

# RECREATIONAL AVIATION ACTIVITIES MANUAL GUIDE

Maldives Civil Aviation Authority Republic of Maldives 1<sup>st</sup> April 2015

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#### INTRODUCTION

This Civil Aviation Advisory Publications (CAAP) for Recreational Aviation Activities is produced with the aim of providing to organisations undertaking recreational aviation activities, guidance on how to develop an aerial activities manual (Recreational Aviation Activities Manual-Guide) in order to ensure that satisfactory levels of safety and adherence to aviation regulations are achieved. In particular it is intended to cover those somewhat more adventurous aviation activities undertaken by members of the public, such as trial lessons, where an increased risk was apparent.

The first three paragraphs of the Introduction in Part A reflect the fact that it is not possible to provide a single template for an aerial activities manual that will be suitable for the wide range of recreational aviation activities which are available. It is urged that all organisations undertaking recreational aviation activities should adhere to the format of this manual as closely as possible for compliance monitoring and standardisation.

CHIEF EXECUTIVE

Maldives Civil Aviation Authority

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#### PART-A GENERAL

- 1 Administration and Control of an Activities Manual
- 1.1 Introduction
- 1.1.1 Every organisation providing recreational aviation activity should produce an aerial activities or operations manual to ensure a satisfactory level of safety, and compliance with relevant aeronautical legislation, authorised permissions and exemptions. However, it is not possible to provide a format for a manual that will cover the whole gamut of recreational aviation activities.
- 1.1.2 The aim of this CAAP is therefore to provide a guidance template as to those areas that should be considered in the development of an activities or operations manual. Large complex operations may well need to cover all subjects, and in some detail, whereas a small operation may be able to exclude certain matters. However, all areas should be considered before being excluded.
- 1.1.3 If in doubt as to the level of detail required, advice should be sought from the CAA's Flight Operations, contactable on +960 332 4992. For convenience, the activities manual can be sub-divided as shown below and may be supplemented by other publications as considered necessary, such as aircraft operating handbooks etc.:
  - Part A General/Basic Information.
  - Part B Aircraft Type Operating Procedures and Requirements.
  - Part C Exposition of Individual Recreation Aviation Activities.
  - Part D Training.
- 1.1.5 The manual should contain explanations and definitions of the terms and words used in the manual.
- 1.2 System of amendment and revision
- 1.2.1 A manager (e.g. the chief pilot) should be nominated to be responsible for the issue and insertion of amendments in the activities manual.
- 1.2.2 The manual should contain a record of amendments with insertion dates and effective dates.
- 2 Organisation and Responsibilities
- 2.1 Organisational Structure

A brief description of the organisational structure of the company should be provided giving the names of those in responsible positions and their duties, including:

- a) The delegation of responsibility that is permitted.
- b) The training of staff.
- c) The issue of temporary instructions (Flying Staff Instructions).

#### 2.2 Authority, duties and responsibilities of the commander

#### 2.2.1 General Responsibilities

The commander of an aircraft should take all reasonable steps to maintain familiarity with the Company Activities Manual and the relevant parts of:

- a) Maldives Civil Aviation Act 2/2001;
- b) MCAR 2 Rules of the Air;
- c) MCAR 11 Air Traffic Services;
- d) All relevant operational MCARs (MCAR 149. 101, 103, 104, 105, 106, Air Operations, Aircrew etc.)
- e) Maldives Aeronautical Information Circulars; and
- f) Other aviation practices and procedures.

#### 2.2.2 Specific Responsibilities

The commander shall:

- a) be responsible for the safe operation of the aircraft and the safety of its occupants during flight time;
- b) ensure that passengers are fully briefed on:
  - i) the use of seat belt or harness and helmets (if worn);
  - ii) the location and operation of emergency exits;
  - iii) the method of locating and jettisoning windows;
  - iv) the use of lifejackets and life rafts, if carried; and
  - v) any other type specific safety feature;
- c) ensure that all operational procedures and checklists are complied with;
- d) ensure that the weather forecast for the proposed operating area indicates that the flight may be conducted in accordance with the Company minima;
- e) decide whether the flight can be safely undertaken after consideration of any unserviceabilities;
- f) ensure that aircraft refuelling is adequately supervised;
- g) ensure that the aircraft's mass and balance is within limits for the operating conditions;
- h) ensure that the aircraft's performance will enable it to safely complete the proposed flight; and
- i) ensure that the pre-flight inspection has been carried out and that the aircraft is fit to fly.

