navigation.

8. OPERATIONS ORGANISATIONS

- 8.1 For grant of an AOC, it is necessary that the operator has a sound and effective operational management structure in his organisation commensurate with the scope of operations and manned by suitably qualified and experienced persons. The duties and responsibilities of Senior Executives and supervisory staff must be clearly defined in writing, and chain of responsibility firmly established.
- 8.2 Arrangement should be made for the supervision of all grades of aircraft crew to ensure the maintenance of high professional standards which in turn, may necessitate such appointments in the organisation as Chief Pilot, Training Captain and Operations/Traffic Officers etc. The Training Captain shall be responsible for imparting training to the flying crew as per training manual content including line training and will also discharge the duties of a Type Rating Examiner for maintaining crew licences currency and proficiency provided he is duly approved by the Director for the purpose.
- 8.3 It is equally important that operations organisation has adequate office accommodation and staff including the related infrastructure at the main base of operations to ensure that operational instructions and other related information are produced and circulated to all concerned without delay. Suitable working environments and adequate provision must be made for the operating staff to attend to matters on operational planning, storage and display of essential records, and for flight planning by flight crews.

- 8.4 The operator should maintain an adequate library of maps, charts, flight guides, operations manuals and other documents needed for reference and planning purposes and for carriage in flight. The library should be kept in an orderly fashion and the responsibility for updating the manuals should be clearly defined.
- 8.5 At times it may be necessary to supplement the instructions of operations manual which may be done by a systematic procedure for bringing urgent or purely temporary information to the notice of aircraft crew by way of issuing Flying Staff Instructions. This should be achieved by a numbered series of instructions or notices issued by the Chief Pilot and these should form part of operations manual.

9. AIRCRAFT APPROVED TO BE OPERATED UNDER AN AOC

- 9.1 An AOC will be not be granted for the operation of an aircraft under the terms and conditions of a Maldivian AOC unless the aircraft complies with AW01, AW02 and AW 08 (as applicable).

10. VARIATION OF AN AOC

- 10.1 If the holder of an AOC wishes to apply for the variation of a certificate (eg. inclusion of an additional aircraft type or extension of region), he should apply on the appropriate form at least 60 days in advance of the planned date of operations. If the application is for the inclusion of an additional type of an aircraft, the completed operation manual or an addendum for the type to an existing manual should accompany the application. An operator must also comply with AW01, AW02, and AW08 (if applicable) before approval will be granted to operate any additional aircraft under the terms and conditions of an existing AOC . Detailed information will be required on arrangements for the maintenance of the aircraft and for necessary training and testing of aircraft crews.

11 CANCELLATION

This circular cancels the latest OPS 05, issue 04 dated 12 August 2001, which should be destroyed.

Mahmood Razee
DIRECTOR GENERAL OF CIVIL AVIATION



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

DEPARTMENT OF CIVIL AVIATION

Male'

Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 06

Issue 01

16 December 1992

PROVISIONING OF MINIMUM SPARES AND EQUIPMENT

AT MALE' INTERNATIONAL AIRPORT BY AIRLINES

1. INTRODUCTION

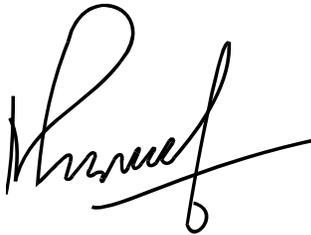
- 1.1 Recently an incident occurred at Male' International Airport when an Airbus A320 aircraft experienced tyre burst of two front tyres of the port main landing gear during landing roll and the aircraft came to a halt nearly at the end of runway with the front wheel hubs of the port bogie resting on the ground.
- 1.2 For bringing the aircraft to a towable status, the burst tyres needed replacement with serviceable wheel assemblies which were not available with the airline nor was the minimum equipment required for change of a wheel assembly available at Male'. Finally the aircraft was towed out of the runway by use of improvised technique and available equipment with other airlines and the airport remained closed for operations for more than 6 hours.

2. PURPOSE

- 2.1 As every one is aware that Male International Airport is the only airport in the Maldives used for International operations, closure of the airport due to unforeseen circumstances for unduly long periods will result in cancellation and disruption of the scheduled flights. The purpose of issuing the circular is to advise the airlines to take suitable measures and precautions so that runway does not remain blocked on account of such incidents if any, in future.

3. REQUIREMENT

- 3.1 In order to ensure operational availability of the airport at all times, all airlines operating to Male' International Airport are advised to ensure that they have the minimum spares with them at the airport including wheel assemblies and the related equipment so that such eventualities may be dealt with more effectively in future. The airlines may like to form a consortium and pool their resources for having minimum common equipment required at a Transit Station. However the details of the spares and equipment held by each airline and arrangement made by them for use of common equipment should be intimated to this Department as early as possible, but not later than 31 March 1993.

A handwritten signature in black ink, appearing to read 'Mohamed Shareef', with a large loop at the top and a long horizontal stroke extending to the right.

Mohamed Shareef

DIRECTOR OF CIVIL AVIATION



بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

DEPARTMENT OF CIVIL AVIATION

Male'

Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 07

Issue 01

12 January 1993

ADHERENCE TO AIR TRAFFIC CONTROL PROCEDURES

1. INTRODUCTION

- 1.1. Recent occurrences within Male' Terminal Control Area (TMA) has caused concern and subsequent review of current air traffic procedures and its execution.
- 1.2. Evaluation of the occurrences has revealed a considerable lapse in adherence to ATC procedures by pilots.

2. APPLICABILITY

- 2.1. Since the implementation of Male' Flight Information Region (FIR) the responsibility of area control had been vested on Male' Area Control Centre (ACC) and the procedures for air traffic control has been promulgated vide AIP Supplement Nr. 1/92 of 6 August 1992.

3. REQUIREMENT

- 3.1. For an improved and more uniform utilization of air traffic control capabilities, the attention of all operators and pilots is drawn to the urgent need to conduct all flying operations in accordance with the established procedures and strict adherence to air traffic clearances issued by the relevant air traffic control unit, while operating inside Control Zones (CTR) and Control Areas (CTA) within Male' FIR.
- 3.2. Operators and pilots who conduct flying in violation of the established procedures and non-compliance with air traffic control clearances will be subject to appropriate regulatory action.

Mohamed Shareef

DIRECTOR OF CIVIL AVIATION



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DEPARTMENT OF CIVIL AVIATION

Male'

Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 08
Issue: 01
14 February 1993

PASSENGER SAFETY BRIEFING CARDS

1. APPLICABILITY

- 1.1 This Circular is applicable to every public transport aircraft either registered or operated in the Maldives under an Air Operator's Certificate issued by the Department of Civil Aviation.

2. INTRODUCTION

- 2.1 Civil Aviation Regulations Part 7.3 require that the following information must be provided individually to each passenger.

- 1) Instruction on the brace position to be adopted in the event of an emergency landing;
- 2) Instructions on the method of use of safety belts and safety harnesses as appropriate.
- 3) Information as to where emergency exits are to be found and instructions as to how they are to be used, and
- 4) Information as to where the life jackets, escape slides, life rafts and oxygen masks, if required to be provided by regulation 7.1, are to be found and instructions as to how they are to be used.

- 2.2 The regulation further requires that the passengers briefing be supplemented with pictorial notices (Passenger Safety Briefing Cards) relevant to the type of aircraft to be operated and the emergency equipment fitted and/or carried. Information contained in the card must be consistent with the content of the passenger briefing.

3. REQUIREMENT

In compliance and amplification of Civil Aviation Regulations, the operator is to ensure that for each type of aircraft operated by him, a Passenger Safety Briefing Card is prepared, priority being given to the mandatory requirements both in sequence and size, and placed prominently in the aircraft within the reach of each seated passenger in flight. Internationally recognised symbols with explanatory notes at least in English and Dhivehi should be used on the cards. The cards should contain information in respect of passenger safety covering the following points;

- 3.1 **Brace Position;** The card must provide pictorial information about protective brace positions. The brace position shown must be representative of the seat direction and seat pitch on the aircraft. The brace position for an adult with an infant secured on the lap should also be shown.
- 3.2 **Seat Safety Belts;** There must be instruction for fastening, unfastening and adjusting seat safety belts; the belts shown should be of an identical design to those used on the aircraft.
- 3.3 **Exit Location and Exit Routes;** The location of each exit must be clearly indicated and the appropriate route to exits should be shown. Exits that are most likely to be available in the event of a ditching should be illustrated.
- 3.4 **Exit Operation;** The cards must show information depicting the operation of the exits and the directional movement necessary to activate the exit in order to complete a successful evacuation. This should include;
 - a) The method by which to move the handle.
 - b) Disposal of exit hatches.
 - c) Directions to passengers not to bring cabin baggage to exits.
 - d) Directions to passengers not to wear high heeled shoes.
- 3.5 **Life Jackets;** The following information must be accurately shown in respect of life jackets.
 - a) The location, removal from the stowage and removal from the container.
 - b) Donning and inflation procedures, preferably depicting a passenger in a seated position, including a clear indication not to inflate the life jacket inside the aircraft.
- 3.6 **Life Rafts;** The card must show;
 - a) The stowage location of the life raft.
 - b) The type of stowage.
 - c) The removal from the stowage, preparations for use and deployment procedures.
 - d) Launching locations and procedures.
 - e) Restrictions on high heeled shoes.

- 3.7 **Escape Slides**; When the aircraft is equipped with the escape slides, the card must show their location.
- 3.8 **Oxygen Masks**; If the aircraft is to be operated at altitudes where passenger oxygen is required, instructions must show;
- (a) the location, donning procedure and adjustment of oxygen masks.
 - (b) the information needed to start the flow of oxygen.
 - (c) instructions for adults to don their own masks before assisting children.
- 3.9 **Smoking**; Information may be shown concerning the smoking restrictions in force during take-off and landing, in toilet compartments at any time, and when the 'No Smoking' sign is illuminated or when passenger oxygen is in use.



Mohamed Shareef
DIRECTOR OF CIVIL AVIATION



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CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND CIVIL AVIATION
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 09
Issue: 02
Date: 16 July 2002

MINIMUM FUEL AND OIL IN FLIGHT FOR PUBLIC TRANSPORT AIRCRAFT

1. INTRODUCTION

- 1.1 Civil Aviation Regulations Part 15.23 requires the manner in which the quantities of fuel and oil, to be carried by the aircraft, are to be computed taking into account the adverse circumstances enroute. For safe operation of an aircraft, it is necessary that adequate quantity of fuel and oil is available for the planned flight.

2. APPLICABILITY

- 2.1 This Air Safety Circular prescribes the guidelines for the minimum fuel and oil required to be carried on board before commencement of any flight by an operator of public transport aircraft including helicopters, in the Maldives.

3. OIL

- 3.1 Sufficient amount of oil based on manufacturers recommendations and experience of oil consumption, must be carried in the oil tanks meant for the purpose and oil tank caps properly **LOCKED AND SECURED**. The AMEs servicing the aeroplanes should certify in the Technical Log or in any other approved document, the amount of oil uplifted. The type of oil used must meet approved specification of the engine manufacturer.

4. MINIMUM FUEL REQUIREMENTS - GENERAL

- 4.1 The total amount of fuel carried on board an aircraft must be sufficient for the intended flight and must include a safe margin for contingencies like change in the meteorological conditions and any other delays that may be expected in flight. The manner in which the amount should be calculated and the records that should be made before, during and after flight must be specified by the operator in his Operations Manual.
- 4.2 Operator must ensure that his Fuel Planning Policy allows for the carriage of additional fuel reserve, wherever it is known or suspected that there may be excessive landing delays due to traffic or Air Traffic Control (ATC) problems at destination or diversion air fields.

