Bhutan Civil Aviation Requirements for Sailplane

(BCAR-SAILPLANE)

ISSUE 01 Revision 00

Effective from

JULY 2025

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FOREWORD

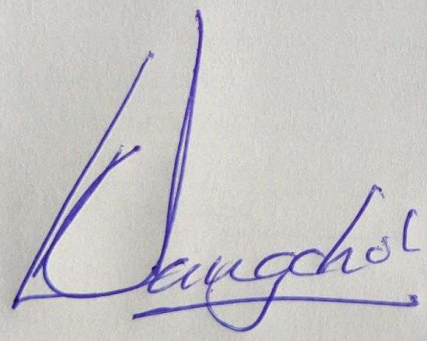
This requirement lays down detailed rules for air operations with sailplanes as well as for issuing and maintaining pilot licenses and associated ratings, privileges and certificates for sailplanes.

As it also carries inherent safety risks similar to other outdoor activities; improper practices can put self and others at risk of serious injury or even death. It is therefore of paramount importance that sailplane Operators recognize the risks and take appropriate safety measures to ensure that the sailplane activities are conducted in a safe manner.

The Civil Aviation Act of Bhutan 2016 states that a person shall not recklessly or negligently cause or permit an aircraft to endanger any person or property; thus, sailplane Operators shall abide by this requirement and operate the sailplane in a safe manner at all times. Any Operator or personal who contravenes this requirement shall be subject to legal sanction.

A person shall not use any aircraft in the kingdom of Bhutan for the provision of any air service except under, and in accordance with the conditions of the Air Operator Certificate issued by BCAA. An operation of a sailplane in the kingdom of Bhutan without sanction from the BCAA would contravene BCAR-Sailplane.

Hence, in exercise of the powers conferred by Section 66(1) of the Civil Aviation Act of Bhutan, the BCAR-Sailplane is developed for sailplane operations in the Kingdom of Bhutan.



Head of Authority
Bhutan Civil Aviation Authority

RECORD OF AMENDMENTS

Issue No	Rev No	Particulars of Issue/Revision	Amendment Date	Entered By
01	00	Initial issue	Initial Issue	Flight Operations

LIST OF EFFECTIVE PAGES

Part	Subpart	Issue no/Revision no	Amendment Date
Sailplane General Requirement	General	01/00	July 2025
Sailplane Air Operations	Definition	01/00	July 2025
	General Requirement	01/00	July 2025
	Operating Procedures	01/00	July 2025
	Performance and Operating limitations	01/00	July 2025
	Instrument, Data, equipment	01/00	July 2025
	AOC	01/00	July 2025
	Sailplane Management		July 2025
Sailplane Flight Crew	Definition	01/00	July 2025
	General Requirement	01/00	July 2025
	Sailplane Pilot License	01/00	July 2025
	Additional Ratings and Privileges	01/00	July 2025
	Flight Instructors	01/00	July 2025
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BHUTAN CIVIL AVIATION AUTHORITY
PARO BHUTAN

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SGR.GEN.100 Sailplane Operations

Bhutan Civil Aviation Requirement (BCAR) for Sailplane lays down detailed requirements for air operations with sailplanes as well as for issuing and maintaining pilot licenses and associated ratings, privileges and certificates for sailplanes. The sailplane Operations and Sailplane crew licensing issuance in Bhutan shall be guided by the following general requirements:

(a) The operators of sailplanes shall engage in commercial operations only after the Air Operations Certificate (AOC) has been issued by Bhutan Civil Aviation Authority (BCAA).

(b) The AOC shall be issued after fulfilling the requirements mentioned in the Part Sailplane Air Operations (subpart AOC for sailplane Operations) of this regulation and in accordance with the procedure manual for issuance of AOC (BCAP 4200).

(c) The Operators of sailplanes shall operate sailplanes in accordance with the requirements set out in Part Sailplane Air Operations (SAO) of this regulation.

SGR.GEN.105 Sailplane Pilot Licensing

(a) The pilot license for sailplanes shall be issued in accordance with fulfillment of technical requirement and administrative procedure laid down in the part Sailplane Flight Crew Licensing (SFCL) of this regulation and in BCAR for Aircrew (Part-MED).

(b) The sailplane pilot shall require Bhutan issued sailplane pilot license to fly the sailplane registered in Bhutan for commercial operations, however BCAA will issue temporary authorization to conduct required training and checking for conversion of the licenses.

(c) For non-commercial and other leisure operations for short duration, BCAA shall validate the license and issue the permit.

(d) BCAA shall issue or convert licenses for foreign pilots only if they are employed by Bhutan AOC holders.

PART- SAILPLANE AIR OPERATIONS (SAO)

SUBPART DEF – DEFINITION

SAO.DEF.100 DEFINATION

For the purpose of this Regulation, the following definitions and, unless terms are defined otherwise in this Annex:

1. "acceptable means of compliance (AMC)" means non-binding standards adopted by the Agency to illustrate means to establish compliance with Regulations;
2. "alternative means of compliance (AltMoC)" means those means that propose an alternative to an existing AMC or those that propose new means to establish compliance with Regulations;
3. "pilot-in-command (PIC)" means the pilot designated as being in command and charged with the safe conduct of the flight;
4. "aircraft flight manual (AFM)" means the document containing the applicable and approved operating limitations and information with respect to the sailplane;
5. "psychoactive substances" means alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, with the exception of caffeine and tobacco;
6. "critical phases of flight" means take-off run, take-off flight path, final approach, missed approach, landing, including landing roll, and any other phases of flight which the pilot-in- command determines as critical for the safe operation of the sailplane;
7. "operating site" means a site, other than an aerodrome, selected by the pilot-in-command or the operator for landing or take-off;
8. "crew member" means a person assigned by an operator to perform duties on board the sailplane, when not the pilot-in-command himself or herself, under the authority of the pilot- in-command;
9. "electronic flight bag (EFB)" means an electronic information system, comprised of equipment and applications for flight crew, which allows for the storing, updating, displaying and processing of EFB functions to support flight operations or duties;
10. "dangerous goods" means articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the technical instructions or which are classified according to those instructions;
11. "technical instructions" means the latest effective edition of the 'Technical instructions for the safe transport of dangerous goods by air', including the supplement and any addenda, published by ICAO in document 9284-AN/905;
12. "sailplane specialized operation" means any operation, which can be commercial or non- commercial, with a sailplane the main purpose of which is not associated with typical sport and recreational operations, but parachute operations, news media flights, television or movie flights, flying display or similar specialized activities;
13. ''night'' means the period between the end of evening civil twilight and the beginning of morning civil twilight. Civil twilight ends in the evening when the Centre of the sun's

disc is six degrees below the horizon and begins in the morning when the Centre of the sun's disc is six degrees below the horizon;

14. ''skill test'' means the demonstration of skill for the purpose of issuing a license or rating, or Extension of a privilege, including oral examinations as may be required;

15. ''assessment of competence'' means the demonstration of skill, knowledge and attitude for the
Initial issue, revalidation or renewal of an instructor or examiner certificate;

16. ''flight time'' means:

    a. for self-launch sailplanes and touring motor gliders, the total time from the moment an aircraft first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight;

    b. for sailplanes, the total time from the moment the sailplane commences the ground run in the process of taking off until the moment the sailplane finally comes to a rest at the end of flight;

17. ''proficiency check'' means the demonstration of skill for the purpose of complying with the recency requirements as established in this Regulation, and including oral examinations as may be required;

18. ''solo flight'' means a flight during which a student pilot is the sole occupant of an aircraft;

19. ''cross-country flight'' means a flight outside the line of sight or distance defined by the competent authority from the field of departure using standard navigation procedures.

SUBPART GEN – GENERAL REQUIREMENTS

SAO.GEN.100 Scope

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

SAO.GEN.105 Competent authority

For the purpose of this BCAR, Bhutan Civil Aviation Authority is the competent authority and it shall be the authority exercising oversight over operators subject to a certification or specialized operation authorization having their principal place of business in Bhutan.

SAO.GEN.110 Demonstration of compliance

(a) An operator shall, when so requested by the BCAA which is verifying continued compliance by the operator in accordance with point ARO.GEN.300(a)(2) to BCAR.ARO, demonstrate compliance with the essential requirements set out in BANRs and with the requirements of this Regulation.

(b) In order to demonstrate such compliance, the operator may refer to the following means:

a. acceptable means of compliance (AMC);

b. alternative means of compliance (AltMoC).

GM1 SAO.GEN.110(b)(2) Demonstration of compliance

ALTERNATIVE MEANS OF COMPLIANCE

An alternative means of compliance (AltMoC):

(a) ensures full compliance with the implementing rule;

(b) does not need to be approved by the competent authority; and

(c) NA.

SAO.GEN.115 Introductory flights

Introductory flights shall be:

(a) operated under visual flight rules (VFR) by day; and

(b) Overseen as regards their safety by a person who has been nominated by the organization responsible for the introductory flights.

SAO.GEN.120 Immediate reaction to a safety problem

The operator shall implement: safety measures mandated by BCAA in accordance with point (c) of Point ARO.GEN.135 of BCAR Air Operations; and

(a) Airworthiness directives and other mandatory information issued by the relevant Agencies.

SAO.GEN.125 Designation of the pilot-in-command

The operator shall designate a pilot-in-command who is qualified to act as pilot-in-command in accordance with Part-SFCL to this Regulation.

SAO.GEN.130 Responsibilities of the pilot-in-command

The pilot-in-command shall:

(a) be responsible for the safety of the sailplane and of any person on board during sailplane operations;

(b) be responsible for the initiation, continuation or termination of a flight in the interest of safety;

(c) ensure that all applicable operational procedures and checklists are complied with;

(d) only commence a flight if he or she is satisfied that all operational requirements are complied with, as follows:

(1) the sailplane is airworthy;

(2) the sailplane is duly registered;

(3) instruments and equipment required for the execution of the flight are carried on board the sailplane and are operative;

(4) the mass of the sailplane and the centre of gravity location are such that the flight can be conducted within the limits defined by the aircraft flight manual (AFM);

(5) all equipment and baggage are properly loaded and secured, and an emergency evacuation remains possible; and

(6) the operating limitations of the sailplane, as specified in the AFM, will not be exceeded at any time during the flight;

(e) ensure that the pre-flight inspection has been carried out as specified in the AFM;

(f) not perform duties on a sailplane in one of the following situations:

(1) when he or she is incapacitated from performing duties by any cause, including injury, sickness, medication, fatigue or the effects of any psychoactive substance, or feels otherwise unfit;

(2) if applicable medical requirements are not fulfilled;

(g) refuse carriage of or disembark any person or baggage that may represent a potential hazard to the safety of the sailplane or any person carried therein;

(h) not allow a person to be carried in the sailplane who appears to be under the influence of psychoactive substances to the extent that the safety of the sailplane or the persons therein is likely to be endangered;

(i) ensure that during critical phases of flight or whenever deemed necessary in the interest of safety, all persons on board are seated and have their safety belt fastened;

(j) during flight:

(1) keep his or her safety belt fastened; and

(2) remain at the control of the sailplane at all times except if another pilot is taking the controls;

(k) Take any action in an emergency situation that requires immediate decision and action which he or she considers necessary under the circumstances. In such cases, he or she may deviate from rules, operational procedures and methods to the extent necessary in the interest of safety;

(l) not continue a flight beyond the nearest weather-permissible aerodrome or operating site, when his or her capacity to perform his or her duties is significantly reduced because of sickness, fatigue or lack of oxygen or any other cause;

(m) record utilization data and all known or suspected defects in the sailplane at the termination of the flight, or series of flights, in the aircraft technical log or journey log;

(n) notify the safety investigation authority of the State in the territory of which the occurrence took place and the emergency services of that State without delay by the quickest available means of any accident or serious incident involving the sailplane;

(o) submit a report of an act of unlawful interference without delay to the BCAA and inform the local authority designated by the State in the territory of which the unlawful interference took place; and report to the appropriate air traffic services (ATS) unit, without delay, any hazardous weather or flight conditions encountered that are likely to affect the safety of other aircraft.

AMC1 SAO.GEN.130(c) Responsibilities of the pilot-in-command

CHECKLISTS

(a) The pilot-in-command should use the latest checklists provided by the type certificate holder or the operator.

(b) If checks conducted before take-off are suspended at any point, the pilot-in-command should restart them from a safe point prior to the interruption.

AMC1 SAO.GEN.130 (d) (4) Responsibilities of the pilot-in-command

USE OF OTHER DOCUMENTS

For those sailplanes, where the current mass and the Centre of gravity location are not available in the aircraft flight manual (AFM), other documents, such as the mass and balance report, should be used.

AMC1 SAO.GEN.130 (f) Responsibilities of the pilot-in-command

DIVING AND BLOOD DONATION

Diving and blood donation may be a cause of incapacitation. The pilot-in-command should not perform duties on a sailplane until a reasonable time period has elapsed after deep water diving or following blood donation.

AMC1 SAO.GEN.130 (f) Responsibilities of the pilot-in-command

ALCOHOL CONSUMPTION

The pilot-in-command and any other crew member should observe the following restrictions:

(a) no alcohol should be consumed less than 8 hours prior to a flight;

(b) the blood alcohol level should not exceed the lower of the national requirements or 0.04 grams of alcohol in 1 liter of blood at the start of a flight; and

(c) No alcohol should be consumed during the flight.

AMC1 SAO.GEN.130 (p) Responsibilities of the pilot-in-command

REPORTING OF HAZARDOUS FLIGHT CONDITIONS

(a) These reports should include any detail which may be pertinent to the safety of other aircraft.

(b) When unexpected meteorological conditions affecting other aircraft are encountered that, in the opinion of the pilot-in-command, may affect the safety or the efficiency of other aircraft operations, he or she should advise the appropriate air traffic services (ATS) unit as soon as practicable.

GM1 SAO.GEN.130 (a);(b) Responsibilities of the pilot-in-command

GENERAL

In accordance with the essential requirements for air operations, which are laid down in BANRs, the pilot-in-command is responsible for the operation and safety of the sailplane and for the safety of the passenger on board. This includes the following:

(a) the safety of the passenger on board, as soon as he or she arrives on board until he or she leaves the sailplane; and

(b) The operation and safety of the sailplane from the moment the launch procedure is started until the sailplane comes to rest at the end of the flight.

GM1 SAO.GEN.130 (f) Responsibilities of the pilot-in-command

DIVING AND BLOOD DONATION — ELAPSED TIME BEFORE RETURNING TO FLYING DUTY

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

GM1 SAO.GEN.130 (f) & SAO.GEN.135 (b) Responsibilities of the pilot-in-command & responsibilities of crew members

PART-MED

Requirements and information on the effects of medication, psychoactive substances and other treatments can be found in BCAR-Aircrew (Part-MED) and its associated acceptable means of compliance and guidance material.

GM1 SAO.GEN.130 (m) Responsibilities of the pilot-in-command

RECORDING UTILISATION DATA

Where a sailplane conducts a series of flights of short duration, the utilization data for the series of flights may be recorded in the aircraft technical log or journey log as a single entry.

GM2 SAO.GEN.130(m) Responsibilities of the pilot-in-command

SERIES OF FLIGHTS

(a) "Series of flights" refers to consecutive flights, which begin and end:

(1) within a 24-hour period; and

(2) At the same operating site or remain within a local area.

(b) The term "series of flights" is used to facilitate a single set of documentation.

SAO.GEN.135 Responsibilities of crew members

(a) Any crew member shall be responsible for the proper execution of his or her duties in respect of the operation of the sailplane.

(b) Any crew member shall not perform duties on a sailplane when incapacitated by any cause, including injury, sickness, medication, fatigue or the effects of any psychoactive substance, or if he or she feels otherwise unfit.

(c) Any crew member shall report to the pilot-in-command both of the following:

(1) any fault, failure, malfunction or defect, which he or she believes may affect the airworthiness or safe operation of the sailplane, including emergency systems;

(2) Any incident.

GM1 SAO.GEN.135 Responsibilities of crew members

DESIGNATION OF A PERSON AS A CREW MEMBER

(a) A crew member may be any person designated by the pilot-in-command or the operator, provided that:

(1) the role, according to the reasonable expectation of the pilot-in-command or the operator, will enhance the safety of the flight or achieve an operational objective of the flight;

(2) the person, according to the reasonable expectation of the pilot-in-command or of the operator, is capable of fulfilling the role;

(3) the person has been briefed on the role as a crew member and informed that he or she is crew, not a passenger; and

(4) The person agrees to the role as a crew member.

A crew member may be required, by specific provisions of this Regulation and other implementing rules, to hold licenses, ratings or other personnel certificates to fulfil certain roles such as instructor or examiner in certain circumstances.

SAO.GEN.140 Compliance with laws, regulations and procedures

(a) The pilot-in-command and any other crew member shall comply with the laws, regulations and procedures of Bhutan Civil Aviation Authority.

(b) The pilot-in-command shall be familiar with the laws, regulations and procedures, pertinent to the performance of his or her duties, prescribed for the areas to be traversed, the aerodromes or operating sites to be used and the related air navigation facilities.

SAO.GEN.145 Portable electronic devices

The pilot-in-command shall not permit any person to use a portable electronic device (PED) on board a sailplane, including an electronic flight bag (EFB), that adversely affects the performance of the sailplane's systems and equipment or the ability to operate it.

GM1 SAO.GEN.145 Portable electronic devices

CATEGORIES OF PORTABLE ELECTRONIC DEVICES

Portable electronic devices (PEDs) are any kind of electronic device, typically but not limited to consumer electronics, brought on board the sailplane by any person and that are not included in the approved sailplane configuration. All equipment that is able to consume electrical energy falls under this definition. The electrical energy can be provided from internal sources such as batteries (rechargeable or non-rechargeable) or the devices may also be connected to specific sailplane power sources.

PEDs include the following two categories:

(a) Non-intentional transmitters can non-intentionally radiate radio frequency (RF) transmissions, sometimes referred to as spurious emissions. This category includes but is not limited to calculators, cameras, radio receivers, audio and video players, electronic games and toys, when these devices are not equipped with a transmitting function.

(b) Intentional transmitters (T-PEDs) radiate RF transmissions on specific frequencies as part of their intended function. In addition, they may radiate non-intentional transmissions

like any PED. T-PEDs are transmitting devices such as RF-based remote-control equipment, which may include some toys, two-way radios (sometimes referred to as 'private mobile radios'), mobile phones of any type, satellite phones, computers with mobile phone data connection, wireless local area network (WLAN) or Bluetooth capability. After deactivation of the transmitting capability, e.g. by activating the so-called 'flight mode' or 'flight safety mode', the T-PED remains a PED having non-intentional emissions.

GM2 SAO.GEN.145 Portable electronic devices

GENERAL

PEDs can pose a risk of interference with electronically operated sailplane systems. Those systems could range from the electronic engine control, instruments, navigation or communication equipment to any other type of avionic equipment on the sailplane. The interference can result in on-board systems malfunctioning or providing misleading information and communication disturbance. These can also lead to an increased workload for the flight crew.

(a) Interference may be caused by transmitters being part of the PED's functionality or by unintentional transmissions from the PED. Due to the likely proximity of the PED to any electronically operated sailplane system and the generally limited shielding found in sailplanes, the risk of interference is to be considered higher than that for larger aircraft with metal airframes.

(b) During certification of the sailplane, when qualifying the sailplane functions, consideration may only have been made of short-term exposure to a high-radiating field, with an acceptable mitigating measure being a return to normal function after removal of the threat. This certification assumption may not be true when operating the transmitting PED on board the sailplane.

(c) It has been found that compliance with electromagnetic compatibility provisions and related European standards, as indicated by the CE marking, is not sufficient to exclude the existence of interference. A well-known interference is the demodulation of the transmitted signal from GSM (global system for mobile communications) mobile phones leading to audio disturbances in other systems. Similar interferences are difficult to predict during the PED design, and protecting the sailplane's electronic systems against the full range of potential interferences is practically impossible. Therefore, not operating PEDs on board the sailplane is the safest option, especially as effects may not be identified immediately but under the most inconvenient circumstances.

(d) Guidance to follow in case of fire caused by PEDs is provided by the latest effective edition of the International Civil Aviation Organization, 'Emergency response guidance for aircraft incidents involving dangerous goods', ICAO Doc 9481-AN/928.

SAO.GEN.150 Dangerous goods

(a) The pilot-in-command shall not permit any person to carry dangerous goods on board.

(b) Reasonable quantities of articles and substances that would otherwise be classified as dangerous goods and that are used to facilitate flight safety, where carriage on board the

sailplane is advisable to ensure their timely availability for operational purposes, shall be considered authorized.

AMC1 SAO.GEN.150 (b) Dangerous goods

REASONABLE QUANTITIES

The carriage of reasonable quantities of articles and substances should be permitted regardless of whether or not such articles and substances are required to be carried or intended to be used in connection with a particular flight. The packing and loading on board should be performed, under the responsibility of the pilot-in-command, in such a way as to minimize the risks posed to crew members, passengers or the sailplane during operation.

GM1 SAO.GEN.150 Dangerous goods

EXAMPLES

Dangerous goods include the following:

(a) explosives (fireworks, flares, detonators, fuses, dynamite, ammunition and materials for fireworks in general);

(b) compressed, liquefied or dissolved gases (aerosols, self-defense sprays, camping gas, extinguishers, cryogenic liquids, bottles with cooling gases and compressed gas cylinders in general);

(c) flammable liquids and solids (fuel, equipment containing fuel, oil, adhesives, solvents, paint, petrol, varnish, torches, cigarette lighters and lighter refills);

(d) substances that emit flammable gasses in contact with water;

(e) oxidizers and organic peroxides (oxygen generators and bleaching powder); and

(f) Substances liable to spontaneous combustion (strike-anywhere matches and phosphorous).

SAO.GEN.155 Documents, manuals and information to be carried

(a) All of the following documents, manuals and information shall be carried on each flight as originals or copies:

(1) the AFM, or equivalent document(s);

(2) details of the filed ATS flight plan, when required in accordance with BCAR Air Operations;

(3) current and suitable aeronautical charts for the area of the intended flight;

(4) any other documentation that may be pertinent to the flight;

(5) Procedures and visual signals information for use by intercepting and intercepted aircraft.

