



NOTICE OF PROPOSED AMENDMENT 2022-13

Issue 01

Date of Issue: December 22, 2022

SUBJECT:

CAR AIR-OPS PART-BOP

REFERENCE PUBLICATIONS:

CAR-BR, CAR PART IV Section E MANNED BALLOONING, Safety Alert 2022-03

REASON:

GCAA Flight Operations Department embark on a project in 2015 to align flight operations regulations to a similar structure of EASA. As a result, it was decided to develop PART-BOP similar to the structure given in EASA Balloon Rule Book.

PART-BOP will eventually replace the existing CAR IV, Special Purpose Operations, Section E, Manned Ballooning Operations.

Further, this regulation provides specific requirements based on the type of operations with due consideration to the nature and scope of operations conducted within UAE.

AFFECTED STAKEHOLDERS:

All operators issued with an AOC or an Authorization to conduct operations using Balloons including Hot-Air Airships.

NOTES ON THE PRESENTATION OF PART-BOP

This is the first issue of the subject regulation.

The document consists of subparts depending on the type of operations and appendices those relevant for the Operators. The rules are presented in the form of Implementing Requirement, Acceptable Means of Compliance and Guidance Material as applicable.

RECOMMENDATION:

This notice is published to announce to the public on this issue of regulation and to entitle all concerned parties to:

- Review the attached proposed regulation;
- Agree on the date of applicability to the proposed change set to 1st of August 2023; and
- Submit their comments on the changes and date of applicability online through the GCAA website by 01st April 2023.

Comments must be submitted through the GCAA Website – E-Publication – Notice of Proposed Amendment, using the Action of “Submit NPA Feedback Request”. Any comments submitted using another means will not be considered.

Comments and Responses may be viewed in the Comments Response Document CRD pertaining to this NPA on the GCAA website.

CONTACT

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FOREWORD

1. This Civil Aviation Regulation – Part-BOP is developed by the General Civil Aviation Authority (GCAA) of the UAE pursuant to the provisions of the UAE Civil Aviation Law and fulfilling the obligations of Chicago Convention and the Standards and Recommended Practices (SARPs) of Annex 6 – Operation of Aircraft.
2. All balloon operators under the purview of this regulation shall comply with, or be guided by, the provisions therein to ensure safe conduct of balloon operations, unless otherwise approved by the GCAA.
3. For the purpose of this regulation, the competent authority shall be the General Civil Aviation Authority as established by the United Arab Emirates Federal Government.
4. This document contains Implementing Requirements (IRs) and Acceptable Means of Compliance (AMC). Compliance with those provisions is mandatory unless a Waiver or an Alternative Means of Compliance (AltMoC), as applicable, has been granted by the GCAA.

In addition, technical standards may be issued as Certification Specifications (CSs) where compliance is expected unless alternative means are agreed with the GCAA. Reference made to a CS to be treated as an EASA CS unless specified otherwise.

Further guidance is provided through Guidance Material (GM) as explanatory and interpretation material on how to achieve the requirements of the rules.

Appendices in this regulation form part of the rules mentioned therein.

References made to an IR within a text implies the applicability of related AMCs and GMs of that IR.

5. The term 'RESERVED' is used throughout the document to facilitate future inclusions as applicable.
6. This document will be revised and updated as and when necessary. Depending on the nature, impact and size of the amendment the GCAA may decide to consult the industry through a Notice of Proposed Amendments (NPA) process.
7. Comments on the content may be provided through p&r@gcaa.gov.ae.
8. This document is issued under the authority of His Excellency the Director General of the General Civil Aviation Authority.



NOTE FROM THE EDITOR

The content of this document is arranged as follows: the implementing requirements (IR) of the cover regulation, then the applicable Part IR, followed by the related acceptable means of compliance (AMC) and guidance material (GM) paragraph(s). In case of certification specifications (CS), a CS paragraph is followed by the related GM paragraph.

All elements (i.e. IRs, AMC, CS, and GM) are colour-coded and can be identified according to the illustration below.

Implementing requirements

Acceptable means of compliance

Certification specification

Guidance material

(.G) – A **“.G”** after a rule number or a para number indicates a new inclusion compared to the EU/EASA content.

Some text within a rule may also have been changed due to the necessity of customization to UAE requirements without the **“.G”** to avoid disturbance of the flow.



RECORD OF REVISIONS

Issue no.	Date of issue Date of applicability	Change
01		Initial issue based on NPA 2022-13 and associated CRD



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COVER REGULATION

Article 1 Subject matter and scope

1. This Regulation lays down detailed rules for air operations with balloons, where such aircraft meet the conditions laid down in points (b)(i) and (b)(ii) of Article 2(1) of CAR-BR.
2. This Regulation do not apply to air operations with tethered gas balloons.

Article 2 Definitions

For the purposes of this Regulation, the following definitions shall apply:

- (1) 'balloon' means a manned lighter-than-air aircraft which is not power-driven and sustains flight through the use of either a lighter-than-air gas or an airborne heater, including gas balloons, hot-air balloons, mixed balloons and, although power-driven, hot-air airships;
- (2) 'gas balloon' means a free balloon that derives its lift from a lighter-than-air gas;
- (3) 'tethered gas balloon' means a gas balloon with a tether system that continuously anchors the balloon to a fixed point during operation;
- (4) 'free balloon' means a balloon that is not continuously anchored to a fixed point during operation;
- (5) 'hot-air balloon' means a free balloon that derives its lift from heated air;
- (6) 'mixed balloon' means a free balloon that derives its lift from a combination of heated air and a lighter-than-air, non-flammable gas;
- (7) 'hot-air airship' means a power-driven hot-air balloon, whereby the engine does not create any portion of lift;
- (7a) "commercial operation" means any operation of a balloon, in return for remuneration or other valuable consideration, which is available for the public or, when not made available to the public, is performed under a contract between an operator and a customer, where the latter has no control over the operator;;
- (8) 'competition flight' means any air operation with a balloon performed for the purposes of participating in air races or contests, including practising for such an operation and flying to and from air races or contests;
- (9) 'flying display' means any air operation with a balloon performed for the purposes of providing an exhibition or entertainment at an advertised event open to the public, including practising for such an operation and flying to and from the advertised event;
- (10) 'introductory flight' means any air operation against remuneration or other valuable consideration consisting of an air tour of short duration for the purpose of attracting new trainees or new members, performed either by a training organisation approved in accordance with CAR II or by an organisation created with the aim of promoting aerial sport or leisure aviation;



- (11) 'principal place of business' means the head office or registered office of the operator of the balloon within which the principal financial functions and operational control of the activities referred to in this Regulation are exercised;
- (12) 'dry lease agreement' means an agreement between undertakings pursuant to which the balloon is operated under the responsibility of the lessee;

Article 3 Air operations

1. Operators of balloons shall operate the balloon in accordance with the requirements set out in PART-BOP .

However, the first subparagraph shall not apply to design or production organisations, which are compliant with the applicable Airworthiness requirements, for the purposes of the introduction or modification of balloon types.

2. The requirement of certification shall apply only to operators engaged in commercial operations with balloons. The Certification process is described in AMC-08 with due consideration for the less complex nature of Balloon Operations. They shall operate the balloon, in addition to the requirements set out in Subpart BAS, in accordance with the requirements set out in Subpart ADD of this regulation.

Operators shall only be entitled to engage in Non-Commercial operations after having declared to the competent authority their capacity and means to discharge the responsibilities associated with the operation of the balloon.

The second subparagraph shall also apply to operators engaged in the following operations with balloons:

- (a) cost-shared operations by four individuals or less, including the pilot, provided that the direct costs of the flight of the balloon and a proportionate part of the annual costs incurred for the storage, insurance and maintenance of the balloon are shared by all those individuals;
- (b) competition flights or flying displays, provided that the remuneration or any other valuable consideration for such flights is limited to the recovery of the direct costs of the flight of the balloon and a proportionate part of the annual costs incurred for the storage, insurance and maintenance of the balloon and that any prizes gained do not exceed the value specified by the competent authority;
- (c) introductory flights with four individuals or less, including the pilot, and flights for the purposes of parachute dropping, performed either by a training organisation which has its principal place of business in UAE and which has been approved in accordance with CAR II or by an organisation created for the purposes of promoting aerial sport or leisure aviation, provided that the organisation operates the balloon on the basis of either ownership or a dry lease agreement, that the flight does not generate profits distributed outside of the organisation and that such flights represent only a marginal activity of the organisation;
- (d) training flights, performed by a training organisation which has its principal place of business in UAE and which has been approved in accordance with CAR II Regulations.



GM1 Article 3(2)(a);(b) Air operations

DIRECT COST

'Direct cost' means the cost directly incurred in relation to a flight, e.g. fuel costs of the balloon and the retrieve vehicle directly incurred in relation to a flight, take-off and landing fees, and rental fee for a balloon. There is no element of profit or salary for the pilot.

GM2 Article 3(2)(a);(b) Air operations

ANNUAL COST

'Annual cost' means the cost of the balloon over a period of one calendar year. There is no element of profit or salary for the pilot.

GM1 Article 3(2)(c) Air operations

ORGANISATION CREATED FOR THE PURPOSES OF PROMOTING AERIAL SPORT OR LEISURE AVIATION

'organisation created for the purposes of promoting aerial sport or leisure aviation' means a non-profit organisation established under applicable national law for the sole purpose of gathering persons sharing the same interest in general aviation to fly for pleasure or to conduct parachute jumping. The organisation should have balloons available.

GM2 Article 3(2)(c) Air operations

MARGINAL ACTIVITY

The term 'marginal activity' should be understood as representing a very minor part of the overall activity of an organisation, mainly for the purpose of promoting itself or attracting new students or members. An organisation intending to offer such flights as a regular business activity is not considered to meet the condition of marginal activity. Also, flights organised with the sole intent to generate income for the organisation are not considered to be a marginal activity.

Article 3a Pilot license and medical certification

Reserved

Article 3b Existing pilot license and medical certificates

Reserved

Article 3c Credit for training that commenced prior to the due date of application of this regulation



Reserved

Article 3d Training Organizations

1. Training organisations for pilot licences shall comply with the requirements of, CAR FCL and CAR ORA.
2. Reserved

Article 3e.G Area of Operations and Operating Sites

1. An operator shall obtain a No Objection from the following entities for the use of Air Space in the Area of Operation and notify the competent authority.
 - a. Appropriate Authorities for Civil Aviation; and
 - b. Applicable military authorities, if relevant.
2. The operator, in consultation with the Appropriate Authority, shall determine the area(s) of balloon operations considering the following, but not limited to.
 - a. Ability to maintain safe separation between the balloons;
 - b. Traffic congestion; and
 - c. Risk towards other Aircraft Operations
3. An operator shall not operate a balloon in an airspace without the information on the number of balloons operated in the expected time frame of Operations and an assessment on the feasibility of such operation in the given traffic density.
4. An Operator shall ensure that adequate separation between the traffic is maintained during take-off and landing at the operating sites.

Article 4 Transitional provisions

1. Grandfathering:

AOC, POC and authorisations issued in accordance with CAR Part IV are deemed to be compliant with this regulation until the end of the transitional period mentioned in point 2 below.
2. Transitional period:
 - (a) One year after the initial issue of this regulation at the latest, AOC, POC and authorisation holders shall have adapted their management system, training programmes, procedures and manuals to be compliant with this regulation.



- (b) Operators shall inform their principal flight operations inspectors within 2 months from the date of entry into force if transitional period is used; describing reasons, duration and implementation programme.
- (c) All certificates and authorisations issued prior to this regulation will be deemed invalid after the transitional period.
- 3. AOC and authorisation shall be issued, in accordance with the new format, when the operator is fully compliant with this regulation.
- 4. Initial certification, authorisation or approval shall be based on this regulation.
- 5. AOC/POC renewal:
3 months before the transitional period elapses, AOC/POC renewal shall be based on this regulation if it is likely that the process will not be completed before the end of the transitional period.

Article 5 Interim Provisions

For the purpose of this regulation, balloons shall be categorised in the following classes and groups:

- (a) “hot-air balloon” class:
 - (1) group A: envelope capacity up to 3 400 m³ (120 069 ft³);
 - (2) group B: envelope capacity between 3 401 m³ (120 070 ft³) and 6 000 m³ (211 888 ft³);
 - (3) group C: envelope capacity between 6 001 m³ (211 889 ft³) and 10 500 m³ (370 804 ft³);
 - (4) group D: envelope capacity of more than 10 500 m³ (370 804 ft³);
- (b) “gas balloon” class;
- (c) “mixed balloon” class;
- (d) “hot-air airship” class.

Article 6 Entry into force and application

This Regulation shall enter into force on the day it is published on the GCAA website.

This Regulation shall be binding in its entirety and directly applicable in all UAE Emirates.



