

**Annex I and II to Commission Regulation (EU) .../... of xx Month 201x
laying down technical requirements and administrative procedures related to balloons
pursuant to Regulation (EC) No 216/2008 of the European Parliament
and of the Council**

ANNEX I

DEFINITIONS

[PART-DEF]

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

- (1) ‘acceptable means of compliance (AMC)’ means non-binding standards adopted by the Agency to illustrate means to establish compliance with Regulation (EC) No 216/2008 and its implementing rules;
- (2) ‘accident of a balloon’ means an occurrence associated with the operation of a balloon which takes place between the time of beginning the inflation of the balloon until the time of complete deflation of the balloon, in which:
 - (a) a person is fatally or seriously injured as a result of:
 - (i) being in the balloon; or
 - (ii) direct contact with any part of the balloon, including parts which have become detached from the balloon;except when the injuries are from natural causes, 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 would normally require major repair or replacement of the affected component; or
 - (c) the balloon is missing;
- (3) ‘aircraft’ means a machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth’s surface;
- (4) ‘aircraft flight manual (AFM)’ means the applicable and approved operating limitations and information;
- (5) ‘alternative means of compliance (AltMoC)’ mean those means that propose an alternative to an existing acceptable means of compliance or those that propose new means to establish compliance with Regulation (EC) No 216/2008 and its implementing rules for which no associated AMC have been adopted by the Agency;
- (6) ‘balloon’ means a lighter-than-air aircraft which is not power-driven and sustains flight through the use of either gas or an airborne heater. For the purpose of this Regulation, balloons include gas balloons, hot-air balloons, mixed balloons and, although power-driven, hot-air airships;

- (7) 'balloon empty mass' means the mass determined by weighing the balloon with all the installed equipment as specified in the AFM;
- (8) 'crew member' means a person assigned by an operator to perform duties on board the balloon or on the ground;
- (9) 'critical phases of flight' means take-off, final approach, missed approach, landing and any other phases of flight as determined by the pilot-in-command;
- (10) '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 classified according to those instructions;
- (11) 'dry-lease agreement' means an agreement between undertakings pursuant to which the balloon is operated under the responsibility of the lessee;
- (12) 'flight crew member' means a pilot assigned to duty in a balloon during flight time;
- (13) 'gas balloon' means a manned free balloon that derives its lift from gas being lighter than air;
- (14) 'hot-air balloon' means a manned free balloon that derives its lift from heated air;
- (15) 'hot-air airship' means a manned, power-driven, hot-air balloon with the engine not creating any portion of lift;
- (16) 'incident of a balloon' means an occurrence, other than an accident of a balloon, associated with the operation of a balloon which affects or could affect the safety of operation;
- (17) 'mixed balloon' means a manned free balloon that derives its lift from a combination of heated air and a non-flammable gas being lighter than air;
- (18) 'night' means the period between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise as may be prescribed by the appropriate authority, as defined by the Member State;
- (19) 'operating site' means a site selected by the pilot-in-command or the operator for landing, take-off or external load operations;
- (20) 'pilot-in-command' means the pilot designated as being in command and charged with the safe conduct of the flight;
- (21) 'principal place of business' means the head office or registered office of the operator within which the principal financial functions and operational control of the activities referred to in this Regulation are exercised;
- (22) 'refuelling' means the refilling of flight cylinders or fuel tanks from an external source. It does not include the replacement of flight cylinders;
- (23) 'technical instructions' means the latest effective edition of the 'Technical instructions for the safe transport of dangerous goods by air', including the supplement and any addenda, published by the International Civil Aviation Organization in Doc 9284-AN/905;
- (24) 'traffic load' means the total mass of passengers, baggage and carry-on specialist equipment;

(25) 'wet-lease agreement' means an agreement between operators pursuant to which the balloon is operated under the responsibility of the lessor.