(b) In addition, when an AOC is required a copy of it shall be carried on each flight.

(c) When not carried on board, all of the following documents, manuals and information shall remain available at the aerodrome or operating site as originals or copies:

(1) the certificate of registration;

(2) the certificate of airworthiness, including the annexes;

(3) the airworthiness review certificate;
The noise certificate, if a noise certificate has been issued for a powered sailplane;

(4) the aircraft radio license, where the sailplane is equipped with radio communication equipment in accordance with point SAO.IDE.130;

(5) the third-party liability insurance certificate(s);

(6) The journey log or equivalent.

(d) By derogation from points (a) and (b), the documents, manuals and information specified therein may be retained at the aerodrome or operating site for flights:

(1) intending to remain within the sight of the aerodrome or operating site; or

(2) Remaining within a distance or area determined by the BCAA.

(e) When requested by BCAA the pilot-in-command or the operator shall make available to that authority the original documentation in the time period specified by the authority which shall not be less than 24 hours.

AMC1 SAO.GEN.155 Documents, manuals and information to be carried

GENERAL

(a) In case of loss or theft of documents, manuals and information to be carried, the operation may continue until the flight reaches the base or a place where a replacement document can be provided.

(b) The documents, manuals and information may be available in a form other than on printed paper. An electronic storage medium should be acceptable if accessibility, usability and reliability can be assured.

AMC1 SAO.GEN.155 (a) (3) Documents, manuals and information to be carried

CURRENT AND SUITABLE AERONAUTICAL CHARTS

(a) The aeronautical charts carried should contain data appropriate to the applicable air traffic regulations, rules of the air, flight altitudes, area, route, and nature of the operation. Due consideration should be given to the carriage of textual and graphic representations of:

(1) aeronautical data, including, as appropriate for the nature of the operation:

(i) airspace structure;

(ii) communication frequencies;

(iii) prohibited, restricted and danger areas; and

(iv) sites of other relevant activities that may hazard the flight; and

(2) Topographical data, including terrain and obstacle data.

(b) A combination of different charts and textual data may be used to provide adequate and

current data.

(c) The aeronautical data should be appropriate for the current aeronautical information regulation and control (AIRAC) cycle.

(d) The topographical data should be reasonably recent, having regard to the nature of the planned operation.

AMC1 SAO.GEN.155(c)(2) Documents, manuals and information to be carried

CERTIFICATE OF AIRWORTHINESS

The certificate of airworthiness should be a standard certificate of airworthiness, a restricted certificate of airworthiness or a permit to fly.

GM1 SAO.GEN.155(a)(1) Documents, manuals and information to be carried

AFM OR EQUIVALENT DOCUMENT(S)

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

(b) At least the operating limitations, normal and emergency procedures are available to the pilot during operation by providing the specific sections of the AFM or by other means (e.g. placards, quick reference cards) that effectively accomplish the purpose.

GM1 SAO.GEN.155(a)(4) Documents, manuals and information to be carried

DOCUMENTS THAT MAY BE PERTINENT TO THE FLIGHT OR REQUIRED BY THE STATES CONCERNED WITH THE FLIGHT

(a) Any other documents that may be pertinent to the flight or are required by the States concerned with the flight may include, for example, forms to comply with reporting requirements.

(b) The States concerned are those of origin, overflight and destination of the flight.

GM1 SAO.GEN.155(c)(7) Documents, manuals and information to be carried

JOURNEY LOG OR EQUIVALENT

'Journey log or equivalent' refers to the possibility of having the required information recorded in Documentation other than a logbook, such as the operational flight plan or the sailplane technical log.

SAO.GEN.160 Journey log

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

AMC1 SAO.GEN.160 Journey log

GENERAL

(a) The journey log, or equivalent, should include the following items, where applicable:

(1) sailplane nationality and registration;

(2) date;

(3) name of flight crew member(s);

(4) duty assignments of crew member(s), if applicable;

(5) place of departure;

(6) place of arrival;

(7) time of departure;

(8) time of arrival;

(9) hours of flight;

(10) nature of flight;

(11) incidents and observations, if any; and

(12) Signature of the pilot-in-command.

The information or parts thereof may be recorded in a form other than on printed paper. Accessibility, usability and reliability should be assured.

SUBPART OP – OPERATING PROCEDURES

SAO.OP.100 Use of aerodromes and operating sites

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

GM1 SAO.OP.100 Use of aerodromes and operating sites

GENERAL

If the pilot-in-command cannot fly safely to an aerodrome or operating site, he or she may decide to conduct an out landing, i.e. a landing at an unprepared site.

SAO.OP.105 Noise abatement procedures – powered sailplanes

The pilot-in-command shall take into account operating procedures to minimize the effect of powered sailplane noise, while ensuring that safety has priority over noise abatement.

SAO.OP.110 Passenger briefing

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

AMC1 SAO.OP.110 Passenger briefing

GENERAL

The passenger briefing should include the locations and use of safety belts and, if applicable:

(a) emergency canopy opening;

(b) parachute;

(c) oxygen dispensing equipment; and

(d) Other emergency equipment provided for individual passenger use.

(e)

GM1 SAO.OP.110 Passenger briefing

GENERAL

Either the pilot-in-command or a person designated by the operator is carrying out the passenger Briefing.

SAO.OP.115 Carriage of special categories of passengers

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

SAO.OP.120 Flight preparation

Before commencing a flight, the pilot-in-command shall ensure all of the following:

(a) the facilities required for the safe operation of the sailplane are adequate for the type of operation under which the flight is to be conducted;

(b) that the meteorological conditions will allow the flight to be completed safely;

(c) In the case of a powered sailplane and when the engine is intended to be used, the quantity of fuel or other energy is sufficient to allow the flight to be completed safely.

GM1 SAO.OP.120(a) Flight preparation

FACILITIES REQUIRED

Facilities include:

(a) required communication facilities and navigation aids;

(b) global navigation satellite system (GNSS), if applicable; and

(c) Access to airspace required for the flight.

SAO.OP.125 Refueling and recharging or replacing of batteries with persons on board – powered sailplanes

When a passenger is on board a powered sailplane:

(a) the sailplane shall not be refueled; and

(b) The batteries used for propulsion shall not be recharged or replaced.

SAO.OP.130 Smoking on board

No person shall smoke on board a sailplane during any phase of flight.

SAO.OP.135 Meteorological conditions

The pilot-in-command shall only commence or continue a flight if the latest available meteorological information indicates that a safe landing option remains available.

GM1 SAO.OP.135 Meteorological conditions

SAFE LANDING OPTION

(a) 'Safe landing option' refers to an aerodrome, operating site or outlanding site that can be reached and used safely in accordance with normal operating procedures and the applicable rules of the air. The safe landing option may be the point of departure.

(b) In order to focus on a safe landing option, the pilot-in-command considers, among other things:

(1) the suitability and operating requirements of the chosen landing site;

(2) the technical suitability of the sailplane; and

(3) His or her experience, including out landing training, when applicable.

SAO.OP.140 Ice and other contaminants – ground procedures

The pilot-in-command shall only commence take-off if the sailplane is clear of any deposit that might adversely affect the performance or controllability of the sailplane, except when permitted in the AFM.

SAO.OP.145 In-flight fuel or other energy management – powered sailplanes

For powered sailplanes, the pilot-in-command shall check at regular intervals during the flight that the amount of usable fuel or other energy available is not less than that needed to ensure a safe landing.

GM1 SAO.OP.145 In-flight fuel or other energy management –powered sailplanes

GENERAL

'Fuel or other energy management' refers to the pilot-in-command being aware of the fuel or other energy-used-for-propulsion state of the powered sailplane. If the pilot-in-command intends continuation of the flight in pure gliding, this includes awareness of actual range with or without expected thermals or other sources of updraft.

SAO.OP.150 Use of supplemental oxygen

The pilot-in-command shall ensure that all persons on board use supplemental oxygen whenever he or she determines that, at the altitude of the intended flight, lack of oxygen might result in impairment of their faculties or harmfully affect them

AMC1 SAO.OP.150 Use of supplemental oxygen

GENERAL

When the pilot-in-command cannot determine how the lack of oxygen might affect the persons on board, he or she should ensure that all occupants use supplemental oxygen for any period when the pressure altitude is above 10 000 ft.

SAO.OP.155 Sailplane specialized operations

(a) Before commencing a sailplane specialized operation or a series thereof, the pilot-in-command shall conduct a risk assessment, assessing the complexity of the activity in order to determine the hazards and associated risks of the intended operation and establish mitigating measures where necessary.

(b) A sailplane specialized operation shall be performed in accordance with a checklist. The pilot- in-command shall establish that checklist and ensure that it is appropriate to the specialized activity and sailplane used, based on the risk assessment and taking account of all requirements set out in this Annex. The checklist shall be readily accessible on each flight to the pilot-in- command and any other crew member, where it is relevant for the performance of their duties.

(c) The pilot-in-command shall regularly review and update the checklist where necessary in order to adequately take account of the risk assessment.

AMC1 SAO.OP.155 Sailplane specialized operations

CRITERIA FOR SAILPLANE SPECIALISED OPERATIONS

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

(a) special equipment affecting the behavior of the sailplane in flight is necessary to fulfil the task; or

(b) persons leave the sailplane during flight

AMC1 SAO.OP.155 (b) Sailplane specialized operations

CHECKLIST – GENERAL

(a) The checklist should take into consideration the latest technical publications and recommendations from the:

(1) type certification holder;

(2) Agency; and

(3) Competent authority (BCAA).

(b) The use of a generic checklist, for example one developed by an association, should be acceptable, provided the pilot-in-command adapts it, if required, to address specific or local risks.

AMC2 SAO.OP.155 (b) Sailplane specialized operations

CHECKLIST FOR PARACHUTE OPERATIONS

The checklist for parachute operations should contain:

(a) normal, abnormal and emergency procedures;

(b) relevant performance data;

(c) required equipment;

(d) any limitations such as maximum take-off mass and minimum landing mass;

(e) any possible shift of the Centre of gravity; and

(f) Responsibilities and duties of the pilot-in-command and, if applicable, of any other crew member.

GM1 SAO.OP.155 Sailplane specialised operations

LIST OF OPERATIONS

(a) Sailplane specialized operations include the following activities:

(1) parachute operations;

(2) aerial advertising flights, i.e. banner towing with powered sailplanes;

(3) news media flights, television and movie flights; and

(4) Flying display.

(b) The following operations are not considered sailplane specialized operations, but normal operations:

(1) sailplane towing;

(2) competition flights; and

(3) Aerobatic flights.

GM2 SAO.OP.155 Sailplane specialised operations

CATEGORISATION OF OPERATIONS

The pilot-in-command or the operator determines whether the activity falls within the scope of a sailplane specialized operation. For this determination, the pilot-in-command or the operator considers the criteria in point AMC1 SAO.OP.155 and the activities listed in point (a) of point GM1 SAO.OP.155

GM1 SAO.OP.155 (b) Sailplane specialised operations

DEVELOPMENT OF CHECKLIST

In order to develop a checklist, the pilot-in-command or the operator takes into account at least the following items:

(a) nature and complexity of the activity:

(1) the nature of the flight and risk exposure;

(2) the complexity of the activity taking into account the necessary pilot skills and level of experience, ground support, safety, and individual protective equipment;

(3) the operational environment and geographical area; and

(4) the result of the risk assessment and evaluation;

(b) sailplane and equipment:

All equipment required for the activity should be listed;

(c) crew member(s):

(1) crew composition;

(2) duties of the crew member(s);

(3) minimum crew experience and training provisions; and

(4) recency provisions;

(d) normal, abnormal and emergency procedures:

(1) operating procedures for the flight crew; and

(2) ground procedures for the crew member(s); and

(e) records:

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

SUBPART POL – PERFORMANCE AND OPERATING LIMITATIONS

SAO.POL.100 Weighing

(a) The weighing of the sailplane shall be accomplished by the manufacturer of the sailplane.

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

GM1 POL.100 Weighing

INSTRUCTIONS FOR CONTINUING AIRWORTHINESS AND PERSONNEL REQUIRED

(a) The weighing is conducted in accordance with the applicable instructions for continuing airworthiness (maintenance manual), as laid down in point (b)(3) of point BCAR-M.A.401.

(b) The weighing is a maintenance action, which requires a release to service by personnel specified in point (b) of BCAR-M.A.801 or point (a) of BCAR-145.A.50.

SAO.POL.105 Performance – general

The pilot-in-command shall only operate the sailplane if the performance of the sailplane is adequate to comply with the requirements set out in BCAR-Air Operations and any other restrictions applicable to the flight, the airspace, aerodromes or operating sites used, ensuring that any charts or maps used are the latest available edition.

SUBPART IDE – INSTRUMENTS, DATA AND EQUIPMENT

SAO.IDE.100 Instruments and equipment – general

a) Instruments and equipment required by this Subpart shall be approved in accordance with BCAR-21 or other applicable Bhutan Civil Aviation Requirements.

b) By way of derogation from point (a), all of the following instruments or equipment, when required by this Subpart, shall not need an approval:

(1) independent portable lights;

(2) an accurate timepiece;

(3) Survival and signaling equipment.

c) Instruments and equipment shall be readily operable or accessible from the station where either the pilot-in-command or any other crew member, who needs to use them, is seated.

GM1 SAO.IDE.100 Instruments and equipment – general

INSTRUMENTS AND EQUIPMENT NOT REQUIRED

(a) Non-required instruments and equipment do not need to be approved in accordance with airworthiness requirements. However, their installation needs to be approved in accordance with these requirements, as part of which the instrument or equipment is accepted for installation on a non-hazard basis.

(b) The failure of additional, non-installed instruments or equipment not required by this Annex or by the applicable airworthiness requirements or any applicable airspace requirements should not adversely affect the airworthiness or the safe operation of the sailplane. Examples may be PEDs carried by a crew member or a passenger.

GM1 SAO.IDE.100(a)(3) Instruments and equipment – general

PERMANENTLY INSTALLED

'Permanently installed' refers to an installation that requires a release to service in accordance with point BCAR-M.A.801 or BCAR-145.A.50.

SAO.IDE.105 Flight and navigational instruments

(a) Sailplanes shall be equipped with a means of measuring and displaying all of the following:

(1) time in hours and minutes;

(2) pressure altitude;

(3) indicated airspeed;

(4) In the case of powered sailplanes, magnetic heading.

(b) In addition to (a), when operating in conditions where the sailplane cannot be maintained on a desired flight path without reference to one or more additional instruments, when conducting cloud flying or when operating at night, sailplanes shall be equipped with means of measuring and displaying all of the following:

(1) vertical speed;

(2) attitude or turn and slip;

(3) magnetic heading

AMC1 SAO.IDE.105 Flight and navigational instruments

INTEGRATED INSTRUMENTS

Individual equipment requirements may be met by combinations of instruments or by integrated flight systems or by a combination of parameters on electronic displays. The information so available to each required pilot should not be less than that required in the applicable operational requirements, and the equivalent safety of the installation should be approved during type certification of the sailplane for the intended type of operation.

AMC1 SAO.IDE.105 (a) (1) Flight and navigational instruments

MEANS OF MEASURING AND DISPLAYING THE TIME

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

AMC1 SAO.IDE.105 (a) (2) Flight and navigational instruments

SCALING OF THE MEANS FOR MEASURING AND DISPLAYING PRESSURE ALTITUDE

(a) The instrument measuring and displaying pressure altitude should be of a sensitive type, scaled in metres (m), with a sub-scale setting, scaled in hectopascals/millibars, adjustable for any barometric pressure likely to be set during flight.

(b) Scaling in feet (ft) is also acceptable.

AMC1 SAO.IDE.105(a)(3) Flight and navigational instruments

SCALING OF THE INSTRUMENT INDICATING AIRSPEED

(a) The instrument indicating airspeed should be scaled in kilometres per hour (kph).

(b) Scaling in knots (kt) or in miles per hour (mph) is also acceptable.

AMC1 SAO.IDE.105(a)(4);(b)(3) Flight and navigational instruments

MEANS OF MEASURING AND DISPLAYING MAGNETIC HEADING

The means of measuring and displaying magnetic direction should be a magnetic compass or equivalent.

GM1 SAO.IDE.105(b) Flight and navigational instruments

CONDITIONS WHERE THE SAILPLANE CANNOT BE MAINTAINED IN A DESIRED ATTITUDE WITHOUT REFERENCE TO ONE OR MORE ADDITIONAL INSTRUMENTS

Sailplanes operating in conditions where the sailplane cannot be maintained in a desired attitude without reference to one or more additional instruments refers to a condition where the sailplane is still operating under visual flight rules (VFR), under visual meteorological conditions (VMC), although there is no external reference such as the natural horizon or a coastline, that would allow the attitude to be maintained. Such conditions may occur over water, in a desert or in snow-covered areas where the color of the surface cannot be distinguished from the color of the sky and therefore no external reference is available. Cloud flying is not considered to be one of these conditions.

SAO.IDE.110 Operating lights

Sailplanes shall be equipped with all of the following:

(a) an anti-collision light system;

(b) navigation/position lights;

(c) a landing light;

(d) lighting supplied from the sailplane's electrical system to provide adequate illumination for all instruments and equipment essential to the safe operation of the sailplane;

(e) NA.

SAO.IDE.115 Supplemental oxygen

Sailplanes operated, when an oxygen supply is required in accordance with point SAO.OP.150, shall be equipped with oxygen storage and dispensing apparatus capable of storing and dispensing the required oxygen supplies.

SAO.IDE.120 Life-saving and signaling equipment – flights over water

Not applicable

SAO.IDE.125 Life-saving and signaling equipment – search and rescue difficulties

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

AMC1 SAO.IDE.125 Life-saving and signaling equipment–search and rescue difficulties

GENERAL

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

(a) at least one ELT, one PLB or one equivalent registered emergency locator;

(b) signaling equipment for making distress signals; and

(c) Additional survival equipment for the route to be flown taking account of the number of persons on board.

GM1 SAO.IDE.125 Life-saving and signalling equipment – search and rescue difficulties

AREAS IN WHICH SEARCH AND RESCUE WOULD BE ESPECIALLY DIFFICULT

The phrase 'areas in which search and rescue would be especially difficult' refers to:

(a) areas so designated by the authority responsible for managing search and rescue; or

(b) areas that are largely uninhabited and where the authority referred to in (a):

(1) has not published any information to confirm whether search and rescue would be or would not be especially difficult; and

(2) Does not, as a matter of policy, designate areas as being especially difficult for search and rescue.

SAO.IDE.130 Radio communication equipment

Sailplanes shall have radio communication equipment to allow for the communication required in accordance with applicable BCARs.

AMC1 SAO.IDE.130 Radio communication equipment

GENERAL

When radio communication equipment is required, it should:

(a) be capable of conducting two-way communication with those aeronautical stations and on those frequencies prescribed for the respective airspace; and

(b) Provide for communication on the aeronautical emergency frequency 121.5 MHz.

SAO.IDE.135 Transponder

Not applicable

PART — AOC for Sailplane Operations
(PART- AOC)

SAO.AOC.100 Application for an AOC

(a) Prior to commencing commercial air transport operations, the operator shall apply for and obtain an air operator certificate (AOC) issued by BCAA. The application for an air operator certificate or an amendment to an existing certificate shall be made in a form and manner established by BCAA, taking into account the requirements of applicable regulations.

(b) Applicants for an initial certificate shall provide BCAA with documentation demonstrating how they will comply with the requirements established in applicable regulations. The operator shall provide the following information to BCAA:

(1) the official name and business name, address, and mailing address of the applicant;
(2) a description of the proposed operation, including the type(s), and number of aircraft to be operated;
(3) a description of the management system, including organisational structure;
(4) the name of the accountable manager;
(5) the names of the nominated persons together with their qualifications and experience;
(6) a copy of the operations manuals;
(7) a statement that all the documentation sent to the BCAA have been verified by the applicant and found in compliance with the applicable requirements.

(c) Applicants shall demonstrate to BCAA that:

1. they comply with all the BCAA requirements
2. all aircraft operated have a certificate of airworthiness (CoA) in accordance with BCAA requirements.
3. its organization and management are suitable and properly matched to the scale and scope of the operation.

AMC1. SAO.AOC.100 APPLICATION TIME FRAMES

The application for the initial issue of an AOC should be submitted at least 90 days before the intended start date of operation. The operations manual may be submitted later, but in any case, not later than 60 days before the intended start date of operation.

SAO.AOC.105 Means of compliance

Not applicable

SAO.AOC.115 Terms of approval and privileges of an AOC holder

A certified operator shall comply with the scope and privileges defined in the operations Specifications attached to the operator's certificate.

AMC1 SAO.AOC.100 Terms of approval and privileges of an AOC holder

MANAGEMENT SYSTEM DOCUMENTATION

The management system documentation should contain the privileges and detailed scope of activities for which the operator is certified, as relevant to the applicable requirements. The scope of activities defined in the management system documentation should be consistent with the terms of approval.

SAO.AOC.120 Changes related to an AOC holder

(a) The following changes related to an AOC holder shall require a prior approval from BCAA:
1. any change affecting the scope of the certificate or the operations specifications of an operator; or
2. a change of the accountable manager
3. a change of the nominated person
4. any change to the safety policy, such as the description of the overall philosophies and principles of the operator with regard to safety as required in BCAR.ORO.GEN.200 (a) (2)

(b) For any changes requiring prior approval in accordance with the applicable regulations, the operator shall apply for and obtain an approval issued by BCAA. The application shall be submitted before any such change takes place, in order to enable BCAA to determine continued compliance with the applicable regulations and to amend, if necessary, the operator certificate and related terms of approval attached to it.
The operator shall provide BCAA with any relevant documentation.
The change shall only be implemented upon receipt of formal approval by BCAA
The operator shall operate under the conditions prescribed by BCAA during such changes, as Applicable.