PART – DEFINITIONS [PART-DEF]

For the purpose of this Regulation, the following definitions and, unless terms are defined otherwise in this Part, the definitions of CAR I shall apply:

1. 'acceptable means of compliance (AMC)' means non-binding standards adopted by the competent authority to illustrate means to establish compliance with an implementing requirement;
2. 'alternative means of compliance (AltMoC)' means those means that propose an alternative to an existing AMC or those that propose new means to establish compliance with the implementing requirements for which no associated AMC have been adopted by the competent authority;
3. 'pilot-in-command' means the pilot designated as being in command and charged with the safe conduct of the flight;
4. 'crew member' means a person assigned by an operator to perform duties on board the balloon or, where the duties are directly related to the operation of the balloon, on the ground;
5. 'flight crew member' means a licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period;
6. 'psychoactive substances' means alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens and volatile solvents, excluding coffee and tobacco;
7. 'accident' means an occurrence associated with the operation of a balloon which takes place between the moment of the commencement of the inflation of the balloon and the moment of complete deflation of the balloon, in which:
 - (a) a person suffers fatal or serious injuries as a result of being in the balloon or as a result of direct contact with any part of the balloon, including parts which have become detached from the balloon, but excluding any injuries arising from natural causes or which are self-inflicted or inflicted by other persons;
 - (b) the balloon sustains damage or structural failure which adversely affects its structural strength, performance or flight characteristics and requires major repair or replacement of the affected component; or
 - (c) the balloon is missing or is completely inaccessible;
8. 'incident' means an occurrence, other than an accident, associated with the operation of a balloon which affects or could affect the safety of its operation;
9. 'serious incident' means an occurrence associated with the operation of the balloon which takes place between the moment of the commencement of the inflation of the balloon and the moment of complete deflation of the balloon, in which there was a high probability of an accident;
10. 'critical phases of flight' means take-off, final approach, missed approach, landing and any other phases of a flight which the pilot-in-command determines as critical for the safe operation of the balloon;
11. 'aircraft flight manual (AFM)' means the document containing the applicable and approved operating limitations and information with respect to the balloon;
- 11a. "flight time" means the total time from the moment the basket leaves the ground for the purpose of taking off until the moment it finally comes to a rest at the end of the flight;



12. 'dangerous goods' means articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the technical instructions or which are to be classified as such in accordance with those instructions;
13. 'technical instructions' means the latest applicable edition of the 'Technical instructions for the safe transport of dangerous goods by air', including the supplement and any addenda, published by ICAO in document 9284-AN/905;
14. 'operating site' means a site selected by the pilot-in-command or the operator for landing, take-off or external load operations;
15. 'refuelling' means the refilling of fuel cylinders or fuel tanks from an external source, excluding the replacement of fuel cylinders;
16. 'night' means the period between the end of evening civil twilight and the beginning of morning civil twilight. Civil twilight ends in the evening when the centre of the sun's disc is 6 degrees below the horizon and begins in the morning when the centre of the sun's disc is 6 degrees below the horizon;
17. 'balloon specialised operation' means any operation, which can be commercial or non-commercial, with a balloon the main purpose of which is not the carriage of passengers for sightseeing or experience flights, but parachute operations, hang-gliding dropping, flying displays, competition flights or similar specialised activities;
- 17a. "class of balloons" means a categorisation of balloons taking into account the lifting means used to sustain flight;
- 17b. "proficiency check" means the demonstration of skill for the purpose of complying with the recency requirements as established in this Regulation, including oral examinations as may be required;
18. 'traffic load' means the total mass of passengers, baggage and carry-on specialist equipment;
19. 'balloon empty mass' means the mass determined by weighing the balloon with all the installed equipment as specified in the AFM;
20. 'wet lease agreement' means an agreement between operators pursuant to which the balloon is operated under the responsibility of the lessor;
21. 'commercial passenger ballooning' (CPB) means a form of commercial air transport operation with a balloon whereby passengers are carried on sightseeing or experience flights for remuneration or other valuable consideration;
22. "group of balloons" means a categorisation of balloons, taking into account the size or capacity of the envelope;
23. "skill test" means the demonstration of skill for the purpose of issuing a licence or rating, or extension of a privilege, including oral examinations as may be required;
24. "assessment of competence" means the demonstration of skill, knowledge and attitude for the initial issue, revalidation or renewal of an instructor or examiner certificate;
25. "solo flight" means a flight during which a student pilot is the sole occupant of the balloon;
26. "tethered flight" means a flight with a tether system that anchors the balloon to a fixed location during operation, with the exception of a tether, which may be used as part of the take-off procedure.



PART — BALLOON AIR OPERATIONS [PART-BOP]

SUBPART BAS — BASIC OPERATIONAL REQUIREMENTS

SECTION 1 — GENERAL REQUIREMENTS

BOP.BAS.001 Scope

This Subpart establishes the requirements to be met by any operator of balloons, other than the design or production organisations.

AMC1 BOP.BAS.001 Scope

AERIAL ADVERTISING FLIGHT

An aerial advertising flight, displaying a logotype or an advertisement on the balloon, should only be considered as a commercial operation, when:

- (a) especially conducted at a specific time and for an advertising purpose; and
- (b) conducted in return for remuneration or other valuable consideration from the principal, with or without the existence of a contract.

GM1 BOP.BAS.001 Scope

MIXED BALLOONS

Mixed balloons are operated in accordance with the requirements for hot-air balloons, unless otherwise specified.

BOP.BAS.005 Competent authority & Appropriate Authority

The competent authority shall be the GCAA and the Appropriate Authority shall be the concerned authorities of the respective Emirate responsible for aviation activities where the operator has its principal place of business or, where the operator has no principal place of business, the place where the operator is established or resides.

BOP.BAS.006.G Declaration

- (a) In the declaration referred to in the Article 3 of the cover regulations, the operator shall confirm that the operator complies and will continue to comply with the essential requirements set out in Annex II of CAR-BR and with the requirements of this Regulation.
- (b) The operator shall include in the declaration all of the following information:



- (1) the name of the operator;
 - (2) the place where the operator has its principal place of business;
 - (3) the name and contact details of the accountable manager of the operator;
 - (4) the starting date of the operation and, where relevant, the date at which the change to an existing operation takes effect;
 - (5) in respect of all balloons used for the operation, the balloon type, registration, main base, type of operation and continuing airworthiness management organisation.
- (c) Where applicable, the operator shall annex to the declaration the list of alternative means of compliance (AltMoC).
- (d) When making the declaration, the operator shall use the form contained in the Appendix to this regulations and submit to the competent authority prior to the conduct of Operations. An operator shall not conduct operations until an Authorisation is received from the competent authority.

AMC1 BOP.BAS.006(d).G Declaration

AUTHORISATION OF DECLARED OPERATIONS

Prior to commencing declared operations, the operator should obtain a written authorisation and an operations specifications issued by the competent authority following the declaration.

GM1 BOP.BAS.006.G Declaration

GENERAL

The intent of the declaration is to:

- (a) have the operator acknowledge its responsibilities under the applicable safety regulations and that it holds all necessary approvals;
- (b) inform the competent authority of the existence of an operator; and
- (c) enable the competent authority to fulfil its oversight responsibilities.

BOP.BAS.007.G Changes to the declaration

- (a) The operator shall notify the competent authority without delay of any changes under following circumstances
 - (1) in circumstances affecting its compliance with the essential requirements set out in Annex II to CAR-BR and with the requirements of this Regulation, as declared to the competent authority,
 - (2) in respect of the information referred to in point [BOP.BAS.002.G\(b\)](#); and
 - (3) the list of AltMoC referred to in point BOP.BAS.002.G(c) as included in or annexed to the declaration.



- (b) The operator shall notify the competent authority without delay when it is no longer engaged in operations with balloons.

AMC1 BOP.BAS.007.G Changes to the declaration

NOTIFICATION OF CHANGES

The new declaration should be submitted before the change becomes effective, indicating the date as of which the change would apply.

BOP.BAS.010 Demonstration of compliance

- (a) An operator shall, when so requested by the competent authority, demonstrate compliance with the essential requirements set out in Annex II to CAR-BR and with the requirements of this Regulation.
- (b) The operator shall use either of the following means to demonstrate such compliance:
- (1) acceptable means of compliance (AMC);
 - (2) alternative means of compliance (AltMoC).

AMC1 BOP.BAS.010.G Demonstration of compliance

NOTIFICATION OF ALTERNATIVE MEANS OF COMPLIANCE

- (a) The operator should notify the competent authority the list of alternative means of compliance (AltMoC), where it intends to use AltMoC to demonstrate compliance when so requested in accordance with point [BOP.BAS.010](#). The list shall contain references to the acceptable means of compliance (AMC) which they replace in case associated AMC have been adopted by the GCAA.
- (b) Whenever alternative means of compliance are used, a risk assessment should be completed and documented. The result of this risk assessment should demonstrate that an equivalent level of safety to that established by the AMC adopted by GCAA is reached.

BOP.BAS.015 Introductory flights

Introductory flights shall be:

- (a) operated under visual flight rules (VFR) by day; and
- (b) overseen by a person who has been nominated by the organisation performing the introductory flights for the safe conduct of the operations.

BOP.BAS.020 Immediate response to a safety problem

The operator shall implement:



- (a) safety measures mandated by the competent authority ; and
- (b) airworthiness directives and other mandatory information issued by the Competent Authority.

BOP.BAS.025 Designation as pilot-in-command

The operator shall designate a pilot-in-command who is qualified to act as pilot-in-command in accordance with CAR -FCL.

BOP.BAS.030 Responsibilities of the pilot-in-command

- (a) The pilot-in-command shall:
 - (1) be responsible for the safety of the balloon and of any person or property carried therein during balloon operations;
 - (2) be responsible for the initiation, continuation or termination of a flight in the interest of safety;
 - (3) ensure that all applicable operational procedures and checklists are complied with;
 - (4) only commence a flight if he or she is satisfied that all operational limitations are complied with, as follows:
 - (i) the balloon is airworthy;
 - (ii) the balloon is duly registered;
 - (iii) instruments and equipment required for the execution of the flight are carried on board the balloon and are operative;
 - (iv) the mass of the balloon is such that the flight can be conducted within the limits defined by the AFM;
 - (v) all equipment and baggage are properly loaded and secured; and
 - (vi) the operating limitations of the balloon as specified in the AFM will not be exceeded at any time during the flight;
 - (5) ensure that the pre-flight inspection has been carried out as required by CAR V Chapter V airworthiness regulations by the competent authority;
 - (6) be responsible for the pre-flight briefing of persons assisting in the inflation and deflation of the envelope;
 - (7) ensure that persons assisting in the inflation and deflation of the envelope wear appropriate protective clothing;
 - (8) be satisfied that relevant emergency equipment remains easily accessible for immediate use;
 - (9) ensure that no person is smoking on board or within the direct vicinity of the balloon;
 - (10) not allow a person to be carried in the balloon who appears to be under the influence of psychoactive substances to the extent that the safety of the balloon or of any person or



property carried therein is likely to be endangered;

- (11) remain during flight in control of the balloon at all times except if another pilot is taking the controls;
 - (12) take any action in an emergency situation that requires immediate decision and action which he or she considers necessary under the circumstances. In such cases he or she may deviate from rules, operational procedures and methods to the extent necessary in the interest of safety;
 - (13) not continue a flight beyond the nearest weather-permissible operating site when his or her capacity to perform his or her duties is significantly reduced because of sickness, fatigue, lack of oxygen or any other cause;
 - (14) record utilisation data and all known or suspected defects in the balloon at the termination of the flight, or series of flights, in the balloon logbook;
 - (15) notify the safety investigation authority and the emergency services without delay by the quickest available means of any serious incident or accident involving the balloon;
 - (16) submit a report of an act of unlawful interference without delay to the competent authority and inform the Appropriate Authority designated by the emirate of which the unlawful interference took place; and
 - (17) report to the appropriate air traffic services (ATS) unit, without delay, any hazardous weather or flight conditions encountered that are likely to affect the safety of other aircraft.
- (b) The pilot-in-command shall not perform duties on a balloon in one of the following situations:
- (1) when he or she is incapacitated from performing his or her duties by any cause, including injury, sickness, medication, fatigue or the effects of any psychoactive substance, or feels otherwise unfit;
 - (2) if applicable medical requirements are not fulfilled.
- (c) Whenever crew members are involved in the operation of the balloon, the pilot-in-command shall:
- (1) ensure that during critical phases of flight or whenever deemed necessary in the interest of safety, all crew members are at their assigned stations and do not perform any activities other than those required for the safe operation of the balloon;
 - (2) not commence a flight if any crew member is incapacitated from performing his or her duties by any cause, including injury, sickness, medication, fatigue or the effects of any psychoactive substance, or feels otherwise unfit;
 - (3) not continue a flight beyond the nearest weather-permissible operating site when any crew member's capacity to perform duties is significantly reduced because of sickness, fatigue or lack of oxygen or any other cause; and
 - (4) ensure that all crew members can communicate with each other in a common language.



GM1 BOP.BAS.030 Responsibilities of the pilot-in-command

GENERAL

In accordance with the essential requirements for air operations, which are laid down in Annex II to CAR-BR, the pilot-in-command is responsible for the operation and safety of the balloon and for the safety of all passengers on board. This includes the following:

- (a) the safety of all passengers on board, as soon as he or she arrives on board until he or she leaves the balloon at the end of the flight; and
- (b) the operation and safety of the balloon from the moment the balloon is unloaded from the retrieve vehicle or trailer to the moment the balloon is reloaded, unless the preparation of the flight is delegated to a crew member.

AMC1 BOP.BAS.030(a)(3) Responsibilities of the pilot-in-command

CHECKLISTS

- (a) The pilot-in-command should use the latest checklists provided by the manufacturer or the operator.
- (b) If checks conducted before take-off are suspended at any point, the pilot-in-command should restart them from a safe point prior to the interruption.

GM1 BOP.BAS.030(a)(7) Responsibilities of the pilot-in-command

PROTECTIVE CLOTHING

Protective clothing includes:

- (a) long sleeves and trousers preferably made of natural fibres;
- (b) stout footwear; and
- (c) gloves.



GM1 BOP.BAS.030(a)(14) Responsibilities of the pilot-in-command

RECORDING UTILISATION DATA

Where a balloon conducts a series of flights of short duration and is operated by the same pilot-in-command, the utilisation data for the series of flights may be recorded in the balloon logbook as a single entry.

AMC1 BOP.BAS.030(a)(17) Responsibilities of the pilot-in-command

REPORTING OF HAZARDOUS FLIGHT CONDITIONS

- (a) These reports should include any detail which may be pertinent to the safety of other aircraft.
- (b) When unexpected meteorological conditions affecting other aircraft are encountered that, in the opinion of the pilot-in-command, may affect the safety of other aircraft operations, he or she should advise the appropriate air traffic services (ATS) unit as soon as practicable.

AMC1 BOP.BAS.030(b)(1) & AMC1

ALCOHOL CONSUMPTION

The operator should issue instructions concerning the consumption of alcohol by the pilot-in-command and the crew members. The instructions should not be less restrictive than the following:

- (a) no alcohol should be consumed less than 12 hours prior to an operation;
- (b) the blood alcohol level should not exceed the lower of the national requirements or 0.2 grams of alcohol in 1 litre of blood at the start of an operation; and
- (c) no alcohol should be consumed during the operation.

GM1 BOP.BAS.030(b)(1);(2) & GM1 BOP.BAS.040(b) Responsibilities of the pilot-in-command & responsibilities of crew members

Information on the effects of medication, psychoactive substances and other treatments can be found in aeromedical regulations.

BOP.BAS.035 Authority of the pilot-in-command

The pilot-in-command shall have the authority to:

- (a) give all commands and take any appropriate actions for the purpose of ensuring the safety of the balloon and of any person or property carried therein; and
- (b) refuse embarkation or carriage of any person or baggage that may represent a potential hazard to the safety of the balloon or of any person or property carried therein.



BOP.BAS.040 Responsibilities of crew members

- (a) Any crew member shall be responsible for the proper execution of his or her duties in respect of the operation of the balloon.
- (b) Crew members shall not perform duties on a balloon when incapacitated by any cause, including injury, sickness, medication, fatigue or the effects of any psychoactive substance, or if he or she feels otherwise unfit.
- (c) Crew members shall report to the pilot-in-command both of the following:
 - (1) any fault, failure, malfunction or defect, which he or she believes may affect the airworthiness or safe operation of the balloon, including emergency systems;
 - (2) any incident.
- (d) Any flight crew member who undertakes duties for more than one operator shall:
 - (1) maintain his or her individual records regarding flight times and rest periods, if applicable; and
 - (2) provide each operator with the data needed to schedule activities in accordance with the applicable flight and duty time limitations and rest requirements.