Minimum Fuel and Oil in Flight for Public Transport Aircraft

- 4.3 It shall be the responsibility of the commander to ensure that the aircraft carries sufficient amount of fuel for the flight as per the Fuel Planning policy, outlined in company's Operations Manual.
- 4.4 Units of weight shown in the sector record page of the Technical Log must be the same as those on fuel gauges visible to the pilot. Exceptionally where there is a difference between the units on the fuel gauges and those on the sector record page, approved fuel conversion tables may be used. To have Load Sheet fuel recorded in Kilograms, uplift in Litres and aircraft gauges calibrated in Pounds must be avoided.
- 4.5 The type of fuel used must be of an approved type specified by the manufacturers in their documents.

5. MINIMUM FUEL REQUIREMENTS - AEROPLANES OTHER THAN FLOATPLANES OPERATION UNDER VFR

- 5.1 The minimum quantity of fuel required to be on board before the aeroplane departs, should be calculated and recorded. Only those procedures that are specified in the Operations Manual and approved, may be used.
- 5.2 The minimum fuel carried in an aeroplane before flight shall be at least the sum of the amount of fuel as indicated below.
- (a) start-up and taxi fuel;
 - (b) sector fuel
 - (c) alternate fuel i.e. fuel for a missed approach procedure and then from overhead the intended destination airfield to a suitable alternate.
 - (d) holding fuel, i.e. fuel to hold and make an approach at the alternate airfield calculated as follows.
 - (i) in the case of propeller-driven aeroplanes, fuel to hold for 45 minutes and carry out an approach and landing;
 - (ii) in the case of turbo-jet aeroplanes, fuel to hold for 30 minutes at 1500 ft above the airfield under International Standard Atmosphere (ISA) conditions and carry out an approach and landing;
 - (e) contingency fuel i.e. not less than 5% of the sum of Sector fuel and Alternate fuel.
- Note 1:* Account should be taken also of additional amounts of fuel such as those required for power checks, lengthy standard departure and arrival procedures and to compensate for potential delays enroute such as weather avoidance.

Note 2: An operator is required to spell out his Fuel Planning Policy in detail in his Operations Manual before commencing air operations in the Maldives.

6. MINIMUM FUEL REQUIREMENTS - HELICOPTERS

- 6.1 Whilst the requirement for helicopters follow the same general rules as those for aeroplanes, the ability of the helicopter to land safely away from a helipad has been taken into account.

- 6.2 For helicopter operations in the Maldives, the minimum fuel carried before flight shall be at least the sum of the amount of fuel as indicated below.
- a) route fuel from departure point to destination and fuel to carry out a go-around;
 - b) fuel to an alternate;
 - c) contingency reserve of 10% of (a) and (b) above.
 - d) at least 30 minutes holding fuel (at loiter speed). Additional holding fuel may be required if delays are likely to occur.
- 6.3 While flying to helipads under VFR, the requirements of alternate fuel may be waived, subject to the agreement of the Department of Civil Aviation, if cloud ceiling and visibility at the intended helipad are above certain minimum.

Note: Individual helicopter operators may define their fuel planning formulae to be included in their Operations Manual, approved by the Department of Civil Aviation.

7. FUEL REQUIREMENTS FOR FLOATPLANES (VFR)

- 7.1 No person may begin a flight in a floatplane under VFR conditions unless (considering wind and forecast weather conditions) there is enough fuel to fly to the destination aerodrome and after that for at least 30 minutes at normal cruise power

8. FUEL MONITORING IN FLIGHT

- 8.1 In-flight fuel checks for consumption should be carried out at least once on every sector and at intervals not exceeding 30 minutes. A calculation to determine the amount of fuel remaining and to predict the amount of fuel expected to remain overhead the aerodrome of intended landing should follow every check.

9. EFFECTIVITY

This Issue of Air Safety Circular comes into effect on 16 July 2002.

10. CANCELLATION

This Issue of Air Safety Circular cancels the latest ASC OPS 09 Issue 01 which should be destroyed.



Mahmood Razee
DIRECTOR GENERAL OF CIVIL AVIATION



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CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND CIVIL AVIATION
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No: OPS 11
Issue: 04
Date: 15 June 2003

FLIGHT ATTENDANT REQUIREMENTS

1. Introduction

Cabin crew members who form part of the crew of the aircraft engaged in commercial air operations have to perform a wide variety of duties of which the most important being the safety of passengers. This Circular sets out the minimum requirement of cabin attendants and their training requirements.

2. Flight Attendant Requirements

- (1)** Subject to subsection (3), no air operator shall operate an aircraft with passengers on board unless the crew includes at least the following number of flight attendants:
- (a) 1 to 50 passengers on board, one attendant;
 - (b) 51 to 100 passengers on board, two attendants; and
 - (c) 101 or more passengers on board, one attendant for each unit of 50 passengers or portion thereof.
- (2)** Notwithstanding subsection (1), no air operator shall operate an aircraft with passengers on board with fewer flight attendants than the number required to satisfy the following requirements:
- (a) the air operator shall, for each type and model of aircraft that it operates, assign to each flight attendant the duties to be performed in an emergency, including an emergency evacuation, and shall show that the performance of those duties adequately meets any emergency that may be reasonably anticipated, including the possible incapacitation of another flight attendant; and
 - (b) the air operator shall ensure that the duties assigned pursuant to paragraph (a) are described in its company operations manual.
- (3)** An air operator may operate an aircraft with passengers on board with a crew that includes fewer than the minimum number of flight attendants required by subsection (1), if the air operator
- (a) is authorized to do so in its air operator certificate

Flight Attendant Requirements

- (4) Where an aircraft has more than one deck, the number of flight attendants on each deck shall be in accordance with subsections (1) and (2).

3. Designation of In-charge Flight Attendant

An air operator shall, where a crew includes more than one flight attendant, designate an in-charge flight attendant.

4. Flight Attendant Qualifications

- (1) No air operator shall permit a person to act and no person shall act as a flight attendant on board an aircraft unless the person;-
- (a) has successfully completed the air operator's training program, except that a person may act as a flight attendant while undergoing line indoctrination training if the person is carried in addition to the number of flight attendants required in para 1 and is under the supervision of a flight attendant; and
- (b) has successfully completed line indoctrination training within 90 days after completing the air operator's training program or has regained competency in accordance with the *Flight Attendant Training Standard (CAP 001B)* issued by the Civil Aviation Department.
- (2) A person who has not completed line indoctrination training within the period specified in paragraph (1)(b) shall requalify in accordance with the *Flight Attendant Training Standard (CAP 001B)*.
- (3) has successfully completed general examination test based on Maldivian Civil Aviation Regulations conducted by CAD. (reference part 1-1.2/ 3/ 10-10.1/ 10.2/ 11-division A, B and C/ 14 division A, B and C / 15 division 1, 2, 3, 7, 9, and division 5-sub division 2 / 17-division 2 / 18)
- (4) hold a current class III medical certificate issued by Civil Aviation Department approved Medical Examiner.
- (5) must be at least 18 year of age.

5. Training Program

- (1) Every air operator shall establish and maintain a training program that is
- (a) designed to ensure that each person who receives training acquires the competence to perform the person's assigned duties; and
- (b) approved by the Civil Aviation department in accordance with the *Flight Attendant Training Standard (CAP 001B)*

An air operator's flight attendant training program shall include:

- (i) aviation indoctrination,
- (ii) line indoctrination training,
- (iii) in-charge training, where applicable, and
- (iv) initial and annual training, including

- (A) safety procedures training,
- (B) aircraft type training,
- (C) emergency procedures training,
- (D) aircraft surface contamination training, and
- (E) first aid training;

6. Flight Attendant Manual

- (1) Every air operator, other than an air operator that is authorized solely for the transport of cargo in its air operator certificate, shall establish and maintain, as part of its company operations manual, a flight attendant manual for the use and guidance of flight attendants in the operation of its aircraft.
- (2) A flight attendant manual shall contain the instructions and information necessary to enable flight attendants to perform their duties safely and shall contain the information required by the *Flight Attendant Manual Standard(CAP 002B)* issued by the Civil Aviation Department.
- (3) The Director shall, where the *Flight Attendant Manual Standard(CAP 002B)* is met, approve those parts of a flight attendant manual, and any amendments to those parts, that relate to the safety and emergency information contained in Part A of the *Flight Attendant Manual Standard(CAP 002B)*.
- (4) An air operator shall provide a copy of its flight attendant manual, including any amendments to that manual, to each of its flight attendants.
- (5) Every flight attendant who has been provided with a copy of a flight attendant manual pursuant to subsection (4) shall keep it up to date with the amendments provided and shall ensure that the appropriate parts are accessible when the flight attendant is performing assigned duties on board an aircraft.

7. Cancellation

This circular cancels Air Safety Circular No. OPS 10, Issue 01 (dated 18 August 1993) and Air Safety Circular No. OPS 11, Issue 03 (dated 26 November 1998) which should be destroyed.

8. Effectively

This Air Safety Circular comes into effect on 01 July 2003.



Mahmood Razee
DIRECTOR GENERAL OF CIVIL AVIATION



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CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND COMMUNICATIONS
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 12
Issue: 02
6 September 1995

INSTALLATION OF STAND-ALONE GPS EQUIPMENT

1. INTRODUCTION

- 1.1 Maldivian Airworthiness Requirements, Series C9, Para 7.2 specify the existing requirement for navigational equipment.

With the introduction of GNSS, the Civil Aviation Department is committed to the concept, and is making arrangements to conduct trials to ascertain the viability of GPS as Primary Means of air navigation within the Maldives.

- 1.2 This Circular states the specification for the type of equipment and installation time frame.

2. APPLICABILITY

- 2.1 This Circular is applicable to all Maldivian registered aircraft and other aircraft operated under a Maldivian AOC conducting domestic operations

3. EQUIPMENT REQUIREMENTS

- 3.1 The GPS equipment must meet the performance requirements of TSO-C129 (FAA specification). Such compliance must be verified by an appropriate Certificate of Airworthiness for export or Certificate of Compliance from the equipment manufacturer.
- 3.2 The GPS equipment must be capable of detecting and automatically excluding a GPS satellite failure by means of Fault Detection and Exclusion (FDE) and possess Receiver Autonomous Integrity Monitoring (RAIM).
- 3.3 The GPS equipment must have a dead reckoning mode operation which must be

triggered automatically upon detecting a satellite failure that cannot be excluded or if a navigation solution cannot be provided.

4. **COMPLIANCE**

- 4.1 The equipment of the type detailed in this circular must be installed and be functioning on all applicable aircraft, no later than 1st of July 1996.

5. **CANCELLATION**

This circular cancels Air Safety Circular No. OPS 12, Issue 1, dated 15 March 1995, which should be destroyed.



Abdul Razzak Idris
DIRECTOR OF CIVIL AVIATION



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CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND COMMUNICATIONS
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 13
Issue: 01
12 April 1995

PROTECTIVE GLOVE REQUIREMENT

1. INTRODUCTION

- 1.1 The Civil Aviation Department recognises that crew members (usually flight attendants) face many hazards in their work environment. Among these hazards it is believed, medical emergencies that involve bleeding, such as nose-bleeds, cuts and child birth, that could expose flight attendants to blood borne diseases such as hepatitis B, etc.
- 1.2 Crew members (usually flight attendants), passengers and health care professionals are sometimes called upon to provide assistance to ill or injured people on aircraft. Providing such assistance may cause such persons to come into contact with body fluids or persons infected with a blood borne pathogens such as the human immunodeficiency virus (HIV) or hepatitis virus (HBV). Risk of transmission of HIV and HBV from other body fluids and materials is extremely low except where blood is visible in these substances.
- 1.3 The probability of crew members contracting HIV or HBV in their working environment is remote; the CAD is concerned about the possibility of unnecessary exposure to blood borne pathogens. Therefore the Civil Aviation Department has determined that it is necessary to require operators of aircraft under public transport category to install protective gloves on board those aircraft.

2. APPLICABILITY

- 2.1 This Circular is applicable to all Maldivian registered aircraft and other aircraft operated under a Maldivian AOC for public transport.