(c) All changes not requiring prior approval shall be managed and notified to BCAA as defined in the procedure approved by BCAA.

AMC1 SAO.AOC.120 Changes related to an AOC holder

APPLICATION TIME FRAMES

(a) The application for the amendment of an air operator certificate (AOC) should be submitted at least 30 days before the date of the intended changes.

(b) In the case of a planned change of a nominated person, the operator should inform the BCAA at least 10 days before the date of the proposed change.

(c) Unforeseen changes should be notified at the earliest opportunity, in order to enable the BCAA to determine continued compliance with the applicable requirements and to amend, if necessary, the AOC and related terms of approval.

GM1 SAO.AOC.120 (a) Changes related to an AOC holder

GENERAL

(a) Typical examples of changes that may affect the AOC or the operations specifications or the operator's management system, as required in BCAR.ORO.GEN.200 (a)(1) and (a)(2), are listed below:

(1) The name of the operator;

(2) A change of legal entity;

(3) The operator's principal place of business;

(4) The operator's scope of activities;

(5) Additional locations of the operator;

(6) The accountable manager;

(7) Any of the persons referred to in BCAR.ORO.GEN.210 (a) and (b);

(8) The operator's documentation, as required by this Annex, safety policy and procedures;

(9) The facilities.

(b) Prior approval by the BCAA is required for any changes to the operator's procedure describing how changes not requiring prior approval will be managed and notified to the competent authority.

(c) Changes requiring prior approval may only be implemented upon receipt of formal approval by the BCAA.

GM2 SAO.AOC.120 (a) Changes related to an AOC holder

CHANGE OF NAME

A change of name requires the operator to submit a new application as a matter of urgency.

Where this is the only change to report, the new application can be accompanied by a copy of the documentation previously submitted to the BCAA under the previous name, as a means of demonstrating how the operator complies with the applicable requirements.

SAO.AOC.125 Renewal of an AOC

(a) The operator's certificate shall be valid for a period of 12 months;

(1) The renewal of operator certificate shall be subject to fulfillment of BCAA rules and regulation;

(2) The certificate not being surrendered or revoked.

(b) Upon revocation or surrender the certificate shall be returned to BCAA without delay.

SAO.AOC.130 Access

For the purpose of determining compliance with the relevant requirements of the applicable regulations, the operator shall grant access at any time to any facility, aircraft, document, records, data, procedures or any other material relevant to its activity subject to certification or SPO authorization, whether it is contracted or not, to any person authorized by one of the following authorities:

(1) BCAA;

(2) The authority acting under the provisions of ICAO;

SAO.AOC.135 Findings

After receipt of notification of findings, the operator shall:

(a) Identify the root cause of the non-compliance;

(b) Define a corrective action plan; and

(c) Demonstrate corrective action implementation to the satisfaction of BCAA within a period agreed with BCAA as defined in ARO.GEN.350 (d).

AMC1 SAO.AOC.135 (b) Findings

GENERAL

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

GM1 SAO.AOC.135 Findings

GENERAL

(a) Preventive action is the action to eliminate the cause of a potential non-compliance or other undesirable potential situation.

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

(c) Correction is the action to eliminate a detected non-compliance.

SAO.AOC.140 Immediate reaction to a safety problem

The operator shall implement:

(a) Any safety measures mandated by BCAA

(b) Any relevant mandatory safety information issued by BCAA, including airworthiness directives.

SAO.AOC.145 Occurrence reporting

(a) The operator shall report to BCAA, and to any other organization required by BCAA to be informed, any accident, serious incident and occurrence as defined in applicable requirements.

(b) Without prejudice to point (a) the operator shall report to BCAA and to the organization responsible for the design of the aircraft any incident, malfunction, technical defect, exceeding of technical limitations, occurrence that would highlight inaccurate, incomplete or ambiguous information contained in data established or other irregular circumstance that has or may have endangered the safe operation of the aircraft and that has not resulted in an accident or serious incident.

(c) The reports referred in paragraphs (a) and (b) shall be made in a form and manner, established by BCAA and contain all pertinent information about the condition known to the operator.

(d) Reports shall be made as soon as practicable, but in any case, within 72 hours of the operator identifying the condition to which the report relates, unless exceptional circumstances prevent this.

(e) Where relevant, the operator shall produce a follow-up report to provide details of actions it intends to take to prevent similar occurrences in the future, as soon as these actions have been identified. This report shall be produced in a form and manner established by BCAA.

SUBPART – Management Requirement

SAO.MAN.100 Management system

(a) The operator shall establish, implement and maintain a management system that includes:

(1) Clearly defined lines of responsibility and accountability throughout the operator, including a direct safety accountability of the accountable manager;

(2) a description of the overall philosophies and principles of the operator with regard to safety, referred to as the safety policy;

(3) The identification of aviation safety hazards entailed by the activities of the operator, their evaluation and the management of associated risks, including taking actions to mitigate the risk and verify their effectiveness;

(4) Maintaining personnel trained and competent to perform their tasks;

(5) Documentation of all management system key processes, including a process for making personnel aware of their responsibilities and the procedure for amending this documentation;

(6) A function to monitor compliance of the operator with the relevant requirements. Compliance monitoring shall include a feedback system of findings to the accountable manager to ensure effective implementation of corrective actions as necessary; and

(7) Any additional requirements that are prescribed in the relevant Subparts of this Annex or other applicable Annexes.

(b) The management system shall correspond to the size of the operator and the nature and complexity of its activities, taking into account the hazards and associated risks inherent in these activities.

AMC1 SAO.MAN.100 (a) (1);(2);(3);(5) Management system

NON-COMPLEX OPERATORS — GENERAL

(a) Safety risk management may be performed using hazard checklists or similar risk management tools or processes, which are integrated into the activities of the operator.

(b) The operator should manage safety risks related to a change. The management of change should be a documented process to identify external and internal change that may have an adverse effect on safety. It should make use of the operator's existing hazard identification, risk assessment and mitigation processes.

(c) The operator should identify a person who fulfils the role of safety manager and who is responsible for coordinating the safety management system. This person may be the accountable manager or a person with an operational role within the operator.

(d) Within the operator, responsibilities should be identified for hazard identification, risk assessment and mitigation.

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

(f) The operator should, in cooperation with other stakeholders, develop, coordinate and maintain an emergency response plan (ERP) that ensures orderly and safe transition from normal to emergency operations and return to normal operations. The ERP should provide the actions to be taken by the operator or specified individuals in an emergency and reflect the size, nature and complexity of the activities performed by the operator.

PART — SAILPLANE FLIGHT CREW LICENSING (PART-SFCL)

SUBPART DEF – DEFINITION

SFCL.DEF.100 Definition

List of definitions from Part-FCL relevant in the content of Part-SFCL:

1. "Aircraft" means any machine which can derive support in the atmosphere from the reactions Of the air other than the reactions of the air against the earth's surface.
2. "Category of aircraft" means a categorization of aircraft according to specified basic characteristics, for example aero plane, powered-lift, helicopter, airship, sailplane, free balloon.
3. "Competency" means a combination of skills, knowledge and attitude required to perform a task to the prescribed standard.
4. "Dual instruction time" means flight time or instrument ground time during which a person is receiving flight instruction from a properly authorized instructor.
5. "Error" means an action or inaction taken by the flight crew which leads to deviations from organizational or flight intentions or expectations.
6. "Error management" means the process of detecting and responding to errors with countermeasures which reduce or eliminate the consequences of errors, and mitigate the probability of errors or undesired aircraft states.
7. "Pilot-in-command" (PIC) means the pilot designated as being in command and charged with the safe conduct of the flight.
8. "Renewal" (of, e.g. a rating or certificate) means the administrative action taken after a rating or certificate has lapsed for the purpose of renewing the privileges of the rating or certificate for a further specified period consequent upon the fulfilment of specified requirements.
9. "Revalidation" (of, e.g. a rating or certificate) means the administrative action taken within the period of validity of a rating or certificate which allows the holder to continue to exercise the privileges of a rating or certificate for a further specified period consequent upon the fulfilment of specified requirements.
10. "Threat" means events or errors which occur beyond the influence of the flight crew, increase operational complexity and which must be managed to maintain the margin of safety.
11. "Threat management" means the process of detecting and responding to the threats with countermeasures which reduce or eliminate the consequences of threats, and mitigate the probability of errors or undesired aircraft states.
12. "Touring Motor Glider" (TMG) means, a specific class of powered sailplanes that has an integrally mounted, non-retractable engine and a non- retractable propeller. It shall be capable of taking off and climbing under its engine power according to its flight manual.

SUBPART GEN – GENERAL REQUIREMENTS

SFCL.001 Scope

This subpart establishes the requirements for the issue of a sailplane pilot licence ('SPL') and associated privileges, ratings and certificates, and the conditions for their validity and

GM1 SFCL.001 Scope

TERMINOLOGY USED REGARDING SAILPLANES, POWERED SAILPLANES AND TMGs

(a) When requirements of BCAR-SFCL refer to 'sailplanes', this includes powered sailplanes as well as touring motor gliders (TMGs), unless otherwise specified.

(b) In the context of sailplanes excluding TMGs, the term 'launch' is used, while in the context of TMGs, the term 'take-off' is used.

SFCL.005 Competent authority

For the purpose of this BCAR, the BCAA shall be an authority to which a person applies for the issue and conversion of an SPL or associated privileges, ratings or certificates.

SFCL.015 Application for and issue, revalidation and renewal of an SPL as well as associated privileges, ratings and certificates

(a) The following shall be submitted to the BCAA in a form and manner established by BCAA:

(1) an application for:

(i) the issue of an SPL and associated ratings;

(ii) the extension of the privileges of an SPL, except for the privileges specified in points SFCL.115(a)(2) and (a)(3), SFCL.155, SFCL.200 and SFCL.215;

(iii) the issue of a sailplane flight instructor ('FI(S)') certificate;

(iv) the issue, revalidation and renewal of a sailplane flight examiner ('FE(S)') Certificate;

(v) any amendments to the SPL and associated privileges, ratings and certificates, except for the privileges referred to in point (ii); and

(2) a copy of the relevant logbook entries as specified in points SFCL.115(d), SFCL.155(b), SFCL.200(f) and SFCL.215(d).

(b) An application as specified in paragraph (a) shall be accompanied by evidence that the applicant complies with the relevant requirements established in this BCAR and in BCAR-MED.

(c) Any limitation or extension of the privileges granted by a license, rating or certificate shall be endorsed on the license or certificate by the competent authority, except for obtaining

the privileges as specified in paragraph (a)(1)(ii).

(d) A person shall not hold at any time more than one SPL issued in accordance with this BCAR.

(e) A license holder shall submit applications as specified in paragraph (a) to the BCAA

(f) Applicants shall apply for the issue of an SPL and associated ratings, privileges or certificates not later than six months after having successfully completed the skill test or assessment of competence.

AMC1 SFCL.015 Application for and issue, revalidation and renewal of an SPL 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 sailplane pilot license (SPL), in AMC1 SFCL.410(b)(3); and

(b) For the assessment of competence for the flight instructor (sailplane) FI(S), in AMC3 SFCL.345.

SFCL.030 Practical skill test

Applicants for a skill test shall be recommended for the skill test by the ATO that is responsible for the training undertaken by the applicants, once the training is completed. The training records shall be made available to the examiner by the ATO.

SFCL.035 Crediting of flight time

Applicants for an SPL or an associated privilege, rating or certificate shall be fully credited with all solo, dual instruction or PIC flight time on sailplanes towards the requirement of a total flight time for the license, privilege, rating or certificate.

SFCL.045 Obligation to carry and present documents

(a) When exercising the privileges of SPL license, SPL holders shall carry all of the following:

(1) a valid SPL;

(2) a valid medical certificate;

(3) a personal identification document containing his or her photo;

(4) Sufficient logbook data to demonstrate compliance with the requirements of this BCAR.

(b) Student pilots shall carry on all solo cross-country flights:

(1) the documents as specified in paragraphs (a)(2) and (a)(3);

(2) Evidence of the authorization required by point SFCL.125 (a).

(c) SPL holders or student pilots shall without undue delay present the documents as

specified in paragraph (a) for inspection upon request by an authorized representative of the BCAA.

(d) By way of derogation from paragraphs (a) and (b), the documents specified therein may be retained at the aerodrome or operating site for flights that remain:

(1) Within the sight of the aerodrome or operating site; or

(2) Within a distance from the aerodrome or operating site determined by the BCAA.

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

SUFFICIENT LOGBOOK DATA

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

SFCL.050 Recording of flight time

SPL holders and student pilots shall keep a reliable record of the details of all flights flown in a form and manner established by the BCAA.

AMC1 SFCL.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/model and registration of the sailplane;

(v) total time of flight;

(vi) launching method

(vii) accumulated total time of flight;

(viii) details on pilot function, namely PIC, including solo, dual, FI(S) or flight examiner (sailplane) FE(S); and

(ix) Operational conditions (e.g. night, aerobatic, cloud flying).

(b) Logging of time

(1) PIC flight time

(i) Holders of a license may log as PIC time all of the flight time during which they are the PIC.

(ii) Applicants for or holders of an SPL 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(S) certificate may log as PIC all flight time during which they act as an instructor in a sailplane.

(iv) Holders of an FE(S) certificate may log as PIC all flight time during which they act as an examiner in a sailplane.

(v) If the holder of an SPL carries out a number of flights upon the same day returning on each occasion to the same place of departure, such series of flights may be recorded as a single entry.

(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.

SFCL.065 Curtailment of privileges of SPL holders aged 60 years or older in commercial passenger sailplane operations

SPL holders who have attained the age of 60 years shall not act as pilots of sailplanes engaged in commercial passenger sailplane operations and for other general operations, the age of SPL holder shall not be more than 65 years.

SFCL.070 Limitation, suspension and revocation of licences, privileges, ratings and certificates

(a) An SPL as well as associated privileges, ratings and certificates issued in accordance with this BCAR may be limited, suspended or revoked by the BCAA in accordance with the conditions and procedures laid down in BCAR-ARA if an SPL holder does not comply with this BCAR and BCAR Aircrew (part MED)

(b) SPL holders shall immediately return the licence or certificate to the BCAA if their licence, privilege, rating or certificate has been limited, suspended or revoked.

SUBPART SPL – SAILPLANE PILOT LICENCE ('SPL')

SFCL.115 SPL – Privileges and conditions

(a) Subject to compliance with point SFCL.150, the privileges of SPL holders are to act as PIC in sailplanes:

(1) without remuneration in non-commercial operations;

(2) including the carriage of passengers only if they:

(i) comply with point SFCL.160(e); and

(ii) either:

A. have completed, after the issue of the SPL, at least 20 hours of flight time or 30 launches or take-offs and landings as PIC on sailplanes and, additionally, one training flight during which holders shall demonstrate to an FI(S) the competence required for the carriage of passengers; or

B. hold an FI(S) certificate in accordance with Subpart FI;

(3) in operations other than those specified in paragraph (1), only if they have completed, after the issue of the license, 75 hours of flight time or 200 launches or take-offs and landings as PIC on sailplanes.

(b) By way of derogation from paragraph (a), SPL holders who have instructor or examiner privileges may receive remuneration for:

(1) The provision of flight instruction for the SPL;

(2) The conduct of skill tests and proficiency checks for the SPL;

(3) The training, testing and checking for the privileges, ratings and certificates attached to an SPL.

(c) SPL holders shall exercise SPL privileges only if they comply with the applicable recency requirements and only if their medical certificate, appropriate to the privileges exercised, is valid.

(d) The completion of the training flight as specified in paragraph (a)(2)(ii)(A) shall be entered in the logbook of the pilot and signed by the instructor who is responsible for the training flight.

SFCL.120 SPL – Minimum age

Applicants for an SPL shall be at least 18 years old.

SFCL.125 SPL – Student pilot

(a) Student pilots shall not fly solo unless authorized to do so and supervised by an FI(S).

(b) Student pilots shall be at least 16 years of age to be allowed on solo flights.

SFCL.130 SPL – Training course and experience requirements

(a) Applicants for an SPL shall complete a training course at an ATO. The course shall be tailored to the privileges sought and shall include:

(1) theoretical knowledge as specified in point SFCL.135;

(2) at least 15 hours of flight instruction in sailplanes, including at least:

(i) 10 hours of dual flight instruction which shall include the dual flight instruction as specified in paragraphs (iv) (A) or (v)(A), as applicable;

(ii) two hours of supervised solo flight time;

(iii) 45 launches or take-offs and landings;

(iv) if privileges for sailplanes, excluding TMGs, are sought, at least seven hours of flight instruction in sailplanes, excluding TMGs, and including at least:

(A) three hours of dual flight instruction;

(B) either:

a. one solo cross-country flight of at least 50 km (27 NM); or

b. one dual cross-country flight of at least 100 km (55 NM) which, by way of derogation from paragraph (2)(iv), may be completed in a TMG;

(v) if privileges for TMGs are sought, at least six hours of flight instruction in TMGs, including at least:

(A) four hours of dual flight instruction;

(B) One solo cross-country flight of at least 150 km (80 NM) in a TMG, during which one full-stop landing at an aerodrome different from the aerodrome of departure shall be performed.

(b) Applicants who hold a pilot licence for another category of aircraft, with the exception of balloon licence, shall be credited with 10 % of total flight time as PIC on such aircraft and up to a maximum of seven hours. The amount of credit given shall in any case:

(1) not include the requirements of paragraphs (a)(2)(ii), (a)(2)(iv)(B) and (a)(2)(v)(B); and

(2) with regard to paragraph (a)(2)(iii), not exceed 10 launches or take-offs and landings.

AMC1 SFCL.130 SPL – Training course and experience requirements

THEORETICAL KNOWLEDGE INSTRUCTION FOR THE SPL

(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 license and the activity. The

theoretical knowledge instruction provided by the approved training organization (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 organization 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 SPL:

1.	**AIR LAW AND ATC PROCEDURES**
1.1.	International law: conventions, agreements and organizations
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 service (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.	Aerodynamics (airflow)
5.2.	Flight mechanics
5.3.	Stability
5.4.	Control
5.5.	Limitations (load factor and manoeuvres)
5.6.	Stalling and spinning
5.7	Spiral dive
6.	**OPERATIONAL PROCEDURES**
6.1.	General requirements
6.2.	Launch methods
6.3.	Soaring techniques
6.4.	Circuits and landing
6.5.	Outlanding
6.6.	Special operational procedures and hazards
6.7.	Emergency procedures
6.8	Emergency parachute operation and landing
7.	**FLIGHT PERFORMANCE AND PLANNING**
7.1.	Mass and balance
7.2.	Speed polar of sailplanes or cruising speed
7.3.	Flight planning and task setting
7.4.	ICAO flight plan (ATS flight plan)
7.5.	Flight monitoring and in-flight re-planning
8.	**AIRCRAFT GENERAL KNOWLEDGE, AIRFRAME AND SYSTEMS AND EMERGENCY EQUIPMENT**
8.1.	Airframe
8.2.	System design, loads and stresses
8.3.	Landing gear, wheels, tyres and brakes
8.4.	Mass and balance
8.5.	Flight controls
8.6.	Instruments
8.7.	Rigging of aircraft, connection of control surfaces
8.8.	Manuals and documents
8.9.	Airworthiness and maintenance
8.10.	Airframe, engines and propellers
8.11	Water ballast systems
8.12	Batteries (performance and operational limitations)
8.13	Emergency parachutes
8.14	Emergency bail-out aid
9.	**NAVIGATION**
9.1.	Basics of navigation
9.2.	Magnetism and compasses
9.3.	Charts
9.4.	Dead reckoning navigation
9.5.	In-flight navigation
9.6.	Use of GNSS
9.7.	Use of ATS

AMC2 SFCL.130 SPL – Training course and experience requirements

FLIGHT INSTRUCTION FOR THE SPL

(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 SPL flight instruction syllabus should take into account the principles of threat and error management (TEM) and also cover:

(i) pre-flight operations, including verifying mass and balance, aircraft inspection and servicing, airspace and weather briefing;

(ii) rigging of sailplanes, including control surface connections;

(iii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) control of the aircraft by external visual reference;

(v) flight at high angle of attack (critically low air speeds), recognition of, and recovery from, incipient and full stalls and spins;

(vi) flight at critically high air speeds, recognition of, and recovery from spiral dive;

(vii) normal and crosswind take-offs in respect of the different launch methods;

(viii) normal and crosswind landings;

(ix) short field landings and outlandings: field selection, circuit and landing hazards and precautions;

(x) cross-country flying using visual reference, dead reckoning and available navigation aids;

(xi) soaring techniques as appropriate to site conditions;

(xii) emergency actions;

(xiii) considerations for soaring at high altitudes; and

(xiv) Compliance with air traffic services procedures and communication procedures.

(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

(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 sailplane type.

(2) At the discretion of the instructors, some of the exercises may be combined and some other exercises may be done in several flights.

(3) At least, Exercises 1 to 12 have to be completed before the first solo flight.

(4) 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.

(5) List of exercises

Exercise 1: Familiarisation with the sailplane

(i) characteristics of the sailplane;

(ii) cockpit layout: instruments and equipment;

(iii) flight controls: stick, pedals, airbrakes, flaps (if available) and trim;

(iv) cable release and undercarriage; and

(v) Checklists, drills and controls.

Exercise 2: Emergency procedures

(i) use of safety equipment (parachute);

(ii) reaction to system failures and errors;

(iii) bail-out procedure drills; and

(iv) Parachute landing fall drills.

Exercise 3: Preparation for flight

(i) pre-flight briefings;

(ii) required documents on board;

(iii) equipment required for the intended flight;

(iv) ground handling, rigging including connection of control surfaces, movements, tow out, parking and security;

(v) pre-flight external and internal checks;

(vi) verifying in-limits mass and balance;

(vii) harness, seat or rudder pedal adjustments; and

(viii) Pre-launch checks.

Exercise 4: Initial air experience

(i) area familiarisation; and

(ii) look-out procedures.

