

Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Part-BFCL

Requirements for balloon flight crew licensing

Issue 1

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TABLE OF CONTENTS

AMC1 BFCL.015 Application for and issue, revalidation and renewal of a BPL as well as associated privileges, ratings and certificates	6
APPLICATION AND REPORT FORMS	6
GM1 BFCL.015(c) Application for and issue, revalidation and renewal of a BPL as well as associated privileges, ratings and certificates	6
HOT-AIR BALLOON GROUP ENDORSEMENTS AND RECENCY	6
AMC1 BFCL.045(a)(4) Obligation to carry and present documents.....	6
SUFFICIENT LOGBOOK DATA.....	6
AMC1 BFCL.050 Recording of flight time	6
GENERAL	6
GM1 BFCL.065 Curtailment of privileges of BPL holders aged 70 years or older in commercial passenger ballooning	7
APPLICABILITY OF AGE LIMITATION	7
AMC1 BFCL.130 BPL — Training course and experience requirements	8
THEORETICAL KNOWLEDGE INSTRUCTION FOR THE BPL	8
AMC2 BFCL.130 BPL — Training course and experience requirements	10
FLIGHT INSTRUCTION FOR THE BPL.....	10
AMC1 BFCL.135 BPL — Theoretical knowledge examinations	20
GM1 BFCL.135 BPL — Theoretical knowledge examinations	21
TERMINOLOGY	21
AMC1 BFCL.145 BPL — Practical skill test.....	21
(a) GENERAL	21
(b) FLIGHT TEST TOLERANCE	21
(c) CONTENT OF THE SKILL TEST	21
AMC1 BFCL.150(b) BPL — Extension of privileges to another balloon class or group	24
EXTENSION OF HOT-AIR BALLOON CLASS PRIVILEGES TO ANOTHER HOT-AIR BALLOON GROUP .	24
GM1 BFCL.150(b) BPL — Extension of privileges to another balloon class or group	24
EXTENSION OF HOT-AIR BALLOON CLASS PRIVILEGES TO ANOTHER HOT-AIR BALLOON GROUP .	24
AMC1 BFCL.150(c)(1) BPL — Extension of privileges to another balloon class or group	24
FLIGHT INSTRUCTION FOR THE EXTENSION OF PRIVILEGES TO THE HOT-AIR AIRSHIP CLASS	24
AMC2 BFCL.150(c)(1) BPL — Extension of privileges to another balloon class or group	29
FLIGHT INSTRUCTION FOR THE EXTENSION OF PRIVILEGES TO THE GAS BALLOON CLASS.....	29
AMC3 BFCL.150(c)(1) BPL — Extension of privileges to another balloon class or group	29
FLIGHT INSTRUCTION FOR THE EXTENSION OF PRIVILEGES TO THE HOT-AIR BALLOON CLASS	29
AMC1 BFCL.150(c)(2) BPL — Extension of privileges to another balloon class or group	30
(a) SKILL TEST FOR THE EXTENSION OF PRIVILEGES TO THE HOT-AIR AIRSHIP CLASS	30
(b) FLIGHT TEST TOLERANCE	30
(c) CONTENT OF THE SKILL TEST	30
AMC2 BFCL.150(c)(2) BPL — Extension of privileges to another balloon class or group	31
SKILL TEST FOR THE EXTENSION OF PRIVILEGES TO THE GAS BALLOON CLASS	31

AMC3 BFCL.150(c)(2) BPL — Extension of privileges to another balloon class or group	32
SKILL TEST FOR THE EXTENSION OF PRIVILEGES TO THE HOT-AIR BALLOON CLASS	32
AMC4 BFCL.150(c)(2) BPL — Extension of privileges to another balloon class or group	32
THEORETICAL KNOWLEDGE FOR EXTENSION OF PRIVILEGES TO ANOTHER BALLOON CLASS	32
AMC1 BFCL.160 BPL — Recency requirements	33
CREDITS FOR FLIGHT TIME COMPLETED ON BALLOONS AS PER ARTICLE 2(8) OF AS WELL AS ANNEX I TO THE BASIC REGULATION	33
AMC1 BFCL.160(a)(1)(ii) Recency requirements.....	33
TRAINING FLIGHT	33
AMC1 BFCL.160(a)(2) Recency requirements	34
PROFICIENCY CHECK	34
GM1 BFCL.200 Tethered hot-air balloon flight rating.....	34
TETHERED ACTIVITY WITHOUT TAKING OFF	34
AMC1 BFCL.200(b)(2) Tethered hot-air balloon flight rating.....	34
FLIGHT INSTRUCTION FOR THE HOT-AIR BALLOON TETHERED FLIGHT RATING.....	34
AMC1 BFCL.210(b) Night rating	35
INSTRUCTION FLIGHTS FOR THE NIGHT RATING	35
GM1 BFCL.210(c) Night rating.....	35
DURATION OF THE NIGHT RATING TRAINING	35
AMC1 BFCL.215(b)(4) Commercial operation rating.....	35
SKILL TEST FOR THE COMMERCIAL OPERATION RATING.....	35
(a) GENERAL	35
(b) FLIGHT TEST TOLERANCE	36
(c) CONTENT OF THE SKILL TEST	36
AMC1 BFCL.215(d)(1)(i) Commercial operation rating	40
CRITERIA FOR RECENCY FLIGHTS AS PIC	40
AMC1 BFCL.215(d)(2)(i) Commercial operation rating	40
PROFICIENCY CHECK	40
AMC1 BFCL.215(d)(2)(i); BFCL.215(h) Commercial operation rating.....	40
CREDITS FOR A PROFICIENCY CHECK IN ACCORDANCE WITH PART-BOP.....	40
AMC1 BFCL.215(d)(2)(ii) Commercial operation rating	41
REFRESHER COURSE.....	41
(a) THEORETICAL KNOWLEDGE INSTRUCTION	41
(b) TRAINING FLIGHT	42
AMC1 BFCL.315(a)(4)(ii) FI(B) certificate — Privileges and conditions.....	42
ADDITIONAL TRAINING REQUIRED BEFORE INSTRUCTING DURING FI(B) TRAINING COURSES.....	42
AMC1 BFCL.325 FI(B) competencies and assessment.....	42
AMC1 BFCL.330(a) FI(B) — Training course	44
PRE-ENTRY ASSESSMENT	44
AMC1 BFCL.330(b) FI(B) — Training course	44
(a) GENERAL	44
(b) STRUCTURE AND CONTENT	44
AMC1 BFCL.345 FI(B) — Assessment of competence	62

GENERAL	62
AMC2 BFCL.345 FI(B) — Assessment of competence	63
CONTENT OF THE ASSESSMENT OF COMPETENCE	63
AMC3 BFCL.345 FI(B) — Assessment of competence	64
APPLICATION AND REPORT FORM FOR THE FI(B) ASSESSMENT OF COMPETENCE	64
AMC1 BFCL.360(a)(1)(i) FI(B) certificate — Recency requirements.....	66
INSTRUCTOR REFRESHER TRAINING	66
GM1 BFCL.360(a)(1)(i) FI(B) certificate — Recency requirements.....	67
FREQUENCY OF INSTRUCTOR REFRESHER TRAINING	67
AMC1 BFCL.360(a)(2) FI(B) certificate — Recency requirements.....	67
INSTRUCTION FLIGHT UNDER SUPERVISION	67
GM1 BFCL.405 Limitation of privileges in case of vested interests	67
GM1 BFCL.405(a) Limitation of privileges in case of vested interests.....	67
EXAMINERS WHO PROVIDED INSTRUCTION TO THE CANDIDATE	67
AMC1 BFCL.410(b)(3) Conduct of skill tests, proficiency checks and assessments of competence... 68	
APPLICATION AND REPORT FORM FOR THE BPL SKILL TEST OR PROFICIENCY CHECK	68
AMC1 BFCL.415(b) FE(B) certificate — Privileges and conditions	69
SPECIFIC TRAINING FOR EXAMINER PRIVILEGES RELATED TO THE COMMERCIAL OPERATION	
RATING	69
AMC1 BFCL.415(c)(2) FE(B) certificate — Privileges and conditions	70
SPECIFIC TRAINING FOR EXAMINER PRIVILEGES RELATED TO THE FI(B) CERTIFICATE	70
AMC1 BFCL.420(d) FE(B) certificate — Prerequisites and requirements	70
EVALUATION OF THE RELEVANT BACKGROUND OF AN APPLICANT	70
AMC1 BFCL.430 FE(B) certificate — Standardisation course.....	70
(a) GENERAL	70
(b) CONTENT.....	70
AMC2 BFCL.430 FE(B) certificate — Standardisation course.....	71
STANDARDISATION ARRANGEMENTS FOR EXAMINERS.....	71
GM1 BFCL.430 FE(B) certificate — Standardisation course.....	74
PLANNING OF TESTS AND CHECKS.....	74
AMC1 BFCL.445 FE(B) certificate — Assessment of competence.....	74
(a) GENERAL	74
(b) DEFINITIONS.....	74
(c) CONDUCT OF THE ASSESSMENT	75
(d) BRIEFING THE 'CANDIDATE'	75
(e) ASSESSMENT	75
(f) DEBRIEFING.....	76
(g) RECORDING OR DOCUMENTATION.....	76
(h) DEMONSTRATION OF THEORETICAL KNOWLEDGE	76
AMC1 BFCL.445; BFCL.460 FE(B) certificate — Assessment of competence; FE(B) certificate —	
Validity, revalidation and renewal.....	76
QUALIFICATION OF SENIOR EXAMINERS.....	76
AMC1 BFCL.460(b)(1) FE(B) certificate — Validity, revalidation and renewal.....	77
EXAMINER REFRESHER COURSE.....	77

AMC1 BFCL.015 Application for and issue, revalidation and renewal of a BPL as well as associated privileges, ratings and certificates

APPLICATION AND REPORT FORMS

Application and report forms can be found as follows:

- (a) for skill tests and proficiency checks for the balloon pilot licence (BPL) as well as for the commercial operation rating, in AMC1 BFCL.410(b)(3); and
- (b) for the assessment of competence for the flight instructor (balloon) FI(B), in AMC3 BFCL.345.

GM1 BFCL.015(c) Application for and issue, revalidation and renewal of a BPL as well as associated privileges, ratings and certificates

HOT-AIR BALLOON GROUP ENDORSEMENTS AND REGENCY

When complying with recency requirements for the hot-air balloon class in a smaller balloon group, a licence endorsement related to privileges for a bigger balloon group does not need to be removed from the licence. Those privileges for the bigger group remain 'inactive' and can be exercised once the recency requirements are complied with in that bigger group.

For example, if a BPL holder holds privileges for hot-air balloon groups A, B and C and completes the proficiency check in accordance with point BFCL.160 in a hot-air balloon that represents group B, it is not necessary for the BPL holder to have the licence reissued without an endorsement for group C. The privileges for group C can be exercised after complying with recency requirements in group C balloons.

AMC1 BFCL.045(a)(4) Obligation to carry and present documents

SUFFICIENT LOGBOOK DATA

In order to be able to demonstrate compliance with the requirements of Part-BFCL, a BPL holder should carry either the full logbook or at least excerpts or copies of those parts of the logbook (in paper or electronic format) in which compliance with the requirements that are related to the exercised privileges is documented.

AMC1 BFCL.050 Recording of flight time

GENERAL

- (a) The record of the flights flown should contain at least the following information:
 - (1) personal details: name(s) and address of the pilot; and
 - (2) for each flight:
 - (i) name(s) of pilot-in-command (PIC);

- (ii) date of flight;
 - (iii) place and time of departure and arrival;
 - (iv) type, including make, model, and registration of the balloon;
 - (v) total time of flight;
 - (vi) accumulated total time of flight;
 - (v) details on pilot function, namely PIC, including solo, dual, FI(B) or flight examiner (balloon) FE(B); and
 - (vi) operational conditions, namely if the operation takes place at day or night and whether it is a free flight or tethered flight.
- (b) Logging of time
 - (1) PIC flight time
 - (i) Holders of a licence may log as PIC time all of the flight time during which they are the PIC.
 - (ii) Applicants for or holders of a BPL may log as PIC time all supervised solo flight time as well as flight time of successfully completed skill tests and proficiency checks, provided that, in the case of supervised solo flight time, the logbook entry is signed by the supervising instructor.
 - (iii) Holders of an FI(B) certificate may log as PIC all flight time during which they act as an instructor in a balloon.
 - (iv) Holders of an FE(B) certificate may log as PIC all flight time during which they act as an examiner in a balloon.
 - (2) Instruction time

A summary of all time logged by an applicant for a licence or rating as flight instruction may be logged if certified by the appropriately rated or authorised instructor from whom it was received.
- (c) Format of the record

A suitable format should be used that contains the relevant items mentioned in (a) and additional information specific to the type of operation.

GM1 BFCL.065 Curtailment of privileges of BPL holders aged 70 years or older in commercial passenger ballooning

APPLICABILITY OF AGE LIMITATION

‘Commercial passenger ballooning’ as per point BFCL.065 includes any flight during which fare-paying passengers are carried. This means that, for example, if during a competition or a promotion flight fare-paying passengers are carried, the age limitation of point BFCL.065 for the BPL holder applies.

AMC1 BFCL.130 BPL — Training course and experience requirements

THEORETICAL KNOWLEDGE INSTRUCTION FOR THE BPL

(a) General

The training should cover aspects related to non-technical skills in an integrated manner, taking into account the particular risks associated with the licence and the activity. The theoretical knowledge instruction provided by the declared training organisation (DTO) or approved training organisation (ATO) should include a certain element of formal classroom work but may also include other methods of delivery — for example, interactive video, slide or tape presentation, computer-based training and other media distance-learning courses. The training organisation responsible for the training has to check whether all the appropriate elements of the training course of theoretical knowledge instruction have been completed to a satisfactory standard before recommending the applicant for the examination.

(b) Syllabus

The following table contains the syllabus for theoretical knowledge instruction for the BPL:

Note: The content of Subjects 5 (Principles of flight), 6 (Operational procedures), 7 (Flight performance and planning), and 8 (Aircraft general knowledge, envelope and systems and emergency equipment) should contain aspects as relevant for the class of balloon used for the training, unless a certain element is specifically marked as relevant for one particular class only.