ANNEX II
BALLOON AIR OPERATIONS
[PART-BOP]

SUBPART BAS
BASIC OPERATIONAL REQUIREMENTS

SECTION 1
General requirements

BOP.BAS.001 Scope

- (a) This Subpart establishes the requirements to be met by an operator when conducting balloon operations.
- (b) The operations listed below shall comply with the requirements of this Subpart only:
 - (1) non-commercial balloon operations, including non-commercial specialised operations;
 - (2) cost-shared operations by private individuals, on the condition that:
 - (i) direct costs and a proportionate contribution to annual costs are equally shared by all the occupants of the balloon, pilot included; and
 - (ii) the number of persons sharing the costs is limited to four;
 - (3) competition flights or flying displays, on the condition that the remuneration or any valuable consideration given for such flights is limited to:
 - (i) recovery of direct costs and a proportionate contribution to annual costs; and
 - (ii) prizes not exceeding the value specified by the competent authority; and
 - (4) introductory flights with four persons or less and parachute dropping performed by:
 - (i) a training organisation having its principal place of business in a Member State and approved in accordance with Regulation (EU) No 1178/2011 ⁽¹⁾; or
 - (ii) an organisation created with the aim of promoting aerial sport or leisure aviation;on the condition that:
 - (i) the balloon is operated by the organisation on the basis of ownership or dry lease;

⁽¹⁾ Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L, 25.11.2011, p. 1).

- (ii) the flight does not generate profits distributed outside of the organisation;
and
- (iii) such flights represent only a marginal activity of the organisation.

BOP.BAS.005 Competent authority

The competent authority shall be the authority designated by the Member State where the operator has its principle place of business or is residing.

BOP.BAS.010 Alternative means of compliance (AltMoC)

Alternative means of compliance to those adopted by the Agency may be used by an operator to establish compliance with Regulation (EC) No 216/2008 ⁽²⁾ and its implementing rules.

BOP.BAS.015 Mixed balloons

Mixed balloons shall be operated in accordance with the requirements for hot-air balloons.

BOP.BAS.020 Introductory flights

Introductory flights shall:

- (a) be operated under visual flight rules (VFR) by day; and
- (b) be overseen as regards their safety by a person who has been nominated by the organisation responsible for the introductory flights.

BOP.BAS.025 Immediate reaction to a safety problem

The operator shall implement:

- (a) any safety measures mandated by the competent authority in accordance with Annex II (Part-ARO) to Regulation (EU) No 965/2012 ⁽³⁾; and
- (b) any relevant mandatory safety information issued by the Agency, including airworthiness directives.

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 all crew members and passengers on board during balloon operations;
 - (2) be responsible for the initiation, continuation or termination of a flight in the interest of safety;

⁽²⁾ Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1).

⁽³⁾ Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1).

- (3) ensure that all applicable operational procedures and checklists are complied with;
- (4) only commence a flight if he/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 aircraft flight manual (AFM);
 - (v) all equipment and baggage are properly loaded and secured; and
 - (vi) the balloon's operating limitations 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 in accordance with the applicable requirements of Regulation (EU) No 1321/2014 ⁽⁴⁾;
- (6) be responsible for the pre-flight briefing of those 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 alcohol or drugs to the extent that the safety of the balloon or its occupants 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, he/she considers necessary under the circumstances. In such cases he/she may deviate from rules, operational procedures and methods in the interest of safety;
- (13) not continue a flight beyond the nearest weather-permissible operating site when his/her capacity to perform duties is significantly reduced from causes such as sickness, fatigue or lack of oxygen;
- (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;

⁽⁴⁾ Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks (OJ L 362, 17.12.2014, p. 1).

- (15) notify the nearest appropriate authority by the quickest available means of any accident involving the balloon that resulted in serious injury or death of any person or substantial damage to the balloon or property;
 - (16) submit a report of an act of unlawful interference without delay to the competent authority and shall inform the designated local authority; and
 - (17) report to the appropriate air traffic services (ATS) unit, as soon as possible, 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:
- (1) when incapacitated by any cause such as injury, sickness, medication, fatigue or the effects of any psychoactive substance, or feels otherwise unfit;
 - (2) when under the influence of alcohol; or
 - (3) if applicable medical requirements are not fulfilled.
- (c) Whenever crew members are involved in the operation, 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 duties by any cause such as injury, sickness, medication, fatigue, 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 from causes such as sickness, fatigue or lack of oxygen;
 - (4) ensure that all crew members can communicate with each other in a common language.