Exercise 5: Effects of controls

(i) look-out procedures;

(ii) use of visual references;

(iii) primary effects when laterally level and when banked;

(iv) reference attitude and effect of elevator;

(v) relationship between attitude and speed; and

(vi) effects of:

A. flaps (if available);

B. airbrakes or spoilers (as applicable); and

C. Undercarriage (if available).

Exercise 6: Coordinated rolling to and from moderate angles of bank

(i) look-out procedures;

(ii) further effects of aileron (adverse yaw) and rudder (roll);

(iii) coordination; and

(iv) Rolling to and from moderate angles of bank and return to straight flight.

Exercise 7: Straight flying

(i) look-out procedures;

(ii) maintaining straight flight;

(iii) flight at critically high air speeds;

(iv) demonstration of inherent longitudinal stability;

(v) control of pitch, including use of trim;

(vi) lateral level, direction and balance and trim; and

(vii) Air speed: monitoring and control.

Exercise 8: Turning

(i) look-out procedures;

(ii) demonstration and correction of adverse yaw;

(iii) entry to turn (medium turns);

(iv) stabilised turns;

(v) exiting turns;

(vi) faults in the turn (slipping, skidding and speed control);

(vii) maintaining appropriate look-out procedures;

(viii) turns on to selected headings and use of compass; and

(ix) Use of instruments (ball indicator or slip string) for precision.

Exercise 9a: Slow flight

Note: The objective is to improve the student's ability to recognize inadvertent flight at critically low speeds (high angle of attack) and to provide practice in maintaining the sailplane in a normal attitude at low speed.

(i) safety checks;

(ii) introduction to characteristics of slow flight; and

(iii) Controlled flight down to a critically high angle of attack (slow air speed).

Exercise 9b: Stalling

(i) safety checks;

(ii) pre-stall symptoms, recognition and recovery;

(iii) stall symptoms, recognition and recovery in straight flight and in turn;

(iv) recovery when a wing drops;

(v) approach to stall in the approach and in the landing configurations; and

(vi) Recognition and recovery from accelerated stalls.

Exercise 10: Recognition and avoidance of spins and spiral dives

(i) safety checks;

(ii) stalling and recovery at the incipient spin stage (stall with un-commanded roll/wing drop to about 45 ° and associated yaw);

(iii) recognition of entry into fully developed spins;

(iv) recognition of full spins;

(v) standard spin recovery;

(vi) instructor induced distractions during the spin entry;

(vii) recognition of spiral dives;

(viii) spiral dive recovery; and

(ix) Differentiation between spins and spiral dives.

Note: Consideration of manoeuvre limitations and the need to refer to the sailplane manual and mass and balance calculations.

Note (Exercises 11a to 11e): At least one launch method must be taught containing all the subjects below. A briefing that follows TEM principles should be conducted before every launch.

Exercise 11a: Winch launch

(i) signals or communication before and during launch;

(ii) use of the launching equipment;

(iii) pre-take-off checks;

(iv) into wind take-off;

(v) crosswind take-off;

(vi) safe and adequate profile of winch launch and limitations;

(vii) release procedures; and

(viii) launch failure procedures, simulated during the winch launch.

Exercise 11b: Aero tow

(i) signals or communication before and during launch;

(ii) use of the launch equipment;

(iii) pre-take-off checks;

(iv) into wind take-off;

(v) crosswind take-off;

(vi) on tow: straight flight, turning and slip stream;

(vii) out of position in tow and recovery;

(viii) descending on tow (towing aircraft and sailplane);

(ix) release procedures; and

(x) Launch failure and abandonment, simulated by releasing the cable at a suitable height, with and without response to a signal from the tow plane.

Exercise 11c: Self-launch

(i) review of the flight manual for the sailplane used;

(ii) engine extending and retraction procedures;

(iii) engine starting and safety precautions;

(iv) pre-take-off checks;

(v) in-flight engine start checks;

(vi) noise abatement procedures;

(vii) checks during and after take-off;

(viii) into wind take-off;

(ix) crosswind take-off;

(x) power failures and procedures;

(xi) abandoned take-off;

(xii) maximum performance (short field and obstacle clearance) take-off;

(xiii) short field take-off, soft field procedure or techniques and performance calculations;

(xiv) in-flight retraction of engine and engine cooling;

(xv) propeller drag;

(xvi) effects of reduction and increase of power;

(xvii) pitch nose-up tendency in case of engine shutdown (in case of over-wing propeller installation);

(xviii) approach with extended retractable engine inoperative (may be simulated by extended airbrakes);

(xix) decision process and reasons to terminate the soaring flight and to switch to powered flight; and

(xx) Decision process and reasons for not starting the engine and to end the flight as a non-powered sailplane.

Exercise 11d: Car launch

(i) signals before and during launch;

(ii) use of the launch equipment;

(iii) pre-take-off checks;

(iv) into wind take-off;

(v) crosswind take-off;

(vi) safe and adequate launch profile and limitations;

(vii) release procedures; and

(viii) Launch failure procedures.

Exercise 11e: Bungee launch

(i) signals before and during launch;

(ii) use of the launch equipment;

(iii) pre-take-off checks; and

(iv) Into wind take-off.

Exercise 12: Circuit, approach and landing

(i) procedures for rejoining the circuit;

(ii) collision avoidance, look-out techniques and procedures;

(iii) pre-landing checks: circuit procedures, downwind and base leg;

(iv) effect of wind and wind shear on approach and touchdown speeds;

(v) use of flaps (if applicable);

(vi) visualization of an aiming point;

(vii) approach control and use of airbrakes;

(viii) normal and crosswind approach and landing; and

(ix) Short landing procedures or techniques.

Exercise 13: First solo flight

(i) instructor's briefing including limitations;

(ii) awareness of local area and restrictions;

(iii) use of required equipment;

(iv) effects of the Centre of gravity (CG) on controllability of sailplane; and

(v) Observation of flight and debriefing by instructor.

Exercise 14: Advanced turning

(i) steep turns (45 ° or more);

(ii) stalling and spin avoidance in the turn and recovery; and

(iii) Recoveries from unusual attitudes, including spiral dives.

Note (exercises 15a to 15c): At least one of the three soaring techniques must be taught containing all subjects below.

Exercise 15a: Thermalling

(i) look-out procedures;

(ii) detection and recognition of thermals;

(iii) use of audio soaring instruments;

(iv) joining a thermal and giving way;

(v) flying in close proximity to other sailplanes;

(vi) centring in thermals;

(vii) leaving thermals; and

(viii) Considerations for use of oxygen.

Exercise 15b: Ridge flying

(i) look-out procedures;

(ii) practical application of ridge flying rules;

(iii) optimisation of flight path;

(iv) speed control;

(v) wind shear; and

(vi) Considerations for change of turning radius at same indicated airspeed at different altitudes.

Exercise 15c: Wave flying

(i) look-out procedures;

(ii) considerations and techniques for wave access and exit;

(iii) speed limitations with increasing height; and

(iv) Considerations for use of oxygen.

Exercise 16: Out-landings

(i) gliding range;

(ii) restart procedures (only for self-launching and self-sustaining sailplanes);

(iii) decision process to not start the engine and to outland;

(iv) selection of landing area;

(v) circuit judgement and key positions;

(vi) circuit and approach procedures;

(vii) actions after landing;

(viii) determination of wind direction;

(ix) selection of landing direction; and

(x) Considerations for landing at high slope landing sites.

Note (exercises 17a to 17c): If the required cross-country flight will be conducted as a solo cross-country flight, all the subjects below must be taught before.

Exercise 17a: Flight planning

(i) weather forecast and actuals;

(ii) notices to airmen (NOTAMs) and airspace considerations;

(iii) map selection and preparation;

(iv) route planning;

(v) radio frequencies (if applicable);

(vi) pre-flight administrative procedure, including preparation of additional required equipment, as applicable (e.g. life vest, personal locator beacon);

(vii) ICAO flight plan where required;

(viii) mass and performance;

(ix) mass and balance;

(x) alternate aerodromes and landing areas; and

(xi) Safety altitudes.

Exercise 17b: In-flight navigation

(i) maintaining track and re-routing considerations;

(ii) use of radio and phraseology (if applicable);

(iii) in-flight planning;

(iv) procedures for transiting regulated airspace or ATC liaison where required;

(v) uncertainty of position procedure;

(vi) lost procedure;

(vii) use of additional equipment where required; and

(viii) Joining, arrival and circuit procedures at remote aerodrome.

Exercise 17c: Cross-country techniques

(i) look-out procedures;

(ii) maximising potential cross-country performance; and

(iii) Risk reduction and threat reaction.

AMC3 SFCL.130 SPL – Training course and experience requirements

TRAINING ELEMENTS FOR THE INITIAL ISSUE OF AN SPL WITH TMG PRIVILEGES

For initial SPL training that includes training for TMG privileges, the theoretical knowledge instruction and flight instruction should include the elements specified in points (b) and (c) of AMC1 SFCL.150(b).

GM1 SFCL.130(a)(2)(iv) SPL – Training course and experience requirements

USE OF TMGs DURING TRAINING FOR THE INITIAL ISSUE OF AN SPL WITHOUT TMG PRIVILEGES

For initial SPL training that does not include training for TMG privileges, TMGs can be used for a maximum of 8 hours (point SFCL.130(a)(2)(iv)). It follows from the objective of such a training course that all training exercises completed on a TMG must consist of pure gliding maneuvers, without any TMG-specific maneuvers. Such pure gliding training in a TMG can be provided by FI(S) certificate holders who do not hold the TMG instructional privileges as specified in point SFCL.315(a)(4), provided that the instructor occupies the pilot seat from which all PIC functions can be executed.

SFCL.135 SPL – Theoretical knowledge examination

Theoretical knowledge

(a) Applicants for an SPL shall demonstrate a level of theoretical knowledge that is appropriate to the privileges sought through examinations on the following:

(1) common subjects:

(i) air law;

(ii) human performance;

(iii) meteorology;

(iv) communications;

(2) specific subjects concerning sailplanes:

(i) principles of flight;

(ii) operational procedures;

(iii) flight performance and planning;

(iv) aircraft general knowledge related to sailplanes;

(v) Navigation.

(b) Responsibilities of the applicant

(1) The applicant shall take the entire set of theoretical knowledge examinations for the SPL under the responsibility of the BCAA or at the authorized ATO.

(2) The applicant shall take the theoretical knowledge examination only if recommended by the ATO that is responsible for his or her training and once he or she has completed the appropriate elements of the training course of theoretical knowledge instruction to a satisfactory standard.

(3) The recommendation by the ATO shall be valid for 12 months. If the applicant has failed to take at least one theoretical knowledge examination paper within this validity period, the need for further training shall be determined by the ATO based on the needs of the applicant.

(4) Pass standards

(5) A pass in a theoretical knowledge examination shall be awarded to the applicant when achieving at least 75 % of the marks allocated to that paper. No penalty marking shall be applied.

(6) Unless otherwise specified in this BCAR, an applicant is considered to have successfully completed the required theoretical knowledge examination for the SPL if he or she has passed all the required theoretical knowledge examination papers within a period of 18 months counted from the end of the calendar month when the applicant first attempted to take the examination.

(7) If an applicant has failed to pass one of the theoretical knowledge examination papers within four attempts or has failed to pass all papers within the period mentioned in paragraph (2), he or she shall retake the complete set of theoretical knowledge examination papers.

(8) Before retaking the theoretical knowledge examinations, the applicant shall undertake further training at an ATO. The extent and scope of the training needed shall be determined by the ATO, based on the needs of the applicant.

(c) Validity period

The successful completion of the theoretical knowledge examinations shall be valid for a period of 24 months, counted from the day when the applicant successfully completed the theoretical knowledge examination, in accordance with paragraph (c)(2).

AMC1 SFCL.135 SPL – Theoretical knowledge examinations

(a) The theoretical knowledge examinations for the SPL follow the syllabus for theoretical knowledge instruction for the SPL set out in AMC1 SFCL.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

* 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 SFCL.135(c)(1) needs to be achieved for each subject

(d) The period of 18 months mentioned in point SFCL.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 SFCL.135 SPL – Theoretical knowledge examinations

TERMINOLOGY

The meaning of the following terms used in SFCL.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.

SFCL.140 SPL – Crediting of theoretical knowledge

Applicants for the issue of an SPL shall be credited towards the theoretical knowledge requirements for the common subjects as specified in point SFCL.135(a)(1) if they:

(a) hold a license in accordance with BCAR-FCL ; or

(b) Have passed the theoretical knowledge examinations for a license as specified in paragraph (a), as long as this is done within the validity period specified in point SFCL.135(d).

SFCL.145 SPL – Practical skill test

(a) Applicants for an SPL shall demonstrate through the completion of a skill test the ability to perform, as PIC on sailplanes, the relevant procedures and manoeuvres with competency appropriate to the privileges sought.

(b) Applicants shall complete the skill test in a sailplane, excluding TMGs, or a TMG, depending on the privileges sought and provided that the training course in accordance with point SFCL.130 included the necessary training elements for the relevant aircraft. An applicant who has completed a training course, including the necessary training elements for both sailplanes and TMGs, may complete 2 skill tests, 1 in a sailplane, excluding TMGs, and 1 in a TMG, in order to obtain privileges for both aircraft.

(c) To take a skill test for the issue of an SPL the applicant shall first pass the required theoretical knowledge examinations.

(d) Pass standards

(1) The skill test shall be divided into different sections, representing all the different phases of a sailplane flight.

(2) Failure in any item of a section shall cause the applicant to fail the entire section. If the applicant fails in only one section, he or she shall repeat only that section. Failure in more than one section shall require the applicant to retake the entire test.

(3) If the applicant needs to retake the test in accordance with paragraph (2) and fails in any section, including those sections that have been passed at a previous attempt, the applicant shall retake the entire test.

(e) If the applicant fails to achieve a pass in all sections of the test within two attempts, he or she shall receive further practical training.

AMC1 SFCL.145 SPL – Practical skill test

(a) GENERAL

(1) An applicant should be responsible for the flight planning and should ensure that all equipment and documentation for the execution of the flight are available.

(2) The 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 sailplane in which the test is being taken.

(b) ADDITIONAL ARRANGEMENTS FOR SKILL TESTS IN TMGs

(1) The route to be flown for the skill test should be chosen by the FE. The route should end at the point of departure or another aerodrome or operating site. The navigation section of the test should have a duration of at least 30 minutes which allows the pilot to

demonstrate the ability to complete a route with at least two identified waypoints and may, as agreed between applicant and FE, be flown as a separate test.

(2) When indicating to the FE the checks and duties to be carried out, the applicant should include the identification of radio facilities that are intended to be used. During pre-flight preparation for the test, the applicant should be required to determine power settings and speeds. Performance data for take-off, approach and landing should be calculated by the applicant in compliance with the aircraft flight manual for the TMG used.

(c) FLIGHT TEST TOLERANCE

(1) The applicant should demonstrate the ability to:

(i) operate the sailplane within its limitations;

(ii) complete all maneuvers with smoothness and accuracy;

(iii) exercise good judgment and airmanship;

(iv) apply aeronautical knowledge; and

(v) Maintain control of the sailplane at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

(2) In the case of skill tests in TMGs, the following limits are for general guidance. The FE should make allowance for turbulent conditions and the handling qualities and performance of the TMG used:

(i) height: normal flight ± 150 ft

(ii) speed:

A. take-off and approach +15/-5 knots

B. all other flight regimes ± 15 knots

(d) CONTENT OF THE SKILL TEST

(1) The following skill test contents and sections should be used for the skill test for the issue of an SPL in a sailplane, excluding TMGs:

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

SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE	
a	Pre-flight sailplane (daily) inspection, documentation, flight planning, NOTAM(s) and weather briefing
b	Verifying in-limits mass and balance and performance calculation
c	Sailplane servicing compliance
d	Pre-take-off checks
Note for SECTION 2A-2C: At least for one of the three launch methods, all the mentioned items are fully exercised during the skill test.	
SECTION 2A: WINCH OR CAR LAUNCH	
a	Signals before and during launch, including messages to winch driver
b	Adequate profile of winch launch
c	Simulated launch failure (during launch or in free flight)
d	Situational awareness
SECTION 2B: AEROTOW LAUNCH	

a	Signals before and during launch, including signals to or communications with the tow plane pilot for any problems
b	Initial roll and take-off climb
c	Launch abandonment (simulation only or 'talk-through')
d	Correct positioning during straight flight and turns
e	Out of position and recovery
f	Correct release from tow
g	Look-out and airmanship through the whole launch phase
SECTION 2C: SELF-LAUNCH (powered sailplanes only)	
a	ATC compliance (if applicable)
b	Aerodrome departure procedures
c	Initial roll and take-off climb
d	Look-out and airmanship during the whole take-off
e	Simulated engine failure after take-off
f	Engine shut down and stowage
SECTION 3: GENERAL AIRWORK	
a	Maintain straight flight: attitude and speed control
b	Coordinated medium (30 ° bank) turns, look-out procedures and collision avoidance
c	Turning on to selected headings visually and with use of compass
d	Flight at high angle of attack (critically low air speed)
e	Clean stall and recovery
f	Spin avoidance and recovery*
g	Steep (45 ° bank) turns, look-out procedures and collision avoidance
h	Local area navigation and awareness
SECTION 4: CIRCUIT, APPROACH AND LANDING	
a	Aerodrome circuit joining procedure
b	Collision avoidance: look-out procedures
c	Pre-landing checks
d	Circuit, approach control and landing
e	Precision landing (simulation of out-landing and short field)
f	Crosswind landing if suitable conditions are available

(*) If no suitable training aircraft is available to demonstrate the fully developed spin including spin recovery, or if such spin manoeuvres cannot be performed due to bad weather constraints, the applicant should demonstrate the competence in all the aspects related to this exercise during a discussion with the examiner.

(2) The following skill test contents and sections should be used for the skill test for the issue of an SPL in a TMG:

Note: Use of checklist(s), airmanship, control of TMG by external visual reference, de- icing procedures, etc. apply in all sections.

SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE	
a	Pre-flight documentation, flight planning, NOTAM(s) and weather briefing
b	Mass and balance and performance calculation
c	TMG inspection and servicing
d	Engine starting and after starting procedures
e	Taxiing and aerodrome procedures, pre-take-off procedures

f	Take-off and after take-off checks
g	Aerodrome departure procedures
h	ATC liaison: compliance
SECTION 2A: GENERAL AIRWORK (WITH ENGINE POWER)	
a	ATC liaison
b	Straight and level flight, with speed changes
c	Climbing: i. best rate of climb; ii. climbing turns; and iii. levelling off.
d	Medium (30 ° bank) turns, look-out procedures and collision avoidance
e	Steep (45 ° bank) turns
f	Flight at critically low air speed with and without flaps
g	Stalling: i. clean stall and recover with power; ii. approach to stall descending turn with bank angle 20 °, approach configuration; and iii. approach to stall in landing configuration.
h	Descending: i. with and without power; ii. descending turns (steep gliding turns); and
	iii. levelling off.
SECTION 2B: GENERAL AIRWORK (WITHOUT ENGINE POWER)	
a	Straight and level flight, with speed changes
b	Medium (30 ° bank) turns, look-out procedures and collision avoidance
c	In-flight engine start and stop procedures
d	Stall in turns
SECTION 3: EN-ROUTE PROCEDURES	
a	Flight plan, dead reckoning and map reading
b	Maintenance of altitude, heading and speed
c	Orientation, airspace structure, timing and revision of estimated times of arrival (ETAs), log keeping
d	Diversion to alternate aerodrome (planning and implementation)
e	Flight management (checks, fuel systems, carburettor icing, etc.)
f	ATC liaison: compliance
SECTION 4: APPROACH AND LANDING PROCEDURES	
a	Aerodrome arrival procedures
b	Collision avoidance (look-out procedures)
c	Precision landing (short field landing) and crosswind, if suitable conditions are available
d	Flapless landing (if applicable)
e	Approach to landing with idle power
f	Touch and go
g	Go-around from low height
h	ATC liaison
i	Actions after flight
SECTION 5: ABNORMAL AND EMERGENCY PROCEDURES	
This section may be combined with Sections 1 through 4.	
a	Simulated engine failure after take-off
b	* Simulated forced landing
c	* Simulated precautionary landing

d	Simulated emergencies
e	Oral questions

* These items may be combined, at the discretion of the FE.

SFCL.150 SPL – Sailplane and TMG privileges

(a) If the skill test as specified in point SFCL.145 has been completed in a sailplane, excluding TMGs, the privileges of an SPL shall be limited to sailplanes, excluding TMGs.

(b) In the case specified in paragraph (a), the privileges of an SPL shall be extended to TMGs upon application if a pilot has:

(1) completed at an ATO or a DTO the training elements specified in point SFCL.130(a)(2)(v);

(2) Passed a skill test to demonstrate an adequate level of practical skill in a TMG. During this skill test, the applicant shall also demonstrate to the examiner an adequate level of theoretical knowledge for TMGs in the following subjects:

(i) principles of flight;

(ii) operational procedures;

(iii) flight performance and planning;

(iv) aircraft general knowledge; and

(v) navigation.

(c) Holders of a license issued in accordance with Annex I (Part-FCL) shall receive full credit towards the requirements in paragraph (b) provided that they:

(1) hold a class rating for TMGs; or

(2) Have TMG privileges and comply with the recency requirements in point FCL.140.A of BCAR-FCL.

(d) If the skill test as specified in point SFCL.145 has been completed in a TMG, the privileges of the SPL shall be limited to TMGs.

(e) In the case specified in paragraph (d), the privileges of the SPL shall be extended to sailplanes upon application if a pilot has:

(1) completed at an ATO or a DTO the training elements specified in point SFCL.130(a)(2)(iv) and at least 15 launches and landings in a sailplane, excluding TMGs; and

(2) passed a skill test to demonstrate an adequate level of practical skill in a sailplane, excluding TMGs. During this skill test, the pilot shall also demonstrate to the examiner an adequate level of theoretical knowledge for sailplanes, excluding TMGs, in the following subjects:

(i) principles of flight;

(ii) operational procedures;

(iii) flight performance and planning;

(iv) aircraft general knowledge; and

(v) Navigation.