#### 3 Operational Control and Supervision

#### 3.1 Supervision of the operation by the operator

#### 3.1.1 The chief pilot should always be in a position to confirm that:

- a) crew licences and qualifications are valid for the periods throughout which crew members are scheduled to fly;
- b) crew members' proficiency has been checked and found satisfactory at the specified intervals;

- c) the requisite flight personnel and maintenance records are being retained, analysed and stored for the required periods in order that the Company's established quality control procedures may be effectively implemented; and
- d) operations personnel are competent to perform their duties and that levels of competence are monitored.
- 3.2 Accident prevention and flight safety programme
- 3.2.1 A flight safety awareness programme should be fostered by the circulation of the latest accident reports, incident bulletins, General Aviation Safety Information Leaflets and flight safety literature.
- 3.2.2 Procedures to be followed in the event of accidents and incidents should be promulgated.
- 4 Quality System

A quality system should be established which will enable the operator to monitor compliance with the Activities Manual. A checklist of items to be completed within a defined timescale, which is signed off by the responsible manager and his statement acknowledging completion of corrective and follow-up actions, should normally suffice, provided the operation remains small.

5 Crew Composition

The flight crew should be properly qualified.

6 Qualification Requirements

There should be a description of the required licences, ratings, qualification/competency, training, checking and recency of crew members.

7 Crew Health Precautions

This section should contain relevant regulations and guidance to crew members concerning health and fitness, including:

- Sickness
- ➤ Blood donation
- Inoculations
- Alcohol
- Drugs
- Medication
- > SCUBA diving
- > Sleep and rest.
- 8 Flight Time Limitations

There should be an exposition of the flight and duty time limitation scheme utilised by the Company, based upon the guidelines contained in MCAR Air Operations, Subpart FTL.

#### 9 Operating Procedures

#### 9.1 Flight Preparation Instructions

Instructions should be provided to cover the following aspects of operations:

- a) General procedures;
- b) Task specific procedures; and
- c) System for supply of NOTAMs and meteorological information.

#### 9.2 Ground Handling Instructions

Instructions should be provided to cover the following aspects of ground operations:

- a) Fuelling procedures; and
- b) Briefing requirements for passengers.

#### 9.3 Flight Procedures

Instructions should be provided to include as much of the following as is applicable:

- > Procedures relevant to the aircraft type
- ➤ Altimeter setting procedures
- > Policy and procedures for fuel management
- > Use of safety belts and harnesses
- ➤ Actions following alerts from audio warning devices
- Policy on use of vacant seats, especially in the case of seats with installed controls
- > Task specific weather limitations
- > Cabin safety requirements, including smoking
- > Wake turbulence and rotor down-wash.

#### 10 Dangerous Goods

Information, instruction and general guidance on the carriage of dangerous goods, including the carriage of sporting goods, should be provided, which is in accordance with the regulations required by MCAR 18.

#### 11 Security

Information, instructions and general guidance should be provided on the maintenance of security in accordance with the requirements of the CAR Part 19.

#### Handling of Accidents and Occurrences

Procedures for the handling, notifying and reporting of accidents and occurrences (MCAR 12) should be provided, to include:

- a) Definitions of accidents and occurrences;
- b) Procedures to be followed in the case of accidents; and
- c) Reporting procedures for occurrences and accidents.

#### Rules of the Air

The rules of the air applicable to operations shall be:

- a) the MCAR 2, Rules of the Air Regulations;
- b) the MCAR 11, Air Traffic Services Regulations;
- c) the Aeronautical Information Publications for restriction of flying; and
- d) any permissions and exemptions from these which are applicable to the operations.

#### PART-B AIRCRAFT OPERATING MATTERS – TYPE RELATED

#### 1 General Information and Units of Measurement (MCAR 5)

This section of the Activities Manual should include general information (e.g. aircraft dimensions) including units of measurement and conversion tables, as may be applicable to the operational activities of the Company.

#### 2 Limitations

The Limitations section should contain a description of the certified and operational limitations of the Company aircraft, including those applicable to the role equipment, and including, where applicable:

- a) Certification status.
- b) Passenger seating configuration (including diagrams).
- c) The types of missions which may be undertaken.
- d) Crew composition.
- e) Mass and centre of gravity.
- f) Speed limitations.
- g) Flight envelope.
- h) Wind limitations.
- i) Performance limitations.

**NOTE**: Reference can be made to the relevant section of the aircraft flight manual or similar aircraft documentation where available.