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 persons or property carried therein;
- (b) refuse embarkation or carriage of any person or baggage that may represent a potential hazard to the safety of the balloon or its occupants.

BOP.BAS.040 Crew member responsibilities

- (a) The crew member shall be responsible for the proper execution of his/her duties.
- (b) The crew member shall not perform duties on a balloon:
 - (1) when incapacitated by any cause such as injury, sickness, medication, fatigue, the effects of any psychoactive substance, or feels otherwise unfit; or
 - (2) when under the influence of alcohol.
- (c) The crew member shall report to the pilot-in-command:

- (1) any fault, failure, malfunction or defect, which he/she believes may affect the airworthiness or safe operation of the balloon, including emergency systems; and
 - (2) any incident that was endangering, or could endanger, the safety of the operation.
- (d) The flight crew member who undertakes duties for more than one operator shall:
- (1) maintain his/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.

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

- (a) The pilot-in-command and all crew members shall comply with the laws, regulations and procedures of those States where operations are conducted.
- (b) The pilot-in-command shall be familiar with the laws, regulations and procedures, pertinent to the performance of his/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) 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, if applicable; and
 - (3) current and suitable aeronautical charts for the area of the proposed flight.
- (b) 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, if applicable;
 - (5) the third party liability insurance certificate(s);
 - (6) the balloon logbook or equivalent; and
 - (7) any other documentation that may be pertinent to the flight or is required by the States concerned with the flight.
- (c) When requested by the competent authority, the pilot-in-command or the operator shall make available the original documentation in a time frame required by the competent authority, with a minimum of 24 hours.

BOP.BAS.055 Dangerous goods

- (a) The transport of dangerous goods shall be conducted in accordance with ICAO Annex 18 to the Chicago Convention, 'The safe transport of dangerous goods by air',

as last amended and amplified by the ‘Technical instructions for the safe transport of dangerous goods by air’, ICAO Doc 9284-AN/905, including its supplements and any other addenda or corrigenda.

- (b) The pilot-in-command shall take all reasonable measures to prevent dangerous goods from being carried on board 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 aboard the balloon is advisable to ensure their timely availability for operational purposes, shall be considered authorised under paragraph 2.2.1(a) of Part 1 of the technical instructions. This is 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 packing and loading on board shall be performed, under the responsibility of the pilot-in-command, in such a way as to minimise the risks posed to crew members, passengers or the balloon during operation.
- (d) The pilot-in-command or the operator shall report without delay to the competent authority and the appropriate authority of the State of occurrence in the event of any dangerous goods accidents or incidents.

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 (a), parachutists may exit the balloon for the purpose of parachute display over these congested areas or over this open-air assembly of persons whilst carrying smoke trail devices, provided these are manufactured for this 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 equivalent.

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 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 is sufficient to ensure a safe landing.

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.

BOP.BAS.120 Carriage of special categories of passengers (SCPs)

Persons requiring special conditions, assistance or devices when carried on a flight shall be considered as SCPs. The pilot-in-command or the operator shall be responsible that SCPs are carried under conditions that ensure the safety of the balloon and its occupants.

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

- (a) If an ATS flight plan is not submitted because it is not required by the rules of the air, adequate information shall be deposited in order to permit alerting services to be activated if required.
- (b) When operating from a site where it is impossible to submit an ATS flight plan, although required, the ATS flight plan shall be transmitted as soon as possible after take-off by the pilot-in-command or the operator.

BOP.BAS.130 Flight preparation

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

- (a) a study of available current weather reports and forecasts; and
- (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 during any phase of flight on board a balloon or within the direct vicinity of a balloon.