(f) The completion of the training as specified in paragraphs (b)(1) and (e)(1) shall be entered in the logbook of the pilot and signed by the head of training of the ATO that is responsible for the training.

AMC1 SFCL.150 (b) SPL – Sailplane and TMG privileges

EXTENSION TO TMG PRIVILEGES

(a) Once the training set out in this AMC is completed, the ATO or the DTO should issue a certificate of satisfactory completion of the training.

(b) Theoretical knowledge

(1) In preparation for the demonstration of additional theoretical knowledge as stipulated in point SFCL.150(b)(2), the training course at an ATO or at an DTO should include theoretical knowledge instruction that should at least cover the revision or explanation of:

(2) Principles of flight

(i) operating limitations (addition: TMG);

(ii) propellers; and

(iii) Flight mechanics.

(3) Operational procedures for TMGs

(i) special operational procedures and hazards; and

(ii) Emergency procedures.

(4) Flight performance and planning

(i) mass and balance considerations;

(ii) loading;

(iii) CG calculation;

(iv) load and trim sheet;

(v) performance of TMGs;

(vi) flight planning for VFR flights;

(vii) fuel planning;

(viii) pre-flight preparation;

(ix) ICAO flight plan; and

(x) Flight monitoring and in-flight re-planning.

(5) Aircraft general knowledge

(i) system designs, loads, stresses, maintenance;

(ii) airframe;

(iii) landing gear, wheels, tyres, brakes;

(iv) fuel system;

(v) electrics;

(vi) piston engines;

(vii) propellers; and

(viii) Instrument and indication systems.

(6) Navigation

(i) dead reckoning navigation (addition: powered flying elements);

(ii) in-flight navigation (addition: powered flying elements);

(iii) basic radio propagation theory;

(iv) radio aids (basics);

(v) radar (basics); and

(vi) GNSS.

(c) Flight instruction

(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.

(2) The training elements as per point SFCL.150(b)(1) should cover the revision or explanation of the following exercises:

Exercise 1: Familiarisation with the TMG

(i) characteristics of the TMG;

(ii) cockpit layout;

(iii) systems; and

(iv) Checklists, drills and controls.

Exercise 1e: Emergency drills

(i) action if fire on the ground and in the air;

(ii) engine cabin and electrical system fire;

(iii) systems failure; and

(iv) Escape drills, location and use of emergency equipment and exits.

Exercise 2: Preparation for and action after flight

(i) serviceability documents;

(ii) equipment required, maps, etc.;

(iii) external checks;

(iv) internal checks;

(v) harness and seat or rudder panel adjustments;

(vi) starting and warm-up checks;

(vii) power checks;

(viii) running down system checks and switching off the engine;

(ix) parking, security and picketing (for example, tie down); and

(x) Completion of authorisation sheet and serviceability documents.

Exercise 3: Taxiing

(i) pre-taxi checks;

(ii) starting, control of speed and stopping;

(iii) engine handling;

(iv) control of direction and turning;

(v) turning in confined spaces;

(vi) parking area procedure and precautions;

(vii) effects of wind and use of flying controls;

(viii) effects of ground surface;

(ix) freedom of rudder movement;

(x) marshalling signals;

(xi) instrument checks;

(xii) Air traffic control procedures (if applicable).

Exercise 1e: Emergency drills

(i) action if fire on the ground and in the air;
(ii) engine cabin and electrical system fire;
(iii) systems failure; and
(iv) Escape drills, location and use of emergency equipment and exits.

Exercise 4: Straight and level

(i) at normal cruising power, attaining and maintaining straight and level flight;

(ii) flight at critically high air speeds;

(iii) demonstration of inherent stability;

(iv) control of pitch, including use of trim;

(v) lateral level, direction and balance and trim;

(vi) at selected air speeds (use of power);

(vii) during speed and configuration changes; and

(viii) Use of instruments for precision.

Exercise 5: Climbing

(i) entry, maintaining the normal and max rate climb and levelling off;

(ii) levelling off at selected altitudes;

(iii) en-route climb (cruise climb);

(iv) climbing with flap down (if available);

(v) recovery to normal climb;

(vi) maximum angle of climb; and

(vii) use of instruments for precision.

Exercise 6: Descending

(i) entry, maintaining and levelling off;

(ii) levelling off at selected altitudes;

(iii) glide, powered and cruise descent (including effect of power and air speed);

(iv) side slipping (on suitable types);

(v) use of instruments for precision flight; and

(vi) Descending with engine inoperative.

Exercise 7: Turning

(i) entry and maintaining medium level turns;

(ii) resuming straight flight;

(iii) faults in the turn (incorrect pitch, bank and balance);

(iv) climbing turns;

(v) descending turns;

(vi) slipping turns (on suitable types);

(vii) turns onto selected headings, use of gyro heading indicator or compass; and

(viii) use of instruments for precision.

Exercise 8a: Slow flight

Note: The objective is to improve the pilot's ability to recognize inadvertent flight at critically low speeds and provide practice in maintaining the TMG in balance while returning to normal air speed.

(i) safety checks;

(ii) introduction to slow flight;

(iii) controlled flight down to critically slow air speed; and

(iv) Application of full power with correct attitude and balance to achieve normal climb speed.

Exercise 8b: Stalling

(i) airmanship;

(ii) safety checks;

(iii) symptoms;

(iv) recognition;

(v) clean stall and recovery without power and with power;

(vi) recovery when a wing drops; and

(vii) approach to stall in the approach and in the landing configurations, with and without power, recovery at the incipient stage.

Exercise 9: Take-off and climb to downwind position

(i) pre-take-off checks;

(ii) into wind take-off;

(iii) safeguarding the nose wheel (if applicable);

(iv) crosswind take-off;

(v) drills during and after take-off;

(vi) short take-off and soft field procedure or techniques including performance calculations; and

(vii) noise abatement procedures.

Exercise 10: Circuit, approach and landing

(i) circuit procedures, downwind and base leg;

(ii) approach and landing with and without (idle) engine power;

(iii) safeguarding the nose wheel (if applicable);

(iv) effect of wind and wind shear on approach and touchdown speeds;

(v) use of airbrakes, flaps, slats or spoilers (if available);

(vi) crosswind approach and landing;

(vii) glide approach and landing (engine stopped);

(viii) short landing and soft field procedures or techniques;

(ix) flapless approach and landing (if applicable);

(x) wheel landing;

(xi) missed approach and go-around; and

(xii) Noise abatement procedures.

Note: In the interests of safety, it will be necessary for pilots who are trained on nose wheel TMGs to undergo dual conversion training before flying tail wheel TMGs, and vice versa.

Exercise 9/10e: Emergencies

(i) abandoned take-off;

(ii) engine failure after take-off;

(iii) mislanding and go-around; and

(iv) Missed approach.

Exercise 11: Advanced turning

(i) steep turns (45 °), level and descending;

(ii) stalling in the turn and recovery; and

(iii) Recoveries from unusual attitudes, including spiral dives.

Exercise 12: Stopping and restarting the engine

(i) engine cooling procedures;

(ii) switching off procedure in-flight;

(iii) sailplane operating procedures;

(iv) restarting procedure; and

(v) Decision process to start or not start the engine.

Exercise 13: Forced landing without power

(i) forced landing procedure;

(ii) choice of landing area, provision for change of plan;

(iii) gliding distance;

(iv) descent plan;

(v) key positions;

(vi) engine failure checks;

(vii) use of radio;

(viii) base leg;

(ix) final approach;

(x) landing; and

(xi) Actions after landing.

Exercise 14: Precautionary landing

(i) full procedure away from aerodrome to break-off height;

(ii) occasions necessitating;

(iii) in-flight conditions;

(iv) landing area selection:

(v) normal aerodrome;

(vi) disused aerodrome; and

(vii) ordinary field;

(viii) circuit and approach; and

(ix) Actions after landing.

Exercise 15a: Navigation

(i) Flight planning

(A) weather forecast and actuals;

(B) map selection and preparation:

(1) choice of route;

(2) airspace structure; and

(3) safety altitudes;

(C) calculations:

(1) magnetic heading(s) and time(s) en-route;

(2) fuel consumption;

(3) mass and balance; and

(4) mass and performance;

(D) flight information:

(1) NOTAMs, etc.;

(2) radio frequencies; and

(3) selection of alternate aerodromes;

(E) TMG documentation;

(F) notification of the flight:

(1) pre-flight administrative procedures; and

(2) ICAO flight plan form;

(ii) Departure:

(A) organization of cockpit workload;

(B) departure procedures:

(1) altimeter settings;

(2) ATC liaison in regulated airspace (may be simulated in case of unavailability of regulated airspace);

(3) setting heading procedure; and

(4) noting of ETAs;

(iii) En-route:

(A) maintenance of altitude and heading;

(B) revisions of ETAs and heading;

(C) log keeping;

(D) use of radio or compliance with ATC procedures;

(E) minimum weather conditions for continuation of flight;

(F) in-flight decisions;

(G) transiting controlled or regulated airspace;

(H) diversion procedures;

(I) uncertainty of position procedure; and

(J) lost procedure; and

(iv) Arrival, aerodrome joining procedure:

(A) ATC liaison in regulated airspace (may be simulated in case of unavailability of regulated airspace);

(B) altimeter setting;

(C) entering the traffic pattern;

(D) circuit procedures;

(E) parking;

(F) security of TMG;

(G) refueling;

(H) closing of flight plan, if appropriate; and

(I) Post-flight administrative procedures.

Exercise 15b: Navigation problems at lower levels and in reduced visibility

1. actions before descending;
2. hazards (for example, obstacles and terrain);

3. difficulties of map reading;
4. effects of wind and turbulence;
5. vertical situational awareness (avoidance of controlled flight into terrain);
6. avoidance of noise sensitive areas;
7. joining the circuit; and
8. bad weather circuit and landing.

Exercise 15c: Radio navigation (basics)

(i) Use of GNSS or VOR/NDB:
- (A) selection of waypoints;
- (B) to or from indications or orientation; and
- (C) error messages;

(ii) Use of VHF/DF and other radio facilities, as available:
- (A) availability, AIP and frequencies;
- (B) R/T procedures and ATC liaison; and
- (C) obtaining a QDM and homing; and

(iii) Use of en-route or terminal radar:
- (A) availability and AIP;
- (B) procedures and ATC liaison;
- (C) pilot's responsibilities; and
- (D) secondary surveillance radar;
  1. transponders;
  2. code selection; and
  3. Interrogation and reply.

GM1 SFCL.150(c) SPL – Sailplane and TMG privileges

FAMILIARISATION WITH ENGINE START/STOP PROCEDURES

SPL holders who obtain TMG privileges through a credit in accordance with point SFCL.150(c) should make themselves familiar with the procedures set out in the aircraft flight manual (AFM) for starting and stopping the engine in flight.

AMC1 SFCL.150 (e) SPL – Sailplane and TMG privileges

EXTENSION TO SAILPLANE PRIVILEGES

(a) Once the training set out in this AMC is completed, the ATO should issue a certificate of

satisfactory completion of the training.

(b) Theoretical knowledge

In preparation for the demonstration of additional theoretical knowledge as stipulated in point SFCL.150(e)(2), the training course at an ATO should include theoretical knowledge instruction that should at least cover the revision or explanation of:

(1) Principles of flight Operating limitations

(2) Operational procedures

(i) special operational procedures and hazards; and

(ii) Emergency procedures.

(3) Flight performance and planning

(i) mass and balance considerations;

(ii) loading;

(iii) CG calculation;

(iv) load and trim sheet; and

(v) Performance of sailplanes.

(4) Aircraft general knowledge

(i) system designs, loads, stresses, maintenance;

(ii) airframe;

(iii) landing gear, wheels, tyres, brakes; and

(iv) Instrument and indication systems.

(5) Navigation

(i) dead reckoning navigation (addition: powered flying elements);

(ii) in-flight navigation; and

(iii) GNSS.

(c) Flight instruction

The flight instruction should include at least the training syllabus specified in point (c) of AMC2 SFCL.130. However, credit may be given for exercises 4 to 8, 10 and 14.

SFCL.155 SPL – Launching methods

(a) SPL holders shall exercise their privileges only by using those launching methods for which they have completed a specific training either during the training course in accordance with point SFCL.130 or point SFCL.150(e)(1) or during additional training provided by an instructor after the issue of the SPL. This specific training shall consist of the following:

(1) in the case of winch launch and car launch, a minimum of 10 launches in dual flight

instruction, and five solo launches under supervision;

(2) In the case of aerotow or self-launch, a minimum of five launches in dual flight instruction, and five solo launches under supervision. In the case of self-launch, dual flight instruction may be conducted in TMGs;

(3) in the case of bungee launch, a minimum of three launches performed in dual flight instruction or solo under supervision; and

(4) In case of further launching methods, training as required by the competent authority.

(b) The completion of the training as specified in paragraph (a) shall be entered in the logbook of the pilot and signed by the head of training of the ATO or the instructor that is responsible for the training, as applicable.

(c) In order to maintain the privileges for each launching method and in accordance with the requirements of paragraphs (a) and (b), SPL holders shall complete a minimum of five launches during the last two years, except for bungee launch, in which case they shall complete only two launches. In the case of self-launch, launches may be done in self-launch or through take-offs in TMGs or a combination of these.

(d) If SPL holders do not comply with the requirement in paragraph (c), in order to renew their privileges, they shall perform the additional number of launches flying dual or solo under the supervision of an instructor.

AMC1 SFCL.155 (a) (2) SPL – Launching methods

INSTRUCTION FOR SELF-LAUNCH

(a) The training for the self-launch method should include the syllabus for self-launch set out in point (c) (5) of AMC2 SFCL.130 (Exercise 11c).

(b) At the end of the training, the applicant should demonstrate to the instructor the ability to perform all of the following:

1) a self-launch;

2) appropriate actions in the event of engine failures; and

3) The decision processes referred to in items (xix) and (xx) of Exercise 11c in point (c) (5) of AMC2 SFCL.130.

GM1 SFCL.155 (a) (4) SPL – Launching methods

FURTHER LAUNCHING METHODS

In addition to the launching methods specified in points (b)(1) to (b)(3) of point SFCL.155, further launching methods (e.g. 'gravity launch' – launching the sailplane by running it down a slope) may be practiced in some other States. Such additional launching methods can be exercised, after applicants have complied with specific training requirements as established by the other competent authority.

SFCL.160 SPL – Recency requirements

(a) Sailplanes, excluding TMGs SPL holders shall exercise SPL privileges, excluding TMGs, only if in the last 24 months before the planned flight they:

(1) completed, on sailplanes, at least five hours of flight time as PIC or flying dual or solo under the supervision of an FI(S), including, on sailplanes, excluding TMGs, at least:

(i) 15 launches; and

(ii) two training flights with an FI(S); or

(2) Passed a proficiency check with an FE(S) on a sailplane, excluding TMGs; the proficiency check shall be based on the skill test for SPL.

(b) TMGs SPL holders shall exercise their TMG privileges only if in the last 24 months before the planned flight they:

(1) completed at least 12 hours of flight time as PIC or flying dual or solo under the supervision of an FI(S), including, on TMGs, at least:

(i) six hours flight time;

(ii) 12 take-offs and landings; and

(iii) a training flight of at least one hour total flight time with an instructor; or

(2) passed a proficiency check with an examiner; the proficiency check shall be based on the skill test as specified in point SFCL.150(b)(2).

(c) SPL holders with privileges to fly on TMGs who also hold a license including the privileges to fly on TMGs in accordance with the provisions of BCAR-FCL shall be exempted from complying with paragraph (b).

(d) The completion of the dual flights, the flights under supervision and the training flights as specified in paragraphs (a)(1) and (b)(1), as well as the proficiency checks as specified in paragraph (a)(2) and (b)(2) shall be entered in the logbook of the pilot and signed by the responsible FI(S) in the case of paragraphs (a)(1) and (b)(1), and by the responsible FE(S) in the case of paragraphs (a)(2) and (b)(2).

(e) Carriage of passengers SPL holders shall carry passengers only if in the preceding 90 days they have carried out as PIC, at least:

(1) three launches in sailplanes, excluding TMGs, if passengers are to be carried in sailplanes, excluding TMGs; or

(2) Three take-offs and landings in TMGs, if passengers are to be carried in a TMG. For carrying passengers at night in a TMG, at least one of those take-offs and landings shall be carried out at night.

AMC1 SFCL.160 (a) (1)(ii) SPL – Recency requirements

TRAINING FLIGHTS

(a) The content of the two training flights, as stipulated in point SFCL.160(a)(1)(ii), should

include elements from the skill test for the SPL, as set out in AMC1 SFCL.145, selected by the instructor in accordance with point (b).

(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 sailplane 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) The 24-month period should be counted from the last day of the month in which the respective training flight took place.

AMC1 SFCL.160 (e) Recency requirements

RECENT EXPERIENCE FOR THE CARRIAGE OF PASSENGERS

When a pilot needs to carry out one or more flights with an instructor or an examiner in order to comply with the requirement of point SFCL.160 (e) before the pilot can carry passengers, the instructor or examiner on board those flights will not be considered as a passenger.

SUBPART ADD – ADDITIONAL RATINGS AND PRIVILEGES

SFCL.200 Aerobatic privileges

(a) SPL holders shall only undertake aerobatic flights in sailplanes with any engine stopped, or, in the case of paragraph (d) and (e), with engine power, if they hold the appropriate aerobatic privileges in accordance with this point.

(b) Basic aerobatic privileges:

(1) entitle its holder to undertake aerobatic flights limited to the following manoeuvres:

(i) 45-degree climbing and diving lines performed as aerobatic manoeuvres;

(ii) inside loops;

(iii) wingover;

(iv) lazy eight;

(v) spins;

(2) are included in the privileges of an SPL after a pilot has completed:

(i) after the issue of the SPL, at least 30 hours of flight time or 120 launches as PIC on sailplanes;

(ii) a training course at an ATO, including:

A. theoretical knowledge instruction appropriate for the privileges sought;

B. Aerobatic flight instruction on the manoeuvres specified in paragraph (1).

(c) Advanced aerobatic privileges:

(1) entitle its holder to undertake aerobatic flights not limited to manoeuvres as specified in paragraph (b)(1);

(2) are included in the privileges of an SPL after a pilot has:

(i) complied with the requirements of paragraph (b)(2)(i);

(ii) completed a training course at an ATO including:

A. theoretical knowledge instruction appropriate for the privileges sought;

B. At least five hours or 20 flights of aerobatic flight instruction.

(d) The basic or advanced aerobatic privileges shall include aerobatic flights in sailplanes with engine power, if a pilot has received a training in aerobatic flight in sailplanes with engine power during a training course in accordance with paragraphs (b)(2)(ii) or (c)(2)(ii), as applicable.

(e) The privileges of an SPL shall include advanced aerobatic privileges for TMGs flown with engine power if a pilot also has or has had an aerobatic rating BCAR-FCL, including privileges for aerobatic flight on TMGs.

(f) The completion of the training course as specified in paragraphs (b)(2)(ii) and (c)(2)(ii)

and, as applicable, the inclusion of training specified in paragraph (d), shall be entered in the logbook and signed by the head of training of the ATO that is responsible for the training.

AMC1 SFCL.200 (b) Aerobatic privileges

TRAINING FOR THE BASIC AEROBATIC PRIVILEGES

(a) The aim of the basic aerobatic training is to qualify SPL holders to perform the aerobatic manoeuvres specified in point SFCL.200 (b) (1).

(b) Theoretical knowledge

The syllabus for the theoretical knowledge instruction as per point SFCL.200 (b) (2)(ii)(A) should cover at least all of the following:

(1) human factors and body limitations

(i) spatial disorientation;

(ii) airsickness;

(iii) body stress and G-forces, positive and negative; and

(iv) Effects of grey- and blackouts.

(2) technical subjects

(i) legislation affecting aerobatic flying to include environmental and noise subjects;

(ii) principles of aerodynamics to include slow flight, stalls and spins, flat and inverted; and

(iii) General airframe and engine limitations (if applicable).

(3) limitations applicable to the specific aircraft category (and type)

(i) air speed limitations (sailplane);

(ii) symmetric load factors (type-related, as applicable); and

(iii) Rolling Gs (type-related, as applicable).

(4) aerobatic manoeuvres and recovery

(i) entry parameters;

(ii) planning systems and sequencing of manoeuvres;

(iii) rolling manoeuvres;

(iv) looping manoeuvres;

(v) combination manoeuvres; and

(vi) Entry and recovery from developed spins, flat, accelerated and inverted.

(5) emergency procedures

(i) recovery from unusual attitudes; and

(ii) Drills to include the use of parachutes (if worn) and aircraft abandonment.

(c) Flying training

(d) The exercises of the basic aerobatic flying training syllabus should be repeated as necessary until the applicant achieves a safe and competent standard. Having completed the flight training, the student pilot should be able to perform a solo flight containing the manoeuvres specified in point SFCL.200 (b)(1). The dual training and the supervised solo training flights should be limited to the permitted manoeuvres of the type of sailplane used. The exercises should comprise at least the following practical training items:

(1) confidence manoeuvres and recoveries

(i) slow flights and stalls;

(ii) steep turns;

(iii) side slips;

(iv) engine restart in-flight (if applicable);

(v) spins and recovery;

(vi) recovery from spiral dives; and

(vii) Recovery from unusual attitudes.

(2) Aerobatic manoeuvres as per point SFCL.200(b)(1).

AMC1 SFCL.200(c) Aerobatic privileges

TRAINING FOR THE ADVANCED AEROBATIC PRIVILEGES

(a) The aim of the advanced aerobatic training is to qualify SPL holders to perform aerobatic manoeuvres.

(b) Theoretical knowledge

The syllabus for the theoretical knowledge instruction as per point SFCL.200(c)(2)(ii)(A) should cover at least the elements specified in point (b) of AMC1 SFCL.200(b).