#### 3 Emergency Procedures

Emergency procedures and duties assigned to the crew should be detailed together with checklists and the system for their use, including any specific role equipment procedures not contained in the aircraft flight manual, or equivalent document.

#### 4 Normal Procedures

The normal procedures and duties assigned to the crew should be detailed, together with the checklists and the system for their use, including any specific role equipment procedures not contained in the flight manual or equivalent document.

#### 5 Performance

- 5.1 Performance data should be supplied in a form in which it can be used without difficulty.
- 5.2 If data for the performance is not available in the aircraft flight manual or equivalent document then other data acceptable to the CAA should be included.

#### 6 Mass and Balance

Instructions and data for the calculation of mass and balance should include details of:

- a) A calculation system;
- b) Information on completion of documentation; and
- c) Limitations.

#### 7 Loading

This section should include procedures and guidance in respect of aircraft loading.

#### 8 Flight Planning

The data and instructions necessary for pre-flight planning should be provided in this section.

#### 9 Configuration Deviation List

Reserved.

#### 10 Minimum Equipment List

The Company requirements contained in this section should reflect:

- a) The minimum equipment regulations contained in MCAR Air Operations, Part NCO (NCO.GEN.155 Minimum equipment list and NCO.IDE.A.105; NCO.IDE.H.105; NCO.IDE.S.105; NCO.IDE.B.105; etc.) and
- b) the information and guidance contained in Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Part-NCO.

#### 11 Survival and Emergency Equipment

The following information should be provided, when applicable:

- a) A list of the survival equipment to be carried, which will be dependent upon the nature of the operational area, and whether it is hostile or non-hostile; and
- b) A checklist for assessing the serviceability of the emergency equipment and instructions for its use.

#### 12 Emergency Evacuation Procedures

This section should contain emergency evacuation procedures, crew co-ordination and passenger handling instructions applicable in the event of forced landing, ditching or other emergency.

#### 13 Aircraft Systems

This section should contain:

- a) a description of aircraft systems and all equipment specified in the codes of practice for the recreational aviation activities undertaken;
- b) a listing of related special procedures; and
- c) any relevant supplements to the aircraft flight manual or equivalent document.

# PART-C RECREATIONAL AVIATION ACTIVITIES –PARTICULAR ACTIVITIES

This part of the recreational aviation activities manual should contain an exposition of the various recreational aviation activities to be undertaken. These should be constructed according to the generic template, shown below, so as to detail the operational aspects of each of the aerial activities undertaken by the Company.

Recreational Aviation Activity – Activity Details

- 1 Scope and Complexity of the Activity
- 1.1 The nature of the activity and exposure to risk

This should describe the nature of the flight to be undertaken and the risks involved, together with an overall assessment of the level of risk to which passengers may be exposed.

1.2 The complexity of the activity

This should detail how demanding the activity is with regard to the piloting skills required, the crew composition, the level of experience needed, the ground support, safety considerations and the personal protective equipment which should be provided for those involved.

1.3 The operational environment and geographical area

This should describe the operational environment and geographical area in which the activity may be undertaken.

1.4 The application of risk assessment

This should describe the method of application of paragraphs 1.1, 1.2 and 1.3 to achieve a satisfactory operation in which the risks have been identified, quantified and minimised.

- 2 Aircraft and Equipment
- 2.1 The Aircraft

The category of aircraft to be used should be defined (e.g. single/multi-engined; low/high wing; turbine/piston; Fenestron/NOTAR etc.).

2.2 Role equipment

The role equipment required for the activity should be specified.

#### 3 Crew Members

The crew composition, qualifications and experience levels should be specified.

#### 4 Performance

The aircraft performance required for the activity should be specified.

#### 5 Normal Procedures

The normal operating procedures should be specified to include:

- ➤ Pre-flight briefing of passengers
- > Ground procedures
- > Airborne procedures
- > Emergency procedures
- > Post flight procedures.

#### 6 Ground Equipment

The ground equipment and other facilities required for satisfactory operations should be specified in this section.

#### PART-D TRAINING

#### 1 Minimum Qualifications

This part of the manual should list the minimum qualifications required by personnel undertaking the various types of activity.

#### 2 Training Syllabuses

The essential skills and knowledge required by personnel undertaking the following duties should be listed:

- a) Flight crew.
- b) Crew members.
- c) Ground personnel.

#### 3 Procedures

This section should contain:

- a) a system for tracking expiry dates for qualifications, checks, tests and licences;
- b) a policy for dealing with personnel who fail checks and tests; and
- c) a policy concerning document storage periods.