3. COMPLIANCE

- 3.1 Operators are required to provide a pair of protective gloves on their aircraft in each of the first aid kits available on the aircraft.
- 3.2 The protective gloves required by this circular must be equivalent of latex gloves commonly found in hospitals and other medical facilities. Operators are expected to maintain and dispose of these gloves in accordance with the acceptable procedures.
- 3.3 This circular does not lay down a specific standard of training for the use of latex gloves or their equivalent. However, since protective gloves will be required in the medical kit, operators will be required to provide training as to their use and proper disposal.

4. EFFECTIVITY

- 4.1 This circular becomes effective on 01 July 1995.



Abdul Razzak Idris
DIRECTOR OF CIVIL AVIATION



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CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND COMMUNICATIONS
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 14
Issue: 01
20 November 1995

THIRD PARTY LIABILITY INSURANCE

1.0 INTRODUCTION

- 1.1 Aircraft operating for the public transport of passenger/cargo; may in the event of an accident/incident be liable for injuries/death of passengers on board the flight; damage/loss of cargo/mail and damage or injuries/death to property and persons, on ground or elsewhere.
- 1.2 In order to cover the risks of injury to death of passengers; damage or loss to cargo/ mail and to cover risks of public liability; all Maldivian Operators are required to obtain comprehensive insurance to cover such risks.

2.0 APPLICABILITY

- 2.1 This Circular is applicable to all Maldivian registered aircraft and aircraft operated by Maldivian Air Operators Certificate holder engaged in the public transport of passenger/cargo.

3.0 COMPLIANCE

- 3.1 An air carrier shall not operate a domestic service or an international service unless, for every incident related to the operation of that service, it has
- Liability insurance covering risks of injury to or death of passengers in an amount that is not less than the amount determined by multiplying USD 200,000; by the number of passenger seats on board the aircraft engaged in the service; and

- b) Insurance covering risks of public liability in an amount that is not less than USD 2 million, plus an amount determined by multiplying USD 250 by the number of kilogrammes by which the MTOW of the aircraft exceeds 5700kg.
- c) Aircraft providing cargo and mail services only, is also required to comply with point (b).

3.2 Compliance is mandatory at the next renewal of insurance and no aircraft, providing public transport services, will be allowed to operate without full compliance beyond 31 July 1996.

4.0 EFFECTIVITY

4.1 This circular becomes effective on 01 March 1996.



Abdul Razzak Idris
DIRECTOR OF CIVIL AVIATION



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND COMMUNICATIONS
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 15
Issue: 01
30 April 1997

SMOKING ON DOMESTIC FLIGHTS

1.0 INTRODUCTION

- 1.1. The hazards and health risks of smoking to smokers and to non-smokers in the vicinity of smokers is well documented. Smoke in addition to being a health risk, is an irritant and an inconvenience particularly in confined areas, such as an aircraft cabin.
- 1.2 The awareness of the public to the risks of smoking has focussed the general consensus of the aviation community to take measures to reduce the harmful effects of smoke in the cabin.

2.0 APPLICABILITY

- 2.1 This circular is applicable to all aircraft operated within the Maldives, for public transport purposes.

3.0 COMPLIANCE

- 3.1 Smoking shall not be permitted on any flights undertaken in the Republic for public transport purposes.
- 3.2 The non-smoking sign shall remain illuminated at all times during the flight.
- 3.3 The crew of the aircraft shall make an announcement, both in Divehi and English at the commencement of every flight, informing all passengers that smoking is prohibited.
- 3.4 Compliance is mandatory with effect from 5th June 1997.

4.0 EFFECTIVITY

- 4.1 This circular becomes effective forth with.

Mahamood Razee
DIRECTOR OF CIVIL AVIATION



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

CIVIL AVIATION DEPARTMENT

Ministry of Transport and Civil Aviation

Male'

Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 16

Issue: 01

31 December 1998

Global Navigation Satellite System Operations

1.0 Applicability

- 1.1 This Air Safety Circular prescribes the conditions and requirements for the use of GNSS equipment under Instrument Flight Rules (IFR).
- 1.2 The conditions and procedures contained in this Air Safety Circular are additional to any other applicable requirements specified in Civil Aviation Regulations (CAR), Maldivian Airworthiness Requirements (MARs) and Air Safety Circulars (ASCs).

2.0 Purpose

- 2.1 The purpose of this ASC is to inform the operators engaged in IFR operations in the Maldives of the requirements for the use of Global Positioning System (GPS) as an approved IFR Supplemental Means Navigation System and as a Primary Means Navigation System for Enroute and Non-Precision Approaches.
- 2.2 This ASC constitutes the approval for the use of a GPS system, fitted and operated in accordance with the provision of references in 1.2, within Male' Flight Information Region only.

3.0 Background

- 3.1 GPS approaches can only be flown with a TSO C-129 A1 receiver. Non TSO equipment does not provide the required level of integrity protection, CDI scaling and alarm indications.

4. Glossary

The following are explanations of terms relevant to this Air Safety Circular:

GPS database: an electronic memory containing information on airports, Navigation Aids, Reporting Points, Standard Instrument Departures, Standard Instrument Arrivals, Instrument Approaches, Special Use Airspace and other items of value to the pilot.

GLONASS: Russian segment of GNSS.

GNSS: Global Navigation Satellite System.

GPS: Global Positioning System.

GPS sensor: a single GPS unit used for navigation within a Flight Management System (FMS).

NANU: Notice Advisory to NAVSTAR User (GPS NOTAM).

CDI: Course Deviation Indicator.

Primary-means Navigation System: a navigation system approved for a given operation or phase of flight that must meet accuracy and integrity requirements, but need not meet full availability and continuity of service requirements. Safety is achieved by limiting flights to specific time periods, and through appropriate procedural restrictions.

RAIM (Receiver Autonomous Integrity Monitoring): a function whereby the airborne GPS receiver/processor detects a position error that exceeds the GPS position integrity performance requirements of the TSO for that phase of flight. It gives a visual and/or aural warning when appropriate.

RAIM Warning (RAIM not available message): a warning that the integrity of the navigation position solution from GPS satellites may be unreliable.

Sole-means Navigation System: a navigation system approved for a given operation or phase of flight that must allow the aircraft to meet for that operation or phase of flight, all four navigation system performance requirements; accuracy, integrity, availability, and continuity of service.

Integrity: The quality which relates to the trust that can be placed in the correctness of information supplied by a system. It includes the ability of a system to provide timely warnings to users when the system should not be used for navigation.

Supplemental-means Navigation System: A navigation system that must be used in conjunction with a sole means navigation system.

Initial Approach Waypoints usually a selection of three points that allow flying of the approach without use of a sector entry procedure. The initial point marks the start of the approach.

Intermediate Waypoint ; the waypoint at which alignment with the final approach course is achieved.

Final Approach Waypoint ; the point where the receiver has completed transition to the approach mode (CDI scale and RAIM tolerance goes to 0.3 nm)

Missed Approach Waypoint: the MAP of the approach is normally at the runway threshold. The missed approach mode must be manually selected at or prior to this point for the receiver to give missed approach tracking information. On selection, the receiver CDI scale and RAIM to tolerance reverts to 1.0 nm.

Intermediate, Final and Missed Approach Segments can only be flown in that sequence.

5. Pilot Qualification

- 5.1 A pilot-in-command shall not carry out an instrument approach procedure under IFR using a GPS receiver unless they have had certified in their pilot's logbook by a flight examiner that they have satisfactorily demonstrated competency in the use of that make and model of GPS receiver, including any flight management systems used for GPS instrument approach. Pilot training syllabus for use of GPS is attached in the Appendix-A. part II
- 5.2 The certification entered in the pilot's personal logbook shall be in the form specified below:

<p>Form: XY Jones has satisfactorily completed a course of ground Instruction in GPS principles and operation in accordance with the syllabus contained in Appendix-A, part II of ASC OPS 16 and I consider him/her competent in the operation of type of GPS equipped for the purpose specified in</p> <p>AB Smith (ARN) 31 December 1998</p>

- 5.3 A flight examiner shall endorse a pilot's log book for a make and model of GPS receiver or flight management system if the pilot has satisfactorily completed a flight test demonstrating his/her knowledge and competency, on a GPS non-precision approach procedure to a standard acceptable to the Director, using that GPS receiver or Flight Management System (FMS).

6. Airworthiness Requirements

The following Airworthiness requirements must be satisfied:

- a. GPS receivers must be installed in all Maldivian registered aircraft engaged in IFR operations.
- b. GPS navigation equipment used for IFR must be certified in accordance with FAA (Technical Standard Order) TSO C-129 A1.
- c. GPS modifications intended for IFR operations shall be approved by the Director.
- d. The equipment shall be installed in a position where its controls that are normally adjusted in flight are readily accessible and properly labeled as to their function.
- e. Any interface with other aircraft equipment shall be designed such that normal or abnormal navigational equipment operation is not adversely affected by the operation of other equipment, nor shall normal or abnormal operation of other equipment adversely affect the RNAV equipment operation.
- f. The display screen shall be located in the normal visual scan of the pilot, such that all display and controls are readable under all normal cockpit conditions (total darkness to bright reflection of sunlight). All displays and controls shall be arranged to facilitate equipment usage.
- g. GPS Flight Evaluation form shall be submitted for approval of its use on IFR flights and a further evaluation will be required for the C of A. Flight Evaluation form is attached in Appendix C1

7. Operational Requirements

The following operational requirements must be satisfied:

- a. Operating instructions for GPS navigation equipment must be:
 - i) carried onboard.
 - ii) incorporated into the Operations Manual for commercial operations.
- b. GPS navigation equipment must be operated in accordance with the operating instructions, and any additional requirements specified in the approved aircraft flight manual or flight manual supplement.
- c. In addition to GPS, aircraft must be equipped with serviceable radio navigation systems as specified in MAR Series C9 and the Minimum Equipment List (MEL) for that aircraft.
- d. GPS must not be used to satisfy any of the alternate requirements of CAR, MARs or ASCs.
- e. ATC may require GPS equipped aircraft to establish on, and track with reference to a particular VOR radial or NDB track for separation.
- f. GPS must not be used as a navigation reference for flight below the MSA, except as provided in 11.51 and 11.52 of CAR or as otherwise authorised by the Director.

8. Operation without RAIM

8.1 GPS systems normally provide three modes of operation:

- a. Navigation (Nav) Solution with RAIM.
- b. 2D or 3D Nav Solution without RAIM.
- c. Dead Reckoning (DR), or Loss of Nav Solution

8.2 ATS services, and in particular ATC separation standards, are predicated on accurate navigation and position fixing. If RAIM is lost, the accuracy of the system is assumed not to meet the required standard for both navigation and application of ATC separation. Accordingly, when RAIM is lost, the following procedures must be adopted:

- a. Aircraft tracking must be closely monitored against other on board systems.
- b. In controlled airspace, ATC must be advised if:
 - i. RAIM is lost for periods greater than 10 minutes, even if GPS is still providing positional information; or
 - ii. RAIM is not available when ATC request GPS distance, or if an ATC clearance or requirement based on GPS distance is imposed; or

- iii. the GPS receiver is in DR mode, or experiences loss of navigation function, for more than one minute; or
- iv. indicated displacement from track centreline is found to exceed 2nm.

ATC may then adjust separation.

- c. If valid position information is lost (2D and DR mode), or non RAIM operation exceeds ten minutes, the GPS information is to be considered unreliable, and another means of navigation should be used until RAIM is restored and the aircraft is re-established.
- d. Following re-establishment of RAIM, the appropriate ATS unit should be notified of RAIM restoration prior to using GPS information. This will allow ATC to reassess the appropriate separation standards.
- e. When advising ATS of the status of GPS, the phrases "RAIM FAILURE" OR "RAIM RESTORED" must be used.

9. Sole Means GPS Operations

A person shall not operate an aircraft under IFR using a sole means navigation system, which uses only GPS sensors, within the Maldives Flight Information Region (FIR).