BOP.BAS.140 Carriage and use of weapons

- (a) No person shall be allowed to carry and use a weapon on board a balloon.
- (b) Notwithstanding (a), the carriage and use of weapons may be permitted 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 will be:

- (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 that, according to the information available, the weather at the operating site would permit a safe take-off and departure.

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 information available, the conditions at the intended operating site would permit a safe approach and landing.

BOP.BAS.160 Simulated situations in flight

- (a) The pilot-in-command, when carrying revenue passengers, shall not simulate situations that require the application of abnormal or emergency procedures.
- (b) When training flights are conducted, such situations may be simulated with student pilots and non-revenue passengers on board.

BOP.BAS.165 In-flight fuel management

The pilot-in-command shall check at regular intervals 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, except hot-air airships, shall not be conducted when persons are on board.
- (b) Refuelling the engine of hot-air airships may be conducted with the pilot-in-command on board.

BOP.BAS.175 Use of restraint system

When a restraint system is required in accordance with 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 flight crew members engaged in performing duties essential to the safe operation use supplemental oxygen continuously whenever he/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.

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.
- (a) 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 according to their approved VFR night operating limitations and information.

BOP.BAS.190 Specialised operations — Checklist

- (a) Before commencing a specialised operation, the pilot-in-command shall conduct a risk assessment, assessing the complexity of the activity to determine the hazards and associated risks inherent in the operation and establish mitigating measures.
- (b) A specialised operation shall be performed in accordance with a checklist. Based on the risk assessment, the pilot-in-command shall establish such a checklist appropriate to the specialised activity and balloon used, taking account of any section of this Subpart.
- (c) The checklist that is relevant to the duties of the pilot-in-command and crew members shall be readily accessible on each flight.
- (d) The checklist shall be regularly reviewed and updated, as appropriate.

SECTION 3

Performance and operating limitations

BOP.BAS.200 Operating limitations

During any phase of operation, the balloon shall comply with any limitation specified in the AFM, or in another applicable and approved document.

BOP.BAS.205 Weighing

- (a) The weighing shall be accomplished by the manufacturer of the balloon or in accordance with Regulation (EU) No 1321/2014, as applicable.
- (b) The operator shall ensure that the mass of the balloon has been established by actual weighing prior to 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 effect of modifications on the mass is not known.

BOP.BAS.210 Performance — General

The pilot-in-command shall only operate the balloon if the performance is adequate to comply with the applicable rules of the air and any other restrictions applicable to the flight, the airspace or operating sites used, ensuring that any charts or maps used are the current edition.

SECTION 4

Instruments, data and equipment

BOP.BAS.300 Instruments and equipment — General

- (a) Instruments and equipment required by this Section shall be approved in accordance with the applicable airworthiness requirements if they are:
 - (1) used to comply with BOP.BAS.355 and BOP.BAS.360; or
 - (2) permanently installed in the balloon.
- (b) The following items, when required by this Section, do not need an equipment approval:
 - (1) items 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; and
 - (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 a flight, shall comply with the following:
 - (1) the information provided by these instruments or equipment shall not be used by the flight crew to comply with the essential requirements for airworthiness, as specified in Annex I to Regulation (EC) No 216/2008; and
 - (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.

BOP.BAS.305 Minimum equipment for flight

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

BOP.BAS.310 Operating lights

Balloons operated at night shall be equipped with:

- (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; and
- (c) an independent portable light.

BOP.BAS.315 Flight and navigational instruments and associated equipment

Balloons operated under VFR by day shall be equipped with:

- (a) a means of displaying drift direction, and
- (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.

BOP.BAS.320 Restraint systems

Balloons shall be equipped with a restraint system for the pilot-in-command when equipped with:

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

BOP.BAS.325 Supplemental oxygen

Balloons operated at pressure altitudes above 10 000 ft shall be equipped with an oxygen storage and dispensing apparatus carrying enough breathing oxygen to supply:

- (a) all crew members for any period in excess of 30 minutes when the pressure altitude will be between 10 000 ft and 13 000 ft; and
- (b) all crew members and passengers for any period when the pressure altitude will be above 13 000 ft.

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.