1.	AIR LAW AND ATC PROCEDURES
1.1.	International law: conventions, agreements and organisations
1.2.	Airworthiness of aircraft
1.3.	Aircraft nationality and registration marks
1.4.	Personnel licensing
1.5.	Rules of the air
1.6.	Procedures for air navigation: aircraft operations
1.7.	Air traffic regulations: airspace structure
1.8.	Air traffic services (ATS) and air traffic management (ATM)
1.9.	Aeronautical information services (AIS)
1.10.	Aerodromes, external take-off sites
1.11.	Search and rescue
1.12.	Security
1.13.	Accident reporting
1.14.	National law
2.	HUMAN PERFORMANCE
2.1.	Human factors: basic concepts
2.2.	Basic aviation physiology and health maintenance
2.3.	Basic aviation psychology
2.4.	Use of oxygen
3.	METEOROLOGY
3.1.	The atmosphere
3.2.	Wind

3.3.	Thermodynamics
3.4.	Clouds and fog
3.5.	Precipitation
3.6.	Air masses and fronts
3.7	Pressure systems
3.8.	Climatology
3.9.	Flight hazards
3.10.	Meteorological information
4.	COMMUNICATIONS
4.1.	Definitions
4.2.	VFR communications
4.2.1	VFR communication at uncontrolled airfields
4.2.2.	VFR communication at controlled airfields
4.2.3.	VFR communication with ATC (en-route)
4.3.	General operating procedures
4.4.	Relevant weather information terms (VFR)
4.5.	Action required to be taken in case of communication failure
4.6.	Distress and urgency procedures
4.7.	General principles of VHF propagation and allocation of frequencies
5.	PRINCIPLES OF FLIGHT
5.1.	Principles of flight
5.2.	Aerostatics
5.3.	Loading limitations
5.4.	Operational limitations
6.	OPERATIONAL PROCEDURES
6.1.	General requirements
6.2.	Special operational procedures and hazards (general aspects)
6.3.	Emergency procedures
7.	FLIGHT PERFORMANCE AND PLANNING
7.1.	Mass
7.1.1.	Purpose of mass considerations
7.1.2.	Loading
7.2.	Performance
7.2.1.	Performance: general
7.3.	Flight planning and flight monitoring
7.3.1.	Flight planning: general
7.3.2.1.	Fuel planning (hot-air balloons only)
7.3.2.2.	Ballast planning (gas balloons only)
7.3.3.	Pre-flight preparation
7.3.4.	ICAO flight plan (ATS flight plan)
7.3.5.	Flight monitoring and in-flight re-planning
8.	AIRCRAFT GENERAL KNOWLEDGE, ENVELOPE AND SYSTEMS AND EMERGENCY EQUIPMENT
8.1.	System design, loads, stresses and maintenance

8.2.	Envelope
8.3.1.	Burner (hot-air balloon only)
8.3.2.	Basket
8.4.1	Fuel cylinders (hot-air balloons only)
8.4.2.	Lifting gas (gas balloons only)
8.5.	Ballast (gas balloons only)
8.6.	Fuel (hot-air balloons only)
8.7.	Instruments
8.8.	Emergency equipment
9.	NAVIGATION
9.1.	General navigation
9.2.	Basics of navigation
9.3.	Magnetism and compasses
9.4.	Charts
9.5.	Dead reckoning navigation
9.6.	In-flight navigation
9.7.	Use of GNSS
9.8.	Use of ATS

AMC2 BFCL.130 BPL — Training course and experience requirements

FLIGHT INSTRUCTION FOR THE BPL

(a) Entry to training

Before being accepted for training, an applicant should be informed that the appropriate medical certificate must be obtained before solo flying is permitted.

(b) Flight instruction — general

- (1) The BPL flight instruction syllabus should take into account the principles of threat and error management (TEM) and also cover:
 - (i) pre-flight operations, including load calculations, balloon inspection and servicing;
 - (ii) crew and passenger briefings;
 - (iii) inflation and crowd control;
 - (iv) control of the balloon by external visual reference;
 - (v) take-off in different wind conditions;
 - (vi) approach from low and high level;
 - (vii) landings in different surface wind conditions;
 - (viii) cross-country flying using visual reference and dead reckoning;
 - (ix) emergency operations, including simulated balloon equipment malfunctions;
 - (x) compliance with air traffic services procedures and communication procedures;
 - (xi) avoidance of nature protection areas; and

- (xii) landowner relations.
- (2) Before allowing applicants to undertake their first solo flight, the FI should ensure that they can operate the required systems and equipment.
- (c) Syllabus of flight instruction (hot-air balloon)
 - (1) The numbering of exercises should be used primarily as an exercise reference list and as a broad instructional sequencing guide; therefore, the demonstrations and practices need not necessarily be given in the order listed. The actual order and content will depend upon the following interrelated factors:
 - (i) the applicant's progress and ability;
 - (ii) the weather conditions affecting the flight;
 - (iii) the flight time available;
 - (iv) the instructional technique considerations;
 - (v) the local operating environment; and
 - (vi) the applicability of the exercises to the balloon type.
 - (2) Each of the exercises requires the applicant to be aware of the need for as well as the principles of good airmanship and look-out, which should be emphasised at all times.
 - (3) List of exercises

Exercise 1: Familiarisation with the balloon

- (i) characteristics of the balloon;
- (ii) the components or systems;
- (iii) refuelling of the cylinders;
- (iv) instruments and equipment; and
- (v) use of checklist(s) and procedures.

Exercise 2: Preparation for flight

- (i) documentation and equipment;
- (ii) weather forecast and actuals;
- (iii) flight planning:
 - (A) notices to airmen (NOTAMs);
 - (B) airspace structure;
 - (C) sensitive areas (for example, nature protection areas);
 - (D) expected track and distance;
 - (E) pre-flight picture; and
 - (F) possible landing fields.
- (iv) launch field:
 - (A) permission;
 - (B) field selection;
 - (C) behaviour; and

- (D) adjacent fields; and
- (v) load calculations.

Exercise 3: Crew and passenger briefing

- (i) clothing;
- (ii) crew briefing; and
- (iii) passenger briefing.

Exercise 4: Assembly and layout

- (i) crowd control;
- (ii) rigging envelope, basket and burner;
- (iii) burner test;
- (iv) use of restraint line; and
- (v) pre-inflation checks.

Exercise 5: Inflation

- (i) crowd control;
- (ii) cold inflation;
- (iii) use of the inflation fan; and
- (iv) hot inflation.

Exercise 6: Take-off in different wind conditions

- (i) pre-take-off checks and briefings;
- (ii) heating for controlled climb;
- (iii) 'hands off and hands on' procedure for ground crew;
- (iv) assessment of lift;
- (v) use of quick release;
- (vi) assessment of wind and obstacles;
- (vii) take-off in wind of different speeds, with and without shelter; and
- (viii) preparation for false lift.

Exercise 7: Climb to level flight

- (i) climbing with a predetermined rate of climb;
- (ii) look-out procedures;
- (iii) effect on envelope temperature;

- (iv) maximum rate of climb according to the manufacturer's flight manual; and
- (v) levelling off at selected altitude.

Exercise 8: Level flight

- (i) maintaining level flight by:
 - (A) use of instruments only;
 - (B) use of visual references only; and
 - (C) all available means; and
- (ii) use of parachute and turning vents (if applicable).

Exercise 9: Descent to level flight

- (i) descent with a predetermined rate of descent;
- (ii) fast descent;
- (iii) look-out procedures;
- (iv) maximum rate of descent according to the manufacturer's flight manual;
- (v) use of parachute;
- (vi) parachute stall;
- (vii) cold descent; and
- (viii) levelling off at selected altitude.

Exercise 10A: Emergencies — systems

- (i) pilot light failure;
- (ii) burner failure, valve leaks, flame out and re-light;
- (iii) gas leaks;
- (iv) envelope over temperature;
- (v) envelope damage in-flight; and
- (vi) parachute or rapid deflation system failure.

Exercise 10B: Other emergencies

- (i) fire extinguisher;
- (ii) fire on ground;
- (iii) fire in the air;
- (iv) contact with electrical power lines;
- (v) obstacle avoidance; and

- (vi) escape drills, location and use of emergency equipment.

Exercise 11: Navigation

- (i) maps selection;
- (ii) plotting expected track;
- (iii) marking positions and time;
- (iv) calculation of distance, speed and fuel consumption;
- (v) ceiling limitations (ATC, weather and envelope temperature);
- (vi) planning ahead;
- (vii) monitoring of weather development and related decision-making/acting;
- (viii) monitoring of fuel consumption and envelope temperature;
- (ix) ATC liaison (if applicable);
- (x) communication with retrieve crew; and
- (xi) use of GNSS (if applicable).

Exercise 12: Fuel management

- (i) cylinder arrangement and burner systems;
- (ii) pilot light supply (vapour or liquid);
- (iii) use of master cylinders (if applicable);
- (iv) fuel requirement and expected fuel consumption;
- (v) fuel state and pressure;
- (vi) fuel reserves;
- (vii) cylinder contents gauge and change procedure; and
- (viii) use of cylinder manifolds.

Exercise 13: Approach from low level

- (i) pre-landing checks;
- (ii) passenger pre-landing briefing;
- (iii) selection of field;
- (iv) use of burner and parachute;
- (v) look-out procedures; and
- (vi) missed approach and fly on.

Exercise 14: Approach from high level

- (i) pre-landing checks;

- (ii) passenger pre-landing briefing;
- (iii) selection of field;
- (iv) rate of descent;
- (v) use of burner and parachute;
- (vi) look-out procedures; and
- (vii) missed approach and fly on.

Exercise 15: Operating at low level

- (i) use of burner, whisper burner and parachute;
- (ii) look-out procedures;
- (iii) avoidance of low-level obstacles;
- (iv) avoidance of sensitive areas and nature protection areas; and
- (v) landowner relations.

Exercise 16: Landing in different wind conditions

- (i) pre-landing checks;
- (ii) passenger pre-landing briefing;
- (iii) selection of field;
- (iv) turbulence (in the case of landings with high wind speed only);
- (v) use of burner and pilot lights;
- (vi) use of parachute (or other deflation system) and turning vents (if applicable);
- (vii) look-out procedures;
- (viii) dragging and deflation;
- (ix) landowner relations; and
- (x) airmanship.

Exercise 17: First solo flight

- (i) supervised flight preparation; and
- (ii) instructor's briefing, observation of flight and de-briefing.

Note: Exercises 1 to 16 must have been completed and the student must have achieved a sufficient level of competence to safely perform a flight before undertaking the first solo flight.

(d) Syllabus of flight instruction (gas balloon)

- (1) The numbering of exercises should be used primarily as an exercise reference list and as a broad instructional sequencing guide; therefore, the demonstrations and practices

need not necessarily be given in the order listed. The actual order and content will depend upon the following interrelated factors:

- (i) the applicant's progress and ability;
 - (ii) the weather conditions affecting the flight;
 - (iii) the flight time available;
 - (iv) the instructional technique considerations;
 - (v) the local operating environment; and
 - (vi) the applicability of the exercises to the balloon type.
- (2) Each of the exercises involves the need for the pilot under training to be aware of the needs of good airmanship and look-out, which should be emphasised at all times.
- (3) List of exercises

Exercise 1: Familiarisation with the balloon

- (i) characteristics of the balloon;
- (ii) the components or systems;
- (iii) instruments and equipment; and
- (iv) use of checklist(s) and procedures.

Exercise 2: Preparation for flight

- (i) documentation and equipment;
- (ii) weather forecast and actuals;
- (iii) flight planning:
 - (A) NOTAMs;
 - (B) airspace structure;
 - (C) sensitive areas (for example, nature protection areas);
 - (D) expected track and distance;
 - (E) pre-flight picture; and
 - (F) possible landing fields;
- (iv) launch field:
 - (A) permission;
 - (B) behaviour; and
 - (C) adjacent fields; and
- (v) load calculations.

Exercise 3: Crew and passenger briefing

- (i) clothing;
- (ii) crew briefing; and

- (iii) passenger briefing.

Exercise 4: Assembly and layout

- (i) crowd control;
- (ii) rigging envelope and basket (balloon with net);
- (iii) rigging envelope and basket (netless balloon); and
- (iv) ballast check.

Exercise 5: Inflation

- (i) crowd control;
- (ii) inflation procedure according to the manufacturer's flight manual; and
- (iii) avoidance of electrostatic discharge.

Exercise 6: Take-off in different wind conditions

- (i) pre-take-off checks and briefings;
- (ii) preparation for controlled climb;
- (iii) 'hands off and hands on' procedure for ground crew;
- (iv) assessment of wind and obstacles;
- (v) take-off in wind of different speeds, with and without shelter; and
- (vi) preparation for false lift.

Exercise 7: Climb to level flight

- (i) climb with a predetermined rate of climb;
- (ii) look-out procedures;
- (iii) maximum rate of climb according to the manufacturer's flight manual; and
- (iv) levelling off at selected altitude.

Exercise 8: Level flight

- (i) maintaining level flight by:
 - (A) use of instruments only;
 - (B) use of visual references only; and
 - (C) all available means; and
- (ii) use of parachute or valve.

Exercise 9: Descent to level flight

- (i) descent with a predetermined rate of descent;
- (ii) fast descent;
- (iii) look-out procedures;
- (iv) maximum rate of descent according to the manufacturer's flight manual;
- (v) use of parachute or valve; and
- (vi) levelling off at selected altitude.

Exercise 10: Emergencies

- (i) closed appendix during take-off and climb;
- (ii) envelope damage in-flight;
- (iii) parachute or valve failure;
- (iv) contact with electrical power lines;
- (v) obstacle avoidance; and
- (vi) escape drills, location and use of emergency equipment.

Exercise 11: Navigation

- (i) map selection;
- (ii) plotting expected track;
- (iii) marking positions and time;
- (iv) calculation of distance, speed and ballast consumption;
- (v) ceiling limitations (ATC, weather and ballast);
- (vi) planning ahead;
- (vii) monitoring of weather development and acting so;
- (viii) monitoring of ballast consumption;
- (ix) ATC liaison (if applicable);
- (x) communication with retrieve crew; and
- (xi) use of GNSS (if applicable).

Exercise 12: Ballast management

- (i) minimum ballast;
- (ii) arrangement and securing of ballast;
- (iii) ballast requirement and expected ballast consumption; and
- (iv) ballast reserves.

Exercise 13: Approach from low level

- (i) pre-landing checks;
- (ii) passenger pre-landing checks;
- (iii) selection of field;
- (iv) use of ballast and parachute or valve;
- (v) use of trail rope (if applicable);
- (vi) look-out procedures; and
- (vii) missed approach and fly on.

Exercise 14: Approach from high level

- (i) pre-landing checks;
- (ii) passenger pre-landing checks;
- (iii) selection of field;
- (iv) rate of descent;
- (v) use of ballast and parachute or valve;
- (vi) use of trail rope (if applicable);
- (vii) look-out procedures; and
- (viii) missed approach and fly on.

Exercise 15: Operating at low level

- (i) use of ballast and parachute or valve;
- (ii) look-out procedures;
- (iii) avoidance of low-level obstacles;
- (iv) avoidance of sensitive areas and nature protection areas; and
- (v) landowner relations.

Exercise 16: Landing in different wind conditions

- (i) pre-landing checks;
- (ii) passenger pre-landing briefing;
- (iii) selection of field;
- (iv) turbulence (in the case of landings with high wind speed only);
- (v) use of ballast and parachute or valve;
- (vi) look-out procedures;
- (vii) use of rip panel;
- (viii) dragging;
- (ix) deflation;

- (x) avoidance of electrostatic discharge; and
- (xi) landowner relations.

Exercise 17: First solo flight

- (i) supervised flight preparation; and
- (ii) instructor's briefing, observation of flight and de-briefing.

Note: Exercises 1 to 16 have to be completed and the student must have achieved a sufficient level of competence to safely perform a flight before undertaking the first solo flight.

AMC1 BFCL.135 BPL — Theoretical knowledge examinations

- (a) The theoretical knowledge examinations for the BPL follow the syllabus for theoretical knowledge instruction for the BPL set out in AMC1 BFCL.130.
- (b) The examinations should be in written form. However, for the subject Communications, practical classroom testing may be conducted.
- (c) The examinations should comprise a total of 120 multiple-choice questions, covering all the subjects, with the following arrangements for questions and allocated time per subject:

Subject	Number of questions	Duration (in minutes)
Air law	20	40
Human performance	10	20
Meteorology	20	40
Communications	10	20
Navigation	20	75
Principles of flight*	10	20
Operational procedures*	10	20
Flight performance and planning*	10	20
Aircraft general knowledge*	10	20

* Content as relevant for either hot-air balloons or gas balloons, depending on the class privileges sought. These four subjects may be combined in one single examination paper that comprises 10 questions per subject (40 in total) and has a duration of 80 minutes. In any case, the pass rate as per point BFCL.135(c)(1) needs to be achieved for each subject.

- (d) The period of 18 months mentioned in point BFCL.135(c)(2) should be counted from the end of the calendar month when the applicant first attempted an examination.
- (e) The competent authority should inform applicants of the language(s) in which the examination will be conducted.