GM1 BOP.BAS.040 Responsibilities of crew members

DESIGNATION OF PERSONS AS CREW MEMBERS

- (a) The pilot-in-command or the operator may designate any person as a crew member provided that:
 - (1) the role, according to the reasonable expectation of the pilot-in-command or the operator, will enhance the safety of the flight or achieve an operational objective of the flight;
 - (2) the person, according to the reasonable expectation of the pilot-in-command or the operator, is capable of fulfilling the role;
 - (3) the person has been briefed on the role as a crew member and informed that he or she is crew, not a passenger; and
 - (4) the person agrees to the role as crew member.
- (b) Crew members are not considered to be passengers.
- (c) Crew members may be required, by specific provisions of this Regulation and other Implementing Rules, to hold licences, ratings or other personnel certificates to fulfil certain roles such as instructor or examiner, in certain circumstances.

BOP.BAS.045 Compliance with laws, regulations and procedures

- (a) The pilot-in-command and all other crew members shall comply with the laws, regulations and procedures of those emirates where operations are conducted.
- (b) The pilot-in-command shall be familiar with the laws, regulations and procedures, pertinent



to the performance of his or her duties, prescribed for the areas to be traversed, the operating sites to be used and the related air navigation facilities.

BOP.BAS.050 Documents, manuals and information to be carried

- (a) All of the following documents, manuals and information shall be carried on each flight, as originals or copies:
 - (1) the operating limitations, normal, abnormal and emergency procedures and other relevant information specific to the balloon's operating characteristics;
 - (2) details of the filed ATS flight plan, when required in accordance with prescribed regulations of the competent authority;
 - (3) current and suitable aeronautical charts for the area of the intended flight.
- (b) All of the following documents, manuals and information shall be carried on each flight or shall be stowed in the retrieve vehicle, as originals or copies:
 - (1) the certificate of registration;
 - (2) the certificate of airworthiness, including the annexes;
 - (3) the AFM or equivalent document(s);
 - (4) the aircraft radio licence, where the balloon is equipped with radio communication equipment in accordance with point (a) of point [BOP.BAS.355](#);
 - (5) the third party liability insurance certificate(s);
 - (6) the balloon logbook or equivalent document(s);
 - (7) any other documentation that may be pertinent to the flight or is required by the other State agencies or Emirate concerned with the flight.
- (c) When requested by the competent authority, the pilot-in-command or the operator shall make available to that authority the original documentation within the time period specified by the authority which shall not be less than 24 hours.

GM1 BOP.BAS.050 Documents, manuals and information to be carried

GENERAL

- (a) In case of loss or theft of documents specified in BOP.BAS.050, the operation may continue until the balloon has landed. The operator provides replacement documentation within the shortest possible time frame.
- (b) The documents, manuals and information may be available in a form other than on printed paper. An electronic storage medium is acceptable if accessibility, usability and reliability is assured.



AMC1 BOP.BAS.050(a)(1) Documents, manuals and information to be carried

OPERATING LIMITATIONS, NORMAL, ABNORMAL AND EMERGENCY PROCEDURES

The operating limitations, as well as normal, abnormal and emergency procedures should be available to the pilot during the operation by providing the specific sections of the aircraft flight manual (AFM) or by other means that effectively accomplish the purpose.

AMC1 BOP.BAS.050(a)(3) Documents, manuals and information to be carried

CURRENT AND SUITABLE AERONAUTICAL CHARTS

- (a) The aeronautical charts carried should contain data appropriate to the applicable air traffic regulations, rules of the air, flight altitudes, area, route, and nature of the operation. Due consideration should be given to the carriage of textual and graphic representations of:
 - (1) aeronautical data, including, as appropriate for the nature of the operation:
 - (i) airspace structure;
 - (ii) communication frequencies;
 - (iii) prohibited, restricted and danger areas;
 - (iv) sites of other relevant activities that may hazard the flight; and
 - (2) topographical data, including terrain and obstacle data.
- (b) A combination of different charts and textual data may be used to provide adequate and current data.
- (c) The aeronautical data should be relevant for the current aeronautical information regulation and control (AIRAC) cycle.
- (d) The topographical data should be reasonably recent, as regards the nature of the planned operation.

AMC1 BOP.BAS.050(b)(2) Documents, manuals and information to be carried

CERTIFICATE OF AIRWORTHINESS

The certificate of airworthiness should be a normal certificate of airworthiness, a restricted certificate of airworthiness, or a permit to fly issued in accordance with the applicable airworthiness requirements.



GM1 BOP.BAS.050(b)(3) Documents, manuals and information to be carried

AFM OR EQUIVALENT DOCUMENT

'AFM or equivalent document(s)' means the flight manual for the balloon or other documents containing information required for the operation of the balloon within the terms of its certificate of airworthiness.



GM1 BOP.BAS.050(b)(6) Documents, manuals and information to be carried

BALLOON LOGBOOK OR EQUIVALENT DOCUMENT

'Balloon logbook or equivalent document(s)' means that the required information may be recorded in documentation other than a logbook, such as the operational flight plan or the balloon technical log.

GM1 BOP.BAS.050(b)(7) Documents, manuals and information to be carried

DOCUMENTS THAT MAY BE PERTINENT TO THE FLIGHT AND THE AREA CONCERNED WITH THE FLIGHT

- (a) Any other documents that may be pertinent to the flight or are required by the appropriate authorities concerned with the flight may include, for example, forms to comply with reporting requirements.
- (b) The area concerned are those of origin, overflight and destination of the flight.

BOP.BAS.055 Dangerous goods

- (a) The transport of dangerous goods on board the balloon shall be conducted in accordance with the requirements set out in CAR-VI , as last amended and amplified by the technical instructions.
- (b) The pilot-in-command shall take all reasonable measures to prevent dangerous goods from being carried on board the balloon inadvertently.
- (c) Reasonable quantities of articles and substances that would otherwise be classified as dangerous goods and that are used to facilitate flight safety, where carriage on board the balloon is advisable to ensure their timely availability for operational purposes, shall be considered authorised under point 2.2.1(a) of Part 1 of the technical instructions, regardless of whether or not such articles and substances are required to be carried or intended to be used in connection with a particular flight. The pilot-in-command shall ensure that the packing and loading on board the balloon of those articles and substances is performed in such a way as to minimise the risks posed to crew members, passengers and the balloon during operation.
- (d) The pilot-in-command or when the pilot-in-command is incapacitated, the operator shall report without delay any accidents or incidents involving dangerous goods to the safety investigation authority, the emergency services, and the competent authority.

GM1 BOP.BAS.055 Dangerous goods

GENERAL

The carriage of dangerous goods is only permitted when:

- (a) they are not subject to the 'Technical instructions for the safe transport of dangerous goods



by air', ICAO Doc 9284-AN/905, in accordance with Part 1 of those instructions. Following the technical instructions, articles and substances which would otherwise be classified as dangerous goods, but which are required on board the balloon in accordance with the pertinent airworthiness requirements or the requirements of this Annex, are permitted;

- (b) they are carried by crew members or passengers, or are in baggage, in accordance with Part 8 of the technical instructions; or
- (c) they are required on board the balloon for specialised purposes in accordance with the technical instructions.

GM2 BOP.BAS.055 Dangerous goods

EXAMPLES

Dangerous goods include the following, but not limited to:

- (a) explosives (fireworks, flares, detonators, fuses, dynamite, ammunition and materials for fireworks in general);
- (b) compressed or refrigerated liquid, or dissolved gases (aerosols, self-defence sprays, camping gas, extinguishers, cryogenic liquids, bottles with cooling gases and compressed gas cylinders in general);
- (c) flammable liquids and solids (fuel, equipment containing fuel, adhesives, solvents, paint, petrol, varnish, torches, cigarette lighters and lighter refills);
- (d) substances that emit flammable gases in contact with water;
- (e) oxidisers and organic peroxides (oxygen generators and bleaching powder); and
- (f) substances liable to spontaneous combustion (strike-anywhere matches and phosphorous).

BOP.BAS.060 Release of dangerous goods

- (a) The pilot-in-command shall not release dangerous goods when operating a balloon over congested areas of cities, towns or settlements or over an open-air assembly of persons.
- (b) Notwithstanding point (a), parachutists may exit the balloon for the purpose of parachute display over those congested areas or over that open-air assembly of persons whilst carrying smoke trail devices that were manufactured for that purpose.

BOP.BAS.065 Balloon logbook

For each flight, or series of flights, particulars of the balloon, its crew and each journey shall be retained in the form of a balloon logbook or an equivalent document.

AMC1 BOP.BAS.065 Balloon logbook

GENERAL



The balloon logbook, or equivalent, should include the following items, where applicable:

- (a) balloon nationality and registration;
- (b) date;
- (c) name(s) of flight crew member(s);
- (d) place of departure;
- (e) place of arrival;
- (f) time of departure;
- (g) time of arrival;
- (h) hours of flight;
- (i) type of operation;
- (j) incidents and observations, if any; and
- (k) signature of the pilot-in-command.

GM1 BOP.BAS.065 Balloon logbook

SERIES OF FLIGHTS

- (a) 'Series of flights' means consecutive flights, which begin and end:
 - (1) within a 6-hour period;
 - (2) at the same operating site or remain within a local area; and
 - (3) with the same pilot-in-command of the balloon.
- (b) The term 'series of flights' is used to facilitate a single set of documentation.



SECTION 2 — OPERATING PROCEDURES

BOP.BAS.100 Use of operating sites

The pilot-in-command shall only use operating sites that are adequate for the type of balloon and operation concerned.

BOP.BAS.105 Noise abatement procedures

The pilot-in-command shall take into account operating procedures to minimise the effect of heating-system noise, while ensuring however that safety has priority over noise abatement.

BOP.BAS.110 Fuel and ballast supply and planning

The pilot-in-command shall only commence a flight if the reserve fuel or ballast carried on board the balloon is sufficient to ensure a safe landing.

AMC1 BOP.BAS.110 Fuel and ballast supply and planning

GENERAL

- (a) The pilot-in-command should only commence a flight if the reserve fuel or ballast is sufficient for 30 minutes of flight.
- (b) Notwithstanding (a), the pilot-in-command should only commence a flight if the reserve fuel (for the burner, and, in case of hot-air airships, also for the engine) or ballast is sufficient for 15 minutes of flight for:
 - (1) hot-air balloons equipped with a single fuel tank; and
 - (2) hot-air airships, when the flight is conducted in the vicinity of the operating site.
- (c) Fuel or ballast supply calculations should be based upon at least the following operating conditions under which the flight is to be conducted:
 - (1) data provided by the balloon manufacturer;
 - (2) anticipated masses;
 - (3) expected meteorological conditions; and
 - (4) air navigation services provider procedures and restrictions.

BOP.BAS.115 Passenger briefing

The pilot-in-command shall ensure that before and, when appropriate, during the flight passengers are given a briefing on normal, abnormal and emergency procedures.



AMC1 BOP.BAS.115 Passenger briefing

GENERAL

- (a) Passengers should be given a verbal briefing and demonstration about safety matters in such a way that the information is easily retained and applied during the landing and in the case of an emergency situation.
- (b) The briefing/demonstration should include the following items:
 - (1) safety in relation to ground equipment;
 - (2) use of internal handholds;
 - (3) wearing of suitable clothing;
 - (4) smoking regulations;
 - (5) in-flight use and stowage of personal belongings and baggage;
 - (6) importance to remain inside the basket at all times, particularly after landing;
 - (7) landing positions to be assumed to minimise the effect of the impact during landing;
 - (8) safe manoeuvring of the balloon on the ground after landing;
 - (9) use of oxygen-dispensing equipment, if applicable; and
 - (10) other emergency equipment provided for individual passenger use, if applicable.
- (c) Part or all of the verbal briefing may be provided additionally by a safety briefing card on which pictorial instructions indicate the correct landing position.
- (d) Before take-off, the correct landing position should be demonstrated.
- (e) Before commencing the landing phase, passengers should be required to practise the correct landing position.

GM1 BOP.BAS.115 Passenger briefing

GENERAL

The pilot-in-command or a person designated by the operator should carry out the passenger briefing.

BOP.BAS.120 Carriage of special categories of passengers

The pilot-in-command shall ensure that persons requiring special conditions, assistance or devices when carried on board a balloon are carried under conditions that ensure the safety of the balloon and of any persons or property carried therein.

AMC1 BOP.BAS.120 Carriage of special categories of passengers

CARRIAGE OF CHILDREN AND PERSONS WITH REDUCED MOBILITY

The pilot-in-command may exclude children or persons with reduced mobility from transportation



in a balloon when:

- (a) their presence may impede:
 - (1) the crew in their duties;
 - (2) access to emergency equipment; or
 - (3) the emergency evacuation of the balloon; or
- (b) those persons are:
 - (1) unable to take a proper brace position;
 - (2) smaller than the inner height of the basket wall; or
 - (3) unable to understand the passenger briefing.

BOP.BAS.125 Submission of the air traffic service flight plan

- (a) If an air traffic service (ATS) flight plan is not submitted because it is not required in accordance with CAR III and the agreement between the Air Navigation Service Provider of the Appropriate Authority and the Operator, the pilot-in-command shall submit adequate information in order to permit alerting services to be activated if required.
- (b) When operating from an operating site where it is impossible to submit an ATS flight plan, although required in accordance with CAR III and the agreement between the Air Navigation Service Provider of the Appropriate Authority and the Operator, the pilot-in-command shall submit the ATS flight plan after take-off.

AMC1 BOP.BAS.125 Submission of the air traffic service flight plan

FLIGHTS WITHOUT ATS FLIGHT PLAN

- (a) The operator should nominate a person to be responsible for alerting search and rescue services for flights without submitted ATS flight plans.
- (b) The operator should establish procedures to ensure that the expected route of each flight is communicated to the ground crew, and should:
 - (1) provide the nominated person with at least the information required to be included in a visual flight rules (VFR) flight plan;
 - (2) notify the appropriate ATS or search and rescue facility when a balloon is overdue or missing; and
 - (3) ensure that the information is retained at a designated place until the completion of the flight.

BOP.BAS.130 Flight preparation

Before commencing the flight, the pilot-in-command shall be familiar with the available meteorological and aeronautical information appropriate to the intended flight, which includes both of the following:



- (a) a study of available current weather reports and forecasts;
- (b) the planning of an alternative course of action to provide for the eventuality that the flight cannot be completed as planned.