BOP.BAS.335 Hand fire extinguishers

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

BOP.BAS.340 Flight over water

The pilot-in-command of a balloon operated over water shall determine the risks to survival of the occupants of the balloon in the possible event of ditching. Based on the risks, he/she shall determine the carriage of life-saving and signalling equipment.

BOP.BAS.345 Survival equipment

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

BOP.BAS.350 Miscellaneous equipment

- (a) Balloons shall be equipped with protective gloves for each crew member.
- (b) Hot-air balloons and hot-air airships shall be equipped with:
 - (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; and
 - (4) a drop line of at least 25 m in length.
- (c) Gas balloons shall be equipped with:
 - (1) a knife; and
 - (2) a trail rope of at least 20 m in length made of natural fibre or electrostatic, conductive material.

BOP.BAS.355 Radio communication equipment

- (a) When required by the airspace being flown, balloons shall be equipped with radio communication equipment at the pilot's station, capable of conducting two-way communication with those aeronautical stations or those frequencies to meet airspace requirements.
- (b) Radio communication equipment, if required by (a), shall provide for communication on the aeronautical emergency frequency 121.5 MHz.

BOP.BAS.360 Transponder

When required by the airspace being flown, balloons shall be equipped with a secondary surveillance radar (SSR) transponder with all the required capabilities.

SUBPART ADD
ADDITIONAL REQUIREMENTS FOR COMMERCIAL OPERATIONS

SECTION 1
General organisation requirements

BOP.ADD.001 Scope

This Subpart establishes the additional requirements to be met by an operator conducting:

- (a) commercial passenger ballooning (CPB); or
- (b) commercial specialised operations.

BOP.ADD.005 Operator responsibilities

- (a) The operator is responsible for the operation of the balloon in accordance with Annex IV to Regulation (EC) No 216/2008, as applicable, the relevant requirements of this Subpart and its declaration.
- (b) Every flight shall be conducted in accordance with the provisions of the operations manual.
- (c) The operator shall ensure that its balloons are equipped and its crews 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:
 - (1) are properly trained and instructed;
 - (2) are aware of the rules and procedures relevant to their particular duties;
 - (3) have demonstrated their abilities in their particular duties; and
 - (4) are aware of their responsibilities and the relationship of such duties to the operation as a whole.
- (e) The operator shall establish procedures and instructions for the safe operation of each balloon type, containing crew member duties and responsibilities, for all types of operations. These procedures and instructions shall not require crew members to perform any activities 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 by individuals with adequate experience and the skills to ensure the attainment of the standards specified in the operations manual.
- (g) The operator shall ensure that all personnel are made aware that they shall comply with the laws, regulations and procedures of those States in which operations are conducted and 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. These procedures shall be included in the operations manual.

BOP.ADD.010 Alternative means of compliance (AltMoC)

The operator shall notify to the competent authority the list of AltMoCs it uses to establish compliance with Regulation (EC) No 216/2008 and its implementing rules.

BOP.ADD.015 Access

- (a) For the purpose of determining compliance with the relevant requirements of Regulation (EC) No 216/2008 and its implementing rules, the operator shall grant access at any time to any facility, balloon, document, records, data, procedures or any other material relevant to its activity subject to declaration, whether it is contracted or not, to any person authorised by one of the following authorities:
 - (1) the competent authority defined in BOP.BAS.005;
 - (2) the authority acting under the provisions of Annex II (Part-ARO) to Regulation (EU) No 965/2012.
- (b) Access to the balloon mentioned under (a) shall, in the case of CPB, 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 notification of findings, the operator shall:

- (a) identify the root cause of the non-compliance;
- (b) define a corrective action plan; and
- (c) demonstrate corrective action implementation to the satisfaction of the competent authority within a period agreed with that authority as defined in Annex II (Part-ARO) to Regulation (EU) No 965/2012.