GM1 BFCL.135 BPL — Theoretical knowledge examinations**TERMINOLOGY**

The meaning of the following terms used in BFCL.135 is as follows:

- (a) 'Entire set of examinations': an examination in all subjects required by the licence level.
- (b) 'Examination': the demonstration of knowledge in one or more examination papers.
- (c) 'Examination paper': a set of questions that covers one subject required by the licence level, to be answered by a candidate for examination.
- (d) 'Attempt': a try to pass a specific examination paper.

AMC1 BFCL.145 BPL — Practical skill test**(a) GENERAL**

- (1) The take-off site should be chosen by the applicant depending on the actual meteorological conditions, the area which has to be overflown, and the possible options for suitable landing sites. The applicant should be responsible for the flight planning and should ensure that all equipment and documentation for the execution of the flight are on board.
- (2) An applicant should indicate to the FE the checks and duties carried out. Checks should be completed in accordance with the flight manual or the authorised checklist for the balloon on which the test is being taken. During pre-flight preparation for the test, the applicant should be required to perform crew and passenger briefings and demonstrate crowd control. The load calculation should be performed by the applicant in compliance with the operations manual or flight manual for the balloon used.
- (3) The flight time of the skill test should be at least 30 minutes.

(b) FLIGHT TEST TOLERANCE

The applicant should demonstrate the ability to:

- (1) operate the balloon within its limitations;
- (2) complete all manoeuvres with smoothness and accuracy;
- (3) exercise good judgment and airmanship;
- (4) apply aeronautical knowledge; and
- (5) maintain control of the balloon at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

(c) CONTENT OF THE SKILL TEST

- (1) The skill test contents and sections set out in this point should be used for the skill test for the issue of a BPL with privileges for the hot-air balloon class:

Note: Use of checklist(s), airmanship, control of balloon by external visual reference, look-out procedures, etc. apply in all sections.

SECTION 1: PRE-FLIGHT OPERATIONS, INFLATION AND TAKE-OFF

- | | |
|---|---|
| a | Pre-flight documentation (licence, medical certificate, permits to take off, insurance certificate, aeronautical charts, aircraft flight manual (AFM), logbook, |
|---|---|

	technical logbook, checklists, etc.), flight planning, NOTAM(s) and weather briefing
b	Balloon inspection and servicing
c	Suitability of launch site
d	Load calculation
e	Crowd control, crew and passenger briefings
f	Assembly and layout
g	Inflation and pre-take-off procedures
h	Take-off
i	ATC compliance (if applicable)
SECTION 2: GENERAL AIRWORK	
a	Climb to level flight
b	Level flight
c	Descent to level flight
d	Operating at low level
e	ATC compliance (if applicable)
SECTION 3: EN-ROUTE PROCEDURES	
a	Dead reckoning and map reading
b	Marking positions and time
c	Orientation and airspace structure
d	Maintenance of altitude
e	Fuel management
f	Communication with retrieve crew
g	ATC compliance (if applicable)
SECTION 4: APPROACH AND LANDING PROCEDURES	
a	Approach from low level, missed approach and fly on
b	Approach from high level, missed approach and fly on
c	Pre-landing checks
d	Passenger pre-landing briefing
e	Selection of landing field
f	Landing, dragging and deflation
g	ATC compliance (if applicable)
h	Actions after flight (recording of the flight, closing flight plan (if applicable), briefing passengers for packing balloon, contact landowner)
SECTION 5: ABNORMAL AND EMERGENCY PROCEDURES	
This section may be combined with Sections 1 through 4.	
a	Simulated fire on the ground and in the air
b	Simulated pilot light and burner failures
c	Other abnormal and emergency procedures as outlined in the appropriate flight manual
d	Simulated passenger health problems
e	Oral questions

- (2) The skill test contents and sections set out in this point should be used for the skill test for the issue of a BPL with privileges for the gas balloon class:

Note: Use of checklist(s), airmanship, control of balloon by external visual reference, look-out procedures, etc. apply in all sections.

SECTION 1: PRE-FLIGHT OPERATIONS, INFLATION AND TAKE-OFF

a	Pre-flight documentation (licence, medical certificate, permits to take off, insurance certificate, aeronautical charts, AFM, logbook, technical logbook, checklists, etc.), flight planning, NOTAM(s) and weather briefing
b	Balloon inspection and servicing
c	Suitability of launch site
d	Load calculation
e	Crowd control, crew and passenger briefings
f	Assembly and layout
g	Inflation and pre-take-off procedures
h	Take-off
i	ATC compliance (if applicable)

SECTION 2: GENERAL AIRWORK

a	Climb to level flight
b	Level flight
c	Descent to level flight
d	Operating at low level
e	ATC compliance (if applicable)

SECTION 3: EN-ROUTE PROCEDURES

a	Dead reckoning and map reading
b	Marking positions and time
c	Orientation and airspace structure
d	Maintenance of altitude
e	Ballast management
f	Communication with retrieve crew
g	ATC compliance (if applicable)

SECTION 4: APPROACH AND LANDING PROCEDURES

a	Approach from low level, missed approach and fly on
b	Approach from high level, missed approach and fly on
c	Pre-landing checks
d	Passenger pre-landing briefing
e	Selection of landing field
f	Landing, dragging and deflation
g	ATC compliance (if applicable)
h	Actions after flight (recording of the flight, closing flight plan (if applicable), briefing passengers for packing balloon, contact landowner)

SECTION 5: ABNORMAL AND EMERGENCY PROCEDURES

This Section may be combined with Sections 1 through 4.

a	Simulated closed appendix during take-off and climb
b	Simulated parachute or valve failure
c	Other abnormal and emergency procedures as outlined in the appropriate flight manual

d	Simulated passenger health problems
e	Oral questions

AMC1 BFCL.150(b) BPL — Extension of privileges to another balloon class or group

EXTENSION OF HOT-AIR BALLOON CLASS PRIVILEGES TO ANOTHER HOT-AIR BALLOON GROUP

- (a) The training flights should concentrate on the differences between the group for which privileges are sought and the group(s) for which the pilot already has privileges. For example, handling needs to consider balloon performance differences arising from greater mass, inertia, response to the burner and, in some cases, differing deflation systems. Additional requirements arise for dealing with larger numbers of passengers.
- (b) Instructors should only sign off as 'training completed' when they are satisfied that the pilot under training has achieved full technical and operational competence for balloons of all sizes included in the given group.
- (c) An extension to group C is also valid for groups A and B. An extension to group D is also valid for groups A, B and C.

GM1 BFCL.150(b) BPL — Extension of privileges to another balloon class or group

EXTENSION OF HOT-AIR BALLOON CLASS PRIVILEGES TO ANOTHER HOT-AIR BALLOON GROUP

The two training flights stipulated in point BFCL.150(b)(1) constitute the minimum amount of training needed in the case of experienced pilots who seek to extend their privileges by one group size. The instructor may conduct additional training flights, as necessary for the candidate to acquire the competence needed, before entering the completion of training in the candidate's logbook.

AMC1 BFCL.150(c)(1) BPL — Extension of privileges to another balloon class or group

FLIGHT INSTRUCTION FOR THE EXTENSION OF PRIVILEGES TO THE HOT-AIR AIRSHIP CLASS

- (a) The numbering of the exercises set out in point (d) should be used primarily as an exercise reference list and as a broad instructional sequencing guide; therefore, the demonstrations and practices need not necessarily be given in the order listed.
- (b) In cases where the applicant already holds hot-air balloon privileges, the flight instruction should concentrate on all of the following:
 - (1) added complication of the engine;
 - (2) engine controls and different performance;
 - (3) airship operating limitations; and
 - (4) airship procedures.

- (c) In cases where the applicant does not hold hot-air balloon privileges, the ATO or DTO, based on the candidate's experience, may decide to conduct training elements as per point (c) of AMC2 BFCL.130 on hot-air balloons before starting with the flight instruction on hot-air airships, in order to allow the candidate to develop competence in hot-air aircraft operation.
- (d) In any case, the flying exercises should cover the revision or explanation of the following exercises:

Exercise 1: Familiarisation with the hot-air airship

- (i) characteristics of the hot-air airship;
- (ii) aerostatic and aerodynamic lift;
- (iii) operating limitations;
- (iv) airworthiness limitations;
- (v) the components or systems;
- (vi) instruments, minimum equipment and other equipment; and
- (vii) use of checklist(s) and procedures.

Exercise 2: Preparation for flight

- (i) documentation and equipment;
- (ii) weather forecast and actuals;
- (iii) flight planning:
 - (A) NOTAMs;
 - (B) airspace structure;
 - (C) sensitive areas;
 - (D) expected track and distance;
 - (E) pre-flight picture; and
 - (F) possible landing fields;
- (iv) launch field:
 - (A) permission;
 - (B) behaviour;
 - (C) field selection;
 - (D) adjacent fields; and
 - (E) noise abatement; and
- (v) load and fuel calculations.

Exercise 3: Crew and passenger briefing

- (i) clothing;
- (ii) crew briefing; and
- (iii) passenger briefing.

Exercise 4: Assembly and layout

- (i) crowd control;
- (ii) rigging envelope, gondola, burner and engine;
- (iii) burner test;
- (iv) engine test; and
- (v) pre-inflation checks.

Exercise 5: Inflation

- (i) crowd control;
- (ii) cold inflation:
 - (A) use of restraint line; and
 - (B) use of the inflation fan; and
- (iii) hot inflation.

Exercise 6: Engine

- (i) identification of main parts and controls;
- (ii) familiarisation with operation and checking of the engine; and
- (iii) engine checks before take-off.

Exercise 7: Pressurisation (if applicable)

- (i) pressurisation fan operation;
- (ii) super pressure and balance between pressure and temperature; and
- (iii) pressure limitations.

Exercise 8: Take-off

- (i) before take-off checks and briefings;
- (ii) heating for controlled climb;
- (iii) procedure for ground crew; and
- (iv) assessment of wind and obstacles.

Exercise 9: Climb to level flight

- (i) climbing with a predetermined rate of climb;
- (ii) effect on envelope temperature and pressure;
- (iii) maximum rate of climb according to the manufacturer's flight manual; and
- (iv) level off at selected altitude.

Exercise 10: Level flight

- (i) maintaining level flight by:
 - (A) use of instruments only;
 - (B) use of visual references only; and
 - (C) all available means;
- (ii) maintaining level flight at different air speeds by taking aerodynamic lift into account;
- (iii) turns; and
- (iv) stationary flight.

Exercise 11: Descent to level flight

- (i) descent with a predetermined rate of descent;
- (ii) maximum rate of descent according to the manufacturer's flight manual; and
- (iii) levelling off at selected altitude.

Exercise 12A: Emergencies — systems

- (i) engine failure;
- (ii) pressurisation failure;
- (iii) rudder failure;
- (iv) pilot light failure;
- (v) burner failure, valve leaks, flame out and re-light;
- (vi) fuel leaks;
- (vii) envelope over temperature; and
- (viii) envelope damage in-flight.

Exercise 12B: Other emergencies

- (i) fire extinguishers;
- (ii) fire on ground;
- (iii) fire in the air;
- (iv) electrical power supply failure;
- (v) hard landing;
- (vi) landing in strong wind;
- (vii) contact with electrical power lines;
- (viii) obstacle avoidance;
- (ix) escape drills, location and use of emergency equipment.

Exercise 13: Navigation

- (i) map selection and preparation;
- (ii) plotting and steering expected track;
- (iii) marking positions and time;
- (iv) calculation of distance, speed and fuel consumption;
- (v) ceiling limitations (ATC, weather and envelope temperature);
- (vi) planning ahead;
- (vii) monitoring of weather development and acting so;
- (viii) monitoring of fuel and envelope temperature or pressure;
- (ix) ATC liaison (if applicable);
- (x) communication with ground crew; and
- (xi) use of GNSS (if applicable).

Exercise 14: Fuel management

- (i) engine arrangement and tank system;
- (ii) cylinder arrangement and burner systems;
- (iii) pilot light supply (vapour or liquid);
- (iv) fuel requirement and expected fuel consumption for engine and burner;
- (v) fuel state and pressure;
- (vi) fuel reserves; and
- (vii) cylinder and petrol tank contents gauge.

Exercise 15: Approach and go-around

- (i) pre-landing checks;
- (ii) selection of field into wind;
- (iii) use of burner and engine;
- (iv) look-out procedures; and
- (v) missed approach and go-around.

Exercise 16: Approach with simulated engine failure

- (i) pre-landing checks;
- (ii) selection of field;
- (iii) use of burner;
- (iv) look-out procedures; and
- (v) missed approach and go-around.

Exercise 17: Operating at low level

- (i) use of burner and engine;
- (ii) look-out procedures;
- (iii) avoidance of low-level obstacles;
- (iv) avoidance of sensitive areas and nature protection area;
- (v) landowner relations; and
- (v) noise abatement procedures.

Exercise 18: Steering

- (i) assessment of wind; and
- (i) correcting for wind to steer a given course.

Exercise 19: Final landing

- (i) pre-landing checks;
- (ii) use of burner and engine;
- (iii) look-out;
- (iv) deflation; and
- (v) landowner relations.

AMC2 BFCL.150(c)(1) BPL — Extension of privileges to another balloon class or group**FLIGHT INSTRUCTION FOR THE EXTENSION OF PRIVILEGES TO THE GAS BALLOON CLASS**

- (a) The flight instruction for extending the privileges of a BPL to gas balloon privileges should follow the syllabus for initial BPL training on gas balloons, as set out in point (d) of AMC2 BFCL.130.
- (b) Specific emphasis should be given to handling differences, related to class privileges held, and specific safety requirements for gas balloons.

AMC3 BFCL.150(c)(1) BPL — Extension of privileges to another balloon class or group**FLIGHT INSTRUCTION FOR THE EXTENSION OF PRIVILEGES TO THE HOT-AIR BALLOON CLASS**

- (a) The flight instruction for extending the privileges of a BPL to hot-air balloon privileges should follow the syllabus for initial BPL training on hot-air balloons, as set out in point (c) of AMC2 BFCL.130.
- (b) Specific emphasis should be given to handling differences, related to class privileges held, and specific safety requirements for hot-air balloons.

AMC1 BFCL.150(c)(2) BPL — Extension of privileges to another balloon class or group

(a) SKILL TEST FOR THE EXTENSION OF PRIVILEGES TO THE HOT-AIR AIRSHIP CLASS

- (1) The take-off site should be chosen by the applicant depending on the actual meteorological conditions, the area which has to be overflown, and the possible options for suitable landing sites. The applicant should be responsible for the flight planning and should ensure that all equipment and documentation for the execution of the flight are on board.
- (2) An applicant should indicate to the FE the checks and duties carried out. Checks should be completed in accordance with the flight manual or the authorised checklist for the balloon on which the test is being taken. During pre-flight preparation for the test, the applicant should be required to perform crew and passenger briefings and demonstrate crowd control. The load calculation should be performed by the applicant in compliance with the operations manual or flight manual for the hot-air airship used.
- (3) The flight time of the skill test should be at least 30 minutes.

(b) FLIGHT TEST TOLERANCE

The applicant should demonstrate the ability to:

- (1) operate the hot-air airship within its limitations;
- (2) complete all manoeuvres with smoothness and accuracy;
- (3) exercise good judgment and airmanship;
- (4) apply aeronautical knowledge; and
- (5) maintain control of the airship at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

(c) CONTENT OF THE SKILL TEST

The following skill test contents and sections should be used for the skill test for the issue of a BPL hot-air airship extension:

Note: Use of checklist(s), airmanship, control of hot-air airship by external visual reference, look-out procedures, etc. apply in all sections .