(c) Flying training

The exercises of the advanced aerobatic flying training syllabus should be repeated as necessary until the applicant achieves a safe and competent standard. Having completed the flight training, the student pilot should be able to perform a solo flight containing a sequence of aerobatic manoeuvres. The dual training and the supervised solo training flights should be limited to the permitted manoeuvres of the type of sailplane used. The exercises should comprise at least the following practical training items:

(1) confidence manoeuvres and recoveries as specified in point (d)(1) of AMC1 SFCL.200(b);

(2) aerobatic manoeuvres:

(i) Chandelle;

(ii) Lazy Eight;

(iii) rolls;

(iv) loops;

(v) inverted flight;

(vi) Hammerhead turn; and

(vii) Immelmann.

(d) For applicants who already hold basic aerobatic privileges as per point SFCL.200(b), the theoretical knowledge instruction as per point (b) may consist of a repetition of the elements specified in point (b) of AMC1 SFCL.200(b), and the flying training as per point (c) may focus on the aerobatic manoeuvres that are outside the scope of the basic aerobatic privileges.

AMC1 SFCL.200 (d) Aerobatic privileges

TRAINING FOR AEROBATIC FLIGHT WITH ENGINE POWER

Applicants who seek privileges for aerobatic flights with engine power in accordance with point SFCL.200(d) should complete, under engine power, all manoeuvres specified in point (d) of AMC1 SFCL.200(b) or point (c) of AMC1 SFCL.200(c), as applicable, that can be completed with engine power.

SFCL.205 Sailplane towing and banner towing rating

(a) SPL holders who have privileges to fly TMGs shall tow sailplanes or banners only if they hold an appropriate sailplane towing or banner towing rating in accordance with this point.

(b) Applicants for a sailplane towing rating shall have completed:

(1) at least 30 hours of flight time as PIC and 60 take-offs and landings in TMGs, after obtaining TMG privileges;

(2) a training course at an ATO including:

(i) theoretical knowledge instruction on sailplane towing operations and procedures;

(ii) at least 10 training flights towing a sailplane, including at least 5 dual training flights;

(iii) in the case of an SPL holder with privileges restricted to TMG in accordance with point SFCL.150(d), five familiarisation flights in a sailplane which is launched by an aircraft.

(c) Applicants for a banner towing rating shall have completed:

(1) at least 100 hours of flight time and 200 take-offs and landings as PIC on TMGs, after obtaining TMG privileges;

(2) a training course at an ATO including:

(i) theoretical knowledge instruction on banner towing operations and procedures;

(ii) At least 10 instruction flights towing a banner, including at least five dual flights.

(d) Applicants for a sailplane towing rating or a banner towing rating in accordance with this point who already hold a sailplane towing or banner towing rating in accordance with point BCAR-FCL or who have fulfilled all the requirements for the issue of that rating, as applicable, shall:

(1) receive full credit towards the requirements in paragraph (b) or (c) for obtaining the sailplane towing or the banner towing rating, as applicable, if their relevant towing rating as specified in paragraph (d) includes privileges for towing with TMGs; or

(2) Have completed at least three dual instruction flights covering the full sailplane towing or banner towing training syllabus, as applicable, in TMGs.

(e) The completion of the training course as specified in paragraphs (b)(2), (c)(2) and (d)(2) shall be entered in the logbook and signed by the head of training of the ATO or the instructor who is responsible for the training, as applicable.

(f) To exercise the privileges of the sailplane towing or banner towing rating, the holder of the rating shall complete a minimum of five tows during the last two years.

(g) If a holder of the sailplane towing rating does not comply with the requirement in paragraph (f), before resuming the exercise of his or her privileges, he or she shall complete the missing tows with or under the supervision of an instructor.

AMC1 SFCL.205 Sailplane towing and banner towing rating

TRAINING FOR THE SAILPLANE TOWING AND BANNER TOWING RATING

(a) General

The aim of the towing instruction is to qualify SPL holders with TMG privileges to tow a sailplane or a banner. The theoretical knowledge and flight instruction should cover the relevant elements as set out in this AMC.

(b) Theoretical knowledge: towing of sailplanes

The theoretical knowledge syllabus for towing of sailplanes should cover the revision or explanation of:

(1) regulations about towing flights;

(2) equipment for the towing activity;

(3) sailplane towing techniques, including:

(i) signals and communication procedures;

(ii) take-off (normal and crosswind);

(iii) in-flight launch procedures;

(iv) descending on tow;

(v) sailplane release procedure;

(vi) tow rope release procedure;

(vii) landing with tow rope connected (if applicable);

(viii) emergency procedures during tow, including equipment malfunctions;

(ix) safety procedures;

(x) flight performance of the applicable aircraft type when towing sailplanes;

(xi) look-out and collision avoidance;

(xii) performance data sailplanes, including:

(A) suitable speeds; and

(B) stall characteristics in turns;

(xiii) effects of wake turbulence and downwash on the towed sailplane's performance,handling characteristics and stall speed; and

(xiv) Effects of propeller wash in the initial phase of the take-off roll at crosswind.

(c) Theoretical knowledge: banner towing

The theoretical knowledge syllabus for banner towing should cover the revision or explanation of:

(1) regulations about banner towing;

(2) equipment for the banner towing activity;

(3) ground crew coordination;

(4) pre-flight procedures;

(5) banner towing techniques, including:

(i) take-off launch;

(ii) banner pickup manoeuvres;

(iii) flying with a banner in tow;

(iv) release procedure;

(v) landing with a banner in tow (if applicable);

(vi) emergency procedures during tow, including equipment malfunctions;

(vii) safety procedures;

(viii) flight performance of the applicable aircraft type when towing a heavy or light banner; and

(ix) Prevention of stall during towing operations.

(d) Flying training: towing of sailplanes

The exercises of the towing training syllabus for towing sailplanes should be repeated as necessary until the student achieves a safe and competent standard and should comprise at least the following practical training items:

(1) take-off procedures (normal and crosswind take-offs);

(2) 360 ° circles on tow with a bank of 30 ° and more;

(3) descending on tow;

(4) release procedure of the sailplane;

(5) landing with the tow rope connected (if applicable);

(6) tow rope release procedure in-flight;

(7) emergency procedures (simulation); and

(8) Signals and communication during tow.

(e) Flying training: banner towing

The exercises of the towing training syllabus for banner towing should be repeated as necessary until the student achieves a safe and competent standard and should comprise at least the following practical training items:

(1) pickup manoeuvres;

(2) towing in-flight techniques;

(3) release procedures;

(4) flight at critically low air speeds;

(5) maximum performance manoeuvres;

(6) emergency manoeuvres to include equipment malfunctions (simulated);

(7) specific banner towing safety procedures;

(8) go-around with the banner connected; and

(9) Loss of engine power with the banner attached (simulated).

SFCL.210 TMG night rating

Reserved

SFCL.215 Sailplane cloud flying privileges

(a) SPL holders shall operate a sailplane within cloud only if:

(1) any engine is stopped; and

(2) they have sailplane cloud flying privileges in accordance with this point.

(b) The privileges of an SPL shall include sailplane cloud flying privileges if a pilot has completed at least:

(1) 30 hours as PIC in sailplanes after the issue of the license;

(2) a training course at an ATO including:

(i) theoretical knowledge instruction;

(ii) at least two hours of dual flight instruction in sailplanes with any engine stopped, controlling the aircraft solely by reference to instruments. However, a maximum of 50 % of the dual flight instruction may be completed in TMGs

flown with engine power, provided that these training flights are conducted in VMC.

(c) In order to obtain sailplane cloud flying privileges, an SPL holder who also holds a basic instrument rating (BIR) or an IR(A) in accordance with BCAR-FCL or who has fulfilled all the requirements for the issue of one of these ratings, shall:

(1) be credited towards the requirement of paragraph (b)(2)(i);

(2) By way of derogation from paragraph (b)(2)(ii), complete at least one hour of dual flight instruction in a sailplane, controlling it solely by reference to instruments.

(d) The completion of the training course as specified in paragraphs (b)(2) or (c)(2), as applicable, shall be entered in the logbook and signed by the head of training of the ATO that is responsible for the training.

(e) SPL holders shall exercise their sailplane cloud flying privileges only if in the last two years before the planned cloud flight they have completed at least one hour of flight time, or five flights, as PIC exercising cloud flying privileges in sailplanes.

(f) If SPL holders with sailplane cloud flying privileges do not comply with the requirements in paragraph (e) and they wish to resume the exercise of their sailplane cloud flying privileges they shall: (1) pass a proficiency check with an FE(S); or (2) perform the additional flight time or flights required in paragraph (e) with an FI(S).

(g) SPL holders with sailplane cloud flying privileges who also hold a BIR or an IR (A) in accordance with BCAR-FCL shall be fully credited towards the requirements of paragraph (e).

AMC1 SFCL.215 Sailplane cloud flying privileges

TRAINING FOR THE SAILPLANE CLOUD FYLING PRIVILEGES

(a) Theoretical knowledge instruction

The syllabus for theoretical knowledge instruction as per point SFCL.215 (b) (2)(i) should cover the revision and/or explanation of:

(1) Human factors and body limitations

(i) basic aviation physiology as regards cloud flying aspects

(ii) basic aviation psychology

(iii) spatial disorientation

(2) Principles of flight

(i) stability

(ii) control

(iii) limitations (load factor and manoeuvres)

(3) Aircraft instrumentation

(i) sensors and instruments

(ii) measurement of air data parameters

(iii) gyroscopic instruments

(4) Navigation

(i) use of charts

(ii) dead reckoning navigation

(iii) use of GNSS

(iv) air traffic regulations — airspace structure

(v) aeronautical information service

(vi) Member State regulations regarding cloud flying

(5) Communications

(i) VHF communications

(ii) relevant weather information terms

(6) Hazards and emergency procedures

(i) icing

(ii) cloud escape procedures

(iii) anti-collision instruments/avionics

(b) Flight instruction

The exercises of the sailplane cloud flight instruction syllabus should be repeated as necessary until the student achieves a safe and competent standard and should comprise at least the following practical training items, flown solely by reference to instruments:

(1) straight flight;

(2) turning;

(3) achieving and maintaining heading;

(4) return to straight flight from steeper angle of bank;

(5) position fixing using GNSS and aeronautical charts;

(6) position estimating using DR;

(7) basic cloud escape manoeuvre/unusual attitude; and

(8) Advanced cloud escape manoeuvre on nominated heading.

(c) When using a TMG with engine power for training exercises with sole reference to instruments, the student should wear an IFR training hood or other suitable vision limiting devices.

(d) Course completion standards

The course is successfully completed when the applicant demonstrates, during the course:

(1) sufficient knowledge in the items specified in point (a); and

(2) a sufficient level of competence to safely perform the exercises specified in point (b) while complying with the following limits:

	Artificial horizon	Turn & slip
Straight flight	Heading ± 10 ° IAS ± 10 kt	Heading ± 20 ° IAS ± 15 kt
Turning	Angle of bank ± 15 ° IAS ± 10 kt	Small deviations in rate of turn with a maximum deviation between ½ & full scale IAS ± 15 kt
Position fixing given: GPS displaying range and bearing to a point	± 2 NM	± 3 NM

SUBPART FI – FLIGHT INSTRUCTORS
SECTION 1 – GENERAL REQUIREMENTS

SFCL.300 Flight instructor certificate

(a) General

An instructor shall only carry out flight instruction in a sailplane if he or she:

(1) holds:

(i) an SPL including the privileges, ratings and certificates for which flight instruction is to be provided;

(ii) a sailplane flight instructor (FI(S)) certificate appropriate to the instruction carried out, and issued in accordance with this Subpart;

(2) is entitled to act as PIC in the sailplane during flight instruction.

(b) Not Applicable

SECTION 2–FLIGHT INSTRUCTOR CERTIFICATE FOR SAILPLANES–FI(S)

SFCL.315 FI(S) certificate – Privileges and conditions

(a) Subject to compliance of the applicants with point SFCL.320 and with the following conditions, an FI(S) certificate shall be issued with privileges to conduct flight instruction for:

(1) an SPL;

(2) additional sailplane privileges in accordance with point SFCL.150(e);

(3) launching methods in accordance with point SFCL.155, provided that the applicant has completed as PIC:

(i) in the case of aerotow launch, at least 30 launches; or

(ii) in the case of winch launch, at least 50 launches;

(4) additional TMG privileges in accordance with point SFCL.150(b), provided that the applicant has:

(i) completed at least 30 hours of flight time as PIC on TMGs;

(ii) completed the training as specified in point SFCL.330(b)(2);

(iii) demonstrated the ability to instruct on TMGs to an FI(S) who is qualified in accordance with paragraph (7) and nominated by the head of training of the ATO;

(5) basic aerobatic, advanced aerobatic or sailplane cloud flying privileges or the sailplane towing or the banner towing rating, provided that the applicant:

(i) in the case of instruction for basic aerobatic or advanced aerobatic privileges, holds advanced aerobatic privileges in accordance with point SFCL.200(c);

(ii) has demonstrated the ability to instruct for the relevant privileges or rating to an FI(S) who is qualified in accordance with paragraph (a)(7) and nominated by the head of training of an ATO;

(6) Not Applicable

(7) an FI(S) certificate, provided that the applicant has:

(i) completed at least 50 hours or 150 launches of flight instruction in sailplanes;

(ii) in accordance with the procedures established for that purpose by the competent authority, demonstrated the ability to instruct for the FI(S) certificate to an FI(S) who is qualified in accordance with this paragraph and nominated by the head of training of an ATO.

(b) The privileges listed in paragraph (a) shall include the privileges to conduct flight instruction for:

(1) the issue of the relevant licence, privileges, ratings or certificate; and

(2) the revalidation, renewal or compliance with the relevant recency requirements of

this BCAR, as applicable.

AMC1 SFCL.315 15(a)(7)(ii) FI(S) certificate – Privileges and conditions

DEMONSTRATION OF ABILITY TO INSTRUCT IN FI(S) TRAINING COURSES

The demonstration of the ability to provide instruction during FI(S) training courses, as required in point SFCL.315(a)(7)(ii), should consist of exercises from the FI(S) training course, as selected by the supervising FI(S), and should, in any case, include all of the following:

(a) one launch and one landing exercise;

(b) a selection of air exercises; and

(c) One emergency exercise.

SFCL.320 FI(S) certificate – Prerequisites and requirements

Applicants for an FI(S) certificate shall:

(a) be at least 18 years of age;

(b) comply with the requirements of point (a)(1)(i) and paragraph (2) of point SFCL.300;

(c) have completed 100 hours of flight time and 200 launches as PIC on sailplanes;

(d) have completed an instructor training course in accordance with point SFCL.330 at an ATO; and

(e) Have passed an assessment of competence in accordance with point SFCL.345.

SFCL.325 FI(S) competencies and assessment

Applicants for an FI(S) certificate shall be trained to achieve the following competencies:

(a) prepare resources;

(b) create a climate conducive to learning;

(c) present knowledge;

(d) integrate threat and error management (TEM) and crew resource management (CRM);

(e) manage time to achieve training objectives;

(f) facilitate learning;

(g) assess trainee performance;

(h) monitor and review progress;

(i) evaluate training sessions; and

(j) Report outcome.

AMC1 SFCL.325 FI(S) 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;
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 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;	(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.

SFCL.330 FI(S) – Training course

(a) Applicants for an FI(S) certificate shall first pass a specific pre-entry assessment at an ATO, which shall take place within the 12 months preceding the start of the training course, to assess their ability to undertake the course.

(b) The FI(S) training course shall include:

(1) on sailplanes, excluding TMGs:

(i) the elements specified in point SFCL.325;

(ii) 25 hours of teaching and learning;

(iii) 30 hours of theoretical knowledge instruction, including progress tests;

(iv) at least six hours, of which a maximum of three hours may be completed in TMGs, or 20 launches of flight instruction;

(2) additionally, if the privileges of the FI(S) certificate will include the privileges as specified in point SFCL.315(a)(4) and (a)(6), at least six hours of dual flight instruction on TMGs.

(c) Applicants who already hold an instructor certificate in accordance with BCAR-FCL shall be fully credited towards the requirement in paragraph (b)(1)(ii).

(d) When applying for an FI(S) certificate, a pilot who holds or has held an FI(A), (H) or (As) shall be credited with 18 hours towards the requirements in paragraph (b)(1)(iii).

AMC1 SFCL.330 (a) FI(S) – Training course

PRE-ENTRY ASSESSMENT

The content of the pre-entry assessment should be determined by the ATO 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 being in the role of the instructor.

AMC1 SFCL.330 (b) FI(S) – Training course

(a) GENERAL

(1) The aim of the FI(S) training course is to train SPL holders to the level of competence defined in point SFCL.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(S) 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 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 SPL course syllabus.

(4) The FI(S) 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 behavioral attitudes and variable levels of education.

(5) During the training course, the 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) CONTENT

The training course consists of two parts:

(1) PART 1 — THEORETICAL KNOWLEDGE INSTRUCTION

Part 1 includes the training specified in points (ii) and (iii) of point SFCL.330(b)(1). The content of the teaching and learning part of the FI(S) course, as established in AMC1 SFCL.325, should be used as guidance to develop the syllabus for the training specified in point SFCL.325(b)(1)(ii).

(2) PART 2 — FLIGHT INSTRUCTION

Part 2 includes the training specified in point SFCL.330 (b)(1)(iv) and, as applicable, point SFCL.330(b)(2).

(i) General

A. The air exercises are similar to those of the SPL 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, and how and by whom);

(c) flight briefing;

(d) check of understanding; and

(e) airmanship.

C. After each exercise, the student instructor will debrief the FI(S) in the role of the student pilot. 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(S) 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 practice the principles of basic instruction at the SPL level. During this training, the student instructor occupies the seat normally occupied by the FI(S).

B. The instructor providing this instructor training is normally taking over the role of the student pilot.

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 sailplane

(a) Objective

To advise the student instructor on how to familiarise the student with the sailplane which will be used for the training and to test the student's position in the sailplane 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 sailplane which will be used;

(2) explain the cockpit layout: instruments and equipment;

(3) explain the flight controls: stick, pedals, airbrakes, flaps (if available), cable release, undercarriage (if available);

(4) check the position of the student on the seat for comfort, visibility, ability to use all controls;

(5) explain the use of the harness;

(6) demonstrate how to adjust the rudder pedal;

(7) explain the differences when occupying the instructor's position; and

(8) Explain all checklists, drills, and controls.

(c) Debriefing

Exercise 2: Procedure in the event of emergencies

(a) Objective

To advise the student instructor on how to familiarize the student with the use of the parachute and how to explain the bail-out procedure in case of emergency. 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) explain how to handle the parachute with care (transport, storage and drying after use);

(2) demonstrate the adjustment of the parachute harness;

(3) aid the student to perform the adjustment of the parachute harness;

(4) demonstrate the attachment of the static line of the parachute (may be simulated);

(5) explain the bail-out procedure (especially from a sailplane in unusual attitude);

(6) practice the bail-out procedure;

(7) explain the procedure for landing with a parachute in normal conditions and with a strong wind; and

(8) Demonstrate and practice parachute landing fall drills.

(c) Debriefing

Exercise 3: Preparation for flight

(a) Objective

To advise the student instructor on how to explain all the operations to be completed prior to 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) how to handle the sailplane on the ground, how to move it, how to tow it out and how to park it;

(6) how to do the pre-flight external and internal checks;

(7) the procedure for verifying in-limits mass and balance; and

(8) the pre-launch checks (checklist).

(c) Air exercise

The student instructor has to demonstrate:

(1) the need for a pre-flight briefing;

(2) that the required documents are on board;

(3) that the equipment required for the intended flight is on board;

(4) how to handle the sailplane on the ground, move it to the start position, tow it out and park it;

(5) how to perform a pre-flight external and internal check;

(6) how to verify in-limits mass and balance;

(7) how to adjust harness as well as seat or rudder pedals;

(8) the pre-launch checks;

(9) how to advise the student pilot in performing the pre-flight preparation; and

(10) how to analyse and correct pre-flight preparation errors as necessary.

(d) Debriefing

Exercise 4: Initial experience

(a) Objective

To advise the student instructor on how to familiarise the student with being in the air, with the area around the airfield, to note the student's reactions in this situation, and to draw the student's attention to safety and look-out procedures. 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 area around the airfield;

(2) the need for looking out; and

(3) the change of aircraft control.

(c) Air exercise

The student instructor has to:

(1) show the noteworthy references on the ground;

(2) analyse the reactions of the student; and

(3) check that the student looks out (safety).

(d) Debriefing

Exercise 5: Primary effects on controls

(a) Objective

To advise the student instructor on how to:

(1) demonstrate the primary effects of each control with the help of visual references;

(2) train the student pilot to recognize when the sailplane is no longer in a normal attitude along one of the axes and to return to the normal attitude;

(3) train continuous and efficient look-out during these exercises; and

(4) analyse and correct errors and student pilot mistakes as necessary.

(b) Briefing

The student instructor has to explain:

(1) the definitions of the axes of a sailplane;

(2) the look-out procedures;

(3) the visual references along each axis;

(4) the primary effects of controls when laterally level;

(5) the relationship between attitude and speed;

(6) the use of flaps; and

(7) the use of airbrakes.

(c) Air exercise

The student instructor has to demonstrate:

(1) the visual references in flight;

(2) the primary effect of the elevator;

(3) the relationship between attitude and speed (inertia);

(4) the primary effect of rudder on the rotation of the sailplane around the vertical axis;

(5) the primary effect of ailerons on banking;

(6) the effect of airbrakes (including changes in pitch when airbrakes are extended or retracted);

(7) the effects of flaps (provided the sailplane has flaps);

(8) the look-out procedures during all the exercises;

(9) how to advise the student pilot to recognise the primary effects of each control; and

(10) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 6: Co-ordinated rolling to and from moderate angels of bank

(a) Objective

To advise the student instructor on secondary effects of controls and on how to teach the student to coordinate ailerons and rudder in order to compensate for the adverse yaw

effect. 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 secondary effects of controls;

(2) the adverse yaw effect;

(3) how to compensate for the adverse yaw; and

(4) the further effect of the rudder (roll).