BOP.ADD.025 Occurrence reporting

- (a) As part of its management system the operator shall implement an occurrence reporting scheme as defined in Regulation (EC) No 216/2008 and its implementing rules, including mandatory and voluntary reporting that meets the requirements as defined in Regulation (EU) No 376/2014 ⁽⁵⁾.
- (b) Without prejudice to paragraph (a), the operator shall report to the competent authority and to the organisation responsible for the design of the balloon any incident, malfunction, technical defect, exceeding of technical limitations or occurrence that would highlight inaccurate, incomplete or ambiguous information contained in data established in accordance with the Annex I (Part 21) to Regulation (EU) No

⁽⁵⁾ Regulation (EU) No 376/2014 of the European Parliament and of the Council of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation, amending Regulation (EU) No 996/2010 of the European Parliament and of the Council and repealing Directive 2003/42/EC of the European Parliament and of the Council and Commission Regulations (EC) No 1321/2007 and (EC) No 1330/2007 (OJ L 122, 24.4.2014, p. 18).

748/2012⁽⁶⁾ or other irregular circumstance that has or may have endangered the safe operation of the balloon and that has not resulted in an accident or serious incident.

- (c) Without prejudice to Regulation (EU) No 376/2014, the reports referred to in paragraphs (a) and (b) shall be made in a form and manner established by the competent authority and shall contain all pertinent information about the condition known to the operator.
- (d) The operator shall report as soon as practicable, but in any event within 72 hours after becoming aware of the occurrence, unless exceptional circumstances prevent this.
- (e) Where relevant, the operator shall produce a follow-up report to provide details of actions it intends to take to prevent similar occurrences in the future, as soon as these actions have been identified. This report shall be produced in a form and manner established by the competent authority.

BOP.ADD.030 Management system

- (a) The operator shall establish, implement and maintain a management system that includes:
 - (1) clearly defined lines of responsibility and accountability throughout 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, referred to as the safety policy;
 - (3) the identification of aviation safety hazards entailed by the activities of the operator, their evaluation and the management of associated risks, including taking actions to mitigate the risk and verify their effectiveness;
 - (4) maintaining personnel trained and competent to perform their tasks;
 - (5) documentation of all management system key processes, including a process for making personnel aware of their responsibilities and the procedure for amending this documentation;
 - (6) a function to monitor compliance of the operator with the relevant requirements. Compliance monitoring shall include a feedback system of findings to the accountable manager to ensure effective implementation of corrective actions as necessary; and
 - (7) any additional requirements that are prescribed in the relevant Subparts of this Annex and as prescribed in Regulation (EU) No 376/2014.
- (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 inherent in these activities.

BOP.ADD.035 Contracted activities

- (a) The operator shall ensure that when contracting or purchasing any part of its activity, the contracted or purchased service conforms to the applicable requirements.

⁽⁶⁾ Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (OJ L 224, 21.8.2012, P.1).

- (b) When the declared operator contracts any part of its activity to an organisation that is not itself declared in accordance with this Annex to carry out such activity, the contracted organisation shall work under the declaration of the operator. The contracting organisation shall ensure that the competent authority is given access to the contracted organisation to determine continued compliance with the applicable requirements.

BOP.ADD.040 Personnel requirements

- (a) The operator shall appoint an accountable manager who has the authority to ensure that all activities can be financed and carried out in accordance with the applicable requirements. The accountable manager shall be responsible for establishing and maintaining an effective management system.
- (b) The operator shall:
 - (1) identify the responsibilities of personnel for all tasks and activities to be performed in compliance with the applicable requirements;
 - (2) have sufficient qualified personnel for these tasks and activities; and
 - (3) maintain appropriate experience, qualification and training records of personnel.
- (c) The operator shall nominate one or more persons responsible for the management and supervision of the following areas:
 - (1) flight operations;
 - (2) ground operations; and
 - (3) continuing airworthiness in accordance with Regulation (EU) No 1321/2014.

BOP.ADD.045 Facility requirements

The operator shall have facilities allowing the performance and management of all planned tasks and activities in accordance with the applicable requirements.