SECTION 1: PRE-FLIGHT OPERATIONS, INFLATION AND TAKE-OFF

a	Pre-flight documentation (licence, medical certificate, permits to take off, insurance certificate, aeronautical charts, AFM, logbook, technical logbook, checklists etc.), flight planning, NOTAM(s) and weather briefing
b	Hot-air airship inspection and servicing
c	Suitability of launch site
d	Load calculation
e	Crowd control, crew and passenger briefings
f	Assembly and layout
g	Inflation and pre-take-off procedures
h	Take-off
i	ATC compliance (if applicable)

SECTION 2: GENERAL AIRWORK

a	Climb to level flight
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b	Level flight
c	Turns
d	Stationary flight
e	Descent to level flight
f	Operating at low level
g	ATC compliance (if applicable)
SECTION 3: EN-ROUTE PROCEDURES	
a	Dead reckoning and map reading
b	Marking positions and time
c	Orientation and airspace structure
d	Plotting and steering expected track
e	Maintenance of altitude
f	Fuel management
g	Pressure and engine parameter checks
h	Communication with ground crew
i	ATC compliance (if applicable)
SECTION 4: APPROACH AND LANDING PROCEDURES	
a	Approach, missed approach and go-around
b	Pre-landing checks
c	Selection of landing field
d	Landing and deflation
e	ATC compliance (if applicable)
f	Actions after flight (recording of the flight, closing flight plan (if applicable), briefing passengers for packing hot-air airship, contact landowner)
SECTION 5: ABNORMAL AND EMERGENCY PROCEDURES	
This section may be combined with Sections 1 through 4	
a	Simulated fire on the ground and in the air
b	Simulated pilot light, burner and engine failures
c	Approach with simulated engine failure, missed approach and go-around
d	Simulated passenger health problems
e	Other abnormal and emergency procedures as outlined in the appropriate flight manual
f	Oral questions

AMC2 BFCL.150(c)(2) BPL — Extension of privileges to another balloon class or group

SKILL TEST FOR THE EXTENSION OF PRIVILEGES TO THE GAS BALLOON CLASS

To extend the privileges of a BPL to gas balloon privileges, BPL holders should take the skill test for the initial issue of a BPL on gas balloons, as set out in AMC1 BFCL.145.

AMC3 BFCL.150(c)(2) BPL — Extension of privileges to another balloon class or group

SKILL TEST FOR THE EXTENSION OF PRIVILEGES TO THE HOT-AIR BALLOON CLASS

To extend the privileges of a BPL to hot-air balloon privileges, BPL holders should take the skill test for the initial issue of a BPL on hot-air balloons, as set out in AMC1 BFCL.145.

AMC4 BFCL.150(c)(2) BPL — Extension of privileges to another balloon class or group

THEORETICAL KNOWLEDGE FOR EXTENSION OF PRIVILEGES TO ANOTHER BALLOON CLASS

During the skill test as per point BFCL.150(c)(2), the demonstration of an adequate level of theoretical knowledge for the other balloon class should cover all of the following from the syllabus set out in point (b) of AMC1 BFCL.130:

Note: The content of the below syllabus should contain aspects as relevant for the class of balloon used for the training, unless a certain element is specifically marked as relevant for particular classes only.

5.	PRINCIPLES OF FLIGHT
5.1.	Principles of flight
5.2.	Aerostatics
5.3.	Loading limitations
5.4.	Operational limitations
6.	OPERATIONAL PROCEDURES
6.1.	General requirements
6.2.	Special operational procedures and hazards
6.3.	Emergency procedures
7.	FLIGHT PERFORMANCE AND PLANNING
7.1.	Mass
7.1.1.	Purpose of mass considerations
7.1.2.	Loading
7.2.	Performance
7.3.	Flight planning and flight monitoring
7.3.2.1.	Fuel planning (extension to hot-air balloons & hot-air airships only)
7.3.2.2.	Ballast planning (extension to gas balloons only)
7.3.3.	Pre-flight preparation
7.3.4.	ICAO flight plan (ATS flight plan)
7.3.5.	Flight monitoring and in-flight re-planning
8.	AIRCRAFT GENERAL KNOWLEDGE, ENVELOPE, SYSTEMS AND EMERGENCY EQUIPMENT
8.1.	System design, loads, stresses and maintenance
8.2.	Envelope
8.3.1.	Burner (extension to hot-air balloons or hot-air airships only)
8.3.2.	Basket (extension to hot-air balloons or gas balloons only)

8.3.3.	Gondola (extensions to hot-air airships only)
8.4.1	Fuel cylinders (extension to hot-air balloons or hot-air airships only)
8.4.2.	Lifting gas (extension to gas balloons only)
8.5.1.	Ballast (extension to gas balloons only)
8.6.	Fuel (extension to hot-air balloons or hot-air airships only)
8.7.	Instruments
8.8.	Emergency equipment

AMC1 BFCL.160 BPL — Recency requirements

CREDITS FOR FLIGHT TIME COMPLETED ON BALLOONS AS PER ARTICLE 2(8) OF AS WELL AS ANNEX I TO THE BASIC REGULATION

All hours flown on balloons that are subject to a decision as per Article 2(8) of the Basic Regulation or that are specified in Annex I to the Basic Regulation should count in full towards fulfilling the hourly requirements of point BFCL.160 of Part-BFCL under the following conditions:

- (a) the balloon matches the definition and criteria of the respective Part-BFCL balloon class and, in the case of hot-air balloons, the applicable hot-air balloon group as specified in point (a) of point BFCL.010;
- (b) a balloon that is used for a training flight with an instructor is an aircraft as per points (a), (b), (c) or (d) of Annex I to the Basic Regulation that is subject to an authorisation specified in point ORA.ATO.135 of Annex VII (Part-ORA) or point DTO.GEN.240 of Annex VIII (Part-DTO) to Regulation (EU) No 1178/2011.

AMC1 BFCL.160(a)(1)(ii) Recency requirements

TRAINING FLIGHT

- (a) A training flight as stipulated in point BFCL.160(a)(1)(ii) should be a flight that:
 - (1) follows the content of the skill test for the relevant balloon class, as set out in AMC1 BFCL.145 or AMC1 BFCL.150(c)(2), as applicable; and
 - (2) is conducted on a one-to-one basis between one pilot and one instructor only, with no other pilot on board who is taking credit for that flight.
- (b) Each training flight should be preceded with a briefing and closed with a debriefing between the instructor and the candidate. In order to add value to the training flight, any element of flying a balloon where candidates feel they would benefit from instruction should be discussed. The flight should then be focused on those specific elements with an instructor demonstration prior to candidate practice being performed.
- (c) If the instructor considers that the candidate during the training flight did not perform to an adequate standard, they should not sign the logbook of the candidate but recommend further training flights instead.
- (d) At the discretion of the flight instructor, non-fare-paying passengers are accepted on board of the balloon during such training flights, provided that:
 - (1) passengers are made aware that the intended flight will be a training flight; and

- (2) abnormal and emergency procedures are practised on the ground and without passengers on board.
- (e) The 48-month period should be counted from the last day of the month in which the preceding training flight took place.

AMC1 BFCL.160(a)(2) Recency requirements

PROFICIENCY CHECK

For the proficiency check, the skill test for the initial issue of a BPL in the relevant balloon class, as set out in AMC1 BFCL.145, should be taken.

GM1 BFCL.200 Tethered hot-air balloon flight rating

TETHERED ACTIVITY WITHOUT TAKING OFF

A tethered activity where the balloon does not leave the ground is not considered a flight. Such an activity is not eligible to count for initial training or recency for the tethered hot-air balloon flight rating.

AMC1 BFCL.200(b)(2) Tethered hot-air balloon flight rating

FLIGHT INSTRUCTION FOR THE HOT-AIR BALLOON TETHERED FLIGHT RATING

The instruction flights should cover the following training items:

- (a) ground preparations;
- (b) weather suitability;
- (c) tether points:
 - (1) upwind; and
 - (2) downwind;
- (d) tether ropes (at least a three-point system, as per the applicable flight manual);
- (e) maximum all-up-weight limitation;
- (f) crowd control;
- (g) pre-take-off checks and briefings;
- (h) heating for controlled lift off;
- (i) 'hands off and hands on' procedure for ground crew;
- (j) assessment of lift;
- (k) assessment of wind and obstacles;
- (l) take-off and controlled climb (at least up to 60 ft (20 m)); and
- (m) passenger exchange procedures.

AMC1 BFCL.210(b) Night rating**INSTRUCTION FLIGHTS FOR THE NIGHT RATING**

The instruction flights should cover the following training items:

- (a) medical or physiological aspects of night vision;
- (b) flight planning, taking into account the obstacles on the ground, night VMC minima and airspace;
- (c) use of lights for assembly, layout and inflation;
- (d) requirement for torch to be carried, (pre-flight inspection, etc.);
- (e) use of the external and instrument lights;
- (f) night take-off procedure;
- (g) checklist procedures at night;
- (h) emergency procedures at night;
- (i) night cross-country techniques, as appropriate;
- (j) navigation principles at night;
- (k) night landings (emergency procedure in the case of hot-air balloons);
- (l) balloon performance (e.g. fuel/ballast consumption) at night; and
- (m) map marking for night use (highlighting built-up or lit areas with thicker lines, etc.).

GM1 BFCL.210(c) Night rating**DURATION OF THE NIGHT RATING TRAINING**

The two training flights stipulated in point BFCL.210(b) constitute the minimum amount of training needed in the case of experienced pilots. The instructor may conduct additional training flights, as necessary for the candidate to acquire the competence needed for night flying, before entering the completion of training in the candidate's logbook.

AMC1 BFCL.215(b)(4) Commercial operation rating**SKILL TEST FOR THE COMMERCIAL OPERATION RATING****(a) GENERAL**

- (1) The take-off site should be chosen by the applicant depending on the actual meteorological conditions, the area which has to be overflown, and the possible options for suitable landing sites. The applicant should be responsible for the flight planning and should ensure that all equipment and documentation for the execution of the flight are on board.
- (2) The skill test may be conducted in two flights. The total duration of the flight(s) should be at least 45 minutes.
- (3) An applicant should indicate to the FE(B) the checks and duties carried out. Checks should be completed in accordance with the flight manual or the authorised checklist for the balloon or hot-air airship on which the test is being taken. During pre-flight preparation

for the test, the applicant should be required to perform crew and passenger briefings and demonstrate crowd control. The load calculation should be performed by the applicant in compliance with the operations manual or flight manual for the balloon used.

(b) **FLIGHT TEST TOLERANCE**

- (1) The applicant should demonstrate the ability to:
 - (i) operate the balloon or hot-air airship within its limitations;
 - (ii) complete all manoeuvres with smoothness and accuracy;
 - (iii) exercise good judgment and airmanship;
 - (iv) apply aeronautical knowledge; and
 - (v) maintain control of the balloon or the hot-air airship at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.
- (2) The following limits are for general guidance. The FE(B) should make allowance for turbulent conditions and the handling qualities and performance of the balloon or hot-air airship used:

Height

- (i) normal flight: ± 100 ft
- (ii) with simulated emergency: ± 150 ft

(c) **CONTENT OF THE SKILL TEST**

- (1) The skill test contents and sections set out in this point should be used for the skill test for the issue of a commercial operation rating in the hot-air balloon class:

Note: Use of checklist(s), airmanship, control of balloon by external visual reference, look-out procedures, etc. apply in all sections.

SECTION 1: PRE-FLIGHT OPERATIONS, INFLATION AND TAKE-OFF

a	Pre-flight documentation (licence, medical certificate, permits to take off, insurance certificate, aeronautical charts, AFM, logbook, technical logbook, checklists, etc.), flight planning, NOTAM(s) and weather briefing, knowledge of Part-BOP
b	Balloon inspection and servicing, minimum equipment list (MEL)
c	Suitability of launch site
d	Load calculation
e	Crowd control, crew and passenger briefings
f	Assembly and layout
g	Inflation and pre-take-off procedures including passenger involvement and briefing
h	Take-off
i	ATC compliance (if applicable), operation of radio and/or transponder (including emergency procedures)

SECTION 2: GENERAL AIRWORK

a	Climb to level flight
b	Level flight
c	Descent to level flight

d	Operating at low level
e	ATC compliance (if applicable)
SECTION 3: EN-ROUTE PROCEDURES	
a	Dead reckoning and map reading
b	Marking positions and time
c	Orientation and airspace structure
d	Maintenance of altitude
e	Fuel management
f	Communication with retrieve crew and passengers
g	ATC compliance (if applicable)
SECTION 4: APPROACH AND LANDING PROCEDURES	
a	Approach from low level, missed approach and fly on: Passenger briefing and execution of exercise
b	Approach from high level, missed approach and fly on: Passenger briefing and execution of exercise
c	Pre-landing checks
d	Passenger pre-landing briefing
e	Selection of landing field
f	Final passenger briefing, landing, dragging and deflation
g	ATC compliance (if applicable)
h	Actions after flight (recording of the flight, closing flight plan (if applicable), briefing passengers for packing balloon, contact landowner)
SECTION 5: ABNORMAL AND EMERGENCY PROCEDURES	
This section may be combined with Sections 1 through 4.	
a	Simulated fire on the ground and in the air
b	Simulated pilot light and burner failures
c	Simulated passenger health problems
d	Other abnormal and emergency procedures as outlined in the appropriate flight manual
e	Oral questions

- (2) The skill test contents and sections set out in this point should be used for the skill test for the issue of a commercial operation rating in the gas balloon class:

Note: Use of checklist(s), airmanship, control of balloon by external visual reference, look-out procedures, etc. apply in all sections.

SECTION 1: PRE-FLIGHT OPERATIONS, INFLATION AND TAKE-OFF	
a	Pre-flight documentation (licence, medical certificate, permits to take off, insurance certificate, aeronautical charts, AFM, logbook, technical logbook, checklists etc.), flight planning, NOTAM(s) and weather briefing, knowledge of Part-BOP
b	Balloon inspection and servicing, MEL
c	Suitability of launch site
d	Load calculation
e	Crowd control, crew and passenger briefings

f	Assembly and layout
g	Inflation and pre-take-off procedures including passenger involvement and briefing
h	Take-off
i	ATC compliance (if applicable), operation of radio and/or transponder (including emergency procedures)
SECTION 2: GENERAL AIRWORK	
a	Climb to level flight
b	Level flight
c	Descent to level flight
d	Operating at low level
e	ATC compliance (if applicable)
SECTION 3: EN-ROUTE PROCEDURES	
a	Dead reckoning and map reading
b	Marking positions and time
c	Orientation and airspace structure
d	Maintenance of altitude
e	Ballast management
f	Communication with retrieve crew and passengers
g	ATC compliance (if applicable)
SECTION 4: APPROACH AND LANDING PROCEDURES	
a	Approach from low level, missed approach and fly on: Passenger briefing and execution of exercise
b	Approach from high level, missed approach and fly on: Passenger briefing and execution of exercise
c	Pre-landing checks
d	Passenger pre-landing briefing
e	Selection of landing field
f	Final passenger briefing, landing, dragging and deflation
g	ATC compliance (if applicable)
h	Actions after flight (recording of the flight, closing flight plan (if applicable), briefing passengers for packing balloon, contact landowner)
SECTION 5: ABNORMAL AND EMERGENCY PROCEDURES	
This section may be combined with Sections 1 through 4.	
a	Simulated closed appendix during take-off and climb
b	Simulated parachute or valve failure
c	Simulated passenger health problems
d	Other abnormal and emergency procedures as outlined in the appropriate flight manual
e	Oral questions

- (3) The skill test contents and sections set out in this point should be used for the skill test for the issue of a commercial operation rating in the hot-air airship class:

Note: Use of checklist(s), airmanship, control of hot air airship by external visual reference, look-out procedures, etc. apply in all sections.