(c) Air exercise

The student instructor has to demonstrate:

(1) the adverse yaw effect with a reference on ground;

(2) the further effect of the rudder (roll);

(3) the coordination of ruder and aileron controls to compensate for the adverse yaw effects;

(4) rolling to and from moderate angles of bank (20 to 30 °) and returning to the straight flight;

(5) how to advise the student pilot to coordinate ailerons and rudder; and

(6) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 7: Straight flight

(a) Objective

To advise the student instructor on how to train the student to maintain straight flight with a constant heading without slipping and skidding. 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 straight flight;

(2) the different air speed limitations;

(3) the pitch stability of the sailplane; and

(4) the effect of trimming.

(c) Air exercise

The instructor student has to demonstrate:

(1) maintaining straight flight;

(2) inherent pitch stability;

(3) the control of the sailplane in pitch, including use of trim with visual references and speed;

(4) how to perform the instrument monitoring;

(5) the control of level attitude with visual references;

(6) the control of the heading with a visual reference on the ground;

(7) the look-out procedures during all the exercises;

(8) how to advise the student pilot to maintain straight flight; and

(9) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 8: Turning

(a) Objective

To advise the student instructor on how to teach students to fly turns and circles with a moderate constant bank of about 30 ° with constant attitude (speed) and coordinated 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 forces on the sailplane during a turn;

(2) the need to look out before turning;

(3) the sequences of a turn (entry, stabilising and exiting);

(4) the common faults during a turn;

(5) how to turn on to selected headings, use of compass; and

(6) the use of instruments (ball indicator or slip string) for precision.

(c) Air exercise

The student instructor has to demonstrate:

(1) the look-out procedure before turning;

(2) entering a turn (correction of adverse yaw);

(3) the stabilisation of a turn (keeping the attitude and compensating the induced roll);

(4) the exit from a turn;

(5) the most common faults in a turn;

(6) turns on to selected headings (use landmarks as reference);

(7) the use of instruments (ball indicator or slip string) for precision;

(8) how to advise the student pilot to fly a turn or circle with a moderate bank; and

(9) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 9a: Slow flight

(a) Objective

To advise the student instructor on how to improve the student's ability to recognise inadvertent flight at critically low speeds (high angle of attack) and to provide practice in maintaining the sailplane in balance while returning to normal attitude (speed). 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 characteristics of slow flight; and

(2) the risks of stalling.

(c) Air exercise

The student instructor has to check that the airspace below the sailplane is free of other aircraft before starting the exercise.
The student instructor has to demonstrate:

(1) a controlled flight down to critically high angle of attack (slow air speed), and draw the attention of the student to the nose up attitude, reduction of noise, reduction of speed;

(2) a return to the normal attitude (speed);

(3) how to advise the student pilot to recognise inadvertent flight at critically low speeds;

(4) how to provide practice in maintaining the sailplane in balance while returning to normal attitude; and

(5) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 9b: Stalling

(a) Objective

To advise the student Instructor on how to improve the student's ability to recognise a stall and to recover from it. This includes stall from a level flight and stalls when a wing drops. 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 mechanism of a stall;

(2) the effectiveness of the controls at the stall;

(3) pre-stall symptoms, recognition and recovery;

(4) factors affecting the stall (importance of the angle of attack and high-speed stall);

(5) effect of flaps if any on the sailplane;

(6) the effects of unbalance at the stall safety checks;

(7) stall symptoms, recognition and recovery;

(8) recovery when a wing drops; and

(9) approach to stall in the approach and in the landing configurations;

(10) recognition and recovery from accelerated stalls.

(c) Air exercise

The student instructor has to check that the airspace below the sailplane is free of other aircraft or traffic before starting the exercise.
The student instructor has to demonstrate:

(1) stall from straight flight;

(2) pre-stall symptoms, recognition and recovery;

(3) stall symptoms, recognition and recovery;

(4) recovery when a wing drops;

(5) approach to stall in the approach and in the landing configurations;

(6) recognition and recovery from accelerated stalls;

(7) stalling and recovery at the incipient stage with 'instructor induced' distractions;

(8) how to improve the student pilot's ability to recognize a stall and to recover from it; and

(9) how to analyze and correct errors as necessary.

Note: Consideration is to be given to manoeuvre limitations and references to the flight manual or equivalent document (for example, owner's manual or pilot's operating handbook) in relation to mass and balance limitations. The safety checks should take into account the minimum safe altitude for initiating such exercises in order to ensure an adequate margin of safety for the recovery. If specific procedures for stalling or spinning exercises and for the recovery techniques are provided by the flight manual or equivalent document (for example, owner's manual or pilot's operating handbook), they have to be taken into consideration. These factors are also covered in the next exercise.

(d) Debriefing

Exercise 10a: Spin recognition and avoidance

(a) Objective

To advise the student instructor on how to improve the student's ability to recognise a spin at the incipient stage and to recover from it. 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) why a sailplane spin;

(2) how to recognise the symptoms of a spin (not to be confused with spiral dive);

(3) what are the parameters influencing the spin; and

(4) how to recover from a spin.

(c) Air exercise

The student instructor has to check that the airspace below the sailplane is free of other aircraft or traffic before starting the exercise.
The student instructor has to:

(1) demonstrate stalling and recovery at the incipient spin stage (stall with excessive wing drop, about 45 °);

(2) make sure that the student recognises the spin entry;

(3) make sure that the student pilot is able to recover from the spin;

(4) check whether the student still reacts properly if the instructor induces distractions during the spin entry;

(5) Demonstrate how to analyse and correct errors as necessary.

Note: Consideration of manoeuvre limitations and the need to refer to the sailplane manual and mass and balance calculations.

(d) Debriefing

Exercise 10b: Developed spins: entry and recovery

(a) Objective

To advise the student instructor on how to recognise a developed spin and to recover from it. 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 spin entry;

(2) the symptoms of a real spin and the recognition and identification of spin direction;

(3) the spin recovery;

(4) use of controls;

(5) effects of flaps (flap restriction applicable to type);

(6) the effect of the CG upon spinning characteristics;

(7) the spinning from various flight attitudes;

(8) the sailplane limitations;

(9) safety checks; and

(10) Common errors during recovery.

(c) Air exercise

The student instructor has to check that the airspace below the sailplane is free of other aircraft or traffic before starting the exercise.
The student instructor has to demonstrate:

(1) safety checks;

(2) the spin entry;

(3) the recognition and identification of the spin direction;

(4) the spin recovery (reference to flight manual);

(5) the use of controls;

(6) the effects of flaps (restrictions applicable to sailplane type);

(7) spinning and recovery from various flight attitudes;

(8) how to improve the student pilot's ability to recognise a spin and how to recover from it; and

(9) how to analyse and correct errors as necessary.

(d) Debriefing

Note (exercises 11a to 11c): The student instructor has to teach at least one of the following launch methods: winch launch, aero tow, and self-launch. At least three launch failure exercises should be completed. Furthermore, the student instructor should learn how to identify student errors and how to correct them properly.

Exercise 11a: Winch launch

(a) Objective

To advise the student instructor on how to teach winch launches and on how to make sure that their student will manage an aborted launch. 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 signals or communication before and during launch;

(2) the use of the launching equipment;

(3) the pre-take-off checks;

(4) the procedure for into wind take-off;

(5) the procedure for crosswind take-off;

(6) the safe and adequate profile of winch launch and limitations; and

(7) the launch failure procedures.

(c) Air exercise

The student instructor has to demonstrate:

(1) the use of the launching equipment;

(2) the pre-take-off checks;

(3) the into wind take-off;

(4) the crosswind take-off;

(5) the safe and adequate profile of winch launch and limitations;

(6) the procedure in case of cable break or aborted launch, launch failure procedures simulated during the winch launch;

(7) how to teach the student pilot to perform safe winch launches;

(8) how to teach the student pilot to manage an aborted launch (different altitudes and speeds); and

(9) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 11b: Aero tow

(a) Objective

To advise the student instructor on how to teach aero towing and on how to make sure that their student will manage an aborted launch. 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 signals or communication before and during launch;

(2) the use of the launch equipment;

(3) the pre-take-off checks;

(4) the procedure for into wind take-off;

(5) the procedure for crosswind take-off;

(6) the procedure on tow: straight flight, turning and slip stream;

(7) the recovery from out-of-position on tow;

(8) the procedures in case of launch failure and abandonment;

(9) the descending procedure on tow (towing aircraft and sailplane); and

(10) the reasons for launch failures and abandonment or procedures.

(c) Air exercise

The student instructor has to demonstrate:

(1) the signals before and during launch;

(2) the use of the launch equipment;

(3) the pre-take-off checks;

(4) the procedure for into wind take-off;

(5) the procedure for a crosswind take-off;

(6) the procedures on tow: straight flight, turning and slip stream;

(7) the recovery from out-of-position on tow;

(8) the procedure in case of launch failure and abandonment simulated by releasing the cable at a suitable height, with and without response to a signal from the tow plane.;

(9) the descending procedure on tow;

(10) how to teach the student pilot to perform safe aero tow launches;

(11) how to teach the student pilot to manage an aborted launch; and

(12) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 11c: Self launch

(a) Objective

To advise the student instructor on how to teach launching with a self- launching sailplane and on how to make sure that the student will manage an aborted launch. 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 engine extending and retraction procedures;

(2) the engine starting and safety precautions;

(3) the pre-take-off checks;

(4) the noise abatement procedures;

(5) the checks during and after take-off;

(6) the into wind take-off;

(7) the crosswind take-off;

(8) the procedure in case of power failure;

(9) the procedure in case of abandoned take-off;

(10) the maximum performance (short field and obstacle clearance) take- off; and

(11) the short take-off and soft field procedure or techniques and performance calculations.

(c) Air exercise

The student instructor has to demonstrate:

(1) the engine extending and retraction procedures;

(2) the engine starting and safety precautions;

(3) the pre-take-off checks;

(4) the noise abatement procedures;

(5) the checks during and after take-off;

(6) the into wind take-off;

(7) the crosswind take-off;

(8) the power failures and procedures;

(9) the procedure in case of abandoned take-off;

(10) the maximum performance (short field and obstacle clearance) take- off;

(11) the short take-off and soft field procedure or techniques and performance calculations;

(12) how to teach the student pilot to perform safe self-launches;

(13) how to teach the student pilot to manage an aborted launch (different altitudes); and

(14) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 12: Circuit approach and landing

(a) Objective

To advise the student instructor on how to teach the student to fly a safe circuit approach and to land the sailplane. 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 procedures for rejoining the circuit;

(2) the procedures for collision avoidance and the look-out techniques;

(3) the pre-landing check;

(4) the normal circuit procedures, downwind, base leg;

(5) the effect of wind on approach and touchdown speeds ;

(6) the visualisation of a reference point;

(7) the approach control and use of airbrakes;

(8) the use of flaps (if applicable); and

(9) the procedures for normal and crosswind approach and landing.

(c) Air exercise

The student instructor has to demonstrate:

(1) the procedures for rejoining the circuit;

(2) the procedures for collision avoidance and the look-out techniques;

(3) the pre-landing check;

(4) the standard circuit and contingency planning (for example, running out of height);

(5) the effect of wind on approach and touchdown speeds;

(6) the visualisation of an aiming point;

(7) the approach control and use of airbrakes;

(8) the use of flaps (if applicable);

(9) the procedures for normal and crosswind approaches and landings;

(10) how to teach the student pilot to fly a safe circuit approach;

(11) how to improve the student pilot's ability to perform a safe landing; and

(12) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 13: First solo flight

(a) Objective

To advise the student instructor on how to prepare their students for the first solo flight.

(b) Briefing

The student instructor has to explain:

(1) the limitations of the flight (awareness of local area and restrictions);

(2) the use of required equipment; and

(3) the effect of the CG on the longitudinal stability of the sailplane.

(c) Air exercise

The student instructor has to:

(1) check with another or more senior instructor if the student can fly solo;

(2) monitor the flight; and

(3) debrief the flight with the student.

(d) Debriefing

Exercise 14: Advanced turning

(a) Objective

To advise the student instructor on how to teach steep turns or circles (45 ° banking) at constant attitude (speed) and with the yaw string centred. 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 relationship between banking and speed;

(2) how to master steep turns or circles;

(3) the unusual attitudes which can occur (stalling or spinning and spiral dive); and

(4) how to recover from these unusual attitudes.

(c) Air exercise

The student has to demonstrate:

(1) steep turns (45 °) at constant speed and with the yaw string centred;

(2) common errors (slipping and skidding);

(3) unusual attitudes and how to recover from them;

(4) how to teach the student pilot to fly steep turns or circles; and

(5) how to analyse and correct errors as necessary.

(d) Debriefing

Note (exercises 15a to 15c): If the weather conditions during the instructor training course do not allow the practical training of soaring techniques, all items of the air exercises have to be discussed and explained during a long briefing exercise only.

Exercise 15a: Soaring techniques: thermalling

(a) Objective

To advise the student instructor on how to teach the student to recognise and detect thermals, on how to join a thermal and on how to look out, in order to avoid mid-air collisions. 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 look-out procedures;

(2) the detection and recognition of thermals;

(3) the use of audio soaring instruments;

(4) the procedure for joining a thermal and giving way;

(5) how to fly in close proximity to other sailplanes;

(6) how to centre in thermals; and

(7) how to leave thermals.

(c) Air exercise

The student instructor has to demonstrate:

(1) the look-out procedures;

(2) the detection and recognition of thermals;

(3) the use of audio soaring instruments;

(4) the procedure for joining a thermal and giving way;

(5) the procedure for flying in close proximity to other sailplanes;

(6) the centering in thermals;

(7) the procedure for leaving thermals;

(8) how to improve the student pilot's ability to recognise and detect thermals;

(9) how to improve the student pilot's ability to join a thermal and how to look out; and

(10) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 15b: Soaring techniques: ridge flying

(a) Objective

To advise the student instructor on how to teach the student to fly safely on ridges, to control their speed, and to apply the rules in order to avoid mid- air collisions. 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 look-out procedures;

(2) the ridge flying rules;

(3) the recognition of safe and adequate flight path; and

(4) speed control.

(c) Air exercise (if applicable during training and, if possible, at training site) The student instructor has to demonstrate:

(1) the look-out procedures;

(2) the practical application of ridge flying rules;

(3) the recognition of safe and adequate flight path;

(4) speed control;

(5) how to teach the student pilot to fly safely on ridges; and

(6) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 15c: Soaring techniques: wave flying

(a) Objective

To advise the student instructor on how to introduce students to wave flying and to teach them to fly safely at high altitude. 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 look-out procedures;

(2) the techniques to be used to access a wave;

(3) the speed limitations with increasing height; and

(4) the risks of hypoxia and the use of oxygen.

(c) Air exercise (if applicable during training and if possible, at training site) The student instructor has to demonstrate:

(1) the look-out procedures;

(2) the wave access techniques;

(3) the speed limitations with increasing height;

(4) the use of oxygen (if available);

(5) how to improve the student pilot's ability to recognise and detect waves;

(6) how to teach the student pilot to fly safely in a wave; and

(7) how to analyse and correct errors as necessary.

(d) Debriefing

Exercise 16: Out-landings

Note: If the weather conditions during the instructor training do not allow the practical training of out-landing procedures (a TMG may be used), all items of the air exercise have to be discussed and explained during a long briefing exercise only. Instructors may only teach the safe out-landing exercise after they have demonstrated the practical ability to do so.

(a) Objective

To advise the student instructor on how to teach students to select an out- landing field, to fly the circuit and how to master the unusual landing situation. 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 gliding range at max glide ratio;

(2) the engine re-start procedures (only for self-launching and self- sustaining sailplanes);

(3) the selection of a landing area;

(4) the circuit judgement and key positions;

(5) the circuit and approach procedures; and

(6) the actions to be performed after landing.

(c) Air exercise

The student instructor has to demonstrate:

(1) precision landings on the airfield;

(2) the gliding range;

(3) the procedures for joining, arrival and circuit at a remote aerodrome;

(4) the selection of an out-landing area;

(5) the procedures for circuit and approach on an out-landing field;

(6) the actions to be performed after landing. The student instructor also has to be trained on:

(7) how to advise the student pilot to do perform a safe out-landing;

(8) how to master an unusual landing situation; and

(9) how to analyse and correct errors as necessary.

(d) Debriefing

Note (Exercises 17a to 17c): If the weather conditions during the instructor training do not allow a cross-country training flight, the items of the air exercise have to be discussed and explained during a long briefing exercise only.

Exercise 17a: Flight planning

(a) Objective

To advise the student instructor on how to plan and prepare a cross-country flight.

(b) Briefing

The student instructor has to explain:

(1) the weather forecast and current situation;

(2) the selection of the amount of water to be carried as a function of the weather forecast;

(3) the method for selecting a task, taking into account the average speed to be expected;

(4) the map selection and preparation;

(5) the NOTAMs and airspace considerations;

(6) the radio frequencies (if applicable);

(7) the pre-flight administrative procedures;

(8) the procedure for filing an ICAO flight plan where required; and

(9) alternate aerodromes and landing areas.

(c) Debriefing

(a) Objective

To advise the student instructor on how to teach performing a cross-country flight.

(b) Briefing

The student instructor has to explain:

(1) how to maintain track and re-route if necessary;

(2) the altimeter settings;

(3) the use of radio and phraseology;

(4) the in-flight planning;

(5) the procedures for transiting regulated airspace or ATC liaison where required;

(6) the procedure in case of uncertainty of position; and

(7) the procedure in case of becoming lost;

(c) Air exercise

The student instructor has to demonstrate:

(1) maintaining track and re-routing if necessary;

(2) altimeter settings;

(3) the use of radio and phraseology;

(4) in-flight planning;

(5) procedures for transiting regulated airspace or ATC liaison where required;

(6) uncertainty of position procedure;

(7) lost procedure;

(8) use of additional equipment where required;

(9) joining, arrival and circuit procedures at remote aerodrome;

(10) how to teach the student pilot to perform a cross-country flight; and

(11) how to analyse and correct errors as necessary.

(d) Debriefing

(a) Objective

To advise the student instructor on the techniques for an efficient cross- country flight.

(b) Briefing

The student instructor has to explain:

(1) the speed to fly at maximal glide ratio;

(2) the speed to fly to maximise the cruise speed (MacCready theory);

(3) how to select the optimal track (efficient use of cloud streets, etc.);

(4) how to calculate the final glide; and

(5) how to perform a safe out-landing.

(c) Air exercise

The student instructor has to demonstrate:

(1) a cross-country flight;

(2) the selection of the optimal track (efficient use of cloud streets, etc.);

(3) methods for determining optimal speed to fly;

(4) use of final glide computers;

(5) how to reduce risk and to react to potential dangers;

(6) how to plan and perform an out-landing;

(7) how to teach the student pilot techniques for an efficient cross- country flight; and

(8) how to analyse and correct errors as necessary.

(d) Debriefing

(vi) Additional training elements for TMG instructional privileges as per point SFCL.330(b)(2))

Additional training for TMG instructional privileges should include, following the principles of briefing, exercise and debriefing as established in points (b)(2)(ii) and (b)(2)(v), the training syllabus set out in point (c) of AMC1 SFCL.150(b).

SFCL.345 FI(S) – Assessment of competence

(a) Applicants for the issue of an FI(S) certificate shall pass an assessment of competence to demonstrate to an examiner qualified in accordance with point SFCL.415(c) the ability to instruct a student pilot to the level required for the issue of an SPL.

(b) The assessment shall include:

(1) the demonstration of the competencies described in point SFCL.325, during pre-flight, post-flight and theoretical knowledge instruction;

(2) oral theoretical examinations on the ground, pre-flight and post-flight briefings, and in- flight demonstrations in sailplanes;

(3) exercises adequate to evaluate the instructor's competencies.

(c) The assessment of competence for the initial issue of an FI(S) certificate shall be conducted in sailplanes, excluding TMGs.

AMC1 SFCL.345 FI(S) – Assessment of competence

GENERAL

(a) The format and application form for the assessment of competence are determined by the BCAA.

(b) The sailplane that is used for the assessment should meet the requirements for training aircraft.

(c) The FE(S) acts as the PIC.

(d) During the skill test the applicant occupies the seat normally occupied by the instructor. The FE(S) functions as the 'student'. 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) All relevant exercises should be completed within a period of 6 months. However, all exercises should, where possible, be completed on the same day. In principle, failure in any exercise requires a retest covering all exercises, with the exception of those that may be retaken separately. The FE(S) may terminate the assessment at any stage if they consider that a retest is required.

AMC2 SFCL.345 FI(S) – Assessment of competence

CONTENT OF THE ASSESSMENT OF COMPETENCE

(a) The content of the assessment of competence for the FI(S) 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

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(S). The test lecture is to be selected from items of Section 1. The amount of time for preparation of the test lecture is agreed upon beforehand with the FE(S). 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(S) for knowledge of items of Section 1 and the core instructor competencies (teaching and learning content given in the FI(S) training course).

(c) Sections 2, 3 and 4 comprise exercises to demonstrate the ability to be an FI(S) (for example, instructor demonstration exercises) chosen by the FE(S) from the flight syllabus of the FI(S) training course. The applicant is required to demonstrate FI(S) abilities, including briefing, flight instruction and de-briefing.

AMC3 SFCL.345 FI(S) – Assessment of competence

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

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

I hereby apply for the issue of a flight instructor certificate for sailplanes (FI(S)) in accordance with BCAR-SFCL.

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	License details

License number (SPL):

Additional privileges: (*tick as applicable*)	TMG extension TMG night rating Advanced aerobatic privileges	Sailplane cloud flying privileges Sailplane towing rating Banner towing rating
Launching methods: (*tick as applicable*)	Aero tow launch Winch launch	Bungee launch Self-launch

3	Pre-course flying experience

	Sailplanes	TMG
PIC hours:		
Total hours:		
Number of launches / take-offs:	Aero tow launch:	
	Winch launch:	

4	Pre-entry assessment

I recommend for the FI(S) course.