BOP.BAS.135 Smoking on board

No person shall smoke on board a balloon during any phase of flight or within the direct vicinity of a balloon.

BOP.BAS.140 Carriage and use of weapons

- (a) The pilot-in-command shall ensure that no person carries and uses a weapon on board the balloon.
- (b) By way of derogation from point (a), the pilot-in-command may permit the carriage and use of weapons on board the balloon when required for the safety of the crew members or the passengers. In such cases, the pilot-in-command shall ensure that the weapons are secured when not in use.

BOP.BAS.145 Meteorological conditions

The pilot-in-command shall only commence or continue a VFR flight if the latest available meteorological information indicates that the weather conditions along the route and at the intended destination at the estimated time of use are as follows:

- (a) at or above the applicable VFR operating minima; and
- (b) within the meteorological limitations specified in the AFM.

BOP.BAS.150 Take-off conditions

The pilot-in-command shall be satisfied before commencing take-off of the balloon that, according to the latest available information, the weather at the operating site permits a safe take-off and departure.

AMC1 BOP.BAS.150 Take-off conditions

FACILITIES AT THE TAKE-OFF SITE

- (a) At the balloon take-off site a means of assessing wind direction and wind speed should be available to the pilot-in-command.
- (b.G) Such collection and dissemination of the data need to be stored with the operator for the full season
- (c.G) A communication system suitable for the type of operations and the operating conditions of



the take-off location shall be made available for the ground crew to notify the Pilot in Command in the event they observe any abnormalities in the balloon, or any equipment/conditions that might adversely affect the safe conduct of the Balloon Operation, based on which the PIC can make a decision.

BOP.BAS.155 Approach and landing conditions

Except in emergency situations, the pilot-in-command shall be satisfied before commencing an approach to land that, according to the latest available information, the conditions at the intended operating site permit a safe approach and landing.

BOP.BAS.160 Simulated situations in flight

- (a) The pilot-in-command shall not simulate situations that require the application of abnormal or emergency procedures when carrying passengers.
- (b) By way of derogation from point (a), the pilot-in-command may simulate such situations, during operations other than commercial operations of the balloon, when conducting training flights either with student pilots or with passengers, provided that the passengers have been duly informed and agreed to the simulation in advance.

BOP.BAS.165 In-flight fuel management

The pilot-in-command shall check at regular intervals during the flight that the amount of usable fuel or ballast remaining in flight is not less than the fuel or ballast needed to complete the intended flight and the reserve planned for landing.

BOP.BAS.170 Refuelling with persons on board

- (a) Refuelling of balloons shall not be conducted when persons are on board.
- (b) By derogation from point (a), refuelling the engine of hot-air airships may be conducted with the pilot-in-command on board.

GM1 BOP.BAS.170 Refuelling with persons on board

REPLACEMENT OF FUEL CYLINDERS

The definition of 'refuelling' in Annex I excludes the replacement of fuel cylinders. Therefore, the replacement of fuel cylinders may be conducted, observing the appropriate precautions, when persons are on board.

BOP.BAS.175 Use of restraint system

When a restraint system is required in accordance with point [BOP.BAS.320](#), the pilot-in-command



shall wear the system at least during landing.

BOP.BAS.180 Use of supplemental oxygen

The pilot-in-command shall ensure that:

- (a) all crew members engaged in performing duties essential to the safe operation of the balloon use supplemental oxygen continuously whenever he or she determines that, at the altitude of the intended flight, the lack of oxygen might result in impairment of the faculties of crew members; and
- (b) supplemental oxygen is available to passengers when lack of oxygen might harmfully affect them.

AMC1 BOP.BAS.180 Use of supplemental oxygen

GENERAL

When the pilot-in-command cannot determine how the lack of oxygen might affect all occupants on board, he or she should ensure that:

- (a) all flight crew members engaged in performing duties essential to the safe operation of a balloon use supplemental oxygen for any period in excess of 30 minutes when the pressure altitude is between 10 000 and 13 000 ft; and
- (b) all occupants use supplemental oxygen for any period when the pressure altitude is above 13 000 ft.

BOP.BAS.185 Operational limitations at night

- (a) Hot-air balloons:
 - (1) shall not land during night, except in emergency situations; and
 - (2) may take off during night, provided that sufficient fuel or ballast is carried for a landing during day.
- (b) Gas balloons and mixed balloons:
 - (1) shall not land during night, except in emergency situations or as a precautionary landing; and
 - (2) may take off during night, provided that sufficient fuel or ballast is carried for a landing during day.
- (c) Hot-air airships shall be operated in accordance with their approved VFR night operating limitations and information.

GM1 BOP.BAS.185(a);(b) Operational limitations at night

AVOIDANCE OF NIGHT LANDING

- (a) The intent of the rule is to ensure that when the balloon takes off during night, sufficient fuel



is on board for landing under VFR by day.

- (b) The risk of collision with overhead lines or other obstacles is considerable and cannot be overstated. The risk is considerably increased during night flights, in conditions of failing light and visibility, when there is increasing pressure to land. A number of incidents have occurred in the late evening in such conditions, and may have been avoided had an earlier landing been planned.

BOP.BAS.190 Balloon specialised operations — Risk assessment and checklist

- (a) Before commencing a balloon specialised operation, the pilot-in-command shall conduct a risk assessment, assessing the complexity of the activity in order to determine the hazards and associated risks of the intended operation and establish mitigating measures where necessary.
- (b) A balloon specialised operation shall be performed in accordance with a checklist. The pilot-in-command shall establish that checklist and ensure that it is appropriate to the specialised activity and balloon used, based on the risk assessment and taking account of all requirements set out in this Subpart. The checklist shall be readily accessible on each flight to the pilot-in-command and other crew members, where it is relevant for the performance of their duties.
- (c) The pilot-in-command shall regularly review and update the checklist where necessary in order to adequately take account of the risk assessment.

AMC1 BOP.BAS.190 Balloon specialised operations — Risk assessment and checklist

CRITERIA FOR BALLOON SPECIALISED OPERATIONS

The pilot-in-command or the operator should consider the following criteria to determine whether an activity falls within the scope of balloon specialised operations:

- (a) special equipment is necessary to fulfil the task and which affects the behaviour of the balloon in flight;
- (b) external loads are lifted; or
- (c) persons enter or leave the balloon during flight.

AMC2 BOP.BAS.190 Balloon specialised operations — Risk assessment and checklist

DEVELOPMENT OF CHECKLIST

In order to develop a checklist, the pilot-in-command should take into account at least the following items:



- (a) nature and complexity of the activity:
 - (1) the nature of the flight and risk exposure;
 - (2) the complexity of the activity taking into account the necessary pilot skills and level of experience, ground support, and individual protective equipment;
 - (3) the operational environment and geographical area; and
 - (4) the result of the risk assessment and evaluation;
- (b) balloon and equipment:

all equipment required for the activity should be listed;
- (c) crew members:
 - (1) crew composition;
 - (2) duties of crew members;
 - (3) minimum crew experience and training provisions; and
 - (4) recency provisions;
- (d) normal, abnormal and emergency procedures:
 - (1) operating procedures for the flight crew; and
 - (2) ground procedures for crew members; and
- (e) records:

it should be determined which records specific to the flight(s) are to be kept, such as task details, balloon registration, pilot-in-command, flight times, weather and any remarks, including a record of occurrences affecting flight safety or the safety of persons or property on the ground.

AMC3 BOP.BAS.190 Balloon specialised operations — Risk assessment and checklist

CHECKLIST FOR PARACHUTE OPERATIONS

The checklist for parachute operations should include:

- (a) normal, abnormal and emergency procedures;
- (b) relevant performance data;
- (c) required equipment;
- (d) any limitations such as maximum take-off mass and minimum landing mass; and
- (e) responsibilities and duties of the pilot-in-command and, if applicable, of crew members.



GM1 BOP.BAS.190 Balloon specialised operations — Risk assessment and checklist

LIST OF OPERATIONS

- (a) Balloon specialised operations include the following activities:
 - (1) parachute operations;
 - (2) hang-gliding dropping; and
 - (3) special events flights, including flying displays and competition flights.
- (b) The following operations are not considered balloon specialised operations, but normal operations:
 - (1) aerial advertising flights; and
 - (2) news media flights, television and movie flights.

GM2 BOP.BAS.190 Balloon specialised operations — Risk assessment and checklist

CATEGORISATION OF OPERATIONS

The pilot-in-command or the operator determines whether the main purpose of an operation is passenger ballooning, commercial or not, or whether the activity falls within the scope of a balloon specialised operation. As regards a balloon specialised operation, the pilot-in-command or the operator applies the criteria in [AMC1 BOP.BAS.190](#) and the activities listed in [GM1 BOP.BAS.190](#).



SECTION 3 — PERFORMANCE AND OPERATING LIMITATIONS

BOP.BAS.200 Operating limitations

The pilot-in-command shall ensure that, during any phase of operation, the balloon is not exceeding any of the limitations set out in the AFM or equivalent document(s).

GM1 BOP.BAS.200 Operating limitations

GENERAL

In most cases the operating limitations are documented in the AFM, and in certain cases in the operations manual.

BOP.BAS.205 Weighing

- (a) The weighing of the balloon shall be accomplished by the manufacturer of the balloon or in accordance with CAR V, Part-MB
- (b) The operator shall ensure that the mass of the balloon has been established by actual weighing prior to its initial entry into service. The accumulated effects of modifications and repairs on the mass shall be accounted for and properly documented. Such information shall be made available to the pilot-in-command. The balloon shall be reweighed if the effects of modifications or repairs on the mass are not known.

GM1 BOP.BAS.205 Weighing

GENERAL

- (a) New balloons that have been weighed at the factory may be placed into operation without reweighing if the mass records have been adjusted for alterations or modifications to the balloon. Balloons transferred from one UAE operator to another UAE operator do not have to be weighed prior to use by the receiving operator, unless the mass cannot be accurately established by calculation.
- (b) The initial empty mass for a balloon is the balloon empty mass determined by a weighing performed by the manufacturer of the balloon before the initial entry into service.
- (c) The mass of a balloon is revised whenever the cumulative changes to the balloon empty mass due to modifications or repairs exceed $\pm 10\%$ of the initial empty mass. This may be done by weighing the balloon or by calculation.

BOP.BAS.210 Performance — General

The pilot-in-command shall only operate the balloon if the performance of the balloon is adequate to comply with the applicable requirements set out in the CAR III – General Regulations and any other restrictions applicable to the flight, the airspace or operating sites used, ensuring that any



charts or maps used are the latest available edition.

SECTION 4 — INSTRUMENTS AND EQUIPMENT

BOP.BAS.300 Instruments and equipment — General

- (a) Instruments and equipment required by this Section shall be approved in accordance with the CAR V CAR 21 mandated by the Competent Authority if one of the following conditions is fulfilled:
 - (1) they are used to comply with points [BOP.BAS.355](#) and [BOP.BAS.360](#);
 - (2) they are permanently installed in the balloon.
- (b) By way of derogation from point (a), all of the following instruments or equipment, when required by this Section, shall not need an approval:
 - (1) instruments or equipment used by the flight crew to determine the flight path;
 - (2) independent portable lights;
 - (3) an accurate time piece;
 - (4) first-aid kit;
 - (5) survival and signalling equipment;
 - (6) supplemental oxygen storage and dispensing apparatus;
 - (7) alternative source of ignition;
 - (8) fire blanket or fire-resistant cover;
 - (9) hand fire extinguisher;
 - (10) drop line;
 - (11) knife.
- (c) Instruments and equipment not required by this Section, as well as any other equipment that is not required by this Annex but is carried on board a balloon during a flight, shall comply with the following two conditions:
 - (1) the information provided by those instruments or equipment shall not be used by the flight crew to comply with the applicable essential requirements prescribed in accordance with Article 4 of CAR-BR.
 - (2) the instruments and equipment shall not affect the airworthiness of the balloon, even in the case of failures or malfunction.
- (d) Instruments and equipment shall be readily operable or accessible from the station where the flight crew member that needs to use it is assigned.
- (e) All required emergency equipment shall be easily accessible for immediate use.



GM1 BOP.BAS.300(a) Instruments and equipment — General

APPLICABLE AIRWORTHINESS REQUIREMENTS

The applicable airworthiness requirements for the approval of instruments and equipment required by this Annex are the following:

- (a) CAR-21 for balloons registered in the UAE; and
- (b) airworthiness requirements of the State of registry for balloons registered outside the UAE.

GM1 BOP.BAS.300(a)(2) Instruments and equipment - General

PERMANENTLY INSTALLED

'Permanently installed' means an instrument or equipment that requires a specific kind of installation to:

- (a) perform its intended function;
- (b) be operated according to its specified limitations; and
- (c) minimise the hazards to the balloon in the event of a probable malfunction or failure.

GM1 BOP.BAS.300(b) Instruments and equipment — General

REQUIRED INSTRUMENTS AND EQUIPMENT THAT DO NOT NEED TO BE APPROVED

The functionality of non-installed instruments and equipment, required by this Subpart and that do not need an equipment approval, are checked against recognised industry standards appropriate to the intended purpose. The operator is responsible for ensuring the maintenance of these instruments and equipment.

GM1 BOP.BAS.300(c) Instruments and equipment — General

NOT REQUIRED INSTRUMENTS AND EQUIPMENT THAT DO NOT NEED TO BE APPROVED

- (a) The provision of this paragraph does not exempt any installed instrument or item of equipment from complying with the applicable airworthiness requirements. In this case, the installation should be approved as required by the applicable airworthiness requirements and should comply with the applicable certification specifications.
- (b) The failure of additional, non-installed instruments or equipment not required by this Annex or by the applicable airworthiness requirements or any applicable airspace requirements should not adversely affect the airworthiness or the safe operation of the balloon.

BOP.BAS.305 Minimum instruments and equipment for flight

A balloon flight shall not be commenced when any of the instruments and equipment required for the intended flight with the balloon are missing, inoperative or do not fulfil the required functions.



AMC1 BOP.BAS.305 Minimum instruments and equipment for flight

GENERAL

Instruments and equipment that must be operative for all flights should be identified in a list. These instruments and equipment are:

- (a) included in the type certification data sheet (TCDS) or the AFM; and
- (b) required by the applicable implementing rules, such as operational and airspace requirements, and any other applicable requirements for the intended operation.

BOP.BAS.310 Operating lights

Balloons operated at night shall be equipped with all of the following:

- (a) an anti-collision light;
- (b) a means to provide adequate illumination for all instruments and equipment essential to the safe operation of the balloon;
- (c) an independent portable light.