10. Primary Means of GPS Operations

Each person operating an aircraft under IFR using GPS equipment as a primary means navigation system shall:

- a. ensure that: the GPS equipment is approved to level TSO C-129-A1;
- b. operate the GPS equipment in accordance with the aircraft flight manual or aircraft flight manual supplement.
- c. ensure, if the aircraft is operating within the Maldivian Flight Information Region (FIR), that the aircraft is equipped:-
 - i. for air transport operations, with at least 2 operable sole means navigation systems other than GPS receivers. The sole means navigation systems must be appropriate for the route being flown;
 - ii. for operations other than air transport operations, with at least one operable sole means navigation system other than GPS receiver. The sole means navigation system must be appropriate for the route being flown.
- d. if intending to use a GPS based instrument approach procedure, obtain a RAIM prediction prior to departure for the expected time of arrival at the destination:-
 - i. using onboard GPS receiver; or
 - ii. from Air Traffic Services, and
- e. ensure that en-route and terminal navigation is conducted:-

- i. using a GPS database containing data that is current with respect to the current en-route and area charts applicable to the route being flown; and
 - ii. by cross checking each GPS database selected track and distance between reporting points, for accuracy and reasonableness by reference to current en-route and area charts; and
- f. ensure all GPS instrument approaches are accomplished in accordance with approved instrument approach procedure using a GPS database containing data that is current with respect to the current published Instrument Approach Chart for the approach procedure being flown; and
- g. if, when operating in the en-route phase, a RAIM warning has been displayed for more than ten minutes, or the GPS equipment has operated in the DR mode for more than one minute:-
 - i) advise the appropriate controlling ATC service; and
 - ii) verify the aircraft position every 10 minutes using another IFR approved navigation system; and
- h. not commence an instrument approach while a RAIM warning is displayed; and
- i. ensure that:-
 - i) the alternate is served by a fully operational radio navigation aid with a promulgated instrument approach procedure based on other than GPS navigation; and
 - ii) the aircraft is equipped with navigation equipment capable of using that radio navigation aid.

11. Supplemental Means GPS Operations

- 11.1 No person shall operate an aircraft using a GPS receiver that does not comply with the requirements of paragraph 6.0 for navigation under IFR.
- 11.2 When operating under IFR, a person may only use a GPS receiver that does not comply with the requirements of paragraph 6.0 for providing supplementary information.

12. Documentation Requirements

- 12.1 The operator shall retain copies of the following documents
 - a. Operating instructions
 - b. Equipment limitations
 - c. Installation procedures and limitations (including any necessary sensor interface restrictions for Class B equipment)
 - d. Schematic drawings as applicable to the installation procedure.

- e. Wiring diagrams as applicable to installation procedure.
- f. Specifications.
- g. List of major components (by part number) that make up the equipment system complying with the standards prescribed in this ASC.

12.2 The following documents shall be produced to CAD

- a. Manufacturer's TSO qualification test report.

13. GPS Derived Distance Information

- 13.1 A pilot-in-command of an aircraft operating under IFR using GPS equipment as a primary means navigation system shall not provide GPS derived distance information if RAIM is currently unavailable and has been unavailable for the preceding 10 (ten) minutes.
- 13.2 The pilot shall, when providing distance information that is GPS derived, state the distance as a GPS Distance relative to a specified reference point that is contained in the GPS database.
- 13.3 A pilot shall not use GPS derived distance information on an ILS/DME or VOR/DME or NDB/DME instrument approach procedure.

14. Minimum Flight Altitude

Notwithstanding the minimum flight altitude promulgated under this Rule, the minimum flight altitudes for an aircraft operating under IFR using GPS equipment as a Primary Means Navigation System or Supplemental Means Navigation System shall be:-

- a. those assigned by an air traffic control clearance; or
- b. for published routes shown on En-route, AREA Charts, the lowest altitude appropriate to the IFR table of cruising level that is:-
 - i) at or above the route Minimum Sector Altitude (MSA); and
 - ii) at or above a limiting minimum crossing altitude; and

15. Integrity and Interference Data Sheets

- 15.1 Operators or pilots using GPS for the purpose stated at paragraph 2.0 of this ASC are requested to provide GPS system information, as detailed below;
 - a. Private operators are requested to submit information on GPS interference as it occurs.
 - b. Commercial operators are requested to submit integrity reports to the first 30 flights after installation of approved GPS equipment. After this period, operators are requested to monitor and record the performance of GPS, and provide details of the system accuracy and reliability from time to time. In addition to these reports, operators are requested to submit information on GPS interference as it occurs.

- 15.2 Pilots should particularly note cases of GPS degradation / interference around airports, over populated areas, near radio or television transmission towers, and during radio or SATCOM transmit operations.
- 15.3 Data should be entered on System Varification Data Sheet, copies of which are available from the Civil Aviation Department, or may be copied from the attached Appendix-B.

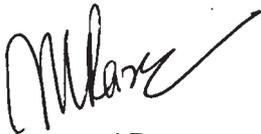
16. Flight on Unevaluated Routes

A pilot-in-command of an aircraft operating within the Male' Flight Information Region under IFR using GPS equipment as a primary means navigation system is permitted random flight routing if operating;

- a) at or above 2000 ft, and
- b) authorised by ATC.

17. Flight Plans

- 17.1 A pilot-in-command shall only operate an aircraft under IFR using GPS equipment as a Primary Means Navigation System if the letter "G" is inserted in the block item 10 on the flight plan form published from ATS, Maldives Airports Authority (MAA).
- 17.2 No person shall enter the letter "G" in the block item 10 on the ICAO flight plans unless the requirement are complied with.



Mahamood Razee
DIRECTOR OF CIVIL AVIATION

Pilot Training Syllabus

- l) Training syllabus for use of GPS equipment incorporating both GPS sensor and navigation capability.

Purpose: The purpose of this appendix is to prescribe the subject matter considered essential for the satisfactory operation of stand alone GPS receivers in operations conducted under Instrument Flight Rules.

1. GPS System Components and Principle of Operation.

Demonstrate an understanding of the GPS system and its principles of operation:

GPS system components, constellation, control and user.

Aircraft equipment requirements.

GPS satellite signal and pseudo random code.

Principle of position fixing.

Method of minimising receiver clock error.

Minimum satellites required for navigation functions.

Masking function.

Performance limitations of various equipment types.

GPS use of WGS84 co-ordinate system.

2. Navigation System Performance Requirements

Define the following terms in relation to a navigational system, and recall to what extent the GPS system meets the associated requirements:

Accuracy.

Integrity:

Means of providing GPS Integrity; RAIM; procedural systems integration.

Availability.

Continuity of service.

3. Authorisation and Documentation.

Recall the requirements applicable to pilots and equipment for GPS operations:

Pilot training requirements.

Log book certification.

Aircraft equipment requirements.

GPS NOTAM.

4. GPS Errors and Limitations.

Recall the cause and magnitude of typical GPS errors:

Ephemeris.

Clock.

Receiver.

Atmospheric/Ionospheric.

Multi-path.

SA

Typical Total error associated with C/A code.
 Effect of PDOP/GDOP on position accuracy.
 Susceptibility to interference.
 Comparison of vertical horizontal errors.
 Tracking accuracy and collision avoidance.

5. Human Factors and GPS.

Be aware of the human factors limitations associated with the use of GPS equipment.
 Apply GPS operating procedures which provide safeguards against navigational errors and loss of situational awareness due to these causes:

Mode errors.

Data entry errors.

Data validation and checking including independent cross checking. procedures.

Automation induced complacency.

Non-standardization processing and situational awareness.

6. GPS Equipment- Specific Navigation Procedures.

Recall and apply knowledge of appropriate GPS operating procedures to typical navigational tasks using a specific type of aircraft equipment.

Select appropriate operational modes.

Recall categories of information contained in the navigational database.

Predict RAIM availability.

Enter and check user defined waypoints.

Enter/retrieve and check flight plan data.

Interpret typical GPS navigational displays LAT/LONG, distance and bearing to way point, CDI.

Intercept and maintain GPS defined tracks.

Determine TMG, GS, ETA, time and distance to WPT, WV in flight.

Indications of way point passage.

Use of direct to function.

Use of nearest airport function.

Use of GPS in GPS and DME/GPS arrival procedures.

7. GPS Equipment Checks.

For the specific type of aircraft equipment, carry out the following GPS operational and serviceability checks at appropriate times:

TSO status.

Satellites acquired.

RAIM status.

PDOP/GDOP status.

IFR Database currency.

Receiver serviceability

CDI sensitivity.

CDI sensitivity.

Position Indication.

8. Warning and Messages
For the specific type of aircraft equipment, recognise and take appropriate action for GPS warnings and messages, including the following:

Loss of RAIM.
2D navigation.
In Dead Reckoning mode.
Database out of date.
Database missing.
GPS fail.
Barometric input fail.
Power/battery fail.
Parallel offset on.
Satellite fails.

- II) Pilot training syllabus for use of GPS equipment where the GPS receiver is one sensor of a multi-sensor navigation system.
1. Purpose: The purpose of this appendix is to prescribe the subject matter considered essential for the satisfactory operation of Flight Management System incorporating a GPS sensor when used in operations conducted under Instrument Flight Rules.
 2. Objective. The objective of the training is to ensure that the pilot can
 - (a) demonstrate satisfactory knowledge of:
 - i) GPS system components, constellation, control and user;
Aircraft equipment requirements.
The composition of the satellite constellation.
Minimum number of satellites required for 2D and for 3D navigation.
The basic concept of satellite ranging.
The type of code used.
Method of elimination of clock error.
Masking function.
The effect of earth ionosphere on the accuracy of GPS signals.
The WGS84 datum and the effect of using any other datum.
 - ii) navigation system performance requirements, the extent to which GPS meets these requirements and any method of achieving acceptable levels of performance.
 - iii) the human factors applicable to the use of GPD and how errors may be reduced or eliminated.
 - iv) demonstrate the ability to satisfactorily predict RAIM availability.
 - (b) carry out the following operational and serviceability checks and appropriate times:
 - i) TSO status, including class of approval and its significance.
 - ii) Satellites acquired and if available, serviceability checks at the appropriate times.

- iii) RAIM status.
 - iv) PDOP/GDOP status.
 - v) if available, current likely position error.
 - vi) database currency.
 - vii) receiver serviceability.
 - viii) CDI sensitivity.
 - ix) position indication, including, if available;
- c. recognise and take appropriate action for GPS warnings and messages, where provided and appropriate, including:
- i. loss of RAIM.
 - ii. 2D navigation.
 - iii. In Dead Reckoning (DR) mode.
 - iv. Database out of date.
 - v. GPS fail.
 - vi. barometric input fails.
 - vii. "power offset on".
 - viii. "satellite fail".



CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND CIVIL AVIATION
 Male'
 Republic of Maldives

FLIGHT EVALUATION SCHEDULE

For GPS IFR Approval

Aircraft Descriptions 8Q

GPS Description Manufacturer Model
 TSO-C129 Class

Modification Details

Modification Number STC Number CAD Approval Number

Flight Manual Supplement AIR No. Supplement No. Date

Flight Evaluation Details

Date of Flight Evaluation Location

Name of Pilot Name of Observer

I (Name) certify that 8Q - meets the requirements of (insert reference) and that the GPS installation is suitable for IFR enroute/non-precision approach navigation.