Name of ATO	Date of pre-entry assessment:

Name (capital letters) of HT of the ATO

Name (capital letters), license number and signature of the FI(S) conducting the flight assessment (if applicable):

5	Declaration by the ATO

I certify that has satisfactorily completed an approved course of training for the FI(S) certificate in accordance with the relevant syllabus.

Flying hours during the course:	Take-offs during the course:

Sailplanes, powered sailplanes or TMGs used:

Name(s) of HT:

Signature:

Name of ATO:

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 recommend further ground training before retest. I recommend further flight training with an FI(S) before retest.		
	I do not consider further flight or theoretical instruction necessary before retest.		
I, the undersigning examiner: — have received information from the applicant regarding their experience and instruction, and found that experience and instruction comply with the applicable requirements of Annex III (Part-SFCL) to Regulation (EU) 2018/1976; — 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 SPL number:	
Examiner's name (capital letters):		Date and examiner's signature:	
7	Attachments		
Detailed report as per AMC2 SFCL.345 to be attached			
Copy of the FE(S) certificate (in cases where the competent authority of the applicant is different from the competent authority of the examiner)			

SFCL.350 FI(S) – Restricted privileges

(a) An FI(S) shall have his or her privileges limited to conducting flight instruction under the supervision of an unrestricted FI(S) nominated by the ATO for this purpose, in the following cases:

(1) for the issue of an SPL;

(2) for extending the privileges of an SPL to additional sailplane or TMG privileges in accordance with point SFCL.150;

(3) for extending the privileges of an SPL to additional launching methods in accordance with point SFCL.155; and

(4) for basic aerobatic, advanced aerobatic or sailplane cloud flying privileges or for the sailplane towing or banner towing rating.

(b) Whilst conducting training under supervision, in accordance with paragraph (a), the FI(S) shall not have the privilege to authorize a student pilot to conduct his or her first solo flight or first solo cross-country flight.

(c) The limitations in (a) and (b) shall be removed from the FI(S) certificate after the FI(S) has completed at least 15 hours or 50 launches of flight instruction covering all phases of a sailplane flight. In the case of a restricted FI(S) who complied with point SFCL.330(b)(2), 5 out of those 15 hours may be completed in TMGs, and 15 out of those 50 launches may

be replaced by take- offs and landings in TMGs.

SFCL.360 FI(S) certificate – Recency requirements

(a) An FI(S) certificate holder shall only exercise the privileges of his or her certificate if before the planned exercise of those privileges he or she has:

(1) within the last three years, completed:

(i) instructor refresher training at an ATO, or a BCAA during which the holder shall receive theoretical knowledge instruction for refreshing and updating the knowledge relevant for sailplane instructors; and

(ii) when providing flight instruction as FI(S), at least:

A. 30 hours; or

B. 60 launches or take-offs and landings; and

(2) within the last nine years and in accordance with the procedures established for that purpose by the competent authority, demonstrated the ability to instruct on sailplanes to an FI(S) who is qualified in accordance with point SFCL.315(a)(7) and nominated by the head of training of an ATO.

(b) The hours flown as an FE(S) during skill tests, proficiency checks and assessments of competence shall be fully credited towards the requirement in paragraph (a)(1)(ii).

(c) If the FI(S) certificate holder has failed to complete the instruction flight under supervision to the satisfaction of the FI (S) in accordance with paragraph (a)(2), he or she shall not exercise the privileges of the FI(S) certificate until he or she has successfully completed an assessment of competence in accordance with point SFCL.345.

(d) To resume the exercise of the privileges of the FI(S) certificate, an FI(S) certificate holder who does not comply with all the requirements in paragraph (a) shall comply with the requirements of paragraph (a)(1)(i) and of point SFCL.345.

AMC1 SFCL.360 (a) (1)(i) FI(S) certificate – Recency requirements

INSTRUCTOR REFRESHER TRAINING

(a) The FI(S) refresher training should be held in the form of a seminar.

(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. Different aspects, such as inclusion of participants holding certificates in other categories of aircraft should be considered.

(c) Some experienced FI(S)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(S).

(e) The content of the FI(S) refresher seminar should be selected from the following:

(1) new or current rules or regulations, with emphasis on knowledge of Part-SFCL 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) teaching sailplane cloud flying (if applicable);

(12) weather-related topics including methods of distribution; and

(13) 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 SFCL.360(a)(1)(i) FI(S) certificate – Recency requirements

FREQUENCY OF INSTRUCTOR REFRESHER TRAINING

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

AMC1 SFCL.360(a)(2) FI(S) certificate – Recency requirements

DEMONSTRATION OF ABILITY TO INSTRUCT

(a) The aim of the demonstration flight as per point SFCL.360(a)(2) is to confirm continued instructor competency.

(b) The demonstration flight should be arranged to ensure that the FI(S) being checked demonstrates, on the ground and during at least one flight, knowledge, skills and attitudes relevant to the FI(S) task including at least all of the following:

(1) technical knowledge;

(2) ability to teach a sample of the ground course subjects and air exercises from the SPL training course;

(3) a sufficiently high standard of flying;

(4) application of instructing principles; and

(5) application of TEM.

(c) The checking instructor should enter the successful completion of the demonstration flight into the logbook of the applicant.

SUBPART FE – FLIGHT EXAMINERS
SECTION 1 – GENERAL REQUIREMENTS

SFCL.400 Sailplane flight examiner certificates

(a) General

An examiner shall only carry out skill tests, proficiency checks or assessments of competence in accordance with this BCAR if he or she:

(1) holds:

(i) an SPL including privileges, ratings and certificates for which he or she is authorized to conduct skill tests, proficiency checks or assessments of competence, and the privileges to instruct for them;

(ii) an FE(S) certificate including privileges appropriate to the skill test, proficiency check or assessment of competence conducted, issued in accordance with this Subpart;

(2) Is entitled to act as PIC in a sailplane during the skill test, proficiency check or assessment of competence.

(b) Examinations conducted outside Bhutan

(1) By way of derogation from paragraph (a)(1), in the case of skills tests and proficiency checks performed outside Bhutan, the BCAA shall issue an examiner certificate to an applicant who holds a sailplane pilot license that is compliant with Annex 1 to the Chicago Convention, provided that the applicant:

(i) holds at least a license including, where relevant, privileges, ratings or certificates equivalent to those for which he or she is authorized to conduct skill tests or proficiency checks;

(ii) complies with the requirements established in this Subpart for the issue of the relevant examiner certificate;

(iii) Demonstrates to the competent authority an adequate level of knowledge of Union aviation safety rules to be able to exercise the examiner privileges in accordance with this Annex.

(2) The certificate referred to in paragraph (1) shall be limited to performing skill tests and proficiency checks:

(i) outside Bhutan are responsible under the Chicago Convention; and

(ii) To a pilot who has sufficient knowledge of the language in which the test/check is provided.

SFCL.405 Limitation of privileges in case of vested interests

A sailplane examiner shall not conduct:

(a) a skill test or assessment of competence of an applicant for the issue of a licence, rating

or certificate to whom he or she has provided more than 50 % of the required flight instruction for the license, rating or certificate for which the skill test or assessment of competence is taken; or

(b) a skill test, proficiency check or assessment of competence whenever he or she feels that his or her objectivity may be affected.

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

Examples of a situation where the examiner 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.

GM1 SFCL.405(a) Limitation of privileges in case of vested interests

EXAMINERS WHO PROVIDED INSTRUCTION TO THE CANDIDATE

Point SFCL.405(a) allows an examiner to have been involved, as 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 should plan and arrange assignments between instructors and students appropriately.

SFCL.410 Conduct of skill tests, proficiency checks and assessments of competence

(a) When conducting skill tests, proficiency checks and assessments of competence, a sailplane examiner shall do all of the following:

(1) ensure that communication with the applicant can be established without language barriers;

(2) verify that the applicant complies with all the qualification, training and experience requirements of this Annex for the issue, revalidation or renewal of the license, privileges, rating or certificate for which the skill test, proficiency check or assessment of competence is taken;

(3) Make the applicant aware of the consequences of providing incomplete, inaccurate or false information related to his or her training and flight experience.

(b) After completion of the skill test, proficiency check or assessment of competence, the sailplane examiner shall:

(1) inform the applicant of the results of the skill test, proficiency check or assessment of competence;

(2) in the event of a pass in an assessment of competence for the revalidation or renewal, endorse the new expiry date on the applicant's licence or certificate, if specifically authorized for that purpose by the competent authority that is responsible for the applicant's license;

(3) Provide the applicant with a signed report of the skill test, proficiency check or assessment of competence and submit without undue delay copies of the report to

the competent authority that is responsible for the applicant's license, and to the competent authority that issued the examiner certificate. The report shall include:

(i) a declaration that the sailplane examiner has received information from the applicant regarding his or her experience and instruction, and found that experience and instruction comply with the applicable requirements of this Annex;

(ii) Confirmation that all the required manoeuvres and exercises have been completed, as well as information on the verbal theoretical knowledge examination, when applicable. If an item of those categories has been failed, the examiner shall record the reasons for this assessment;

(iii) the result of the skill test, proficiency check or assessment of competence;

(iv) a declaration that the sailplane examiner has reviewed and applied the national procedures and requirements of the applicant's competent authority if the competent authority that is responsible for the applicant's licence is not the one that issued the examiner's certificate;

(v) a copy of the sailplane examiner certificate containing the scope of his or her privileges as sailplane examiner in the case of skill tests, proficiency checks or assessments of competence of an applicant whose competent authority is not the one that issued the examiner's certificate.

(c) The sailplane examiner shall maintain the records for five years with details of all skill tests, proficiency checks and assessments of competence performed and their results.

(d) Upon request by the competent authority that is responsible for the sailplane examiner certificate, or the competent authority that is responsible for the applicant's licence, the sailplane examiner shall submit all records and reports, and any other information, as required, for oversight activities.

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

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

APPLICATION AND REPORT FORM FOR THE SPL SKILL TEST OR PROFICIENCY CHECK			
Tick as applicable	I hereby, in accordance with BCAR-SFCL: apply for the issue of a sailplane pilot license (SPL). Report the completion of a proficiency check for SPL — recency. Report the completion of a proficiency check for sailplane cloud flying — recency.		
1	**Applicant's personal particulars:**		
Applicant's last name(s):		First name(s):	
Date of birth:	Telephone:		Email:
Address:		Country:	

Date:	Signature:

2	**license details**
License number (if applicable):	
Privileges: (tick as applicable)	Sailplanes TMGs

FROM HERE TO BE COMPLETED BY THE EXAMINER

3	**Details of the skill test/proficiency check flight**	
Date:	Sailplane/powered sailplane/TMG:	Registration:

Aerodrome or site:	Take-off time:	Landing time:	Flight time:
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 experience and instruction comply with the applicable requirements of BCAR-SFCL;

— confirm that all the required manoeuvres and exercises have been completed, unless specified otherwise above in the case of fail or partial pass;

— 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 SPL number:
Examiner's name (capital letters):	Date and examiner's signature:

7	**Attachments**
Detailed report of skill test or proficiency check as per AMC1 SFCL.145 to be attached	
Copy of the FE(S) certificate (in cases where the competent authority of the applicant is different from the competent authority of the examiner)	

SECTION 2 – FLIGHT EXAMINER CERTIFICATE FOR SAILPLANES – FE(S)

SFCL.415 FE(S) certificate – Privileges and conditions

Subject to compliance of the applicant with point SFCL.420 and with the following conditions, an FE(S) certificate shall be issued upon application with privileges to conduct:

(a) skill tests and proficiency checks for the SPL, provided that the applicant has completed, on sailplanes, excluding TMGs, 300 hours of flight time as a pilot, including 150 hours or 300 launches of flight instruction;

(b) skill tests for the extension of the SPL privileges to TMG in accordance with point SFCL.150(e), provided that the applicant has completed 300 hours of flight time on sailplanes, including 50 hours of flight instruction in TMGs;

(c) assessments of competence for the issue of FI(S) certificates on sailplanes, provided that the applicant has:

(1) completed at least 500 hours of flight time as pilot on sailplanes, including, if the privileges of the FE(S) certificate will be exercised in:

(i) sailplanes, excluding TMGs, at least 10 hours or 30 launches instructing the applicant for an FI(S) certificate in sailplanes, excluding TMGs;

(ii) TMGs, at least 10 hours or 30 take-offs and landings instructing the applicant for an FI(S) certificate in TMGs;

(2) Received specific training during an examiner standardisation course in accordance with point SFCL.430.

AMC1 SFCL.415(c)(2) FE(S) certificate – Privileges and conditions

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

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

(a) be completed under the supervision of an FE(S) who holds the privileges in accordance with point SFCL.415(c); and

(b) include at least all of the following:

(1) the requirements of Part-SFCL for the FI(S) certificate;

(2) the contents of AMC1 SFCL.345, AMC2 SFCL.345 and AMC3 SFCL.345; and

(3) the conduct of one assessment of competence for the FI(S) certificate which, if conducted during an initial examiner standardisation course in accordance with point SFCL.430, should be completed in addition to the skill test or proficiency check for the SPL, as required by point SFCL.430(b)(1).

SFCL.420 FE(S) certificate – Prerequisites and requirements

(a) Applicants for an FE(S) certificate shall:

(b) comply with the requirements of point (a)(1)(i) and paragraph (a)(2) of point SFCL.400;

(c) have completed the FE(S) standardisation course in accordance with point SFCL.430;

(d) have completed an assessment of competence in accordance with point SFCL.445;

(e) demonstrate relevant background related to the privileges of the FE(S) certificate; and

(f) Demonstrate that they have not been subject to any sanctions, including the suspension, limitation or revocation of any of his or her licenses, ratings or certificates issued, for non-compliance during the last three years.

AMC1 SFCL.420(d) FE(S) certificate – Prerequisites and requirements

EVALUATION OF THE RELEVANT BACKGROUND OF AN APPLICANT

When evaluating the applicant's background, the BCAA should evaluate the Personality and character of the applicant, and their cooperation with the BCAA.

The BCAA may also take into account whether the applicant has been convicted of any relevant criminal or other offenses, taking into account national law and principles of non- discrimination.

SFCL.430 FE(S) certificate – Standardisation course

(a) Applicants for an FE(S) certificate shall take a standardisation course which is provided either by the competent authority or by an ATO and approved by BCAA.

(b) The standardisation course shall be tailored to the sailplane flight examiner privileges sought and shall consist of theoretical and practical instruction, including, at least:

(1) the conduct of two skill tests, proficiency checks or assessments of competence for the SPL or associated ratings or certificates;

(2) instruction on the applicable requirements of this Annex and the applicable air operations requirements, the conduct of skill tests, proficiency checks and assessments of competence, and their documentation and reporting;

(3) a briefing on the following:

(i) national administrative procedures;

(ii) requirements for the protection of personal data;

(iii) examiner's liability;

(iv) examiner's accident insurance;

(v) national fees; and

(vi) Information on how to access the information contained in points (i) to (v) when conducting skill tests, proficiency checks or assessments of competence

of an applicant whose competent authority is not the one that issued the examiner certificate.

(c) An FE(S) certificate holder shall not conduct skill tests, proficiency checks or assessments of competence of an applicant whose competent authority is not the one that issued the examiner certificate, unless he or she has reviewed the latest available information containing the relevant national procedures of the applicant's competent authority.

AMC1 SFCL.430 FE(S) certificate – Standardisation course

(a) GENERAL

(1) When issuing an approval for the conduct of FE(S) standardisation courses to an ATO, the BCAA should monitor the execution of these courses through appropriate oversight measures.

(2) An FE(S) standardisation course should last at least 1 day, divided into theoretical and practical training.

(3) The BCAA or the ATO 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 SFCL.430 and the flight examiner manual (FEM);

(B) BCAR-SFCL 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 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 utilize 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 two 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 SFCL.430 FE(S) 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 BCAR-SFCL 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 BCAR-SFCL 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 license 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 exercise is met but at the expense of safe flight, violation of a rule or regulation, poor airmanship or rough handling;

(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 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 BCAR-SFCL.

(g) Method and contents of the test or check

(1) Before undertaking a test or check, an examiner will verify that the sailplane 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 BCAR ORA)

(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.

(4) Contents

A test or check is comprised of:

(i) oral examination on the ground (where applicable) which should include:

A. sailplane general knowledge and performance;

B. planning and operational procedures;

C. theoretical knowledge in the common subjects as per point SFCL.135(a)(1) in cases where the applicant receives a credit in accordance with point SFCL.140(a), based on a license 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;

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;

B. Documentation of the test or check with the applicant's FI(S) 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) When manoeuvres are to be flown by sole reference to instruments (proficiency check for sailplane cloud flying privileges), the examiner should ensure that a suitable method of screening is used to simulate flying in cloud.

(7) An examiner should maintain a flight log and assessment record during the test or check for reference during the post-flight debriefing.

(8) 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.

(9) 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.

(10) 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.

(11) 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 SFCL.430 FE(S) certificate – Standardisation course

(a) **PLANNING OF TESTS AND CHECKS**

(b) An FE(S) should plan per day not more than:

(1) a total of four skill tests or proficiency checks for the SPL; or

(2) a total of two assessments of competence for the FI(S) or FE(S) certificate.

(c) An FE(S) 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.

(d) The flight time for the skill test, proficiency check or assessment of competence must be sufficient to allow that all the test, check or assessment items can be completed. If this is not possible in one flight, additional flights have to be conducted. For the total duration of the flight time for the skill test, proficiency check or assessment of competence, the following values may be used as guidance:

(1) 30 minutes or three launches or take-offs, as applicable, for an SPL skill test or proficiency check;

(2) 45 minutes or four launches or take-offs, as applicable, for an FI(S) assessment of competence.

SFCL.445 FE(S) certificate – Assessment of competence

An applicant for the initial issue of an FE(S) certificate shall demonstrate his or her competence as an FE(S), to an inspector from the competent authority or to a senior examiner specifically authorised to do so by the competent authority that is responsible for the FE(S) certificate. During the assessment of competence, the applicant shall conduct a skill test, proficiency check or assessment of competence, including briefing, conduct of the skill test, proficiency check or

assessment of competence, and assessment of the person to whom the test, check or assessment is given, debriefing and recording documentation.

AMC1 SFCL.445 FE(S) 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(S) 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 inspector/senior examiner who, for the purpose of conducting the assessment of competence, plays the role of a person being tested or checked by the examiner applicant.

(c) CONDUCT OF THE ASSESSMENT

An inspector/senior examiner will observe all examiner applicants conducting a test on a 'candidate' in a sailplane for which the 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;

(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) use of screens (if applicable);

(x) contents of the exercise to be performed;

(xi) agreed speed and handling parameters (e.g. maximum launch speeds);

(xii) use of R/T;

(xiii) respective roles of 'candidate' and examiner (for example, during emergency); and

(xiv) Administrative procedures (for example, submission of a 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) use of screens;

(v) liaison with ATC (where required) and the need for concise, easily understood intentions;

(vi) prompting the 'candidate' about required sequence of events (for example, following a launch failure); and

(vii) 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;

(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 license entry; and

(3) the notification of failure form.

(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.

SFCL.460 FE(S) certificate – Validity, revalidation and renewal

(a) An FE(S) certificate shall be valid for five years.

(b) An FE(S) certificate shall be revalidated if its holder has:

(1) during the validity period of the FE(S) certificate, completed an examiner refresher course which is provided either by the competent authority or by an ATO approved by that BCAA, during which the holder shall receive theoretical knowledge instruction for refreshing and updating the knowledge relevant for sailplane examiners;

(2) Within the last 24 months preceding the end of the validity period of the certificate, demonstrated the ability to conduct skill tests, proficiency checks or assessments of competence to an inspector from the competent authority or an examiner specifically authorized to do so by the competent authority that is responsible for the FE(S) certificate.

(c) An FE(S) certificate holder who also holds one or more examiner certificates for other aircraft categories in accordance with BCAR-FCL) may achieve combined revalidation of all examiner certificates held, in agreement with the BCAA.

(d) If an FE(S) certificate has expired, its holder shall comply with the requirements of paragraph (b)(1) and of point SFCL.445 before he or she can resume the exercise of the privileges of the FE(S) certificate.

(e) An FE(S) certificate shall only be revalidated or renewed if the applicant demonstrates continued compliance with the requirements of point SFCL.410 as well as with the requirements of point SFCL.420(d) and (e).

AMC1 SFCL.445; SFCL.460 FE(S) certificate – Assessment of competence; FE(S) certificate – Validity, revalidation and renewal

QUALIFICATION OF SENIOR EXAMINERS

(a) A senior examiner specifically tasked by the BCAA 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 level acceptable to the competent authority;

(3) have conducted a number of skill tests or proficiency checks as an FE(S).

(b) The BCAA 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 SFCL.460 (b) (1) FE(S) certificate – Validity, revalidation and renewal

EXAMINER REFRESHER COURSE

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

AMC1 SFCL.460 (b) (2) FE(S) certificate – Validity, revalidation and renewal

DEMONSTRATION OF ABILITY TO CONDUCT SKILL TESTS, PROFICIENCY CHECKS AND ASSESSMENTS OF COMPETENCE

For the demonstration of the ability to conduct skill tests, proficiency checks and assessments of competence during a sailplane flight, the supervision by the senior examiner or the inspector from the competent authority may consist of:

(a) monitoring of briefing, de-briefing as well as observing the flight from the ground; or

(b) A role-played event where the senior examiner or the inspector from the competent authority will act as an 'examiner applicant' who is assessed by the applicant for revalidation or renewal of the examiner certificate.

PART — AIRWORTHINESS

1. CONTINUING AIRWORTHINESS

For continuing airworthiness of sailplanes, please refer to BCAR-M, BCAR-145, BCAR-66 and BCAR-147, as Amended.

2. INITIAL AIRWORTHINESS

For initial airworthiness of sailplanes, please refer to BCAR-21, as amended.