AMC1 BOP.BAS.310 Operating lights

ANTI-COLLISION LIGHTS AND ILLUMINATION FOR INSTRUMENTS AND EQUIPMENT

- (a) An acceptable means of compliance for free manned balloons should be the anti-collision light required for VFR at night approved in accordance with CS-31HB/CS-31GB or with the applicable provisions for hot-air airships.
- (b) A means of providing adequate illumination to instruments and equipment essential to the safe operation of the balloon may be an independent portable light.

BOP.BAS.315 Flight and navigational instruments and equipment

Balloons operated under VFR by day shall be equipped with the following:

- (a) a means of displaying drift direction;
- (b) a means of measuring and displaying:
 - (1) time in hours, minutes and seconds;
 - (2) vertical speed, if required by the AFM; and
 - (3) pressure altitude, if required by the AFM, when required by airspace requirements or when the altitude needs to be known for the use of oxygen.
- (4.G) Accurate Position of the balloon using a satellite based technology. Such device shall be able to record the flight track and altitude with an accuracy of one second intervals.
- (c.G) A means of video recording capable of covering the operations from pre flight preparation to post flight until all the passengers exit the basket with a sufficient field of view to cover



the complete basket and the direction of travel.

AMC1 BOP.BAS.315(a) Flight and navigational instruments and associated equipment

MEANS OF DISPLAYING DRIFT DIRECTION

The drift direction may be determined by using a map and reference to visual landmarks.

AMC1 BOP.BAS.315(b)(1) Flight and navigational instruments and associated equipment

MEANS OF MEASURING AND DISPLAYING THE TIME

A means of measuring and displaying the time in hours, minutes and seconds may be a wristwatch capable of the same functions.

AMC1 BOP.BAS.315(b)(4).G Flight and navigational instruments and associated equipment

MEANS OF MEASURING AND DISPLAYING POSITION

A satellite based Global Positioning System with the facility to download the track and have a recording ability of 1Hz may be used for this purpose.

GM1 BOP.BAS.315(b)(3) Flight and navigational instruments and associated equipment

MEANS OF MEASURING AND DISPLAYING PRESSURE ALTITUDE

A means of measuring and displaying pressure altitude is needed when required by air traffic control or when altitude needs to be checked for flights where oxygen is used, or the limitations in the AFM require to limit altitude or rate of climb or descent.

GM1 BOP.BAS.315(c) Flight and navigational instruments and associated equipment

MEANS OF VIDEO RECORDING

The purpose of the video recording is to cover the basket and the occupants for post flight evaluations on the conduct of the flight. It is the operator responsibility to fulfill other regulations on Video Recording.



BOP.BAS.320 Restraint systems

Balloons shall be equipped with a restraint system for the pilot-in-command when the balloon is equipped with one of the following:

- (a) a separate compartment for the pilot-in-command;
- (b) turning vent(s).

GM1 BOP.BAS.320 Restraint system

EQUIPMENT REQUIREMENTS

A pilot restraint harness mounted to the basket is considered to meet the requirements of CS-31HB/CS-31GB for a restraint system or equivalent.

BOP.BAS.325 Supplemental oxygen

Balloons operated when an oxygen supply is required in accordance with point [BOP.BAS.180](#) shall be equipped with oxygen storage and dispensing apparatus capable of storing and dispensing the required oxygen supplies.

BOP.BAS.330 First-aid kit

- (a) Balloons shall be equipped with a first-aid kit.
- (b) The first-aid kit shall be:
 - (1) readily accessible for use; and
 - (2) kept up-to-date.

AMC1 BOP.BAS.330 First-aid kit

CONTENT OF THE FIRST-AID KIT

- (a) The first-aid kit should be equipped with appropriate and sufficient medications and instrumentation. However, the kit should be amended by the operator according to the characteristics of the operation (scope of operation, flight duration, number and demographics of passengers, etc.).
- (b) The following should be included in the first-aid kit:
 - (1) bandages (assorted sizes);
 - (2) burns dressings (large and small);
 - (3) wound dressings (large and small);
 - (4) adhesive dressings (assorted sizes);
 - (5) antiseptic wound cleaner;



- (6) safety scissors; and
- (7) disposable gloves.
- (8) Water sufficient for the Passengers 500ml per person

AMC2 BOP.BAS.330 First-aid kit

MAINTENANCE OF FIRST-AID KIT

To be kept up to date, the first-aid kit should be:

- (a) inspected periodically to confirm, to the extent possible, that contents are maintained in the condition necessary for their intended use;
- (b) replenished at regular intervals, in accordance with the instructions contained on their labels, or as circumstances warrant; and
- (c) replenished after use in flight at the first opportunity where replacement items are available.

GM1 BOP.BAS.330(a) First-aid kit

ADDITIONAL FIRST-AID KIT

An additional first-aid kit may be carried in the retrieve vehicle or trailer.

BOP.BAS.335 Hand fire extinguishers

Except for gas balloons, balloons shall be equipped with at least one hand fire extinguisher.

AMC1 BOP.BAS.335 Hand fire extinguishers

CERTIFICATION SPECIFICATIONS

The applicable certification specification for hot-air balloons should be CS-31HB or equivalent.

GM1 BOP.BAS.335 Hand fire extinguishers

ADDITIONAL HAND FIRE EXTINGUISHER

An additional hand fire extinguisher may be carried in the retrieve vehicle or trailer.

BOP.BAS.340 Life-saving and signalling equipment – Flights over water

The pilot-in-command of a balloon operated over water shall determine, before commencing the flight, the risks to survival of the persons carried in the balloon in the event of ditching. In light of



those risks, he or she shall determine whether there is need to carry life-saving and signalling equipment.

AMC1 BOP.BAS.340 Life-saving and signalling equipment – Flights over water

RISK ASSESSMENT

In order to determine the risk, the pilot-in-command should take the following operating environment and conditions into account:

- (a) water state;
- (b) water and air temperatures;
- (c) the distance from land suitable for making an emergency landing; and
- (d) the availability of search and rescue facilities.

AMC2 BOP.BAS.340 Life-saving and signalling equipment – Flights over water

EQUIPMENT

Based on the risk assessment, the pilot-in-command should determine the carriage of:

- (a) a life jacket or equivalent individual flotation device for each person on board that should:
 - (1) be worn or stowed in a position that is readily accessible from the station of the person for whose use it is provided; and
 - (2) be equipped with a means of electric illumination for the purpose of facilitating the location of persons;
- (b) when carrying up to six persons, an emergency locator transmitter (ELT) or a personal locator beacon (PLB), carried by a crew member or a passenger, capable of transmitting simultaneously on 121.5 and 406 MHz;
- (c) when carrying more than six persons, an ELT capable of transmitting simultaneously on 121.5 and 406 MHz; and
- (d) signalling equipment for making distress signals.

AMC3 BOP.BAS.340 Life-saving and signalling equipment – Flights over water

BRIEFING ON PLB USE

When a PLB is carried by a passenger, he or she should be briefed on its characteristics and use by the pilot-in-command before the flight.



AMC4 BOP.BAS.340 Life-saving and signalling equipment – Flights over water

ELT AND PLB REGISTRATION AND OPERATION PROVISIONS

- (a) Any ELT and PLB carried should be registered with the national agency responsible for initiating search and rescue, or another nominated agency.
- (b) Any ELT carried should operate in accordance with the relevant provisions of Volume III of ICAO Annex 10 to the Chicago Convention, 'Aeronautical telecommunications'.

GM1 BOP.BAS.340 Life-saving and signalling equipment – Flights over water

TERMINOLOGY

- (a) An ELT is a generic term describing equipment that broadcasts distinctive signals on designated frequencies and, depending on application, may be activated by impact or may be manually activated.
- (b) A PLB is an emergency beacon, other than an ELT, that broadcasts distinctive signals at designated frequencies, is stand-alone, portable, and is manually activated by the survivors.

BOP.BAS.345 Life-saving and signalling equipment – Search and rescue difficulties

Balloons operated over areas in which search and rescue (SAR) would be especially difficult shall be equipped with such life-saving and signalling equipment as appropriate to the area overflown.

AMC1 BOP.BAS.345 Life-saving and signalling equipment – Search and rescue difficulties

GENERAL

Balloons operated across land areas in which search and rescue would be especially difficult should be equipped with the following:

- (a) at least one ELT or a PLB;
- (b) signalling equipment for making distress signals; and
- (c) additional survival equipment adequate for the route to be flown taking account of the number of persons on board.



AMC2 BOP.BAS.345 Life-saving and signalling equipment – Search and rescue difficulties

ADDITIONAL SURVIVAL EQUIPMENT

- (a) The following additional survival equipment should be carried:
 - (1) 500 ml of water for each four, or fraction of four, persons on board;
 - (2) one knife; and
 - (3) first-aid equipment.
- (b) If any item of equipment in (a) is already carried on board in accordance with other requirements, the carriage does not need to be duplicated.

GM1 BOP.BAS.345 Life-saving and signalling equipment – Search and rescue difficulties

SIGNALS

The distress signals are described in CAR III, Chapter 2.21 which refers to ICAO Annex 2 Appendix 1.

GM2 BOP.BAS.345 Life-saving and signalling equipment – Search and rescue difficulties

AREAS IN WHICH SEARCH AND RESCUE WOULD BE ESPECIALLY DIFFICULT

The expression 'areas in which search and rescue would be especially difficult' means:

- (a) areas so designated by the authority responsible for managing search and rescue; or
- (b) areas that are largely uninhabited and where the authority referred to in (a):
 - (1) has not published any information to confirm whether search and rescue would be or would not be especially difficult; and
 - (2) does not, as a matter of policy, designate areas as being especially difficult for search and rescue.

BOP.BAS.350 Miscellaneous equipment

- (a) Balloons shall be equipped with protective gloves for each crew member.
- (b) Mixed balloons, hot-air balloons and hot-air airships shall be equipped with all of the following:
 - (1) an alternative and independent source of ignition;
 - (2) a means of measuring and indicating fuel quantity;
 - (3) a fire blanket or fire-resistant cover;
 - (4) a drop line of at least 25 m in length.



- (c) Gas balloons shall be equipped with both of the following:
- (1) a knife;
 - (2) a trail rope of at least 20 m in length made of natural fibre or electrostatic, conductive material.

AMC1 BOP.BAS.350(b)(3) Miscellaneous equipment

FIRE BLANKET

A fire blanket should comply with the European Norm EN 1869 or equivalent. The size should be at least 1.5 m × 1.8 m. Smaller sizes are not recommended, as they cannot sufficiently cover the source of developing propane fire.

AMC1 BOP.BAS.350(c)(1) Miscellaneous equipment

KNIFE

The knife, hook knife or equivalent, should be capable of cutting any control line or handling rope that is accessible to the pilot-in-command or a crew member from the basket.

BOP.BAS.355 Radio communication equipment

- (a) Balloons shall have radio communication equipment to allow for the communication required in accordance with the applicable requirements of the airspace where the operation is conducted and, if the flight takes place in the airspace of a foreign country, the law and communication requirements of that country.
- (b) The radio communication equipment shall provide for communication on the aeronautical emergency frequency 121,5 MHz.

GM1 BOP.BAS.355 Radio communication equipment

APPLICABLE AIRSPACE REQUIREMENTS

The respective airspace controlling authorities of the applicable emirate will define the additional requirements for the balloon operations within the emirate.

BOP.BAS.360 Transponder

Balloons shall have a secondary surveillance radar (SSR) transponder with all the capabilities required in accordance with Air Space Requirements and the Rules of the Air and, if the flight takes places in airspace of a foreign country, the law of that country.



AMC1 BOP.BAS.360 Transponder

GENERAL

- (a) The secondary surveillance radar (SSR) transponders of balloons being operated in the UAE should comply with the applicable air traffic control regulations of UAE.
- (b) In case such regulation does not exist, the SSR transponders should operate in accordance with the relevant provisions of Volume IV of ICAO Annex 10 to the Chicago Convention, 'Aeronautical telecommunications'.



SUBPART ADD — ADDITIONAL REQUIREMENTS FOR COMMERCIAL OPERATIONS

SECTION 1 — GENERAL ORGANISATION REQUIREMENTS

BOP.ADD.001 Scope

This Subpart establishes the requirements to be met, in addition to the requirements of Subpart BAS, by any operator engaged in commercial operations with balloons.

BOP.ADD.005 Responsibilities of the operator

- (a) The operator shall be responsible for the operation of the balloon in accordance with the essential requirements set out in Annex II to CAR-BR, with the requirements of this Subpart, with its certificate.
- (b) Every flight shall be conducted in accordance with the provisions of the operations manual.
- (c) The operator shall ensure that the balloon is equipped and all crew members are qualified as required for the area and type of operation.
- (d) The operator shall ensure that all crew members assigned to, or directly involved in, flight operations comply with all of the following conditions:
 - (1) they are properly trained and instructed;
 - (2) they are aware of the rules and procedures relevant to their particular duties;
 - (3) they have demonstrated their abilities in their particular duties;
 - (4) they are aware of their responsibilities and the relationship of such duties to the operation of the balloon as a whole.
- (e) The operator shall establish procedures and instructions for the safe operation of each balloon type, containing duties and responsibilities of the crew members, for all types of operations. Those procedures and instructions shall not require crew members to perform any activity during critical phases of flight other than those required for the safe operation of the balloon.
- (f) The operator shall make arrangements for the supervision of crew members and personnel involved in the operation of the balloon by individuals with adequate experience and skills in order to ensure the attainment of the standards specified in the operations manual.
- (g) The operator shall ensure that all crew members and personnel involved in the operation of the balloon are made aware that they are to comply with the laws, regulations and procedures of the Emirate in which operations are conducted that are pertinent to the performance of their duties.
- (h) The operator shall specify flight planning procedures to provide for the safe conduct of the flight, based on considerations of balloon performance, other operating limitations and relevant expected conditions on the route to be followed and at the operating sites concerned. Those procedures shall be included in the operations manual.



BOP.ADD.010 Notification of alternative means of compliance

The operator shall notify to the competent authority the list of alternative means of compliance (AltMoC), where it intends to use AltMoC to demonstrate compliance when so requested in accordance with point [BOP.BAS.010](#). The AltMoc list shall contain references to the acceptable means of compliance (AMC) which they replace, in case associated AMC have been adopted by the GCAA.

AMC1 BOP.ADD.010 Notification of alternative means of compliance

DEMONSTRATION OF COMPLIANCE

Whenever alternative means of compliance are used, a risk assessment should be completed and documented. The result of this risk assessment should demonstrate that an equivalent level of safety to that established by the AMC adopted by GCAA is reached.