Signature..... Date:

Delete as applicable

CAD Use Only

GPS Approved for enroute/non-precision approach* IFR

Signature..... Date:

Flight Evaluation Checklist	Comments	✓ X N/A
1. Evaluation of all operating modes of the GPS equipment. Particular attention should be given to mode switching and transition requirements associated with the approach mode for class A1 equipment. Refer also to Item 15.		
2. Evaluation of the interface (function) of other equipment connected to the GPS equipment.		
3. Review of various failure modes and associated annunciations such as loss of electrical power, loss of signal reception, GPS equipment failure, auto-pilot / flight director response to GPS flags, etc. Detail how the losses were initiated and the responses.		
4. Evaluation of steering response while autopilot and/or flight director is coupled to the GPS equipment during a variety of different track and mode changes. This evaluation shall include, as applicable, transition from en route to approach transition to approach modes and vice versa. Additionally, all available display sensitivities shall be evaluated.		
5. Evaluation of displayed GPS navigation parameters on interfaced cockpit instruments such as HSI, CDI, distance display, electronic flight instruments system (EFIS), moving maps, fuel management systems, etc.		
6. Assessment of all switching and transfer functions, including electrical bus switching, pertaining to the GPS installation. Detail the functions evaluated and the responses.		
7. Evaluation to determine satisfactory EMC between the GPS installation and other onboard equipment (this test maybe accomplished as a ground test.)		
8. Evaluation of the accessibility of all controls pertaining to the GPS installation.		
9. Evaluation of the accessibility of all controls, displays, and annunciators relating to the GPS installation during day and night lighting conditions. No distracting cockpit glare or reflections may be introduced and all controls must be illuminated for identification and ease of use. Night lighting shall be consistent with other cockpit lighting.		
10. Evaluation of crew workload when operating the GPS equipment in association with other piloting requirements.		
11. Demonstrate GPS navigational performance has not been adversely affected by the installation in the aircraft.		

Flight Evaluation Checklist	Comments	✓ ✗ N/A
<p>12. Validate GPS accuracy in each operating mode by at least 5 low altitude overflights of one or more surveyed locations (ensure surveypoint coordinates are relative to WGS-84). List locations used, WGS84 co-ordinates and GPS determined positions:</p> <p>1.</p> <p>2.</p> <p>3.</p> <p>4.</p> <p>5.</p>		
<p>13. Verify continuity of navigation data during normal aircraft manoeuvring, including holding patterns and turns at up to at least 30 degrees of bank for one minute. Give location(s) at which these manoeuvres were conducted:</p> <p>.....</p> <p>.....</p> <p>.....</p>		
<p>14. Verify that flight technical error (FTE) can be maintained at less than 2.0 NM for en route, 1.0 NM for approach transition, and 0.25 NM for approach modes on a 95 percent basis.</p>		
<p>15. Class A1 equipment, conduct a sufficient number of approaches using the navigation data base to verify the proper operation of annunciations, waypoint squencing, and display sensitivity changes in accordance with the requirements specified in TSO-C129. This demonstration shall include procedure turns, holding patterns, and missed approaches. List the approaches conducted, whether a missed approach followed, pilot evaluation of accuracy at MAP and of missed approach procedure.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>		



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CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND CIVIL AVIATION
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 17
Issue: 01
11 July 2001

OPERATIONS SPECIFICATIONS

1.0 AUTHORITY

- 1.1 This Air Safety Circular is issued by the Director General of Civil Aviation in pursuance of the powers vested in him under Part 3.6 of the Civil Aviation Regulations.
- 1.2 Civil Aviation Regulations Part 15.2 states;
 - a) The Director may grant to any person applying thereof an air operator's certificate if he is satisfied that the person is competent, having regard in particular to his previous conduct and experience, his equipment, organisation, staffing, maintenance and other arrangements, to secure the safe operation of aircraft of the type specified in the certificate on flights of the description and for the purpose so specified.
 - b) A certificate under paragraph (a) may be granted subject to such conditions as the Director thinks fit.

2.0 SCOPE

- 2.1 This Air Safety Circular relates to the approval of Operations Specifications issued to Public Transport operators. These operating requirements and limitations herein after referred to as Operations Specifications are utilized to supplement the general provisions of the basic Air Operator Certificate (AOC). These Operations Specifications provide an effective method for establishing safety standards, which address a wide range of variables. These documents can be adopted to specific operator's class and size of aircraft, and type and kind of operation.

3.0 PURPOSE

- 3.1 Through the use of these standard Operations Specifications paragraphs, the Civil Aviation Department is assured that public transport operators conducting comparable operations with comparable equipment are held to the same standards.

4.0 DEFINITIONS

4.1 The exact contents of various parts of the Operations Specifications will vary depending upon the nature and scope of the operations and the provisions of the Civil Aviation Regulations.

4.2 Operations Specifications to the AOC shall be issued in the following manner;

Part A - General provisions

Part B - Enroute authorizations limitations

Part C - Aerodrome (or heliport) authorizations and limitations

Part D - Maintenance

Part E - Mass and balance

Part F - Interchange of equipment operations

Part G - Aircraft leasing operations

5.0 METHOD

5.1 It must be recognized that the details of the Operations Specifications must initially be drafted by the applicant and that the final version must be acceptable to the Operator and the Civil Aviation Department. Considerable time and effort will be saved if the CAD Inspector and the operator work closely in preparing the various parts of the Operations Specifications.

6.0 OPERATIONS MANUAL AND TRAINING REQUIREMENT

6.1 Copies of approved Operations Specifications are required to be included in operations manual. All AOC holders shall ensure training is conducted for use by their crew members and other personnel. The language used in Operations Specifications is not designed to apply to a particular situation, but is written to specify absolute minimum conditions or provisions for a broad range of issues and situations.

7.0 EFFECTIVITY

This Air Safety Circular comes into effect from 11 July 2001. All existing AOC holders are to coordinate with the Civil Aviation Department for the issuance of Operations Specifications.



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CIVIL AVIATION DEPARTMENT



بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND CIVIL AVIATION
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 18
Issue: 01
01 October 1999

SMOKING BAN ON INTERNATIONAL PASSENGER FLIGHTS

1.0 INTRODUCTION

- 1.1. The hazards and health risks of smoking to smokers and to non- smokers in the vicinity of smokers is well documented. Smoke in addition to being a health risk, is an irritant and an inconvenience particularly in confined areas, such as an aircraft cabin.
- 1.2 The awareness of the the public to the risks of smoking has focussed the general consensus of the aviation community to take measures to reduce the harmful effects of smoke in the cabin.

2.0 APPLICABILITY

- 2.1 This circular is applicable to all aircraft operated under Maldivian Air Operators Certificate (AOC).

3.0 COMPLIANCE

- 3.1 Smoking shall not be permitted on any international passenger flights undertaken by any Maldivian AOC holder.
- 3.2 The non-smoking sign shall remain illuminated at all times during the flight.
- 3.3 The crew of the aircraft shall make an announcement, both in Dhivehi and English at the commencement of every flight, informing all passengers that smoking is prohibited.
- 3.4 Compliance is mandatory with effect from 1 January 2000.

4.0 EFFECTIVITY

- 4.1 This circular becomes effective forthwith.

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DIRECTOR GENERAL OF CIVIL AVIATION



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CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND CIVIL AVIATION
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No. OPS 19
Issue: 01
1st May 2000.

FUELLING WITH PASSENGERS ON BOARD

1.0 INTRODUCTION

While fuelling of an aeroplane is a routine activity it may nonetheless result in a major catastrophe with passengers on board if adequate care and precautions are not taken by the operator.

2.0 APPLICABILITY

This Air Safety Circular is applicable to all such operators who intend to undertake refuelling of an aeroplane with passengers embarking, on board or disembarking.

3.0 REQUIREMENT

Aeroplanes may be fuelled with passengers embarking, on board or disembarking, under the following conditions:

- a) the refuelling is properly attended by qualified personnel ready to initiate and direct an evacuation of the aeroplane by the most practical and expeditious means available.
- b) in order to ensure that crew members receive prompt notification of a situation threatening safety such as major fuel spill or a fire, two way communication is maintained between the ground crew supervising the fuelling and the qualified personnel on board the aeroplane so that the aeroplane can be deplaned or evacuated as necessary;
- c) a means of communication among the qualified personnel on board the aeroplane, ground/maintenance crews and fuelling agencies is determined and established and the procedures are provided to the appropriate personnel;

- d) the aeroplane engines are not running unless the aircraft incorporates a propeller brake and the brake is set. The Aircraft Flight Manual must refer to the propeller brake/engine as an auxilliary power unit (APU);
- e) fire extinguishing equipment suitable for at least initial intervention in the event of a fuel fire and personnel trained in its use shall be readily available and there shall be a means of quickly summoning the rescue and fire fighting service in the event of a fire or major fuel spill;
- f) during the fuelling process:
 - (i) aeroplane ground power generators or other electrical ground power supplies are not being connected or disconnected;
 - (ii) combustion heaters installed on the aeroplane (e.g. wing and tail surface heaters, integral cabin heaters) are not operated;
 - (iii) known high energy equipment such as High Frequency (HF) radios are not operated, unless in accordance with the aeroplane manufacturer's approved flight manual where the manual contains procedures for the use of this equipment during fuelling;
 - (iv) weather-mapping radar equipment in the aeroplane is not operated unless in accordance with the manufacturer's approved aeroplane flight manual where the manual contains procedures for use during fuelling;
 - (v) aeroplane batteries are not being removed or installed;
 - (vi) external battery charges are not being connected, operated or disconnected;
 - (vii) aeroplane-borne auxiliary power units which have an efflux discharging into the zone are not started after filler caps are removed or fuelling connections are made;
 - (viii) if an auxilliary power unit (APU) is stopped for any reason during fuelling it shall not be restarted until the flow of fuel has ceased and there is no risk of igniting fuel vapours, however, the APU may be operated in accordance with the manufacturer's approved aeroplane flight manual if the manual contains procedures for starting the APU during fuelling;
 - (ix) electric tools or similar tools likely to produce sparks or arcs are not being used, and;
 - (x) photographic equipment is not used within 10ft. (3m) of the fuelling equipment or the fill or vent points of the aeroplane fuel systems.
- g) fuelling is immediately suspended when there are lightning discharges within 8 km of the aerodrome;
- h) the aeroplane is fuelled in accordance with manufacturer's procedures for that type of aeroplane;
- i) the aeroplane emergency lighting system is armed or on;

- j) "No smoking" signs on board the aeroplane are illuminated, as applicable;
- k) procedures are established to ensure that passengers do not smoke, operate portable electronic devices or otherwise produce sources of ignition;
- l) "seat belt ON" signs are kept "OFF"
- m) a minimum of two exits are designated evacuation exits during fuelling; one of which must be the entry doors through which the passengers embarked;
- n) the designated evacuation exits during fuelling are identified by aeroplane type and published in the company operations manual, and are clear and available for immediate use by passengers and crew members should an evacuation be required;
- o) the air operator has procedures in place to ensure that there is a ready escape route from each designated evacuation exit during fuelling, and that designated evacuation exits which are equipped with slides have the slides armed or a crew member is in the immediate vicinity to arm the slides if required;
- p) all exits and passages are clear of obstructions e.g. passenger hand baggage, food service carts etc;
- q) a means of evacuation such as a deployed integral stair a loading stair or stand, a loading bridge or a passenger transfer vehicle (PTV) is in place at the aeroplane door used for the embarking and disembarking of passengers and is free of obstruction and available for immediate use by the aeroplane occupants if necessary;
- r) for aeroplanes requiring a minimum cabin crew of more than one, a qualified person trained in the operation and use of emergency exits and in emergency evacuation procedures who is ready to initiate and direct an evacuation is at or near the passenger entry door;
- s) for aeroplanes requiring a minimum cabin crew of more than one, at least the minimum number of cabin crews for the aeroplane type or the number of passengers on board whichever is greater, are on board and positioned at or near each designated evacuation exit during fuelling. Cabin Crew may be replaced by an equivalent number of other staff provided that they have successfully completed the air operator's approved emergency evacuation procedures training for the aeroplane type;
- t) flight crew members inform the in-charge cabin crew when they are leaving the aeroplane;
- u) where desirable for climatic reasons, and provided a flight crew member is on board or a means of communication is available to the cabin crew, an aeroplane embarking door, that is inward opening or that can be fully opened to the exterior without repositioning of loading stairs or stand, may be closed and latched if necessary to keep it closed, but may not be locked;
- v) procedures are established to ensure that cabin crew or qualified persons replacing cabin crew in accordance with paragraph (s) are made aware of when fuelling will take place.