SECTION 1: PRE-FLIGHT OPERATIONS, INFLATION AND TAKE-OFF

a	Pre-flight documentation (licence, medical certificate, permits to take off, insurance certificate, aeronautical charts, AFM, logbook, technical logbook, checklists etc.), flight planning, NOTAM(s) and weather briefing, knowledge of Part-BOP
b	Hot air airship inspection and servicing, MEL
c	Suitability of launch site
d	Load calculation
e	Crowd control, crew and passenger briefings
f	Assembly and layout
g	Inflation and pre-take-off procedures including passenger involvement and briefing
h	Take-off
i	ATC compliance (if applicable), operation of radio and/or transponder (including emergency procedures)

SECTION 2: GENERAL AIRWORK

a	Climb to level flight
b	Level flight
c	Turns
d	Stationary flight
e	Descent to level flight
f	Operating at low level
g	ATC compliance (if applicable)

SECTION 3: EN-ROUTE PROCEDURES

a	Dead reckoning and map reading
b	Marking positions and time
c	Orientation and airspace structure
d	Plotting and steering expected track
e	Maintenance of altitude
f	Fuel management
g	Pressure and engine parameter checks
h	Communication with ground crew
i	ATC compliance (if applicable)

SECTION 4: APPROACH AND LANDING PROCEDURES

a	Approach, missed approach and go-around
b	Pre-landing checks
c	Selection of landing field
d	Landing and deflation
e	ATC compliance (if applicable)
f	Actions after flight (recording of the flight, closing flight plan (if applicable), briefing passengers for packing balloon, contact landowner)

SECTION 5: ABNORMAL AND EMERGENCY PROCEDURES

This section may be combined with Sections 1 through 4.

a	Simulated fire on the ground and in the air
b	Simulated pilot light, burner and engine failures
c	Approach with simulated engine failure, missed approach and go-around
d	Simulated passenger health problems
e	Other abnormal and emergency procedures as outlined in the appropriate flight manual
f	Oral questions

AMC1 BFCL.215(d)(1)(i) Commercial operation rating**CRITERIA FOR REGENCY FLIGHTS AS PIC**

- (a) In order to count as a flight in terms of point BFCL.215(d)(1)(i), the flight should:
 - (1) have a duration of at least 10 minutes;
 - (2) reach the minimum standard flight altitude as per point (f) of point SERA.5005 of the Annex to Regulation (EU) No 923/2012; and
 - (3) be completed by a full stop of the basket on the ground.
- (b) Every flight phase that complies with points (1) to (3) of point (a) during a single balloon operation should be deemed as a separate flight.

AMC1 BFCL.215(d)(2)(i) Commercial operation rating**PROFICIENCY CHECK**

- (a) For the proficiency check as per point BFCL.215(d)(2)(i), the content of the skill test for initial issue of the commercial operation rating as set out in AMC1 BFCL.215(b)(4) should be used. Additionally, the examiner should assess the candidate's knowledge of recent aeronautical information circulars (AICs) and NOTAMs.
- (b) The proficiency check may be conducted during a commercial passenger ballooning (CPB) operation, provided that abnormal and emergency procedures are simulated before or after the flight on the ground without passengers on board.

AMC1 BFCL.215(d)(2)(i); BFCL.215(h) Commercial operation rating**CREDITS FOR A PROFICIENCY CHECK IN ACCORDANCE WITH PART-BOP**

The holder of a commercial operation rating should be deemed to comply with point BFCL.215(d)(2)(i) as long as the latest operator proficiency check completed in accordance with point BOP.ADD.315 of Annex II (Part-BOP) is still valid, provided that this operator proficiency check included procedures for commercial passenger ballooning.

AMC1 BFCL.215(d)(2)(ii) Commercial operation rating**REFRESHER COURSE****(a) THEORETICAL KNOWLEDGE INSTRUCTION**

The 6 hours of theoretical knowledge instruction should include at least all of the following:

- (1) Evaluation of passengers:
 - (i) assessment of fitness of passengers;
 - (ii) criteria to decline to carry a passenger; and
 - (iii) special factors for disabled or limited mobility passengers;
- (2) Passenger briefings:
 - (i) use of briefing cards;
 - (ii) pre-inflation briefing;
 - (iii) pre-launch briefing; and
 - (iv) pre-landing briefing;
- (3) Passenger embarkation:
 - (i) procedures for safe embarkation;
 - (ii) use of ground crew to assist with embarkation;
 - (iii) positioning of passengers in the basket for weight, balance and management; and
 - (iv) factors concerning passengers' personal property;
- (4) Passenger care for landing:
 - (i) use of seats where fitted;
 - (ii) stowage of passengers' personal equipment; and
 - (iii) special factors in case of more than 19 passengers on board, in which case an additional crew member is required in accordance with point BOP.ADD.410 of Annex II (Part-BOP);
- (5) Emergency procedures:
 - (i) fire in the air;
 - (ii) fire on the ground;
 - (iii) fuel system failures;
 - (iv) deflation system failures;
 - (v) fast landing;
 - (vi) hard landing; and
 - (vii) passenger incapacitation in flight; and
- (6) Documentation:
 - (i) loading calculation;
 - (ii) fuel calculation;
 - (iii) completion of passenger manifest; and

- (iv) dealing with last-minute changes.
- (b) **TRAINING FLIGHT**
 - (1) A training flight as stipulated in point BFCL.215(d)(2)(ii) should be a flight that:
 - (i) follows the content of the skill test for initial issue of the commercial operation rating as set out in AMC1 BFCL.215(b)(4); and
 - (ii) is conducted on a one-to-one basis between one pilot and one instructor only, with no other pilot on board who is taking credit for that flight.
 - (2) Each training flight should be preceded with a briefing and closed with a debriefing between the instructor and the candidate. In order to add value to the training flight, any element of flying a balloon where candidates feel they would benefit from instruction should be discussed. The flight should then be focused on those specific elements with an instructor demonstration prior to candidate practice being performed.
 - (3) The training flight may be conducted during CPB operation, provided that:
 - (i) abnormal and emergency procedures are simulated before or after the flight on the ground without passengers on board; and
 - (ii) passengers are made aware that the intended flight will be a training flight.

AMC1 BFCL.315(a)(4)(ii) FI(B) certificate — Privileges and conditions

ADDITIONAL TRAINING REQUIRED BEFORE INSTRUCTING DURING FI(B) TRAINING COURSES

The 1 hour of flight instruction, as required in point BFCL.315(a)(4)(ii), should consist of exercises from the FI(B) training course, as selected by the supervising FI(B), and should, in any case, include all of the following:

- (a) one take-off and one landing exercise;
- (b) a selection of flight exercises; and
- (c) one emergency exercise.

AMC1 BFCL.325 FI(B) competencies and assessment

- (a) Training should be both theoretical and practical. Practical elements should include the development of specific instructor skills, particularly in the area of teaching and assessing TEM.
- (b) The training and assessment of instructors should be made against the following performance standards:

Competency	Performance	Knowledge/understanding of
Prepare resources	(a) ensures adequate facilities; (b) prepares briefing material; (c) manages available tools.	(a) objectives; (b) available tools; (c) competency-based training methods.

Competency	Performance	Knowledge/understanding of
Create a climate conducive to learning	(a) establishes credentials, role models appropriate behaviour; (b) clarifies roles; (c) states objectives; (d) ascertains and supports student pilot's needs.	(a) barriers to learning; (b) learning styles.
Present knowledge	(a) communicates clearly; (b) creates and sustains realism; (c) looks for training opportunities.	teaching methods
Integrate human factors and TEM	makes human factors and TEM links with technical training.	(a) human factors and TEM; (b) causes and countermeasures against undesired aircraft states.
Manage time to achieve training objectives	allocates the appropriate time to achieve the competency objective.	syllabus time allocation
Facilitate learning	(a) encourages trainee participation; (b) shows motivating, patient, confident and assertive manner; (c) conducts one-to-one coaching; (d) encourages mutual support.	(a) facilitation; (b) how to give constructive feedback; (c) how to encourage trainees to ask questions and seek advice.
Assesses trainee performance	(a) assesses and encourages trainee self-assessment of performance against competency standards; (b) makes assessment decision and provides clear feedback; (c) observes crew-resource management (CRM) behaviour.	(a) observation techniques; (b) methods for recording observations.
Monitor and review progress	(a) compares individual outcomes to defined objectives; (b) identifies individual differences in learning rates; (c) applies appropriate corrective action.	(a) learning styles; (b) strategies for training adaptation to meet individual needs.
Evaluate training sessions	(a) elicits feedback from student pilots; (b) tracks training session processes against competency criteria; (c) keeps appropriate records.	(a) competency unit and associated elements; (b) performance criteria.
Report outcome	Reports accurately using only observed actions and events.	(a) training phase objectives; (b) individual versus systemic weaknesses.

AMC1 BFCL.330(a) FI(B) — Training course**PRE-ENTRY ASSESSMENT**

The content of the pre-entry assessment should be determined by the ATO or the DTO, taking into account the experience of a particular candidate. It may include interviews and/or an assessment during a simulated training session with the candidate.

AMC1 BFCL.330(b) FI(B) — Training course**(a) GENERAL**

- (1) The aim of the FI(B) training course is to train BPL holders to the level of competence defined in point BFCL.325.
- (2) Throughout the training course, its content and structure should allow the student instructor to develop safety awareness by teaching the knowledge, skills and attitudes relevant to the FI(B) task including at least the following:
 - (i) refresh the technical knowledge of the student instructor;
 - (ii) train the student instructor to teach:
 - (A) the ground subjects and air exercises; and
 - (B) how to access all related sources of information;
 - (iii) ensure that the student instructor's flying is of a sufficiently high standard; and
 - (iv) teach the student instructor the principles of basic instruction and how to apply them at all training levels.
- (3) With the exception of the section on teaching and learning, all the subject details contained in the ground and flight training syllabus is complementary to the BPL course syllabus.
- (4) The FI(B) training course should give particular stress to the role of the individual in relation to the importance of human factors in the man-machine interface as well as in the instructor-student interaction during theoretical knowledge instruction. Special attention should be paid to the applicant's maturity and judgement including an understanding of adults, their behavioural attitudes and variable levels of education.
- (5) During the training course, applicants should be made aware that their own attitudes are key to flight safety. Identifying and avoiding complacency and improving safety awareness should be a fundamental objective throughout the training course. It is of major importance for the training course to aim at giving applicants the knowledge, skills and attitudes relevant to a flight instructor's task.

(b) STRUCTURE AND CONTENT

The training course consists of two parts:

(1) PART 1 — THEORETICAL KNOWLEDGE INSTRUCTION

Part 1 includes the training specified in points (2) and (3) of point BFCL.330(b).

The content of the teaching and learning part of the FI(B) course, as established in AMC1 BFCL.325, should be used as guidance to develop the syllabus for the training specified in point BFCL.330(b)(2).

(2) PART 2 — FLIGHT INSTRUCTION

Part 2 includes the training specified in point BFCL.330(b)(4).

(i) General

- (A) The air exercises are similar to those of the BPL training course but with additional items designed to cover the needs of a flight instructor.
- (B) The numbering of exercises should be used primarily as an exercise reference list and as a broad instructional sequencing guide. Therefore, the demonstrations and practices need not necessarily be given in the order listed. The actual order and content will depend upon the following interrelated factors:
 - (a) the applicant's progress and ability;
 - (b) the weather conditions affecting the flight;
 - (c) the flight time available;
 - (d) the instructional technique considerations;
 - (e) the local operating environment; and
 - (f) the applicability of the exercises to the aircraft type.
- (C) At the discretion of the instructors, some of the exercises may be combined whereas some other exercises may be done in several flights.
- (D) It follows that student instructors will eventually be faced with similar inter-related factors. They should be shown and taught how to develop flight lesson plans, taking these factors into account, so as to make the best use of each flight lesson, combining parts of the set exercises as necessary.

(ii) Briefings and debriefings

- (A) The briefing normally includes a statement of the aim and a brief allusion to principles of flight only if relevant. An explanation is to be given of exactly which air exercises are to be taught by the instructor and practised by the student during the flight. It should include how the flight will be conducted with regard to who is to fly the aircraft and what airmanship, weather and flight safety aspects currently apply. The nature of the lesson will govern the order in which the constituent parts are to be taught.
- (B) The five basic components of the briefing will be:
 - (a) the aim;
 - (b) the air exercise(s) (what, how and by whom);
 - (c) flight briefing;
 - (d) check of understanding; and
 - (e) airmanship.
- (C) After each exercise, the student instructor will conduct a debriefing of the pilot who acted as the student pilot during the training flight, be it the FI(B) instructor or an additional pilot (as described in point (k)(2)). The debriefing is to evaluate:
 - (a) whether the objectives have been fulfilled;

- (b) whether the errors are minor or major;
- (c) what can be corrected or improved; and
- (d) whether the student pilot has reached the required level of competence or the exercise must be done again.

The FI(B) instructor will validate the debriefing.

(iii) Planning of flight lessons

The development of lesson plans is an essential prerequisite of good instruction and the student instructor is to be given supervised practice in the development and practical application of flight lesson plans.

(iv) General considerations

- (A) The student instructor should complete flight training in order to practise the principles of basic instruction at the BPL level.
- (B) The instructor providing this instructor training may take over the role of the student pilot. An additional person holding a BPL or a student pilot for the BPL may be on board in order to act as a student pilot under the supervision of the student instructor.
- (C) It is to be noted that airmanship is a vital ingredient of all flight operations. Therefore, in the following air exercises, the relevant aspects of airmanship are to be stressed at the appropriate times during each flight.
- (D) The student instructor should learn how to identify common errors and how to correct them properly, which should be emphasised at all times.

(v) Long briefings and air exercises

Exercise 1: Familiarisation with the balloon

(a) Objective

To advise the student instructor on how to familiarise the student with the balloon which will be used for the training and to test the student's position in the basket for comfort, visibility, and ability to use all controls and equipment. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing and exercise

The student instructor has to:

- (1) present the type of balloon which will be used;
- (2) explain the characteristics of the balloon;
- (3) explain the components, instruments and equipment;
- (4) explain the re-fuelling procedures (in the case of hot-air balloons);
- (5) familiarise the student with the balloon controls; and
- (6) explain all checklists, drills and controls.

(c) Debriefing

Exercise 2: Preparation for the flight**(a) Objective**

To advise the student instructor on how to explain all the operations and the necessary preparation to be completed before the flight. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the need for a pre-flight briefing;
- (2) the structure and the content of this briefing;
- (3) which documents are required on board;
- (4) which equipment is required for a flight;
- (5) the use of weather forecasts or actuals;
- (6) the flight planning with particular regard to NOTAMs, airspace structure, sensitive areas, expected track and distance, pre-flight picture and possible landing fields;
- (7) the use of load calculation chart; and
- (8) the selection of a launch field with particular regard to permission, behaviour and adjacent fields.

(c) Exercise

The student instructor has to prepare and give a pre-flight briefing during which they have to demonstrate:

- (1) that the required documents are on board;
- (2) that the equipment required for the intended flight is on board;
- (3) how to perform a load calculation;
- (4) how to advise the student to do the pre-planning procedures for each flight;
- (5) how to perform a pre-launch check;
- (6) how to select a launch field with particular regard to permission, behaviour and adjacent fields;
- (7) how to teach the student pilot to perform the preparation to be completed prior to flight; and
- (8) how to analyse and correct errors of the student pilot as necessary.

(d) Debriefing**Exercise 3: Crew and passenger briefing****(a) Objective**

To advise the student instructor on how to explain the importance of appropriate clothing for pilot, passengers and crew and how to perform the briefing of ground and retrieve crew and the briefing of passengers.

Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the appropriate clothing for passengers and crew; and
- (2) the briefings for ground and retrieve crew and passengers.

(c) Exercise:

The student instructor has to demonstrate:

- (1) how to advise the passengers and crew about the correct clothing;
- (2) the briefing of ground and retrieve crew;
- (3) the briefing of passengers;
- (4) how to familiarise the student pilot with the different type of briefings; and
- (5) how to analyse and correct errors of the student pilot.