BOP.ADD.015 Access

- (a) For the purpose of determining compliance with the essential requirements set out in Annex II to CAR-BR and with the requirements of this Regulation, the operator shall grant access to any person authorised by the competent authority at any time to any facility, balloon, document, records, data, procedures or any other material relevant to the operator's activity falling within the scope of this Regulation, irrespective of whether the activity is contracted or not.
- (b) Access to the balloon shall, in the case of commercial passenger ballooning, include the possibility to enter and remain in the balloon during flight operations, unless to do so would endanger the flight.

BOP.ADD.020 Findings

After receipt of the notification of findings raised by the competent authority in accordance with the safety oversight activities of the competent authority, the operator shall do all of the following:

- (a) identify the root cause of the non-compliance;
- (b) define a corrective action plan;
- (c) demonstrate implementation of the corrective action plan to the satisfaction of the competent authority within the time period specified by that authority in accordance with safety oversight standards of the competent authority.

AMC1 BOP.ADD.020(b) Findings

CORRECTIVE ACTION PLAN

The corrective action plan defined by the operator should address the effects of non-compliance, as well as its root cause.



GM1 BOP.ADD.020(b);(c) Findings

CORRECTIVE ACTION

'Corrective action' means the action to eliminate or mitigate the root cause(s) and prevent recurrence of an existing detected non-compliance or other undesirable condition or situation. Proper determination of the root cause(s) is crucial for defining effective corrective actions to prevent reoccurrence.

BOP.ADD.025 Occurrence reporting

- (a) The operator shall implement, as part of its management system, an occurrence reporting scheme, which is to provide for mandatory and voluntary reporting in accordance with AMC-22.
- (b) Without prejudice to point (a), the operator shall report to the competent authority and to the organisation responsible for the design of the balloon any malfunction, technical defect, exceeding of technical limitations or occurrence that would highlight inaccurate, incomplete or ambiguous information contained in data established in accordance with CAR-21 and any other occurrence which constitutes an incident but not an accident or serious incident.
- (c) The operator shall take the necessary measures to ensure compliance with Accident Investigation Regulations of the GCAA by the pilot-in-command, any other crew member and all its personnel in respect of any serious incident or accident associated with the operation of a balloon.

AMC1 BOP.ADD.025(a) Occurrence reporting

Reserved

BOP.ADD.030 Management system

- (a) The operator shall establish, implement and maintain a management system that includes all of the following:
 - (1) clearly defined lines of responsibility and accountability throughout the organisation of the operator, including a direct safety accountability of the accountable manager;
 - (2) a description of the overall philosophies and principles of the operator with regard to safety, which shall be known as the safety policy;
 - (3) the identification of aviation safety hazards entailed by the activities of the operator, the evaluation of those hazards and the management of associated risks, including by taking actions to mitigate those risks where necessary and verifying the effectiveness of those actions;
 - (4) maintaining personnel trained and competent to perform their tasks;
 - (5) documentation of all key processes of the management system, including a process for



making personnel aware of their responsibilities and the procedure for amending that documentation;

- (6) a function to monitor compliance of the operator with the requirements of this Subpart. Such compliance monitoring shall include a feedback system of findings to the accountable manager of the operator to ensure effective implementation of corrective actions as necessary;
 - (7) the processes necessary to ensure compliance with the requirements of CAR X and AMC-22.
- (b) The management system shall correspond to the size of the operator and the nature and complexity of its activities, taking into account the hazards and associated risks of those activities.

AMC1 BOP.ADD.030(a)(2) Management system

SAFETY POLICY

The safety policy should include a commitment to improve towards the highest safety standards, comply with all applicable legal requirements, meet all applicable standards, consider best practices, and provide appropriate resources.

AMC1 BOP.ADD.030(a)(3) Management system

SAFETY RISK MANAGEMENT

Hazard identification and safety risk management should:

- (a) be performed using internal safety or occurrence reports, hazard checklists, risk registers or similar risk management tools or processes, integrated into the activities of the operator;
- (b) in particular address safety risks related to a change; by making use of the existing hazard identification, risk assessment and mitigation tools or processes; and
- (c) include provisions for emergency response or a formal emergency response plan (ERP) to define the actions to be taken by the operator or specified individuals in an emergency.

GM1 BOP.ADD.030(a)(4) Management system

TRAINING ON SAFETY

The safety training programme may consist of self-instruction via the media (newsletters, flight safety magazines, etc.), classroom training, e-learning or similar training provided by training service providers.

AMC1 BOP.ADD.030(a)(5) Management system

MANAGEMENT SYSTEM DOCUMENTATION

- (a) The operator's management system documentation should at least include the following



information:

- (1) a statement signed by the accountable manager to confirm that the operator will continuously work in accordance with the applicable requirements and the operator's documentation, as required by this Subpart;
 - (2) the operator's scope of activities;
 - (3) the titles and names of persons referred to in [BOP.ADD.040\(a\) and \(c\)](#);
 - (4) an organisation chart showing the lines of responsibility among the persons referred to in [BOP.ADD.040](#);
 - (5) a general description and location of the facilities referred to in [BOP.ADD.045](#);
 - (6) procedures specifying how the operator ensures compliance with the applicable requirements;
 - (7) the amendment procedure for the operator's management system documentation.
- (b) The operator's management system documentation may be included in a separate manual, or in (one of) the manual(s) required in this Subpart. A cross reference should be included.

AMC1 BOP.ADD.030(a)(6) Management system

COMPLIANCE MONITORING — AUDIT AND ORGANISATIONAL REVIEW

- (a) Methodology
- (1) The operator should accomplish the compliance monitoring by means of internal auditing.
 - (2) Notwithstanding (1), an operator with five or less full-time equivalents (FTEs), involved in the activity subject to this Subpart, may choose to accomplish compliance monitoring through an organisational review.
- (b) General provisions for compliance monitoring
- (1) The operator should specify the basic structure of the compliance monitoring function applicable to the activities conducted.
 - (2) The operator should ensure that personnel performing an audit or an organisational review, either internal to the operator or external, have relevant knowledge, background and experience as appropriate to the activities being audited or reviewed, including knowledge and experience in compliance monitoring.
 - (3) The operator should monitor compliance with the procedures it has designed to ensure safe activities. In doing so, the operator should as a minimum, and where appropriate, monitor compliance with:
 - (i) all activities for which the certificate or declaration is required;
 - (ii) manuals, logs and records;
 - (iii) training standards;
 - (iv) management system procedures; and



- (v) standard operating procedures (SOPs).
- (4) The operator should ensure that the status of all corrective and preventive actions is monitored and actions are implemented within a specified time frame. Action closure should be recorded along with a summary of the action taken.
- (5) Based on the results of the audit or the organisational review, the accountable manager should determine the need for and initiate, as appropriate, further actions to address deficiencies or to further improve the operator's management system.
- (c) Provisions, in addition to (b), for auditing
 - (1) The independence of the audit function should be ensured, in particular in cases where those performing the audit are also responsible for other functions for the operator.
 - (2) The operator should establish a compliance monitoring programme, defining a calendar for the audits to be performed. The frequency and depth of such audits should be determined with due regard to:
 - (i) the volume and complexity of operations;
 - (ii) results of the safety risk management processes;
 - (iii) results of past compliance monitoring;
 - (iv) findings raised by the competent authority; and
 - (v) the scope of changes not requiring prior competent authority approval.
- (d) Provisions, in addition to (b), for the organisational review
 - (1) The organisational review should be performed at intervals not exceeding 12 months.
 - (2) As part of the management system documentation, the operator should describe the organisational review programme and related responsibilities.
 - (3) The organisational review programme may consist of:
 - (i) checklist(s) covering all items necessary to be addressed in order to demonstrate that the operator ensures effective compliance with the applicable requirements; and
 - (ii) a schedule for the accomplishment of the different checklist items, where each item should be checked at least at intervals not exceeding 12 months.

GM1 BOP.ADD.030(a)(6) Management system

COMPLIANCE MONITORING — AUDIT AND ORGANISATIONAL REVIEW

- (a) 'audit' means a systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which requirements are complied with.
- (b) 'organisational review' means a systematic and documented process for obtaining evidence and evaluating it to determine the extent to which requirements are complied with.



GM2 BOP.ADD.030(a)(6) Management system

COMPLIANCE MONITORING CHECKLIST

- (a) Compliance monitoring audits or organisational reviews may be documented using a compliance monitoring checklist. The following provides a basic checklist, to be adapted as necessary to address the particular type of operations and to cover all relevant procedures described in the management system documentation and operations manual.
- (b) Each checklist item may be addressed using an appropriate combination of:
- (1) review of records and documentation;
 - (2) interview of the personnel involved; and
 - (3) feedback provided by contractors.

COMPLIANCE MONITORING CHECKLIST			
Year:			
Subject	Date checked	Checked by	Comments/non-compliance Report No
Change management			
Operations have been performed in accordance with the certificate			
Changes have been properly managed in accordance with the defined process			
Flight operations			
Balloon checklists checked for accuracy and validity			
Flight plans checked for proper and correct information			
Ground handling			
Instructions regarding fuelling, if applicable			
Instructions regarding dangerous goods issued and known by all relevant personnel, if applicable			
Mass			
Load sheets checked for proper and correct information, if applicable			
Pilot training			
Updated and accurate training records			
Pilot licences current, correct ratings and valid medical certificates			
Pilots received recurrent training			
Training facilities and instructors approved			
Pilots received pre-flight inspection training, as applicable			
Documentation related to operations			
Operations manual checked for correct amendment status			
Flight documents record checked and updated			
Personnel			
Correctly identified current accountable manager and other nominated persons			



The organisation chart accurately indicates lines of responsibility and accountability throughout the organisation			
Qualifications of all new personnel (or personnel with new functions) have been appropriately assessed			
Proper training has been provided to staff involved in any safety-management-related processes and tasks			
Proper training has been provided to staff involved in any compliance-monitoring-related processes and tasks			
Training provided to staff, as necessary, to cover changes in regulations, in competent authority publications, in the management system documentation and in associated procedures, etc.			
Contracted activities (if applicable)			
Assessment of any new providers prior to the establishment of any contract			
For existing providers: check that the service provided conforms to the applicable requirements of this Subpart			
Training and communication on safety			
All personnel are aware of safety management policies, processes and tasks			
Availability of safety-related documentation and publications			
Safety-critical information derived from internal safety or occurrence reporting, hazard identification or compliance monitoring have been timely communicated to all staff concerned			
Management system documentation			
Adequate and updated documentation			
Staff can easily access such documentation when needed			
Record-keeping			
The records cover all the activities and management system processes			
Compliance with minimum record-keeping periods (random checks)			
Emergency response provisions or emergency response plan (ERP)			
Emergency response information or ERP, as applicable, is up to date and readily available			
All staff is aware of the emergency response information or ERP (random checks)			
If an ERP has been activated, how effective was it?			
Internal safety reporting procedures			
Check the number of reports received since the last audit or organisational review			
Internal reporting and external occurrence reporting are properly performed			
The safety or occurrence reports are analysed			
Feedback is provided to reporters			



BOP.ADD.035 Contracted activities

When contracting any part of its activity falling within the scope of this Regulation, the operator shall be responsible for ensuring that the contracted organisation carries out the activity in accordance with the essential requirements set out in Annex II to CAR-BR and with the requirements of this Regulation. The operator shall also ensure that the competent authority is given access to the contracted organisation in order to determine that the operator is compliant with those requirements.

AMC1 BOP.ADD.035 Contracted activities

RESPONSIBILITY WHEN CONTRACTING ACTIVITIES

- (a) The operator may decide to contract certain activities to external organisations.
- (b) A written agreement should exist between the operator and the contracted organisation clearly defining the contracted activities and the applicable requirements.
- (c) The contracted, safety-related activities relevant to the agreement should be included in the operator's safety management and compliance monitoring programmes.
- (d) The operator should ensure that the contracted organisation has the necessary resources and competence to undertake the task.

GM1 BOP.ADD.035 Contracted activities

CONTRACTING — GENERAL

- (a) Operators may decide to contract certain activities to external organisations for the provision of services related to areas such as:
 - (1) ground handling;
 - (2) flight support;
 - (3) training; and
 - (4) manual preparation.
- (b) Contracted activities include all activities that are performed by another organisation either itself declared or certified to carry out such activities or, if not declared or certified, working under the operator's certificate.
- (c) The ultimate responsibility for the product or service provided by external organisations always remains with the operator.

GM2 BOP.ADD.035 Contracted activities

RESPONSIBILITY WHEN CONTRACTING ACTIVITIES

- (a) Regardless of the status of the contracted organisation, the contracting operator is responsible for ensuring that all contracted activities are subject to hazard identification and



risk management as required by [BOP.ADD.030\(a\)\(3\)](#), and to compliance monitoring as required by [BOP.ADD.030\(a\)\(6\)](#).

- (b) When the contracted organisation is itself declared or certified to carry out the contracted activities, the operator's compliance monitoring at least checks that the certificate or declaration effectively covers the contracted activities.

BOP.ADD.040 Personnel requirements

- (a) The operator shall appoint an accountable manager who has the authority to ensure that all activities falling within the scope of this Regulation can be financed and carried out in accordance with the essential requirements set out in Annex II to CAR-BR and with the requirements of this Regulation. The accountable manager shall be responsible for establishing and maintaining an effective management system.
- (b) The operator shall:
 - (1) identify the responsibilities of its personnel for all tasks and activities to be performed;
 - (2) have sufficient qualified personnel to carry out those tasks and activities; and
 - (3) maintain appropriate experience, qualification and training records of its personnel.
- (c) The operator shall nominate one or more persons responsible for the management and supervision of all of the following areas:
 - (1) flight operations;
 - (2) Crew Training;
 - (3) ground operations;
 - (4) continuing airworthiness, in accordance with the CAR V Chapter 5 of the competent authority.

GM1 BOP.ADD.040 Personnel requirements

SMALLEST OPERATOR

The smallest operator that can be considered is the one-person operator where all of the nominated posts are filled by the accountable manager.

AMC1 BOP.ADD.040(c) Personnel requirements

NOMINATED PERSONS

- (a) A description of the functions and the responsibilities of the nominated persons, including their names, should be contained in the operations manual.
- (b) The operator should make arrangements to ensure continuity of supervision in the absence of nominated persons.
- (c) A person nominated by the operator, who has already been nominated by another operator,



may be acceptable subject to mutual agreement between the operators with prior approval from the competent authority.