4.0 EFFECTIVITY

This Air Safety Circular becomes effective on 1st May 2000. In the interim period no fuelling is to be done with passengers embarking, on board or disembarking unless the operator has procedures in place and the same are incorporated in the Operations and Maintenance Manuals.



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AIR SAFETY CIRCULAR

No. OPS 20
Issue: 03
15 Sep 2004

ACCIDENT PREVENTION AND AIR OPERATOR FLIGHT SAFETY PROGRAMME

1.0 INTRODUCTION

1.1 Aviation rests on a foundation of laws and regulations, most of which are aimed at maintaining or improving safety. This is particularly true for scheduled air transport operations. The approach to safety, often referred to as regulatory safety, is an essential element of aviation. Any improvement in aviation safety requires the combined efforts of all sectors of the industry, particularly management, flight crews, cabin crews, maintenance personnel, manufacturers and the regulatory body. Each has a vital part to play and the absence of any one group will inevitably make the task more difficult and less successful.

2.0 OBJECTIVE

2.1 The objective of accident prevention is to prevent aircraft accidents, thus improving public confidence in the safety of air travel, saving lives and money, and reducing suffering. Although this may seem obvious, it needs to be clearly stated because this objective is sometimes overlooked when other considerations are allowed to intrude. The effectiveness of accident prevention efforts must not be allowed to be compromised. Safety must embrace the total organisation and it is essential that a close working relationship be maintained between all parts of the organisation that go to make an airline. The purpose of this circular is to state the need for an air operator to have in place an accident prevention and flight safety programme.

3.0 REQUIREMENT

- 3.1 An Air Operator shall, on a continuing basis, maintain a Flight Safety Programme. This Circular specifies the program elements.
- 3.2 A person accountable for managing the program, shall be appointed full time. The individual who is responsible for managing the flight safety program must meet the qualification and training requirements of a Flight Safety Person as set out in item 3.4 (b), Qualifications of the Flight Safety Person, and item 3.4 (d), Training of the Flight Safety Person, as stipulated below.

3.3 Program Elements

The following elements shall be included in an air operator's Flight Safety Program and described in the appropriate Manuals:

- Air Operator's Management Plan
- Qualifications of the Flight Safety Person
- Responsibilities of the Flight Safety Person
- Training for the Flight Safety Person
- Incident Management
- Flight Safety Committee
- Emergency Response Planning
- Communication and Safety Education

3.4 Description of Program Elements

a) Air Operator's Management Plan

The plan shall identify the management position responsible for ensuring that:

- (i) all the necessary elements of the program have been developed, properly integrated, and coordinated;
- (ii) the Program has been disseminated to all appropriate personnel;
- (iii) a detailed description of the program is incorporated in the appropriate air operator's manuals; and
- (iv) adequate Program management is maintained

b) Qualifications of the Flight Safety Person:

- (i) extensive operational experience, normally achieved as a flight deck crew member or equivalent experience in aviation management; and
- (ii) training in accordance with paragraph (d) of this standard;

c) Responsibilities of the Flight Safety Person

The Flight Safety person shall have direct access to the Chief Executive in flight safety matters and shall be responsible for managing the flight safety program by:

- (i) monitoring and advising on all air operator flight safety activities which may have an impact on flight safety;
- (ii) establishing a reporting system which provides for a timely and free flow of flight safety related information;
- (iii) conducting safety surveys;
- (iv) establishing a system whereby information on faults, malfunctions, defects and other occurrences which causes or might cause adverse effects on the continuing airworthiness of the aircraft is transmitted to the organisation responsible for the Type Design of that aircraft and the Civil Aviation Department of Maldives.

- v) soliciting and processing flight safety improvement suggestions;
 - vi) developing and maintaining a safety awareness program;
 - vii) monitoring industry flight safety concerns which may have an impact on air operator operations;
 - viii) maintaining close liaison with aeroplane manufacturers;
 - ix) maintaining close liaison with Civil Aviation Department;
 - x) maintaining close liaison with industry safety associations;
 - xi) developing and maintaining the air operator accident response plan;
 - xii) identifying flight safety deficiencies and making suggestions for corrective action;
 - xiii) investigating and reporting on incidents/accidents and making recommendations to preclude a recurrence.
 - xiv) developing and maintaining a flight safety data base to monitor and analyze trends;
 - xv) making recommendations to the air operator senior management on matters pertaining to flight safety; and
 - xvi) monitoring the response and measuring the results of flight safety initiatives.
- d) Training of Flight Safety Person

This person shall successfully complete a training course that shall include the following subjects:

- i) flight safety philosophy;
- ii) human factors and the decision making process
- iii) accident prevention;
- iv) the role of the flight safety officer as advisor to senior management;
- v) risk management;
- vi) accident/incident management;
- vii) the aviation safety survey;
- viii) emergency response plan; and
- ix) incident investigation.

e) Incident Management

The air operator shall be responsible for providing employees with a timely means of reporting any unsafe conditions. The person responsible for the flight safety program shall institute and maintain an incident reporting system to meet the requirement of MAR Series C 4. This system will provide for;

- i) a process of reporting incidents;
- ii) investigation of incidents;
- iii) the means of advising management; and
- iv) information feedback to employees

f) Flight Safety Committee

An Air Operator shall establish a Flight Safety Committee.

i) Responsibilities

The responsibilities of the Committee shall be to monitor all areas of the operation, identify safety concerns and deficiencies, and make recommendations for corrective measures to senior management where applicable.

ii) Members

The Committee shall be chaired by the Flight Safety Manager or designate. Members shall include representatives of all operating departments in the organization.

iii) Meetings

The Committee shall meet on a regular basis (at least twice a year) as established by the committee chairperson. Special meetings on urgent matters may be called by any committee member.

iv) Minutes

Minutes of the Committee meetings shall provide a record of agenda items, decisions and corrective actions taken where applicable.

g) Emergency Response Planning.

The air operator shall develop and maintain an Air Operator Emergency Response Plan that shall include the following elements;

- i) air operator policy;
- ii) air operator mobilization and agencies notification;
- iii) passenger and crew welfare;

- iv) casualty and next-of-kin coordination;
 - v) accident investigation on behalf of the air operator;
 - vi) air operator team's response to the accident site;
 - vii) preservation of evidence;
 - viii) media relations;
 - ix) claims and insurance procedures;
 - x) aeroplane wreckage removal; and
 - xi) emergency response training
- h) Communication and Safety Education

The air operator shall be responsible for an efficient system of distributing appropriate safety material.

i) Flight Data Analysis

i) Effective 1 January 2005 an operator of an aeroplane of a maximum certified take-off mass in excess of 27,000 kg, shall establish and maintain a flight data analysis programme.

ii) A flight data analysis programme established under i) shall be non punitive and contain adequate safeguards to protect the source(s) of the data.

iii) Subject to part iv) an air operator may contract the operation of a flight data analysis programme to another party.

iv) The effectiveness and proposals for the corrective action resulting from the Flight Data Analysis programme shall remain the responsibility of the air operator.

3.0 CANCELLATION

This Air Safety Circular cancels the latest issue OPS 20 issue 02 dated 7th June 2001.

4.0 EFFECTIVITY

This Circular comes into effect on 15 September 2004.



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AIR SAFETY CIRCULAR

No. OPS 21
Issue 01
1st May 2000.

AIR TRAFFIC CONTROLLERS LICENCE

1. INTRODUCTION

- 1.1 The Air Traffic Controllers licence certifies that the holder has achieved a basic standard of knowledge and experience skill in application of the knowledge. Since the safety and regularity of Civil Aviation depend considerably on the efficiency of the Air Traffic Controller, it is his/her duty to promote a safe orderly and expeditious flow of traffic under most weather conditions.

2. APPLICABILITY

- 2.1 This Air Safety Circular is applicable to every Air Traffic Controller/ Student Air traffic controller.

3. REQUIREMENTS FOR GRANT OF AN AIR TRAFFIC CONTROLLERS LICENCE

- 3.1 The age of the applicant shall be as follows:

Air Traffic Controller/Student licence	- not less than 17 years
ATC Licence/Aerodrome Control Rating	- not less than 18 years
ATC licence/Radar/Area Control Rating	- not less than 21 years

- 3.2 The candidate must successfully complete an approved training course and have experience of not less than 3 months satisfactory service engaged in the actual control of air traffic under the supervision of an appropriately rated Air Traffic controller.
- 3.3 The applicant shall pass the Air traffic Controllers- Air Law examination
- 3.4 Candidate shall have the knowledge of principles, use and limitation of equipment used in Air Traffic Control.
- 3.5 Candidates shall possess general knowledge of principles of flight, principles of operation and functioning of aircraft, power plants and systems aircraft performances relevant to ATC operations.

3.5 The applicant shall hold a current class 3 medical assessment.

4. RATINGS

4.1 TRAINING FOR ATC RATING

The training required for the ratings must consist of acquiring familiarity with and competence in a specific environment must be accomplished by use of both knowledge training and practical training.

4.1 REQUIREMENTS FOR AIR TRAFFIC CONTROLLER RATINGS

4.1.1 The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted in atleast the following subjects in so far as they affect the area of responsibility.

a) Aerodrome Control Rating

- 1) aerodrome layout; physical characteristics and visual aids;
- 2) airspace structure
- 3) applicable rules, procedures and source of information;
- 4) air navigation facilities;
- 5) air traffic control equipment and its use;
- 6) prominent land marks
- 7) Characteristics of Air Traffic;
- 8) weather phenomena; and
- 9) emergency and search and rescue plans;

b) Approach and area control ratings:

- 1) airspace structure;
- 2) applicable rules, procedures and source of information;
- 3) air navigation facilities
- 4) air traffic control equipment and its use.
- 5) prominent land marks
- 6) characteristics of air traffic and traffic flow
- 7) weather phenomena and
- 8) emergency and search and rescue plans

c) Approach radar, approach precision radar and area radar control ratings

The applicant shall meet the requirements specified in b) and shall have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following additional subjects:

- (a) principles, use and limitation of radar, other surveillance systems associated equipment and
- (b) procedures for the provision of approach, precision approach or area radar control services, as appropriate including terrain clearance.

4.2 PRIVILEGES OF THE HOLDER OF AIR TRAFFIC CONTROLLERS RATING

- (a) Aerodrome control rating: to provide or supervise the provision of aerodrome control services for the aerodrome for which the licence holder is rated.
- (b) Approach control rating: to provide or supervise the provision of approach control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service.
- (c) Area control rating :to provide and/or supervise the provision of area control service aithin the control area or portion thereof, for which the licence holder is rated

4.3 COMPETENCY CHECK

As stipulated in CAR part 12 Air Traffic Controllers must be checked for their competency , annually. The period between two such shall not be less than 11 months and shall not exceed 13 months from the date of test. These checks shall be conducted by approved examiners of this Ministry.

4.4 RECENCY OF EXPERIENCE

A rating held by an Air Traffic Controller shall become invalid if he has not exercised the privileges of the said rating within the preceeding six months and shall remain so until the controller has been tested to his competence to exercise the privileges of the rating.



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AIR SAFETY CIRCULAR

No: OPS 24
Issue: 02
Date: 07 October 2002

LOAD SHEETS

Introduction

1. The operator of a Maldivian aircraft shall not cause or permit it to be loaded for a flight for the purpose of public transport, or any load to be suspended therefrom, except under the supervision of a person whom he has caused to be furnished with written instructions as to the distribution and securing of the load so as to ensure that:-

- (1) the load may safely be carried on the flight; and

- (2) any conditions subject to which the certificate of airworthiness in force in respect of the aircraft was issued or rendered valid, being conditions relating to the loading of the aircraft, are complied with.