(d) Debriefing

Exercise 4: Assembly and layout

(a) Objective

To advise the student instructor on how to familiarise the student pilot on crowd control and how to perform the securing of the launch site. Furthermore, the student instructor has to demonstrate how to familiarise the student pilot with the correct rigging of envelope and basket, the burner test procedure (hot-air balloons) and the pre-inflation checks. Finally, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the crowd control;
- (2) the securing of the launch site;
- (3) the correct rigging procedure;
- (4) the use of the restraint line; and
- (5) the pre-inflation checks and use of checklist(s).

(c) Exercise

The student instructor has to demonstrate:

- (1) the crowd control and securing of launch site;
- (2) the correct rigging of envelope and basket;
- (3) the correct use of the restraint line;
- (4) the burner test procedure (hot-air balloons);

- (5) the pre-inflation checks and correct use of checklist(s);
 - (6) how to teach the student pilot to perform the correct rigging; and
 - (7) how to analyse and correct assembly errors of the student pilot as necessary.
- (d) Debriefing

Exercise 5: Inflation

(a) Objective

To advise the student instructor on how to familiarise the student pilot with the different phases of the inflation procedure, the use of restraint line and inflation fan (hot-air balloons) and the avoidance of electrostatic discharge (gas balloons). Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the different phases of the inflation procedure;
- (2) the crowd control and securing procedures during inflation;
- (3) the use of the inflation fan (hot-air balloons); and
- (4) how to avoid electronic discharge (gas balloons).

(c) Exercise

The student instructor has to demonstrate:

- (1) the crowd control and securing of the launch site during inflation procedure;
- (2) the cold inflation procedure and use of restraint line and inflation fan (hot-air balloons);
- (3) the hot inflation procedure (hot-air balloons);
- (4) the avoidance of electrostatic discharge (gas balloons);
- (5) the inflation procedure (gas balloons);
- (6) how to teach the student pilot to perform the inflation procedures; and
- (7) how to analyse and correct errors of the student pilot during the inflation procedure as necessary.

(d) Debriefing

Exercise 6: Take-off in different wind conditions

(a) Objective

To advise the student instructor how to explain the pre take-off checks and briefings, the preparation for controlled climb and the use of restraint equipment. Furthermore, the student instructor should be able to demonstrate the assessment of wind and obstacles, the preparation for false

lift and the take-off techniques in different wind conditions. In addition to this, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the pre take-off checks and briefings;
- (2) the preparation for controlled climb;
- (3) the 'hands off and hands on' procedure for ground crew;
- (4) the assessment of lift;
- (5) the use of the restraint equipment;
- (6) the assessment of wind and obstacles;
- (7) the preparation for false lift; and
- (8) the take-off techniques from sheltered and non-sheltered launch fields.

(c) Air exercise

The student instructor has to demonstrate:

- (1) how to perform the pre take-off checks and briefings;
- (2) how to prepare for controlled climb;
- (3) how to perform the 'hands off and hands on' procedure for ground crew;
- (4) how to perform the assessment of lift without endangering the ground crew;
- (5) how to use the restraint equipment;
- (6) how to perform the assessment of wind and obstacles;
- (7) how to prepare for false lift;
- (8) how to teach the student pilot the correct take off techniques from sheltered and non-sheltered launch fields; and
- (9) how to analyse and correct errors of the student pilot as necessary.

(d) Debriefing

Exercise 7: Climb to level flight

(a) Objective

To advise the student instructor on how to explain and demonstrate the climb to flight level. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the climbing with a predetermined rate of climb;

- (2) the effect on envelope temperature (hot-air balloons);
 - (3) the maximum rate of climb according to the manufacturer's flight manual; and
 - (4) how to level off at a selected altitude.
- (c) Air exercise

The student instructor has to demonstrate:

 - (1) how to climb with a predetermined rate of climb;
 - (2) how to perform look-out techniques;
 - (3) the effect on envelope temperature (hot-air balloons);
 - (4) the maximum rate of climb according to the manufacturer's flight manual;
 - (5) the levelling off techniques at a selected altitude;
 - (6) how to advise the student pilot to perform the climb to level flight;
 - (7) how to analyse and correct faults or errors of the student pilot during the climb.
- (d) Debriefing

Exercise 8: Level flight

- (a) Objective

To advise the student instructor on how to explain and demonstrate level flight. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.
- (b) Briefing

The student instructor has to explain:

 - (1) how to maintain level flight by use of instruments;
 - (2) how to maintain level flight by use of visual references;
 - (3) how to maintain level flight by use of all available means;
 - (4) the use of parachute; and
 - (5) the use of turning vents, if installed (hot -air balloons).
- (c) Air exercise

The student instructor has to demonstrate:

 - (1) how to maintain level flight by use of instruments;
 - (2) how to maintain level flight by use of visual references;
 - (3) how to maintain level flight by use of all available means;
 - (4) the use of parachute;
 - (5) the use of turning vents, if installed (hot-air balloons);
 - (6) how to advise the student pilot to perform the level flight; and

- (7) how to analyse and correct faults or errors of the student pilot during the level flight.
- (d) Debriefing

Exercise 9: Descent to level flight

- (a) Objective

To advise the student instructor on how to explain and demonstrate the descent to a certain flight level. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

- (b) Briefing

The student instructor has to explain:

- (1) how to descend with a predetermined rate of descent;
- (2) a fast descent;
- (3) the maximum rate of descent according to the manufacturer's flight manual;
- (4) the use of parachute;
- (5) a parachute stall and cold descent (hot-air balloons); and
- (6) the levelling off technique at selected altitude.

- (c) Air exercise

The student instructor has to demonstrate:

- (1) a descent with a predetermined rate of descent;
- (2) how to perform look-out techniques;
- (3) a fast descent;
- (4) the maximum rate of descent according to the manufacturer's flight manual;
- (5) the use of parachute;
- (6) how to level off at selected altitudes;
- (7) how to advise the student pilot to perform a descent to a certain flight level; and
- (8) how to analyse and correct faults or errors of the student pilot during the descent.

- (d) Debriefing

Exercise 10: Emergencies

- (a) Objective

To advise the student instructor on how to explain and demonstrate the different emergency situations and how to react. Furthermore, the student instructor should learn how to identify student errors during the simulated emergency exercises and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the pilot light failure (hot-air balloons);
- (2) burner failures, valve leaks, flame out and re-light (hot-air balloons);
- (3) the gas leaks (gas balloons);
- (4) the closed appendix during take-off and climb (gas balloons);
- (5) the envelope over temperature (hot-air balloons);
- (6) the envelope damage in flight;
- (7) the parachute or rapid deflation system failure;
- (8) the fire on ground and in the air;
- (9) how to avoid an obstacle contact including contact with electrical power lines; and
- (10) escape drills, location and use of emergency equipment.

(c) Air exercise

The student instructor has to demonstrate (in the air or during a simulation on the ground):

- (1) a pilot light failure (hot-air balloons);
- (2) a burner failure, valve leaks, flame out and re-light (hot-air balloons);
- (3) the gas leaks;
- (4) a closed appendix during take-off and climb (gas balloons);
- (5) the envelope over temperature (hot-air balloons);
- (6) the envelope damage in flight;
- (7) the parachute or rapid deflation system failure;
- (8) a fire on ground and in the air;
- (9) the escape drills, location and use of emergency equipment;
- (10) how to advise the student pilot in performing the different emergency drills; and
- (11) how to analyse and correct faults or errors of the student pilot.

(d) Debriefing

Exercise 11: Navigation

(a) Objective

To advise the student instructor on how to explain and demonstrate the advanced navigational flight preparation. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the maps selection;
 - (2) the plotting of the expected track;
 - (3) the marking of positions and time;
 - (4) the calculation of distance and speed;
 - (5) the calculation of fuel consumption (hot-air balloons);
 - (6) the calculation of ballast consumption (gas balloons);
 - (7) the ceiling limitations (ATC or weather);
 - (8) how to plan ahead;
 - (9) the monitoring of weather development;
 - (10) the monitoring of fuel or ballast consumption;
 - (11) ATC liaison (if applicable);
 - (12) the communication with retrieve crew; and
 - (13) the use of GNSS (if applicable).
- (c) Air exercise
- The student instructor has to demonstrate:
- (1) the use of selected maps;
 - (2) the plotting of the expected track;
 - (3) the marking of positions and time;
 - (4) how to monitor distance and speed;
 - (5) how to monitor the fuel or ballast consumption;
 - (6) the observance of ceiling limitations (ATC or weather);
 - (7) the planning ahead;
 - (8) the monitoring of weather development;
 - (9) the monitoring of envelope temperature (hot-air balloons);
 - (10) the ATC liaison (if applicable);
 - (11) the communication with retrieve crew;
 - (12) the use of GNSS (if applicable);
 - (13) how to advise the student pilot on performing the navigational preparation;
 - (14) how to advise the student pilot on performing the different navigational in-flight tasks; and
 - (15) how to analyse and correct faults or errors of the student pilot.
- (d) Debriefing

Exercise 12a: Fuel management (hot-air balloons)**(a) Objective**

To advise the student instructor on how to explain and demonstrate the fuel management techniques. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the cylinder arrangement and the burner systems;
- (2) the function of the pilot light supply (vapour or liquid);
- (3) the use of master cylinders (if applicable);
- (4) the fuel requirement and expected fuel consumption;
- (5) the fuel state and pressure;
- (6) the minimum fuel reserves;
- (7) cylinder contents gauge and change procedure; and
- (8) the use of cylinder manifolds (if applicable).

(c) Air exercise

The student instructor has to demonstrate:

- (1) the cylinder arrangement and burner systems;
- (2) the pilot light supply (vapour or liquid);
- (3) the use of master cylinders (if applicable);
- (4) how to monitor the fuel requirement and expected fuel consumption;
- (5) the monitoring of fuel state and pressure;
- (6) the monitoring of fuel reserves;
- (7) the use of cylinder contents gauge and change procedure;
- (8) the use of cylinder manifolds (if applicable);
- (9) how to advise the student pilot to perform the fuel management; and
- (10) how to analyse and correct faults or errors of the student pilot.

(d) Debriefing**Exercise 12b: Ballast management (gas balloons)****(a) Objective**

To advise the student instructor on how to explain and demonstrate the ballast management. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the minimum ballast;

- (2) the arrangement and securing of ballast;
 - (3) the ballast requirement and expected ballast consumption; and
 - (4) the ballast reserves.
- (c) Air exercise

The student instructor has to demonstrate:

 - (1) the determination of the minimum ballast requirement;
 - (2) the arrangement and securing of ballast;
 - (3) the ballast requirement calculation and expected ballast consumption;
 - (4) how to secure ballast reserves;
 - (5) how to advise the student pilot to perform the ballast management; and
 - (6) how to analyse and correct faults or errors of the student pilot.
- (d) Debriefing

Exercise 13: Approach from low level

- (a) Objective

To advise the student instructor on how to explain and demonstrate the approach from level. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.
- (b) Briefing

The student instructor has to explain:

 - (1) pre-landing checks;
 - (2) the passenger pre-landing briefing;
 - (3) the selection of fields;
 - (4) the use of burner and parachute (hot-air balloons);
 - (5) the use of ballast or parachute and valve (gas balloons);
 - (6) the use of trail rope (if applicable) (gas balloons);
 - (7) look-out procedures; and
 - (8) missed approach and fly-on procedures.
- (c) Air exercise

The student instructor has to demonstrate:

 - (1) the use of the pre landing checks;
 - (2) the selection of fields;
 - (3) the use of burner and parachute (hot-air balloons);
 - (4) the use of ballast or parachute and valve (gas balloons);
 - (5) the use of trail rope (if applicable) (gas balloons);

- (6) the look-out procedures and how to avoid possible distractions;
 - (7) the missed approach and fly-on techniques;
 - (8) how to advise the student pilot to perform an approach from low level; and
 - (9) how to analyse and correct faults or errors of the student pilot.
- (d) Debriefing

Exercise 14: Approach from high level

(a) Objective

To advise the student instructor on how to explain and demonstrate the approach from high level. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the pre-landing checks;
- (2) the passenger pre-landing briefing;
- (3) selection of field;
- (4) the rate of descent;
- (5) the use of burner and parachute (hot-air balloons);
- (6) the use of ballast and parachute (gas balloons);
- (7) the use of trail rope (if applicable) (gas balloons);
- (8) look-out procedures; and
- (9) missed approach and fly-on procedures.

(c) Air exercise

The student instructor has to demonstrate:

- (1) the pre-landing checks;
- (2) the selection of field;
- (3) the rate of descent;
- (4) the use of burner and parachute (hot-air balloons);
- (5) the use of ballast and parachute (gas balloons);
- (6) the use of trail rope (if applicable) (gas balloons);
- (7) the look-out procedures and how to avoid potential distraction;
- (8) the missed approach and fly-on techniques;
- (9) how to advise the student pilot to perform an approach from a higher level; and
- (10) how to analyse and correct faults or errors of the student pilot.

(d) Debriefing

Exercise 15: Operation at low level**(a) Objective**

To advise the student instructor on how to explain and demonstrate the operation at a low height (1-20 metres). Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the use of burner and parachute (hot-air balloons);
- (2) the use of ballast and parachute (gas balloons);
- (3) the look-out procedures;
- (4) how to avoid a contact with low-level obstacles;
- (5) how to avoid sensitive areas (for example, nature protection areas);
and
- (6) the landowner relations.

(c) Air exercise

The student instructor has to demonstrate:

- (1) the use of burner and parachute (hot-air balloons);
- (2) the use of ballast and parachute (gas balloons);
- (3) look-out procedures and how to avoid potential distraction;
- (4) how to avoid low-level obstacles;
- (5) good landowner relations;
- (6) how to advise the student pilot to operate the balloon at a low level;
and
- (7) how to analyse and correct faults or errors of the student pilot.

(d) Debriefing**Exercise 16: Landing in different wind conditions****(a) Objective**

To advise the student instructor on how to explain and demonstrate landings in different wind conditions. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the correct actions for turbulences during the approach or landing;
- (2) the passenger pre-landing briefing;
- (3) the use of burner and pilot lights (hot-air balloons);
- (4) the use of ballast, parachute, valve and rip panel (gas balloons);

- (5) the use of parachute and turning vents (if applicable);
- (6) look-out;
- (7) the landing, dragging and deflation;
- (8) the use of drop line; and
- (9) landowner relations.
- (c) Air exercise

The student instructor has to demonstrate:

 - (1) the pre-landing checks;
 - (2) the passenger briefing;
 - (3) the selection of field;
 - (4) the effect of turbulence;
 - (5) the use of burner and pilot lights (hot-air balloons);
 - (6) the use of ballast, parachute, valve and rip panel (gas balloons);
 - (7) the use of parachute rapid deflation systems (if applicable) and turning vents (if applicable) (hot-air balloons);
 - (8) the look-out procedures and how to avoid potential distraction;
 - (9) the landing, dragging and deflation procedures;
 - (10) the use of drop line (when appropriate)
 - (11) how to advise the student pilot to perform a safe landing in different wind conditions; and
 - (12) how to analyse and correct faults or errors of the student pilot.
- (d) Debriefing

Exercise 17: First solo flight

- (a) Objective

To advise the student instructor on how to prepare students for the first solo flight. Furthermore, the student instructor should learn how to properly assess the readiness and fitness of a student to fly solo on the day of the intended solo flight.
- (b) Briefing

The student instructor has to explain:

 - (1) the limitations of the flight;
 - (2) the use of required equipment; and
 - (3) the flight planning and references to manoeuvres.
- (c) Air exercise

The student instructor has to:

 - (1) evaluate whether the student should be authorised to fly solo, taking into consideration at least all of the following:

- (i) the experience of the student;
 - (ii) the physical and mental fitness of the student;
 - (iii) weather conditions; and
 - (iv) the suitability of balloons for a solo flight;
- (2) monitor the pre-flight preparation;
- (3) brief the student (expected flight time or emergency actions);
- (4) monitor the flight as far as possible; and
- (5) debrief the flight with the student.
- (d) Debriefing

Exercise 18: Tethered flight (hot-air balloons)

Note: This exercise constitutes the specific training referred to in point BFCL.315(a)(3) regarding instructional privileges for the tethered flight rating. It may be completed during the initial FI(B) training course or as a separate training, provided that the applicant holds the tethered flight rating.