- (d) Nominated persons should work sufficient hours to fulfil the management functions associated with the scale and scope of the operation.
- (e) One person may hold more than one of the nominated posts if such an arrangement is considered suitable and properly matched to the scale and scope of the operation.
- (f) The acceptability of a single person holding several posts, possibly in combination with being the accountable manager, should depend upon the nature and scale of the operation. The two main areas of concern should be competence and the individual's capacity to meet his or her responsibilities.
- (g) As regards competence in different areas of responsibility, there should not be any difference from the requirements applicable to persons holding only one post.
- (h) The capacity of an individual to meet his or her responsibilities should primarily be dependent upon the scale of the operation. However, the complexity of the organisation or of the operation may prevent, or limit, combinations of posts which may be acceptable in other circumstances.

GM1 BOP.ADD.040(c) Personnel requirements

COMPETENCE OF NOMINATED PERSONS

- (a) Nominated persons in accordance with [BOP.ADD.040](#) possess the experience and meet the licensing provisions that are listed below in (b) to (e). Exceptionally, in particular cases, the competent authority may accept a nomination that does not meet these provisions in full. In that case, the nominee has comparable experience and also the ability to perform effectively the functions associated with the post and with the scale of the operation.
- (b) Nominated persons have:
 - (1) practical experience and expertise in the application of aviation safety standards and safe operating practices;
 - (2) comprehensive knowledge of:
 - (i) the applicable UAE safety regulations and any associated requirements and procedures; and
 - (ii) the need for, and content of, the relevant parts of the operations manual; and
 - (3) 3 years of relevant work experience.
- (c) Flight operations
The nominated person:
 - (1) holds or has held a valid flight crew licence and the associated ratings appropriate to the relevant type of operation; or
 - (2) has demonstrated in another manner thorough knowledge of the relevant flight operations.



(d) Crew Training

- (1) holds or has held a valid flight crew licence and the associated ratings appropriate to the relevant type of operation; or
- (2) has demonstrated in another manner thorough knowledge of the relevant flight operations, balloon training matters and assisted by a person who is qualified as an instructor in class of balloons used by the operator

(e) Ground operations

The nominated person has a thorough knowledge of the operator's ground operations concept.

(f) Continuing airworthiness

The nominated person has the relevant knowledge and meets the appropriate experience requirements related to balloon continuing airworthiness as detailed in CAR V Chapter 5 regulations of the competent authority.

BOP.ADD.045 Facility requirements

The operator shall have facilities that are sufficient to allow for the performance and management of all tasks and activities required to ensure compliance with the essential requirements set out in Annex II to CAR-BR and with the requirements of this Regulation.

AMC1 BOP.ADD.044.G Facility requirements

Office and Accommodation

The Operator should facilitate the staff with office facilities which provides fire proof storage for the Manuals, Logs and Records



SECTION 2 — CERTIFICATION, AIRWORTHINESS AND WET AND DRY LEASE

BOP.ADD.100.G Certification

- (a) In the Certification referred to in the Article 3 of the cover regulations the operator shall confirm that the operator complies and will continue to comply with the essential requirements set out in the Annex II to CAR-BR and with the requirements of this Regulation and additional requirements prescribed for commercial Operations.
- (b) The operator shall follow the procedure adopted by the competent authority in obtaining the Certificate.
- (c) The operator shall submit the details of the Accountable Manager, details of the Principal Place of Business and the management system through its application.
- (d) An operator shall not engage in any commercial operation without a valid certificate issued by the competent authority.

GM1 BOP.ADD.100.G Certification

GENERAL

The procedure for the application and the format, including the certificate is provided in the AMC-08 (Previously CAAP 08).

BOP.ADD.105 Changes to the certificate and cessation of commercial operations

- (a) The operator shall notify the competent authority without delay of any changes in circumstances affecting its compliance with the essential requirements set out in Annex II to CAR-BR and with the requirements of this Regulation, and of any change affecting the scope of the certificate or the operations specification and the AltMoCs approved by the competent authority.
- (b) The operator shall notify the competent authority without delay when it is no longer engaged in commercial operations with balloons.

AMC1 BOP.ADD.105(a) Changes to the certification and cessation of commercial operations

NOTIFICATION OF CHANGES

1. The application for the amendment of an air operator certificate (AOC) should be submitted at least 30 days before the date of the intended changes.
2. In the case of a planned change of a nominated person, the operator should inform the competent authority at least 20 days before the date of the proposed change.
3. Unforeseen changes should be notified at the earliest opportunity, in order to enable the competent authority to determine continued compliance with the applicable requirements and to amend, if necessary, the AOC and related terms of approval.



BOP.ADD.110 Airworthiness requirements

Balloons shall have a certificate of airworthiness issued in accordance with CAR V Chapter 5 or, in the case of a balloon registered in a foreign country, shall be subject to either a wet lease agreement or a dry lease agreement in accordance with point [BOP.ADD.115](#).

BOP.ADD.115 Wet lease and dry lease of a balloon registered in a foreign country

- (a) The operator shall notify to the competent authority any wet lease agreement or dry lease agreement concerning a balloon registered in a foreign country.
- (b) Where a balloon registered in a foreign country is subject to a wet lease agreement, the operator shall ensure that the level of safety resulting from the application of the safety standards with regard to continuing airworthiness and air operations to which the foreign country operator of the balloon is subject, is at least equivalent to that resulting from the application of the requirements of CAR V, Part-MB and of this Regulation.
- (c) Where a balloon registered in a foreign country is subject to a dry lease agreement, the operator shall ensure compliance with the essential requirements relating to continuing airworthiness set out in CAR-BR and with the requirements of this Regulation.

AMC1 BOP.ADD.115 Wet lease and dry lease of a balloon registered in a foreign country

GENERAL

- (a) The operator intending to lease-in a foreign-country balloon should provide the competent authority with the following information:
 - (1) the name and address of the registered owner;
 - (2) a copy of the valid certificate of airworthiness;
 - (3) a copy of the lease agreement or description of the lease provisions, except financial arrangements; and
 - (4) duration of the lease.
- (b) The information mentioned above should be accompanied by a statement signed by the lessee that the parties to the lease agreement fully understand their respective responsibilities under the applicable regulations.

GM1 BOP.ADD.115(a) Wet lease and dry lease of a balloon registered in a foreign country

Reserved



SECTION 3 — MANUALS AND RECORDS

BOP.ADD.200 Operations manual

- (a) The operator shall establish an operations manual.
- (b) The content of the operations manual shall reflect the requirements set out in this Subpart and shall not contravene any information contained in the operator's certificate.
- (c) The operations manual may be established as separate parts.
- (d) All personnel of the operator shall have easy access to the portions of the operations manual that are relevant to their duties.
- (e) The operations manual shall be kept up-to-date. All personnel of the operator shall be made aware of any amendment of the operations manual that are relevant to the performance of their duties.
- (f) The operator shall ensure that any information used as the basis for the content of the operations manual and any amendment thereof is correctly reflected in the operations manual.
- (g) The operator shall ensure that all personnel are able to understand the language in which those parts of the operations manual which are relevant to their duties are written. The content of the operations manual shall be presented in a form that can be used without difficulty.

AMC1 BOP.ADD.200 Operations manual

GENERAL

- (a) The operations manual may vary in detail according to the complexity of the operation and of the type of balloons operated.
- (b) The operations manual, or parts thereof, may be presented in any form, including electronic form. In all cases, the accessibility, usability and reliability should be assured.
- (c) The operations manual should be such that:
 - (1) all its parts are consistent and compatible in form and content;
 - (2) it can be easily amended; and
 - (3) its content and amendment status is controlled and clearly indicated.
- (d) The operations manual should include a description of its amendment and revision process specifying:
 - (1) the person(s) who may approve amendments or revisions;
 - (2) the conditions for amendments and revisions; and
 - (3) the methods by which operator personnel are advised of the changes.
- (e) The operations manual content may be based on, or may refer to, industry codes of practice.



- (f) When compiling an operations manual, the operator may take advantage of the contents of other relevant documents. Material produced by the operator for the type-related part of the operations manual may be supplemented with, or substituted by, applicable parts of the AFM
or, where such a document exists, by an operating manual produced by the manufacturer of the balloon.
- (g) If the operator chooses to use material from another source in the operations manual, either the applicable material should be copied and included directly in the relevant part of the operations manual, or the operations manual should contain a reference to the appropriate section of that applicable material. In the latter case the operator should make available the applicable material to the personnel.
- (h) If the operator chooses to make use of material from another source (e.g. a route manual producer, a balloon manufacturer or a training organisation), this does not absolve the operator from the responsibility of verifying the applicability and suitability of this material. Any material received from an external source should be given its status by a statement in the operations manual.

AMC2 BOP.ADD.200 Operations manual

CONTENT

The operations manual should include the following information, as relevant for the area and the type of operation:

- (a) table of contents;
- (b) amendment control status and list of effective pages or paragraphs, unless the entire manual is reissued and the manual has an effective date on it;
- (c) duties, responsibilities, and succession of management and operating personnel;
- (d) description of the management system;
- (e) flight time limitations;
- (f) standard operating procedures;
- (g) weather limitations;
- (h) emergency procedures;
- (i) accident and incident considerations;
- (j) personnel qualifications and training;
- (k) record-keeping;
- (l) normal flight operations;
- (m) performance operating limitations; and
- (n) handling of dangerous goods, if applicable.



GM1 BOP.ADD.200 Operations manual

MORE CONSERVATIVE DATA AND PROCEDURES

The operator may decide to publish data and procedures in the operations manual which are more conservative.

BOP.ADD.205 Record-keeping

- (a) The operator shall establish a system of record-keeping that allows adequate storage and reliable traceability of its activities.
- (b) The format of the records shall be specified in the operator's procedures or manuals.

AMC1 BOP.ADD.205 Record-keeping

GENERAL

- (a) The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organised in a way that ensures traceability and retrievability throughout the required retention period.
- (b) Records should be kept in paper form or in electronic format or a combination of both. Records stored on microfilm or optical disc format are also acceptable. The records should remain legible throughout the required retention period. The retention period starts when the record has been created or last amended.
- (c) Paper systems should use robust material which can withstand normal handling and filing. Computer systems should have at least one backup system, which should be updated within 24 hours of any new entry. Computer systems should include safeguards against the ability of unauthorised personnel to alter the data.
- (d) All computer hardware used to ensure data backup should be stored in a different location from that containing the working data and in an environment that ensures they remain in good condition. When hardware or software changes take place, special care should be taken that all necessary data remains accessible at least through the full retention period.

AMC2 BOP.ADD.205 Record-keeping

STORAGE PERIODS AND AVAILABILITY

- (a) The following records should be stored for at least 5 years:
 - (1) records of the activities referred to in [BOP.ADD.030](#);
 - (2) a copy of the operator's certificate ;
 - (3) details of approvals held; and
 - (4) operations manual.
- (b) The following information used for the preparation and execution of a flight, and associated reports, should be stored for 3 months:



- (1) the operational flight plan, if applicable;
 - (2) mass documentation;
 - (3) notification of special loads, including written information to the pilot-in-command about dangerous goods, if applicable; and
 - (4) flight report(s) for recording details of any occurrence, or any event that the pilot-in-command deems necessary to report or record.
- (c) Flight crew records should be stored for the periods indicated below:

Flight crew licence	As long as the crew member is exercising the privileges of the licence for the balloon operator
Flight crew member training, checking and qualifications	3 years
Records on flight crew member recent experience	15 months

- (d) The operator should make such records available, on request, to the crew member concerned.
- (e) The operator should preserve the information used for the preparation and execution of a flight and personnel training records, even if the operator ceases to be the operator of that balloon or the employer of that crew member, provided this is within the timescales prescribed in (c).
- (f) If a crew member becomes a crew member for another operator, the former operator should make the crew member's records available to the new operator, provided this is within the timescales prescribed in (c).
- (g) A summary of training should be maintained by the operator to show every crew member's completion of each stage of training and checking.
- (h) In addition to the records mentioned under para (b), records pertaining to the Weather data of the take-off sites, Flight Track records and passenger information 18 months.
- (i) video recording of each flight shall be maintained for a period of 6 months.



SECTION 4 — FLIGHT CREW

BOP.ADD.300 Composition of flight crew

- (a) The composition of the flight crew shall be, as a minimum, as specified in the AFM or operating limitations prescribed for the balloon.
- (b) The flight crew shall include additional flight crew members when required by the type of operation. The number of the flight crew shall not be lower than the number specified in the operations manual.
- (c) All flight crew members shall hold a licence and ratings issued or accepted in accordance with CAR II, CAR-FCL to this Regulation and appropriate to the duties assigned to them.
- (d) Flight crew members may be relieved during the flight of their duties at the controls by another suitably qualified flight crew member.
- (e) When engaging the services of flight crew members who are working on a freelance or part-time basis, the operator shall verify that all of the following requirements are complied with:
 - (1) the requirements of this Subpart;
 - (2) CAR II, CAR-FCL, including the requirements on recent experience;
 - (3) the flight and duty time limitations and rest requirements in accordance with the national law of the operating state where the operator has its principal place of business, taking into account all services rendered by the flight crew member to other operators.

BOP.ADD.305 Designation as pilot-in-command

- (a) The operator shall designate one pilot amongst the flight crew as pilot-in-command.
- (b) The operator shall only designate a pilot to act as pilot-in-command if he or she:
 - (1) is qualified to act as pilot-in-command in accordance with CAR II, CAR FCL to this Regulation;
 - (2) has the minimum level of experience specified in the operations manual; and
 - (3) has adequate knowledge of the area to be flown.

BOP.ADD.310 Provision of training and checking

All training and checking of flight crew members required pursuant to point [BOP.ADD.315](#) shall be provided as follows:

- (a) in accordance with the training programmes and syllabi established by the operator in the operations manual;
- (b) by appropriately qualified persons and, as regards flight training and checking, by persons qualified in accordance with CAR II, CAR FCL to this regulation.



AMC1 BOP.ADD.310(a) Provision of training and checking

ADDITIONAL TRAINING FOR THE PILOT-IN-COMMAND

The pilot-in-command should complete training in first-aid and in the use of the fire extinguisher, at intervals of maximum 36 months.

BOP.ADD.315 Recurrent training and checking

- (a) Each flight crew member shall complete every 2 years recurrent flight and ground training relevant to the class of balloon on which he or she operates, including training on the location and use of all emergency and safety equipment carried.
- (b) Each flight crew member shall complete operator proficiency checks to demonstrate his or her competence in carrying out normal, abnormal and emergency procedures, covering the relevant aspects associated with the specialised tasks described in the operations manual. When carrying out those checks, due account shall be taken of crew members who undertake operations under VFR at night.
- (c) The operator proficiency check shall be valid for 24 calendar months, counting from the end of the month during which the check was carried out or, in case the check is carried out within the last 3 months of the validity period of the previous check, from the last day of the validity period of that previous check.