- 1.1 The person supervising the loading of the aircraft shall, before the commencement of any such flight, prepare and sign a load sheet in duplicate conforming to the regulation and shall (unless he is himself the pilot in command of the aircraft) submit the load sheet for examination by the pilot in command of the aircraft who shall sign his name thereon;

The foregoing requirements of this Air Safety Circular shall not apply if the load and the distributing and securing thereof upon the next intended flight are to be unchanged from the previous flight and the pilot-in-command of the aircraft makes and signs an endorsement to the effect upon the load sheet for the previous flight, indicating the date of the endorsement, the place of departure upon the next intended flight and the next intended place of destination.

- 1.2 Every load sheet shall contain the following particulars:-

- (a) the nationality mark of the aircraft to which the load sheet relates, and the registration mark assigned to that aircraft by the Director;

- (b) particulars of the flight to which the load sheet relates;

- (c) the total weight of the aircraft as loaded for that flight;
- (d) the weight of several items from which total weight of the aircraft, as so loaded, has been calculated including in particular the weight of the aircraft prepared for service and respective total weights of the crew (unless included in the weight of the aircraft prepared for service), passengers, baggage and cargo intended to be carried on the flight;
- (e) the manner in which the load is distributed and the resulting position of the center of gravity of the aircraft which may be given approximately if and to the extent that the relevant certificate of airworthiness so permits;

and shall include at the foot of the load sheet a certificate, signed by the person responsible for the loading of the aircraft, that the aircraft has been loaded in accordance with the written instructions furnished to him by the operator of the aircraft pursuant to CAR part 15.33.

2. For the purpose of calculating the total weight of the aircraft the respective total weights of the passengers and crew together with their hand baggage entered in the load sheet shall be computed from the actual weight of each person and their hand baggage and for that purpose each person and their hand baggage shall be separately weighed.

Provided that the total weights of the passengers and crew together with their hand baggage may, subject to the provisions of paragraph 4, be calculated at not less than the appropriate weights shown in Table 1 and the load sheet shall bear a notation to that effect.

**TABLE 1
AIRCRAFT CERTIFIED SEATING CAPACITY**

	01 to 20	21 to 29	30 – and above
Male passengers	96 kgs	88 kgs	84 kgs
Female passengers	78 kgs	70 kgs	84 kgs
Children aged 2 years or more but not over 12 years of age	35 kgs	35 kgs	35 kgs
Infants under 2 years of age if occupying a separate seat	10 kgs	10 kgs	10 kgs
Infants under 2 years sharing a seat with adults	00 kgs	00 kgs	00 kgs
Flight crew	85 kgs	85 kgs	85 kgs
Cabin crew	75 kgs	75 kgs	75 kgs

- 2.1. On Aircraft with seating capacity 1 – 29 where no hand baggage is carried or where such hand baggage is accounted for separately, 6 kg may be deducted from the weight of passengers over 12 years of age when using table 01.
- 2.2. Where any immersion suit is worn or carried by a passenger or crewmember, 3kg shall be added to the appropriate weight shown in table 1 in each such case.

Note: Alternatively the operator may use their own standard weight (for flight crew and cabincrew) by calculating the average weight of all crew members; provided that the actual weight of the crew are submitted to this department annually.

- 3. For the purpose of calculating the total weight of the aircraft the respective total weights of the hold baggage and cargo entered in the load sheet shall be computed from the actual weight of each piece of baggage, cargo or cargo container and for that purpose each piece or container shall be separately weighed:

provided that, in the case of an aircraft where the total number of passenger seats available is 21 or more, the total weights of the hold baggage may, subject to the provisions of paragraph 4, be calculated at not less than the weights shown in table 2 and the load sheet shall bear a notation to that effect.

TABLE 2

Journey made by aircraft	Hold baggage per piece
Domestic	11 kgs
International	15 kgs

- 4. (a) If it appears to the person supervising the loading of the aircraft that:
 - (i) any person and his hand baggage to be carried exceeds the weights set out in Table 1,
 - (ii) where paragraph 2.1 applies, any passenger to be carried exceeds the weights set out in Table 1 as adjusted in accordance with that paragraph; or
 - (iii) any hold baggage to be carried exceeds the weights set out in Table 2;
 he shall, if considers it necessary in the interests of the safety of the aircraft, or if the Director has so directed in the particular case, require any such person and his hand baggage, passenger or hold baggage, as the case may be, to be weighed for the purpose of the entry to be made in the load sheet.

- b) If any person and his hand baggage, passenger or any hold baggage has been weighed pursuant to sub-paragraph (a), the weights entered in the load sheet shall take account of the actual weight of that person and his hand baggage, that passenger or that hold baggage, as the case may be, or of the weight determined in accordance with the respective provisos to paragraph (2) or (3), whichever weight shall be the greater.

5. Effectivity

This Air Safety Circular, OPS 24 , Issue 03 shall come into effect on 01 November 2002.



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AIR SAFETY CIRCULAR

No: OPS 25
Issue: 01
Date: 01 July 2003
Effective: Forthiwith

MANUAL ON CERTIFICATION OF AERODROMES

INTRODUCTION

The Civil Aviation Regulations Part 13 stipulates that an aircraft shall not take off or land at any place in the Republic unless

- (i) the place has been certified as an aerodrome; or
- (ii) is authorized by the Director; and
- (iii) the aircraft is of a type authorized under that Regulation to land and take off from the place; and
- (iv) the aircraft is engaged in operations of a class specified by the Director in the instrument of authorization for that place.

This Air Safety Circular PARTS 1,2,3,4 and 5 provides the particulars to be included in an aerodrome manual referred to in the CAR Part 13.14.

Part 1 GENERAL

General information including the following;

- a) Purpose and scope of the aerodrome manual;
- b) The legal requirement for an aerodrome certificate and an aerodrome manual as prescribed in the regulations;
- c) Conditions for use of the aerodrome; a statement to indicate that the aerodrome shall at all times, when it is available for the take off and landing of aircraft, be so available to all persons on equal terms and conditions;
- d) The available aeronautical information system and procedures for its promulgation;
- e) The system for recording aircraft movements; and
- f) Obligations of the aerodrome operator.

Part 2**PARTICULARS OF THE AERODROME SITE**

General information, including the following:

- a) A plan of the aerodrome showing the main aerodrome facilities for the operation of the aerodrome including, particularly, the location of each wind direction indicator;
- b) A plan of the aerodrome showing the aerodrome boundaries;
- a) A plan showing the distance of the aerodrome from the nearest city, town or other populous area, and the location of any aerodrome facilities and equipment outside the boundaries of the aerodrome; and
- b) Particulars of the title of the aerodrome site. If the boundaries of the aerodrome are not defined in the title documents particulars of the title to, or interest in, the property in which the aerodrome is located and a plan showing the boundaries of the position of the aerodrome.

PART 3**PARTICULARS OF THE AERODROME REQUIRED TO BE REPORTED TO THE AERONAUTICAL INFORMATION SERVICE (AIS)****3.1 GENERAL INFORMATION**

- a) The name of the aerodrome
- b) The location of the aerodrome
- c) The geographical coordinates of the aerodrome reference point determined in terms of the World Geodetic System – 1984 (WGS-84) reference datum;
- d) The aerodrome elevation and geoid undulation;
- e) The elevation of each threshold and geoid undulation, the elevation of the runway end and any significant high and low points along the runway, and the highest elevation of the touchdown zone of a precision approach runway;
- f) The aerodrome reference temperature
- g) Details of the aerodrome beacon; and
- h) The name of the aerodrome operator and the address, telephone, fax and email addresses at which the aerodrome operator may be contacted at all times.

3.2 AERODROME DIMENSIONS AND RELATED INFORMATION

General information, including the following:

- a) Runway – true bearing, designation number, length, width, displaced threshold location, slope, surface type, type of runway and, for a precision approach runway, the existence of an precision free zone;

- b) Length, width and surface type of strip, runway end safety areas, stopways;
- c) Length, width and surface type of taxiways;
- d) Apron surface type and aircraft stands;
- e) Clearway length and ground profile;
- f) Visual aid for approach procedures, viz. approach lighting type and visual approach slope indicator system (PAPI/APAPI and T-VASIS/AT-VASIS); marking and lighting of runways, taxiways, and aprons; other visual guidance and control aids on taxiways (including runway holding positions, intermediate holding positions and stop bars) and aprons, location and type of visual docking guidance system; availability or standby power for lighting;
- g) The location and radio frequency of VOR aerodrome checkpoints;
- h) The location and designation of standard taxi routes;
- i) The geographical coordinates of each threshold;
- j) The geographical coordinates of appropriate taxiway center line points;
- k) The geographical coordinates of each aircraft stand;
- l) The geographical coordinates and the top elevation of significant obstacles in the approach and take off areas, in the circling area and in the vicinity of the aerodrome. (This information may best be shown in the form of charts such as those required for the preparation of aeronautical information publication, as prescribed in Annex 4 and Annex 15 to the Convention).
- m) Pavement surface type and bearing strength using the aircraft Classification Number Pavement Classification Number (ACN – PCN) method;
- n) One or more pre-flight altimeter check locations established on an apron and their elevation;
- o) Declared distance: take off run available (TORA), take off distance available (TODA) accelerate-stop distance available (ASDA), landing distance available;
- p) Disabled aircraft location plan: the telephone, telex, facsimile numbers and email address of the aerodrome coordinator for the removal of a disabled aircraft on or adjacent to the movement area, information on the capability to remove a disabled aircraft, expressed in terms of the largest type of aircraft which the aerodrome is equipped to remove; and
- q) Rescue and fire-fighting: the level of protection provided, expressed in terms of the category of the rescue and fire fighting services which should be in accordance with the longest aeroplane normally using the aerodrome and the type and amounts of extinguishing agents normally available at the aerodrome.
- r) information about the availability of fuel and types of fuel.

NOTE: The accuracy of the information in Part 3 is critical to aircraft safety. Information requiring engineering survey and assessment should be gathered or verified by qualified technical persons.

PART 4 PARTICULARS OF THE AERODROME OPERATING PROCEDURES AND SAFETY MEASURES

4.1 AERODROME REPORTING

Particulars of the procedure for reporting any changes to the aerodrome information set out in the AIP and procedures for requesting the issue of NOTAMS, including the following:

- a) Arrangement for reporting any changes to the Civil Aviation Department and recording the reporting of changes during and outside the normal hours of aerodrome operations;
- b) The names and roles of persons responsible for notifying the changes and their telephone numbers during and outside the normal hours of aerodrome operations; and
- c) The address and telephone numbers as provided by the Civil Aviation Department of the changes are to be reported to the Civil Aviation Department.

4.2 ACCESS TO THE AERODROME MOVEMENT AREA

Particulars of the procedures that have been developed and are to be followed in coordination with the agency responsible for preventing unlawful interference in civil aviation at the aerodrome and for preventing unauthorized entry of persons, vehicles, equipment, animals or other things into the movement area, including the following:

- a) The role of the aerodrome operator, the aircraft operator, aerodrome fixed-base operators, the aerodrome security entity, the Civil Aviation Department and other government departments, as applicable;
- b) The names and roles of the personnel responsible for controlling access to the aerodrome, and the telephone numbers for contacting them during and after working hours.

4.3 AERODROME EMERGENCY PLAN

Particulars of the aerodrome emergency plan, including the following:

- a) Plans for dealing with emergencies occurring at the aerodrome or in its vicinity, including the malfunction of aircraft in flight; structural fires; sabotage, including bomb threats (aircraft or structure); unlawful seizure of aircraft; and incidents on the airport covering “during the emergency” and “after the emergency” considerations;
- b) Details of tests for aerodrome facilities and equipment to be used in emergencies, including the frequency of those tests;
- c) Details of exercises to test emergency plans, including the frequency of those exercises;
- d) A list of organizations, agencies and persons of authority, both on- and off-airport, for site roles; their telephone and facsimile number, e-mail and SITA addresses and the radio frequencies of their offices;

- a) The establishment of an aerodrome emergency committee to organize training and other preparations for dealing with emergencies; and
- b) The appointment of an on-scene commander for the overall emergency operation.