(a) Objective

To advise the student instructor on how to explain and demonstrate the tethering techniques. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the ground preparations;
- (2) the weather suitability;
- (3) the tethering techniques and equipment;
- (4) the maximum all-up-weight limitation;
- (5) crowd control;
- (6) the pre-take-off checks and briefings;
- (7) the heating for controlled lift-off;
- (8) the 'hands-off and hands-on' procedure for ground crew;
- (9) the procedures for boarding and disembarking passengers;
- (10) the assessment of wind and obstacles; and
- (11) the controlled climb to a pre-defined altitude (at least 60 ft (20 m)).

(c) Air exercise

The student instructor has to demonstrate:

- (1) the ground preparations;
- (2) the tethering techniques;
- (3) the understanding of maximum all-up-weight limitation;

- (4) how to perform crowd control;
 - (5) the pre-take-off checks and briefings;
 - (6) the heating for controlled lift-off;
 - (7) the 'hands-off and hands-on' procedure for ground crew;
 - (8) the passenger boarding and disembarkation; exchange of passengers between flights
 - (9) the assessment of wind and obstacles;
 - (10) the controlled climb;
 - (11) the landing techniques;
 - (12) how to advise the student pilot on how to perform a tethered flight; and
 - (13) how to analyse and correct faults or errors of the student pilot.
- (d) Debriefing

Exercise 19: Night flying

Note: This exercise constitutes the specific training referred to in point BFCL.315(a)(3) regarding instructional privileges for the night rating. It may be completed during the initial FI(B) training course or as a separate training, provided that the applicant holds the night rating.

(a) Objective

To advise the student instructor on how to explain and demonstrate the night flying techniques. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

(b) Briefing

The student instructor has to explain:

- (1) the medical or physiological aspects of night vision;
- (2) the flight planning, taking into account the obstacles on the ground, night VMC minima, airspace;
- (3) the use of lights for assembly, layout and inflation;
- (4) the requirement for torch or lights to be carried, (pre-flight inspection, etc.);
- (5) the use of the external and instrument lights;
- (6) the night take-off procedure;
- (7) the checklist procedures at night;
- (8) the emergency procedures at night;
- (9) the navigation principles at night; and
- (10) the map marking for night use (highlighting built up or lit areas with thicker lines, etc.).

(c) Air exercise

The student instructor has to demonstrate:

- (1) the use of lights for assembly, layout and inflation;
 - (2) the flight planning, taking into account the obstacles on the ground, night VMC minima, airspace;
 - (3) the use of torch or lights for pre-flight inspection;
 - (4) the use of external and instrument lights;
 - (5) the night take-off procedure;
 - (6) how to perform the checklist procedures at night;
 - (7) how to maintain safety altitude;
 - (8) the simulated night emergency procedures;
 - (9) the navigation principles at night;
 - (10) the night cross-country techniques, as appropriate;
 - (11) how to advise the student pilot to perform a flight at night; and
 - (12) how to analyse and correct faults or errors of the student pilot.
- (d) Debriefing

AMC1 BFCL.345 FI(B) — Assessment of competence

GENERAL

- (a) The format and application form for the assessment of competence are determined by the competent authority.
- (b) The balloon that is used for the assessment should meet the requirements for training aircraft.
- (c) The FE(B) acts as the PIC, except in circumstances agreed upon by the FE(B) when another FI(B) is designated as PIC for the flight.
- (d) The 'student' is either a real balloon student pilot under training or, in all other cases, the FE(B) or another FI(B). The applicant is required to explain the relevant exercises and to demonstrate their conduct to the 'student', where appropriate. Thereafter, the 'student' executes the same manoeuvres which can include typical mistakes of inexperienced students. The applicant is expected to correct mistakes orally or, if necessary, by intervening physically.
- (e) If more than one flight is necessary in order to complete all relevant exercises, these flights should be completed as close together in time as practicable and, in any case, within a period of 6 months. In principle, failure in any exercise requires a retest covering all exercises, with the exception of those that may be retaken separately. The FE(B) may terminate the assessment at any stage if they consider that a retest is required.
- (f) The total flight time of the assessment of competence should be at least 45 minutes.

AMC2 BFCL.345 FI(B) — Assessment of competence

CONTENT OF THE ASSESSMENT OF COMPETENCE

- (a) The content of the assessment of competence for the FI(B) should be the following:

SECTION 1: ORAL THEORETICAL KNOWLEDGE EXAMINATION

1.1	Air law
1.2	Aircraft general knowledge
1.3	Flight performance and planning
1.4	Human performance and limitations
1.5	Meteorology
1.6	Navigation
1.7	Operational procedures
1.8	Principles of flight
1.9	Training administration
1.10	Assessment of a BPL student's readiness for first solo flight
1.11	Particularities of pre-flight briefing prior to the first solo flight of a BPL student

SECTION 2: PRE-FLIGHT BRIEFING

2.1	Visual presentation
2.3	Technical accuracy
2.4	Clarity of explanation
2.5	Clarity of speech
2.6	Instructional technique
2.7	Use of models and aids
2.8	Student participation

SECTION 3: FLIGHT

3.1	Arrangement of demonstration
3.2	Synchronisation of speech with demonstration
3.3	Correction of faults
3.4	Aircraft handling
3.5	Instructional technique
3.6	General airmanship and safety
3.7	Positioning and use of airspace

SECTION 4: POST-FLIGHT DE-BRIEFING

4.1	Visual presentation
4.2	Technical accuracy
4.3	Clarity of explanation
4.4	Clarity of speech
4.5	Instructional technique
4.6	Use of models and aids
4.7	Student participation

- (b) Section 1, the oral theoretical knowledge examination part of the assessment of competence, is divided into two parts:
- (1) The applicant is required to give a lecture under test conditions to other 'student(s)', one of whom will be the FE(B). The test lecture is to be selected from items of Section 1. The amount of time for the preparation of the test lecture is agreed upon beforehand with the FE(B). Appropriate literature may be used by the applicant. The test lecture should not exceed 45 minutes.
 - (2) The applicant is tested orally by an FE(B) for knowledge of items of Section 1 and the core instructor competencies (teaching and learning content given in the FI(B) training course).
- (c) Sections 2, 3 and 4 comprise exercises to demonstrate the ability to be an FI(B) (for example, instructor demonstration exercises) chosen by the FE(B) from the flight syllabus of the FI(B) training course. The applicant is required to demonstrate FI(B) abilities, including briefing, flight instruction and de-briefing.

AMC3 BFCL.345 FI(B) — Assessment of competence

APPLICATION AND REPORT FORM FOR THE FI(B) ASSESSMENT OF COMPETENCE

APPLICATION AND REPORT FORM FOR THE FI(B) ASSESSMENT OF COMPETENCE			
I hereby apply for the issue of a flight instructor certificate for balloons (FI(B)) in accordance with Annex III (Part-BFCL) to Regulation (EU) 2018/395.			
1 Applicant's personal particulars:			
Applicant's last name(s):		First name(s):	
Date of birth:	Telephone:	Email:	
Address:		Country:	
Date:		Signature of the applicant:	
2 Licence details			
Licence number (BPL):			
Class extension(s): (tick as applicable)	☐ Hot-air balloons/Groups: ☐ A ☐ B ☐ C ☐ D ☐ Gas balloons ☐ Hot-air airships		
Additional privileges: (tick as applicable)	☐ Tethered hot-air balloon flight rating ☐ Night rating		
3 Pre-course flying experience			
Flying hours in different classes	Hot-air balloon	Gas balloon	Hot-air airship
PIC			

Total time			
4 Pre-entry assessment			
<i>I recommendfor the FI(B) course.</i>			
Name of ATO/DTO:		Date of pre-entry assessment:	
Name (capital letters) of HT of the ATO/DTO:			
Name (capital letters), licence number and signature of the FI(B) conducting the flight assessment (if applicable):			
5 Declaration by the ATO/DTO			
<i>I certify that has satisfactorily completed an approved course of training for the FI(B) certificate in accordance with the relevant syllabus.</i>			
Flying hours during the course:		Take-offs during the course:	
Name(s) of HT:			
Signature:			
Name of ATO/DTO:			
FROM HERE TO BE COMPLETED BY THE EXAMINER			
6 Result of the assessment of competence			
Oral theoretical knowledge examination:	☐ Passed ☐ Partially passed ☐ Failed	Practical part:	☐ Passed ☐ Partially passed ☐ Failed
Reasons and details in case of fail or partial pass/other remarks as necessary:			
In case of fail: (tick as applicable)	☐ <i>I recommend further ground training before retest.</i>		
	☐ <i>I recommend further flight training with an FI(B) before retest.</i>		
	☐ <i>I do not consider further flight or theoretical instruction necessary before retest.</i>		
I, the undersigning examiner: - have received information from the applicant regarding their experience and instruction, and found that the experience and instruction comply with the applicable requirements of Annex III (Part-BFCL) to Regulation (EU) 2018/395; - confirm that all the required manoeuvres and exercises have been completed, unless specified otherwise above in the case of fail; and - where applicable, have reviewed and applied the national procedures and requirements of the applicant's competent authority which is different from the competent authority that issued my examiner certificate.			
Examiner's certificate number:		Examiner's BPL number:	
Examiner's name (capital letters):		Date and examiner's signature:	
7 Attachments			

Detailed report as per AMC2 BFCL.345 to be attached
Copy of the FE(B) certificate (in cases where the competent authority of the applicant is different from the competent authority of the examiner)

AMC1 BFCL.360(a)(1)(i) FI(B) certificate — Recency requirements**INSTRUCTOR REFRESHER TRAINING**

- (a) The FI(B) refresher training should be held in the form of a seminar. Such seminars made available in Member States should have due regard to geographical location, number of participants, and frequency throughout the territory of the Member State concerned.
- (b) Such seminars should run for at least 1 day (with a minimum of 6 hours of teaching time), and attendance from participants will be required for the whole duration of the seminar including breakout groups and workshops.
- (c) Some experienced FI(B)s currently involved with flying training and with a practical understanding of the recency requirements and the current instructional techniques should be included as speakers at these seminars.
- (d) The attendance form will be completed and signed by the organiser of the seminar as approved by the competent authority, following attendance and satisfactory participation by the FI(B).
- (e) The content of the FI(B) refresher seminar should be selected from the following:
 - (1) new or current rules or regulations, with emphasis on knowledge of Part-BFCL and operational requirements;
 - (2) teaching and learning;
 - (3) instructional techniques;
 - (4) the role of the instructor;
 - (5) national regulations (as applicable);
 - (6) human factors;
 - (7) flight safety, incident and accident prevention;
 - (8) airmanship;
 - (9) legal aspects and enforcement procedures;
 - (10) navigational skills including new or current radio navigation aids;
 - (11) weather-related topics including methods of distribution; and
 - (12) any additional topic selected by the competent authority.
- (f) Formal sessions should allow for a presentation time of 45 minutes, with 15 minutes for questions. The use of visual aids is recommended, with interactive video and other teaching aids (where available) for breakout groups and workshops.

GM1 BFCL.360(a)(1)(i) FI(B) certificate — Recency requirements**FREQUENCY OF INSTRUCTOR REFRESHER TRAINING**

In order to maintain instructor privileges, point BFCL.360(a)(1)(i) requires FI(B) certificate holders to complete instructor refresher training once in 3 years. However, ATOs or DTOs may decide to provide more frequent internal standardisation/refresher training to their instructors.

AMC1 BFCL.360(a)(2) FI(B) certificate — Recency requirements**INSTRUCTION FLIGHT UNDER SUPERVISION**

- (a) The aim of the instruction flight under supervision as per point BFCL.360(a)(2) is to confirm continued instructor competency.
- (b) The instruction flight under supervision should be arranged to ensure that the FI(B) being supervised demonstrates, on the ground and during at least one flight, knowledge, skills and attitudes relevant to the FI(B) task including at least all of the following:
 - (1) technical knowledge;
 - (2) ability to teach a sample of the air exercises from the BPL training course;
 - (3) a sufficiently high standard of flying;
 - (4) application of instructing principles; and
 - (5) application of TEM.
- (c) The supervising instructor should enter the successful completion of the flight under supervision into the logbook of the applicant.

GM1 BFCL.405 Limitation of privileges in case of vested interests

Examples of a situation where examiners should consider if their objectivity is affected are when the applicant is a relative or a friend of the examiner, or when they are linked by economic interests or political affiliations, etc. It is acknowledged that in small sport/industry like ballooning, it is likely that examiners and candidates will be known to each other in many cases.

GM1 BFCL.405(a) Limitation of privileges in case of vested interests**EXAMINERS WHO PROVIDED INSTRUCTION TO THE CANDIDATE**

Point BFCL.405(a) allows an examiner to have been involved, as a flight instructor, into 50 % of the candidate's flight instruction. It is recommended that in such cases that 50 % should be spread throughout the course, and not performed towards the end of the course. ATOs and DTOs should plan and arrange assignments between instructors and students appropriately.

AMC1 BFCL.410(b)(3) Conduct of skill tests, proficiency checks and assessments of competence

APPLICATION AND REPORT FORM FOR THE BPL SKILL TEST OR PROFICIENCY CHECK

APPLICATION AND REPORT FORM FOR THE BPL SKILL TEST OR PROFICIENCY CHECK			
<i>Tick as applicable</i>	I hereby apply for the issue of the following, in accordance with Annex III (Part-BFCL) to Regulation (EU) 2018/395: ☐ Balloon pilot licence (BPL) ☐ Commercial operation rating		
	I hereby report the following, in accordance with Annex III (Part-BFCL) to Regulation (EU) 2018/395: ☐ Proficiency check (BPL — recency) ☐ Proficiency check (commercial operation rating)		
1 Applicant's personal particulars:			
Applicant's last name(s):		First name(s):	
Date of birth:	Telephone:	Email:	
Address:		Country:	
Date:		Signature:	
2 Licence details			
Licence number (if applicable):			
Class extension(s): <i>(tick as applicable)</i>	☐ Hot-air balloons/Groups: ☐ A ☐ B ☐ C ☐ D ☐ Gas balloons ☐ Hot-air airships		
FROM HERE TO BE COMPLETED BY THE EXAMINER			
3 Details of the skill test/proficiency check flight			
Date:	Class/group of balloon:	Registration:	
<u>Take-off site:</u>	<u>Take-off time:</u>	<u>Landing time:</u>	<u>Flight time:</u>

Total flight time:		
4	Result of the test or check	
Skill test/proficiency check details (including information on oral theoretical knowledge examination, where applicable):		
Passed ☐ Partially passed ☐ Failed ☐		
5	Remarks	
Reasons and details in case of fail or partial pass/other remarks as necessary:		
6	Examiner's declarations and details	
I, the undersigning examiner: - have received information from the applicant regarding their experience and instruction, and found that the experience and instruction comply with the applicable requirements of Annex III (Part-BFCL) to Regulation (EU) 2018/395; - confirm that all the required manoeuvres and exercises have been completed, unless specified otherwise above in the case of fail or partial pass; and - where applicable, have reviewed and applied the national procedures and requirements of the applicant's competent authority which is different from the competent authority that issued my examiner certificate.		
Examiner's certificate number:		Examiner's BPL number:
Examiner's name (capital letters):		Date and examiner's signature:
7	Attachments	
Detailed report of skill test or proficiency check as per AMC1 BFCL.145 or AMC1 BFCL.215 (as applicable) to be attached		
Copy of the FE(B) certificate (in cases where the competent authority of the applicant is different from the competent authority of the examiner)		

AMC1 BFCL.415(b) FE(B) certificate — Privileges and conditions

SPECIFIC TRAINING FOR EXAMINER PRIVILEGES RELATED TO THE COMMERCIAL OPERATION RATING

The specific training for examiner privileges related to the commercial operation rating should:

- (a) be completed under the supervision of an FE(B) who holds the privileges in accordance with point BFCL.415(b); and
- (b) include at least all of the following:
 - (1) the requirements of Part-BFCL for the commercial operation rating;
 - (2) theoretical knowledge necessary for the conduct of skill tests and proficiency checks for the commercial operation rating in accordance with AMC1 BFCL.215(b)(4); and

- (3) the conduct of one skill test or proficiency check for the commercial operation rating which, if conducted during an initial examiner standardisation course in accordance with point BFCL.430, should be completed in addition to the skill test or proficiency check for the BPL, as required by point BFCL.430(b)(1).