AMC1 BOP.ADD.315(b);(c) Recurrent training and checking

PROFICIENCY CHECK

The operator proficiency check should be conducted by an examiner.



SECTION 5 — GENERAL OPERATING REQUIREMENTS

BOP.ADD.400 Responsibilities of the pilot-in-command

The pilot-in-command shall comply with both of the following:

- (a) the relevant requirements of the operator's occurrence reporting scheme referred to in point [BOP.ADD.025](#);
- (b) all flight and duty time limitations and rest requirements applicable to his or her activities in accordance with the operator scheme accepted by the competent authority.

BOP.ADD.405 Authority of the pilot-in-command

Notwithstanding point [BOP.BAS.035](#), the operator shall take all reasonable measures to ensure that all persons carried in the balloon obey all lawful commands given by the pilot-in-command for the purpose of ensuring the safety of the balloon, of any person or property carried therein or of any person or property on the ground.

BOP.ADD.410 Additional balloon crew member

When a balloon carries more than 19 passengers, at least one additional crew member shall be present on board the balloon in addition to the flight crew as required pursuant to points (a) and (b) of point [BOP.ADD.300](#) to assist passengers in the event of an emergency. That additional crew member shall be appropriately experienced and trained.

AMC1 BOP.ADD.410 Additional balloon crew member

TRAINING AND REGENCY

- (a) For training, the additional crew member should have participated in:
 - (1) three practical training inflations with subsequent flights on a balloon with a basket of a capacity of more than 19 passengers;
 - (2) at least one landing under (1) with a ground speed of at least 8 kt; and
 - (3) training in first-aid and in the use of the fire extinguisher, at intervals of maximum 36 months.
- (b) For recency, the additional crew member should perform at least 2 flights in this function in any 12-month period. Otherwise, he or she should, before resuming as additional crew member, fulfil again the training requirements of points (a)(1) and (a)(2).

BOP.ADD.415 Fitness relating to deep water diving and blood donation

Crew members shall not perform any duties on the balloon where their fitness might be impaired



after deep water diving or following blood donation.

GM1 BOP.ADD.415 Fitness relating to deep water diving and blood donation

ELAPSED TIME BEFORE RETURNING TO FLYING DUTY

24 hours is a suitable minimum length of time to allow after normal recreational (sport) diving or normal blood donation before a flight. This is considered by operators when determining a reasonable time period for the guidance of crew members.

BOP.ADD.420 Common language

The operator shall ensure that all crew members can communicate with each other in a common language.

BOP.ADD.425 Psychoactive substances

The operator shall take all reasonable measures to ensure that no person enters or is in a balloon when under the influence of psychoactive substances to the extent that the safety of the balloon, of any person or property carried therein or of any person or property on the ground is likely to be endangered by the presence of that person.

BOP.ADD.430 Endangering

The operator shall take all reasonable measures to ensure that no person, intentionally, recklessly or negligently, acts or omits to act with one of the following consequences:

- (a) endanger a balloon or person therein or on the ground;
- (b) cause or permit a balloon to endanger any person or property.

BOP.ADD.435 Documents, manuals and information to be carried

- (a) All of the following documents, manuals and information shall be carried on each flight as originals or copies:
 - (1) the Air Operator Certificate or equivalent;
 - (2) information concerning search and rescue services for the area of the intended flight;
 - (3) the operational flight plan.
- (b) All of the following documents, manuals and information shall be stowed at a safe place, not on board the balloon during a flight, as originals:
 - (1) the documents, manuals and information referred to in point (a), when copies thereof are carried on board the balloon during a flight;
 - (2) the current parts of the operations manual or the standard operating procedures (SOPs)



that are relevant to the duties of crew members, which shall be easily accessible to them;

- (3) passenger lists, when passengers are carried;
- (4) the mass documentation referred to in point (c) of point BOP.ADD.600.
- (c) When requested by the competent authority, the pilot-in-command or the operator shall make available to that authority the original documents, manuals and information within the time period specified by the authority, which shall not be less than 24 hours.

GM1 BOP.ADD.435(a)(2) Documents, manuals and information to be carried

SEARCH AND RESCUE INFORMATION

This information is usually found in the aeronautical information publication (AIP).

GM1 BOP.ADD.435(a)(3) Documents, manuals and information to be carried

OPERATIONAL FLIGHT PLAN

- (a) The operational flight plan used and the entries made may contain the following items:
 - (1) balloon registration;
 - (2) date of flight;
 - (3) name of the pilot-in-command;
 - (4) place of departure;
 - (5) time of departure;
 - (6) type of operation
 - (7) balloon type;
 - (8) balloon size;
 - (9) balloon empty mass;
 - (10) mass of the traffic load;
 - (11) mass of the fuel or ballast load;
 - (12) take-off mass;
 - (13) fuel or ballast calculation;
 - (14) relevant meteorological information; and
 - (15) special risk factors (e.g. power lines, wind turbines, airspace classification, etc.).
- (b) Items that are readily available in other documentation or from another acceptable source or are irrelevant to the type of operation may be omitted from the operational flight plan.



BOP.ADD.440 Dangerous goods

The operator shall:

- (a) establish procedures to ensure that all reasonable measures are taken to prevent dangerous goods from being carried on board the balloon inadvertently; and
- (b) provide crew members with the necessary information enabling them to adequately carry out their duties in respect of any dangerous goods carried or intended to be carried on board the balloon.

GM1 BOP.ADD.440 Dangerous goods

PROCEDURES AND INFORMATION TO CREW MEMBERS AND PASSENGERS

- (a) The operator provides information in the operations manual to enable the pilot-in-command and other crew members to identify which dangerous goods may be permitted on board.
- (b) Information should be given to the passengers in regards to goods that are prohibited to take on board before the flight takes place. The crew may provide this information in a briefing before the flight.
- (c) Procedures are established and described in the operations manual to respond to accidents or incidents involving dangerous goods. The relevant crew members are familiar with these procedures.



SECTION 6 — OPERATING PROCEDURES

BOP.ADD.500 Fuel or ballast calculations

The operator shall ensure that the calculations as regards reserve fuel or ballast are documented in an operational flight plan.

BOP.ADD.505 Carriage of special categories of passengers

The operator shall establish procedures for carrying persons requiring special conditions, assistance or devices when carried on board a balloon under conditions that ensure the safety of the balloon and of any person or property carried therein.

BOP.ADD.510 Commercial balloon specialised operations — Standard operating procedures

Notwithstanding point [BOP.BAS.190](#):

- (a) Before commencing a commercial balloon specialised operation, the operator shall conduct a risk assessment, assessing the complexity of the intended operation in order to determine the hazards and associated risks of the operation and to establish mitigating measures where necessary.
- (b) Based on the risk assessment, the operator shall, before commencing the commercial balloon specialised operation, establish standard operating procedures (SOPs) appropriate to the intended operation and the balloon used. The SOPs shall either be part of the operations manual or be laid down in a separate document. The operator shall regularly review and update the SOPs where necessary in order to adequately take account of the risk assessment.
- (c) The operator shall ensure that commercial balloon specialised operations are performed in accordance with the SOPs.

AMC1 BOP.ADD.510 Commercial balloon specialised operations — Standard operating procedures

DEVELOPMENT OF STANDARD OPERATING PROCEDURES

- (a) Standard operating procedures (SOPs) should be developed to a standard format in accordance with [AMC2 BOP.ADD.510](#) and should take into account the results of the risk assessment process.
- (b) SOPs should be based on a systematic risk assessment to ensure that the risks associated with the task are acceptable. The risk assessment should describe the activity in detail, identify the relevant hazards, analyse the causes and consequences of accidental events, and establish methods to treat the associated risk.



AMC2 BOP.ADD.510 Commercial balloon specialised operations — Standard operating procedures

TEMPLATE

(a) Nature and complexity of the activity

- (1) The nature of the activity and exposure. The nature of the flight and the risk exposure should be described.
- (2) The complexity of the activity. Details should be provided on how demanding the activity is with regard to the required piloting skills, the necessary level of experience, the ground support, safety and individual protective equipment that should be provided to persons involved.
- (3) The operational environment and geographical area. The operational environment and geographical area over which the operation takes place should be described:
 - (i) congested hostile environment: balloon performance standard, compliance with rules of the air, mitigation of third-party risk;
 - (ii) mountain areas: altitude, performance, the use or non-use of oxygen with mitigating procedures;
 - (iii) water areas: water state and temperature, risk of ditching, availability of search and rescue, survivability, carriage of safety equipment;
 - (iv) desert areas: carriage of safety equipment, reporting procedures, search and rescue information; and
 - (v) other areas.

(b) Equipment

All equipment required for the activity should be listed. This includes installed equipment certified in accordance with CAR-21 as well as equipment approved in accordance with other, officially recognised standards.

(c) Crew members

- (1) The crew composition and their duties should be specified.
- (2) In addition, for flight crew members, the following should be specified:
 - (i) selection criteria (initial qualification, flight experience, experience in the activity);
 - (ii) initial training (volume and content of the training); and
 - (iii) recent experience requirement and recurrent training (volume and content of the training).
- (3) The criteria listed in (2) should take into account the operational environment and the complexity of the activity, and should be detailed in the training programmes.

(d) Performance

Details on applicable, specific performance requirements should be provided.

(e) Normal, abnormal and emergency procedures



The normal, abnormal and emergency procedures to be applied in flight and on the ground should be described.

(f) Ground equipment

Details on the nature, number and location of ground equipment required for the activity should be provided.

(g) Records

It should be determined which records specific to the flight(s) are to be kept, such as task details, balloon registration, pilot-in-command, flight times, weather and any remarks, including a record of occurrences affecting flight safety or the safety of persons or property on the ground.



SECTION 7 — PERFORMANCE AND OPERATING LIMITATIONS

BOP.ADD.600 System for determining the mass

- (a) The operator shall establish a system specifying how all of the following items are accurately determined for each flight, so as to enable the pilot-in-command to verify that the limitations of the AFM are complied with:
 - (1) balloon empty mass;
 - (2) mass of the traffic load;
 - (3) mass of the fuel or ballast load;
 - (4) take-off mass;
 - (5) loading of the balloon performed under the supervision of the pilot-in-command or qualified personnel;
 - (6) preparation and disposition of all documentation.
- (b) The mass computation based on electronic calculations shall be replicable by the pilot-in-command.
- (c) The mass documentation, specifying the items listed in point (a), shall be prepared prior to each flight and documented in an operational flight plan.

AMC1 BOP.ADD.600(a)(2) System for determining the mass

TRAFFIC LOAD, AND MASS VALUES FOR PASSENGERS AND BAGGAGE

- (a) Traffic load should be determined by actual weighing, or by calculating masses for passengers, persons other than flight crew members and baggage as follows:
 - (1) Passenger mass may be calculated on the basis of a statement by, or on behalf of, each passenger, adding to it a predetermined mass to account for hand baggage and clothing.
 - (2) The predetermined mass for hand baggage and clothing should be established by the operator on the basis of experience relevant to its particular operation. In any case, it should not be less than:
 - (i) 4 kg for clothing; and
 - (ii) 3 kg for hand baggage.
- (b) The passengers' stated mass, the mass of passengers' clothing and hand baggage should be checked prior to boarding and adjusted, if necessary.
- (c) When determining the actual mass by weighing, passengers' personal belongings and hand baggage should be included.



AMC1 BOP.ADD.600(a)(6) System for determining the mass

DOCUMENTATION

- (a) Mass documentation should include the following:
- (1) balloon registration and type;
 - (2) date and flight identification;
 - (3) name of the pilot-in-command;
 - (4) name of the person who prepared the document;
 - (5) empty mass;
 - (6) mass of the fuel or ballast at take-off;
 - (7) load components including passengers, baggage and, if applicable, freight;
 - (8) maximum take-off mass allowed by the AFM according to temperature and altitude; and
 - (9) limiting mass values.
- (b) The mass documentation should enable the pilot-in-command to determine that the load is within the mass limits of the balloon.
- (c) The information above may be available in flight planning documents, or other documents readily available for use, or mass systems.
- (d) Any last-minute change should be brought to the attention of the pilot-in-command and entered in the documents containing the mass information. The operator should specify the maximum last-minute change allowed in passenger numbers. New mass documentation should be prepared if this maximum number is exceeded.
- (e) Where mass documentation is generated by a computerised mass system, the operator should verify the integrity of the output data at intervals not exceeding 6 months.
- (f) A copy of the final mass documentation should be made available to the pilot-in-command for his or her acceptance.

GM1 BOP.ADD.600(a)(6) System for determining the mass

LIMITING MASS VALUES

The limiting mass values contained in the mass documentation are those stipulated in the AFM.



Appendix

DECLARATION in accordance with CAR IV - Part-BOP.				
Operator Name: Place where the operator has its principal place of business. Name and contact details of the accountable manager:				
Balloon operation Starting date of operation and, where relevant, date of change to existing operation. Information on balloon(s) used, Operation(s) and continuing airworthiness management ¹ :				
Balloon type	Balloon registration	Main base	Type(s) of operation	Continuing airworthiness management
Where applicable, list of AltMoC with references to the associated AMC (annex to this declaration):				
Statements <input type="checkbox"/> The operator complies, and will continue to comply, with the essential requirements set out in Annex II to CAR-BR and with the requirements of Part-BOP. <input type="checkbox"/> All balloons operated either have a certificate of airworthiness issued in accordance with CAR V or meet the specific airworthiness requirements applicable to balloons. <input type="checkbox"/> All flight crew members hold a license and ratings issued or accepted in accordance with CAR II – CAR-FCL. <input type="checkbox"/> The operator will notify to the competent authority any changes in circumstances affecting its compliance with the essential requirements set out in Annex II to CAR-BR and with the requirements of PART-BOP as declared to the competent authority through this declaration and any changes to the information and lists of AltMoC included in and annexed to this declaration, as required by point BOP.BAS.002.G Declaration. <input type="checkbox"/> The Operator confirms that the approvals necessary from the departments of the local emirate with regard to the area of operations and launching/landing sites and the other government entities including the GHQ are available for this operation and attached to this declaration. <input type="checkbox"/> The operator confirms that all information included in this declaration, including its annexes, is complete and correct.				
Date, name and signature of the accountable manager				



PART — BALLOON FLIGHT CREW LICENSING

(RESERVED)

Refer CAR II – CAR-FCL

PART — BALLOON CONTINUING AIRWORTHINESS

(RESERVED)

Reserved (Refer to CAR Part V – CAR-MB)

PART — BALLOON INITIAL AIRWORTHINESS

RSERVED (Refer to CAR-21).

CS-31GB

Refer to EASA –CS-31GB

CS-31HB

Refer to EASA CS-31HB

CS-31TGB

Refer to EASA CS 31TGB