4.4 RESCUE AND FIRE-FIGHTING

Particulars of the facilities, equipment, personnel and procedures for meeting the rescue and fire-fighting requirements, including the names and roles of the persons responsible for dealing with the rescue and fire-fighting services at the aerodrome.

Note. – This subject should also be covered in appropriate detail in the aerodrome emergency plan.

4.5 INSPECTION OF THE AERODROME MOVEMENT AREA AND OBSTACLE LIMITATION SURFACE BY THE AERODROME OPERATOR

Particulars of the procedures for the inspection of the aerodrome movement area and obstacle limitation surfaces, including the following:

- a) Arrangements for carrying out inspections, including runway friction and water-depth measurements on runway and taxiways, during and outside the normal hours of aerodrome operations;
- b) Arrangements and means of communicating with air traffic control during an inspection;
- c) Arrangements for keeping an inspection logbook, and the location of the logbook;
- d) Details of inspection intervals and times;
- e) Inspection checklist;
- f) Arrangements for reporting the results of inspections and for taking prompt follow-up actions to ensure correction of unsafe conditions; and
- g) The names and roles of persons responsible for carrying out inspections, and their telephone numbers during and after working hour.

4.6 VISUAL AIDS AND AERODROME ELECTRICAL SYSTEMS

Particulars of the procedures for the inspection and maintenance of aeronautical lights (including obstacle lighting). Signs, markers and aerodrome electrical systems, including the following:

- a) Arrangements for carrying out inspections during and outside the normal hours of aerodrome operation, and the checklist for such inspections;
- b) Arrangements for recording the result of inspection and for taking follow-up action to correct deficiencies;
- c) Arrangements for carrying out routine maintenance and emergency maintenance;
- d) Arrangements for secondary power supplies, if any, and, if applicable, the particulars of any other method of dealing with partial or total system failure; and

- e) The names and roles of persons responsible for the inspection and maintenance of the lighting, and the telephone numbers for contacting those persons during and after work hours.

4.7 MAINTENANCE OF THE MOVEMENT AREA

Particulars of the facilities and procedures for the maintenance of the movement area, including:

- a) Arrangements maintaining the paved areas;
- b) Arrangements for maintaining the unpaved runways and taxiways;
- c) Arrangements maintaining the runway and taxiway strips; and
- d) Arrangements for the maintenance of the aerodrome drainage.

4.8 AERODROME WORKS - SAFETY

Particulars of the procedures for planning and carrying out construction and maintenance works safely (including work that may have to be carried out at short notice) on or in the vicinity of the movement area which may extend above an obstacle limitation surface, including the following:

- a) Arrangements for communicating with air traffic control during the progress of such work;
- b) The names and telephone numbers and roles of the persons and organization responsible for planning and carrying out the work, and arrangements for contacting those persons and organizations at all times;
- c) The names and telephone numbers, during and after working hours, of the aerodrome fixed-base operators, ground handling agents and aircraft operators who are to be notified of the work;
- d) A distribution list for work plans, if required.

4.9 APRON MANAGEMENT

Particulars of the apron management procedures, including the following:

- a) Arrangements between air traffic control and the apron management unit;
- b) Arrangements for allocating aircraft parking positions;
- c) Arrangements for initiating engine start and ensuring clearance of aircraft push-back;
- d) Marshalling service; and
- e) Leader (van) service.

4.10 APRON SAFETY MANAGEMENT

Procedures to ensure apron safety, including:

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- a) Protection from jet blasts;
 - b) Enforcement of safety precautions during aircraft refuelling operations;
 - c) Apron sweeping;
 - d) Apron cleaning;
 - e) Arrangements for reporting incidents and accidents on an apron; and
 - f) Arrangements for auditing the safety compliance of all personnel working on the apron.

4.11 AIRSIDE VEHICLE CONTROL

Particulars of the procedure for the control of surface vehicles operating on or in the vicinity of the movement area, including the following:

- a) Details of the applicable traffic rules (including speed limits and the means of enforcing the rules); and
- b) The method of issuing driving permits for operating vehicles in the movement area.
- c) Methods and procedures in place for assessing the roadworthiness of vehicles and condition monitoring.

4.12 WILDLIFE HAZARD MANAGEMENT

Particulars of the procedures to deal with the danger posed to aircraft operations by the presence of birds or mammals in the aerodrome flight pattern or movement area, including the following:

- a) Arrangements for assessing wildlife hazards;
- b) Arrangements for implementing wildlife control programmes; and
- c) The names and roles of the persons responsible for dealing with wildlife hazards, and their telephone numbers during and after working hours.

4.13 OBSTACLE CONTROL

Particulars setting out the procedures for:

- a) Monitoring the obstacle limitation surfaces and Type A Chart for obstacles in the take-off surfaces;
- b) Controlling obstacles within the authority of the operator;
- c) Monitoring the height of buildings or structures within the boundaries of the obstacle limitation surfaces;
- d) Controlling new developments in the vicinity of aerodromes; and
- e) Notifying the Civil Aviation Department of the nature and location of obstacles and any subsequent addition or removal of obstacles for action as necessary, including amend

ment of the AIS publications.

4.14 REMOVAL OF DISABLED AIRCRAFT

Particulars of the procedures for removing a disabled aircraft on or adjacent to the movement area, including the following:

- a) The roles of the aerodrome operator and the holder of the aircraft certificate of registration;
- b) Arrangements for notifying the holder of the certificate of registration;
- c) Arrangements for liaising with the air traffic control unit;
- d) Arrangements for obtaining equipment and personnel to remove the disabled aircraft; and
- e) The names, role and telephone numbers of persons responsible for arranging for the removal of disabled aircraft.

4.15 HANDLING OF HAZARDOUS MATERIALS

Particulars of the procedures for the safe handling and storage of hazardous materials on the aerodrome, including the following:

- a) Arrangements for special areas on the aerodrome to be set up for the storage of inflammable liquids (including aviation fuel) and any other hazardous materials; and
- b) The method to be followed for the delivery, storage, dispensing and handling of hazardous materials.

Note. – Hazardous materials include inflammable liquids and solids, corrosive liquids, compressed gases and magnetized or radioactive materials. Arrangements for dealing with the accident spillage of hazardous materials should be included in the aerodrome emergency plan.

4.16 LOW-VISIBILITY OPERATIONS

Particulars of procedures to be introduced for low-visibility operations, including the measurement and reporting of runway visual range as and when required, and the names and telephone numbers, during and after working hours, of the persons responsible for measuring the runway visual range.

4.17 PROTECTION OF SITES FOR RADAR AND NAVIGATIONAL AIDS

Protection of the procedures for the protection of sites for radar and radio navigational aids located on the aerodrome to ensure that their performance will not be degraded, including the following:

- a) Arrangements for the control of activities in the vicinity of radar and nav aids installation;
- b) Arrangements for ground maintenance in the vicinity of these installations; and

- c) Arrangements for the supply and installation of signs warning of hazardous microwave radiation.

Note 1. – In writing the procedures for each category, clear and precise information should be included on:

- When, or in what circumstances, an operating procedure is to be activated;
- How an operating procedure is to be activated;
- Actions to be taken;
- The persons who carry out the actions; and
- The equipment necessary for carrying out the actions, and access to such equipment.

Note 2. – If any of the procedures specified above are not relevant or applicable, the reason should be given.

PART 5

AERODROME ADMINISTRATION AND SAFETY MANAGEMENT SYSTEM

Aerodrome administration

Particulars of the aerodrome administration, including the following:

- a) An aerodrome organizational chart showing the names and positions of key personnel, including their responsibilities;
- b) The name, position and the telephone number of the person who has overall responsibility for aerodrome safety; and
- c) Airport committees.

Safety Management System (SMS)

Particulars of the safety management system established for ensuring compliance with all safety requirements and achieving continuous improvement in the safety performance, the essential features being:

- a) The safety policy, insofar as applicable, on the safety management process and its relation to the operational and maintenance process;
- b) The structure or organization of the SMS, including staffing and the assignment of individual and group responsibilities for safety issues;
- c) SMS strategy and planning, such as setting safety performance targets, allocating priorities for implementing safety initiatives and providing a framework for controlling the risks to as low a level as is reasonably practicable keeping always in view the requirements of the Standards and Recommended Practices in Volume I of Annex 14 to the Convention on International Civil Aviation, and Civil Aviation Regulations.
- d) SMS implementation, including facilities, methods and procedures for the effective communication of safety requirements;

- e) A system for the implementation of, and action on, critical safety areas which require a higher level of safety management integrity (safety measures programme);
- f) Measures for safety promotion and accident prevention and a system for risk control involving analysis and handling of accidents, incidents, complaints, defects, faults, discrepancies and failures, and continuing safety monitoring;
- g) The internal safety audit and review system detailing the systems and programmes for quality control of safety;
- h) The system for documenting all safety-related airport facilities as well as airport operational and maintenance records, including information on the design and construction of aircraft pavements and aerodrome lighting. The system should enable easy retrieval of records including charts;
- i) Staff training and competency, including the review and evaluation of the adequacy of training provided to staff on safety-related duties and of the certification system for testing their competency; and
- j) The incorporation and enforcement of safety-related clauses in the contracts for construction work at the aerodrome.

EFFECTIVITY

This Air Safety Circular comes into effect on 27 November 2003. In the interim period, aerodrome operators are advised to prepare the Aerodrome Manual and submit to the Director along with the Aerodrome Certificate Application form, CAD/AD/-01.



Mahmood Razee
DIRECTOR GENERAL OF CIVIL AVIATION



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

CIVIL AVIATION DEPARTMENT
MINISTRY OF TRANSPORT AND CIVIL AVIATION
Male'
Republic of Maldives

AIR SAFETY CIRCULAR

No: OPS 28
Issue: 01
Effective: 01 June 2005

AIR TRAFFIC CONTROLLER'S CLASS 3 MEDICAL CERTIFICATE

1. INTRODUCTION

- 1.1 In accordance with Air Safety Circular OPS 04 any applicant for an Air Traffic Controllers licence, shall hold a current Class 3 Medical Certificate.
- 1.2 With the amendment to the ICAO Annex 1 – Personnel Licencing, with regard to requirements of colour perception, this department has been informed that there are number of experienced Air Traffic Licence holders who do not fully meet the colour perception requirements in Class 3 Medical Assessment.
- 1.3 Understanding the severity of the problem and difficulties that may arise, the Civil Aviation Department, after reviewing the case with other regulatory bodies and in consultation with Aviation Medical Examiners, have drawn the following conditions to such licence holders to practice the privileges in their licence.

2. CONDITIONS

- 2.1 A licence holder who does not fully meet the colour perception requirements may continue to practice their profession as an Air Traffic Controller subjected to the following conditions;
 - I. Any such licence holder shall be issued a certificate of competency, as in Appendix A to this circular, by an Air Traffic Controller Examiner.
 - II. When exercising privileges of their licences; any two or more controllers who do not fully meet the colour perception requirements shall not be paired together; that is, in any shift there must be at least one licenced Air Traffic Controller with a Class 3 Medical which meets all the requirements as specified under Air Safety Circular OPS 04.
 - III. The licence shall be endorsed with limitation as prescribed by an Aviation Medical Examiner.

3. APPLICABILITY

- 3.1 This circular is applicable only to those Air Traffic controllers who have been licensed before 01 April 2005.
- 3.2 Henceforth, any new applicant wishing to hold an Air Traffic Controller's Licence shall meet all the requirements in ASC OPS 04.

4. EFFECTIVITY

- 4.1 This Air Safety Circular comes into effect from 1 June 2005.



Mahmood Razeed

DIRECTOR GENERAL OF CIVIL AVIATION

CERTIFICATE OF COMPETENCY

Name: _____

Licence Number: _____

Date of Birth: _____

The above mentioned person has been working under my supervision as an Air Traffic Controller for the last _____ years. I have found him to be competent in his job. He is able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. I feel confident that he will be able to exercise the privileges of an "Air Traffic Controller's Licence" without jeopardizing flight safety.

Issued by: _____

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Air Traffic Controller Examiner