AMC1 BFCL.415(c)(2) FE(B) certificate — Privileges and conditions

SPECIFIC TRAINING FOR EXAMINER PRIVILEGES RELATED TO THE FI(B) CERTIFICATE

Specific training for examiner privileges related to the FI(B) certificate should:

- (a) be completed under the supervision of an FE(B) who holds the privileges in accordance with point BFCL.415(c); and
- (b) include at least all of the following:
 - (1) the requirements of Part-BFCL for the FI(B) certificate;
 - (2) the content of AMC1 BFCL.345, AMC2 BFCL.345 and AMC3 BFCL.345; and
 - (3) the conduct of one assessment of competence for the FI(B) certificate which, if conducted during an initial examiner standardisation course in accordance with point BFCL.430, should be completed in addition to the skill test or proficiency check for the BPL, as required by point BFCL.430(b)(1).

AMC1 BFCL.420(d) FE(B) certificate — Prerequisites and requirements

EVALUATION OF THE RELEVANT BACKGROUND OF AN APPLICANT

When evaluating the applicant's background, the competent authority should evaluate the personality and character of the applicant, and their cooperation with the competent authority. The competent authority may also take into account whether the applicant has been convicted of any relevant criminal or other offences, taking into account national law and principles of non-discrimination.

AMC1 BFCL.430 FE(B) certificate — Standardisation course

- (a) **GENERAL**
 - (1) When issuing an approval for the conduct of FE(B) standardisation courses to an ATO or a DTO, the competent authority should monitor the execution of these courses through appropriate oversight measures.
 - (2) An FE(B) standardisation course should last at least 1 day, divided into theoretical and practical training.
 - (3) The competent authority, the ATO or the DTO should determine any further training required before presenting the candidate for the examiner assessment of competence.
- (b) **CONTENT**
 - (1) Theoretical training
 - (i) The theoretical training should cover at least:

- (A) the contents of AMC2 BFCL.430 and the flight examiner manual (FEM);
 - (B) Part-BFCL and the related AMC and GM that are relevant to their duties;
 - (C) operational requirements and the related AMC and GM that are relevant to their duties;
 - (D) national requirements that are relevant to their examination duties;
 - (E) fundamentals of human performance and limitations that are relevant to flight examination;
 - (F) fundamentals of evaluation that are relevant to an applicant's performance; and
 - (G) the management system of ATOs and the organisational structure of DTOs.
- (ii) Examiners should also be briefed on the protection requirements for personal data, liability, accident insurance and fees, as applicable in the Member State concerned.
 - (iii) All the items above are the core knowledge requirements for an examiner and are recommended as the core course material. This core course material may be studied before the recommended examiner training is commenced. The core course may utilise any suitable training format.
- (2) Practical training
 - (i) Practical training should include at least:
 - (A) knowledge and management of the test for which the certificate is to be sought. These are described in the relevant modules in the FEM; and
 - (B) knowledge of the administrative procedures pertaining to that test or check.
 - (ii) For an initial examiner certificate, practical training should include the examination of the test profile sought, consisting of the conduct of at least one test or check profiles in the role of an examiner, including briefing, conduct of the skill test and proficiency check, assessment of the applicant to whom the test or check is given, debriefing and recording or documentation under the supervision of an examiner.

AMC2 BFCL.430 FE(B) certificate — Standardisation course

STANDARDISATION ARRANGEMENTS FOR EXAMINERS

- (a) General
 - (1) An examiner should allow an applicant adequate time to prepare for a test or check.
 - (2) An examiner should plan a test or check flight so that all required exercises can be performed while allowing sufficient time for each of the exercises and with due regard to the weather conditions, traffic situation, ATC requirements and local procedures.
- (b) Purpose of a test or check
 - (1) Determination through practical demonstration during a test or check that an applicant has acquired or maintained the required level of knowledge and skill or proficiency.
 - (2) Improvement of training and flight instruction in ATOs or DTOs through feedback from examiners about items or sections of tests or checks that are most frequently failed.

- (3) Assistance in maintaining and, where possible, improving air safety standards by having examiners display good airmanship and flight discipline during tests or checks.
- (c) Conduct of a test or check
 - (1) An examiner will ensure that an applicant completes a test or check in accordance with the Part-BFCL requirements and is assessed against the required test or check standards.
 - (2) Each item within a test or check section should be completed and assessed separately. The test or check schedule, as briefed, should normally not be altered by an examiner.
 - (3) A marginal or questionable performance of a test or check item should not influence an examiner's assessment of any subsequent items.
 - (4) An examiner should verify the requirements and limitations of a test or check with an applicant during the pre-flight briefing.
 - (5) When a test or check is completed or discontinued, an examiner should debrief the applicant and give reasons for items or sections failed. In case of a failed or discontinued skill test and proficiency check, the examiner should provide appropriate advice to assist the applicant in retests or rechecks.
 - (6) Any comment on, or disagreement with, an examiner's test or check evaluation or assessment made during a debriefing will be recorded by the examiner on the test or check report, and will be signed by the examiner and countersigned by the applicant.
- (d) Examiner preparation
 - (1) An examiner should supervise all aspects of the test or check flight preparation, including, where necessary, obtaining or assuring an ATC clearance/liaison.
 - (2) An examiner will plan a test or check in accordance with the Part-BFCL requirements. Only the manoeuvres and procedures set out in the appropriate test or check form will be undertaken. The same examiner should not re-examine a failed applicant without the agreement of the applicant.
- (e) Examiner approach

An examiner should encourage a friendly and relaxed atmosphere both before and during a test or check flight. A negative or hostile approach should not be used. During the test or check flight, the examiner should avoid negative comments or criticisms, and all assessments should be reserved for the debriefing.
- (f) Assessment system

Although test or checks may specify flight test tolerances, an applicant should not be expected to achieve these at the expense of smoothness or stable flight. An examiner should make due allowance for unavoidable deviations due to turbulence, ATC instructions, etc. An examiner should terminate a test or check only either when it is clear that the applicant has not been able to demonstrate the required level of knowledge, skill or proficiency and that a full retest will be necessary or for safety reasons. An examiner will use one of the following terms for assessment:

 - (1) a 'pass' provided that the applicant demonstrates the required level of knowledge, skill or proficiency and, where applicable, remains within the flight test tolerances for the licence or rating;
 - (2) a 'fail' provided that any of the following apply:
 - (i) the flight test tolerances have been exceeded after the examiner has made due allowance for turbulence or ATC instructions;

- (ii) the aim of the test or check is not met;
 - (iii) the aim of the exercise is met but at the expense of safe flight, violation of a rule or regulation, poor airmanship or poor control;
 - (iv) an acceptable level of knowledge is not demonstrated;
 - (v) an acceptable level of flight management is not demonstrated; and
 - (vi) the intervention of the examiner or safety pilot is required in the interest of safety; and
- (3) a 'partial pass' in accordance with the criteria shown in the relevant skill test appendix to Part-BFCL.
- (g) Method and contents of the test or check
- (1) Before undertaking a test or check, an examiner will verify that the balloon intended to be used is suitable and appropriately equipped for the test or check. Aircraft that fall under points (a), (b), (c), or (d) of Annex I to the Basic Regulation can be used, provided that they are subject to an authorisation as per point ORA.ATO.135 of Annex VII (Part-ORA) or point DTO.GEN.240 of Annex VIII (Part-DTO) to Regulation (EU) No 1178/2011.
 - (2) A test or check flight will be conducted in accordance with the AFM.
 - (3) A test or check flight will be conducted within the limitations contained in the operations manual of an ATO or the balloon operator for which the applicant is flying, as applicable, or, if available, within the limitations placed by the DTO.
 - (4) Contents
- A test or check is comprised of:
- (i) oral examination on the ground (where applicable) which should include:
 - (A) balloon general knowledge and performance;
 - (B) planning and operational procedures;
 - (C) theoretical knowledge in the common subjects as per point BFCL.135(a)(1) in cases where the applicant receives a credit in accordance with point BFCL.140(a), based on a licence the privileges of which were not exercised for more than 2 years; and
 - (D) other relevant items or sections of the test or check;
 - (ii) pre-flight briefing which should include:
 - (A) test or check sequence; and
 - (B) safety considerations.
 - (iii) in-flight exercises which should include each relevant item or section of the test or check; and
 - (iv) post-flight debriefing which should include:
 - (A) assessment or evaluation of the applicant; and
 - (B) documentation of the test or check with the applicant's FI(B) present, if possible.

- (5) A test or check is intended to simulate a practical flight. Thus, an examiner may set practical scenarios for an applicant while ensuring that the applicant is not confused and air safety is not compromised.
- (6) An examiner should maintain a flight log and assessment record during the test or check for reference during the post-flight debriefing.
- (7) An examiner should be flexible with regard to the possibility of changes arising to pre-flight briefings due to ATC instructions, or other circumstances affecting the test or check.
- (8) Where changes arise to a planned test or check, an examiner should be satisfied that the applicant understands and accepts the changes. Otherwise, the test or check flight should be terminated.
- (9) Should an applicant choose not to continue a test or check for reasons considered inadequate by an examiner, the applicant will be assessed as having failed those items or sections not attempted. If the test or check is terminated for reasons considered adequate by the examiner, only these items or sections not completed will be tested during a subsequent test or check.
- (10) An examiner may terminate a test or check at any stage if it is considered that the applicant's competency requires a complete retest or recheck.

GM1 BFCL.430 FE(B) certificate — Standardisation course

PLANNING OF TESTS AND CHECKS

- (a) An FE(B) should plan not more than a total of two skill tests, proficiency checks or assessments of competence per day.
- (b) An FE(B) should plan at least 2 hours for a skill test, proficiency check or assessment of competence, including pre-flight briefing and preparation, conduct of the test, check or assessment of competence, de-briefing, evaluation of the applicant and documentation.

AMC1 BFCL.445 FE(B) certificate — Assessment of competence

(a) GENERAL

The competent authority may nominate either one of its inspectors or a senior examiner to assess the competence of applicants for the FE(B) certificate.

(b) DEFINITIONS

- (1) 'Inspector/senior examiner': the inspector of the competent authority or the senior examiner who is conducting the examiner competence assessment.
- (2) 'Examiner applicant': the person seeking certification as an examiner.
- (3) 'Candidate': the person being tested or checked by the examiner applicant. This person may be a pilot for whom the test or check would be required, or the inspector of the competent authority or the senior examiner who is conducting the examiner certification acceptance test.

(c) CONDUCT OF THE ASSESSMENT

An inspector/senior examiner will observe all examiner applicants conducting a test on a 'candidate' in a balloon for which examiner certificate is sought. Items from the related training course and test or check schedule will be selected by the inspector/senior examiner for examination of the 'candidate' by the examiner applicant. Having agreed with the inspector/senior examiner the content of the test, the examiner applicant will be expected to manage the entire test. This will include briefing, the conduct of the flight, assessment and debriefing of the 'candidate'. The inspector/senior examiner will discuss the assessment with the examiner applicant before the 'candidate' is debriefed and informed of the result.

(d) BRIEFING THE 'CANDIDATE'

- (1) The 'candidate' should be given time and facilities to prepare for the test flight. The briefing should cover the following:
 - (i) the objective of the flight;
 - (ii) licensing checks, as necessary;
 - (iii) freedom for the 'candidate' to ask questions;
 - (iv) operating procedures to be followed (for example, the operator's manual);
 - (v) weather assessment;
 - (vi) operating capacity of 'candidate' and examiner;
 - (vii) aims to be identified by 'candidate';
 - (viii) simulated weather assumptions (for example, wind speed and visibility cloud base);
 - (ix) contents of the exercise to be performed;
 - (x) use of R/T;
 - (xi) respective roles of 'candidate' and examiner (for example, during emergency); and
 - (xii) administrative procedures (for example, submission of flight plan).
- (2) The examiner applicant should maintain the necessary level of communication with the 'candidate'. The following check details should be followed by the examiner applicant:
 - (i) the need to give the 'candidate' precise instructions;
 - (ii) responsibility for the safe conduct of the flight;
 - (iii) intervention by the examiner, when necessary;
 - (iv) liaison with ATC (where required) and the need for concise, easily understood intentions;
 - (v) prompting the 'candidate' about required sequence of events (for example, following an aborted landing); and
 - (vi) keeping brief, factual and unobtrusive notes.

(e) ASSESSMENT

The examiner applicant should refer to the flight test tolerances given in the relevant skill test. Attention should be paid to the following points:

- (1) questions from the 'candidate';
- (2) giving the results of the test and any sections failed; and

(3) giving the reasons for failure.

(f) **DEBRIEFING**

The examiner applicant should demonstrate to the inspector the ability to conduct a fair, unbiased debriefing of the 'candidate' based on identifiable factual items. A balance between friendliness and firmness should be evident. The following points should be discussed with the 'candidate', at the applicant's discretion:

- (1) advising the candidate on how to avoid or correct mistakes;
- (2) mentioning any other points of criticism noted; and
- (3) giving any advice considered helpful.

(g) **RECORDING OR DOCUMENTATION**

The examiner applicant should demonstrate to the inspector the ability to complete the relevant records correctly. These records may be:

- (1) the relevant test or check form;
- (2) the licence entry;
- (3) the notification of failure form; and
- (4) relevant company forms where the examiner has privileges of conducting operator proficiency checks.

(h) **DEMONSTRATION OF THEORETICAL KNOWLEDGE**

The examiner applicant should demonstrate to the inspector a satisfactory knowledge of the regulatory requirements associated with the function of an examiner.

AMC1 BFCL.445; BFCL.460 FE(B) certificate — Assessment of competence; FE(B) certificate — Validity, revalidation and renewal

QUALIFICATION OF SENIOR EXAMINERS

- (a) A senior examiner specifically tasked by the competent authority to observe skill tests or proficiency checks for the revalidation of examiner certificates should:
 - (1) hold a valid or current examiner certificate appropriate to the privileges being granted;
 - (2) have examiner experience of a level acceptable to the competent authority; and
 - (3) have conducted a number of skill tests or proficiency checks as an FE(B).
- (b) The competent authority may conduct a pre-assessment of the applicant or candidate carrying out a skill test and proficiency check under the supervision of an inspector of the competent authority.
- (c) Applicants should be required to attend a senior examiner briefing, course or seminar arranged by the competent authority. The content and duration will be determined by the competent authority and should include:
 - (1) pre-course self-study;
 - (2) legislation;
 - (3) the role of the senior examiner;

- (4) an examiner assessment; and
 - (5) national administrative requirements.
- (d) The validity of the authorisation should not exceed the validity of the examiner's certificate, and in any case should not exceed 5 years. The authorisation may be revalidated in accordance with procedures established by the competent authority.

AMC1 BFCL.460(b)(1) FE(B) certificate — Validity, revalidation and renewal

EXAMINER REFRESHER COURSE

An FE(B) refresher course should be organised as a seminar that follows the content of the examiner standardisation course set out in AMC1 BFCL.430.