SECTION 2

Declaration

BOP.ADD.100 Declaration

- (a) Prior to commencing commercial operations, the operator shall provide the competent authority with a declaration.
- (b) For the declaration, the operator shall use the form contained in Appendix I to this Subpart.
- (c) The operator shall:
 - (1) maintain compliance with the applicable requirements and with the information given in the declaration;

- (2) notify the competent authority without delay of any changes to its declaration or the means of compliance it uses through submission of an amended declaration using the form contained in Appendix I to this Subpart; and
- (3) notify the competent authority when it ceases operation.

BOP.ADD.105 Airworthiness requirements

Balloons shall have a certificate of airworthiness in accordance with Regulation (EU) No 748/2012 or shall be leased-in in accordance with BOP.ADD.110.

BOP.ADD.110 Lease-in of a third-country balloon

- (a) Any lease-in

The operator shall notify to the competent authority any lease agreement concerning a third-country balloon to be operated in accordance with this Subpart.

- (b) Wet lease-in of a third-country balloon

The operator shall ensure that the safety standards of the third-country operator with regard to continuing airworthiness and air operations are equivalent to the applicable requirements of Regulation (EU) No 1321/2014 and to this Annex.

- (c) Dry lease-in of a balloon registered in a third country

The operator shall ensure compliance with the applicable continuing airworthiness requirements of Annexes I and IV to Regulation (EC) No 216/2008, and with this Annex.

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 Annex and shall not contravene the conditions contained in the declaration.
- (c) The operations manual may be issued in separate parts.
- (d) All operations personnel 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 shall be made aware of the amendments and revisions that are relevant to their duties.
- (f) The operator shall ensure that information taken from other documents, and any amendment thereof, is correctly reflected in the operations manual. This does not prevent the operator from publishing more conservative data and procedures 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 pertain to their duties and responsibilities are written. The content of the operations manual shall be presented in a form that can be used without difficulty and observes human factors principles.

BOP.ADD.205 Documentation requirements

The operator shall be capable of producing and distributing manuals and any other documentation without delay.

BOP.ADD.210 Record-keeping

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

SECTION 4

Flight crew

BOP.ADD.300 Composition of flight crew

- (a) The composition of the flight crew shall be not less than the minimum 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 and shall not be reduced below the number specified in the operations manual.
- (c) All flight crew members shall hold a licence and ratings issued or accepted in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011 and appropriate to the duties assigned to them.
- (d) The flight crew member may be relieved in flight of his/her 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 applicable requirements of this Subpart and the relevant elements of Annex I (Part-FCL) to Regulation (EU) No 1178/2011 are complied with. This shall include the requirements on recent experience and take into account the applicable flight and duty time limitations and rest requirements.

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

- (a) One pilot amongst the flight crew, qualified as pilot-in-command in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011, shall be designated by the operator as pilot-in-command.
- (b) The operator shall only designate a flight crew member to act as pilot-in-command if he/she has:
 - (1) the minimum level of experience specified in the operations manual; and

- (2) adequate knowledge of the area to be flown.

BOP.ADD.310 Provision of training and checking

All the training required in this Subpart shall be conducted:

- (a) in accordance with the training programmes and syllabi established by the operator in the operations manual; and
- (b) by appropriately qualified personnel. In the case of flight training and checking, the personnel providing the training and conducting the checks shall be qualified in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011.

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/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/her competence in carrying out normal, abnormal and emergency procedures, covering the relevant aspects associated with the specialised tasks described in the operations manual. Appropriate consideration shall be given when operations are undertaken under VFR at night.
- (c) The validity period of the operator proficiency check shall be 24 calendar months. The validity period shall be counted from the end of the month when the check was undertaken. When the operator proficiency check is undertaken within the last 3 months of the validity period, the new validity period shall be counted from the original expiry date.

SECTION 5

General operating requirements

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

- (a) The pilot-in-command shall:
 - (1) comply with the relevant requirements of the operator's occurrence reporting schemes; and
 - (2) comply with all flight and duty time limitations and rest requirements applicable to his/her activities.
- (b) The pilot-in-command shall not perform duties on a balloon until a reasonable time period has elapsed after deep water diving or following blood donation.

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

Notwithstanding 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 and of persons or property carried therein.

BOP.ADD.410 Additional balloon crew member

- (a) When a balloon carries more than 19 passengers, at least one additional crew member appropriately experienced and trained shall be present on board to assist passengers in the event of an emergency.
- (b) The additional crew member shall not perform duties on a balloon until a reasonable time period has elapsed after deep water diving or following blood donation.

BOP.ADD.415 Common language

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

BOP.ADD.420 Alcohol and drugs

The operator shall take all reasonable measures to ensure that no person enters or is in a balloon when under the influence of alcohol or drugs to the extent that the safety of the balloon or its occupants is likely to be endangered.

BOP.ADD.425 Endangering

The operator shall take all reasonable measures to ensure that no person intentionally, recklessly or negligently acts or omits to act so as to:

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

BOP.ADD.430 Documents, manuals and information to be carried

- (a) The following documents, manuals and information shall be carried on each flight as originals or copies:
 - (1) the declaration;
 - (2) information concerning search and rescue services for the area of the intended flight; and
 - (3) the operational flight plan, if applicable.
- (b) The following documents, manuals and information, as originals, shall be stowed at a safe place:
 - (1) documentation under (a), when copies are carried on each 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, if applicable; and
 - (4) mass documentation.

- (c) When requested by the competent authority, the pilot-in-command or the operator shall make available the original documentation in a time frame required by the competent authority, with a minimum of 24 hours.

BOP.ADD.435 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 inadvertently; and
- (b) provide crew members with the necessary information enabling them to meet their responsibilities.

SECTION 6

Operating procedures

BOP.ADD.500 Fuel or ballast supply and planning

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 (SCPs)

The operator shall establish procedures for carrying SCPs under conditions that ensure the safety of the balloon and its occupants.

BOP.ADD.510 Commercial specialised operations — Standard operating procedures (SOPs)

Notwithstanding BOP.BAS.190:

- (a) Before commencing a commercial specialised operation, the operator shall conduct a risk assessment, assessing the complexity of the activity to determine the hazards and associated risks inherent in the operation and establish mitigating measures.
- (b) Based on the risk assessment to be conducted before commencing a commercial specialised operation, the operator shall establish SOPs appropriate to the specialised activity and balloon used. The SOPs shall be part of the operations manual or a separate document, and shall be regularly reviewed and updated, as appropriate.
- (c) The operator shall ensure that commercial specialised operations are performed in accordance with the SOPs.

SECTION 7

Performance and operating limitations

BOP.ADD.600 System for determining the mass

- (a) The operator shall establish a system specifying how 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; and
 - (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 shall be prepared prior to each flight and documented in an operational flight plan.

Appendix I

DECLARATION in accordance with Regulation (EU) No .../... on balloons
Operator Name: Place in which the operator is established or resides, and place from which the operations are directed: Name and contact details of the accountable manager:
Continuing airworthiness management organisation in accordance with Regulation (EU) No 1321/2014 Name and address of the organisation and approval reference (as per EASA Form 14)
Balloon operation
Starting date of operation/applicability date of the change:
Type(s) of operations (specify which type of activity):
Type(s) of balloon, registration(s) and main base:
Details of approvals held:
List of AltMoCs with references to the AMCs they replace (attach to the declaration):

Statements

The management system documentation including the operations manual reflect the applicable requirements set out in Subpart ADD of Annex II. All flights will be carried out in accordance with the procedures and instructions specified in the operations manual.

All balloons operated hold a valid certificate of airworthiness and comply with Regulation (EU) No 1321/2014.

All flight crew members are trained in accordance with the applicable requirements.

(If applicable)

The operator has implemented and demonstrated conformance to an officially recognised industry standard.

Reference of the standard:

Certification body:

Date of the last conformance audit:

Any change to the operation that affects the information disclosed in this declaration will be notified to the competent authority.

The operator confirms that the information disclosed in this declaration is correct.

Date, name and signature of the accountable manager