



Flight Examiner Manual

Module 9 - Sailplanes

Table of Contents

Table of Contents	2
List of acronyms.....	3
I GENERAL.....	5
1.0 Introduction	5
1.1 ICAO - Adoption of International Standards and Recommended Practices (ICAO SARPS).....	5
1.2 EASA – The European Union Aviation Safety Agency	5
1.3 Air Crew regulation - The European Sailplane Flight Crew Licence Regulation.....	6
2.0 FEM – Flight Examiner Manual	6
2.1 Feedback for future revisions:	6
3.0 FEM STRUCTURE & USE	7
4.0 EXAMINER	8
4.1 EXAMINER ROLE	8
4.2 EXAMINER REQUIREMENTS & PRIVILEGES	8
4.1 Limitations of Privileges in Case of Vested Interests	9
4.3 Threat and Error Management (TEM) – Evaluation of the Candidate.....	9
4.4 Threat and Error Management (TEM) – Examiner	10
4.5 Just Culture	11
5.0 Approved & Declared Training Organisations (DTO & ATO)	11
6.0 Data Protection.....	12
7.0 PART SAO (Sailplane Air Operations)	12
8.0 Schedule planning.....	12
9.0 Pilot in Command (PIC)	13
10.0 Communication with the Candidate	13
11.0 CONDUCT OF THE TEST	13
11.1 Examiner Behaviour:	13
11.2 Purpose of a test:	14
12.0 Test Administration	14
13.0 Pre-flight Briefing	14
13.1 Examiner Briefing	14
13.2 Candidate Briefing	15
13.3 Oral Examination on the Ground (when applicable).....	15
14.0 Test Items.....	16
14.1 Aircraft Safety	16
15.0 Standard of completion	17
15.1 Repeat items	18
15.2 Repeat item flow chart.....	18
15.3 Pilot Competency Assessment Guidance:.....	18
15.3.1 Competency Guidance.....	19
16.0 Test Debriefing	19
17.0 Completion of all applicable records.....	21
18.0 COMPLAINTS & APPEALS.....	21
Skill Test standards – SPL :	22
Assessment of competence – FI(S) :.....	45
Examiner Assessment of Competence FE(S):	53
Appendix 1 : TEM	59
Appendix 2 : Competencies.....	62



List of acronyms	
AFM	Aircraft flight manual
AIP	Aeronautical information publication
AMC	Acceptable means of compliance
AoA	Angle of Attack
AoC	Assessment of Competence
ASI	Air Speed Indicator
ATC	Air traffic control
ATO	Approved Training Organisation
CRM	Crew resource management
DTO	Declared Training Organisation
EASA	European Union Safety Agency
EDD	Examiner Differences Document
ETA	Estimated Time of Arrival
FEM	Flight Examiner Manual
GM	Guidance Material
HT	Head of training
ICAO	International Civil Aviation Organization
ID	Identification Document
KSA	Knowledge, Skill and Attitude
LAPL	Light aircraft pilot license
MS	Member State
N/A	Not applicable
NAA	National Aviation Authority
NOTAM	Notice to air missions
SERA	Standardised European Rules of the Air
SFCL	Sailplane Flight Crew Licensing
SAO	Sailplane Air Operation
PIC	Pilot in command
R/T	Radio telephony
SPO	Single-Pilot Operation
TEM	Threat and Error Management
TMG	Touring motor glider
V_a	Manoeuvring speed
VFR	Visual flight rules
V_{ne}	Never exceed speed
V_{no}	Maximum normal operation speed
V_s	Stall speed
V_{s0}	Stall speed in landing configuration
V_x	Best Angle of Climb Speed
V_y	Best Rate of Climb Speed



Glossary of terms	
Candidate	means the person being tested or checked by the Examiner. This person may be a pilot for whom the test or check would be required, or the Senior examiner/Inspector of the competent authority who is conducting the examiner certification acceptance test.
Examiner	means the person certified to conduct a skill test, proficiency check or an assessment of competence.
Examiner applicant	means the person seeking certification as an Examiner.
Part-SFCL	Sailplane Flight Crew licencing relevant to the category of aircraft.
Flight manual or other appropriate document	means sailplane flight manual, TMG flight manual, pilot operating manual, operation manuals, navigation charts or any other document required to ensure safety of flight.
Inspector	means the inspector of the competent authority conducting the examiner assessment of competence.
Operator (policy)	means the person or organisation (DTO, ATO, Aero club, owner ...) responsible for the management of the aircraft and their applicable operating procedures. This information may be included in the AFM, pilot operating manuals, and company operations manuals as applicable.
Senior Examiner	A senior examiner is an examiner specifically tasked and authorised by the competent authority to observe skill tests or proficiency checks for the revalidation of examiner certificates.
Airmanship	The consistent use of good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives.
Competency	A combination of skills, knowledge and attitudes required to perform a task to the prescribed standard.
Test	For brevity in this manual where the term Test is used, this applies to a Skill test or Proficiency Check or Assessment of Competence where applicable to the Licence, Rating or Certificate being sought by the Candidate.
Standard and local procedures	The whole of operational procedures commonly used in the country, aerodrome, club and DTO or ATO.
Sailplane	means a heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its fixed lifting surfaces, the free flight of which does not depend on an engine.
Powered sailplane	means a sailplane equipped with one or more engines having, with engine(s) inoperative, the characteristics of a sailplanes
Touring motor glider	means, unless otherwise specified following the certification process in accordance with Annex I (Part 21) to Regulation (EU) No 748/2012, 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.



I GENERAL

1.0 Introduction

1.1 ICAO - Adoption of International Standards and Recommended Practices (ICAO SARPS)

According to the International Civil Aviation Organisation (ICAO), for as long as air travel depends on qualified pilots or other air and ground personnel, their competence, skills and training will remain the essential guarantee of efficient and safe operations. Adequate personnel training and licensing also instil confidence among States, leading to international recognition and acceptance of personnel qualifications and licences and greater trust in aviation on the part of the travellerⁱ.

Article 37 of the Chicago Convention sets out an undertaking by all contracting States to secure the highest practicable degree of uniformity in regulations, standards, procedures, and organisation in relation to aircraft, personnel, airways and auxiliary services in all matters in which uniformity will facilitate and improve air navigationⁱⁱ.

ICAO Annex 1ⁱⁱⁱ contains Standards and Recommended Practices adopted by the International Civil Aviation Organization as the minimum standards for personnel licensing. Compliance with these ICAO standards requires that, a Candidate shall, before being issued with any pilot licence or rating, meet such requirements in respect of age, knowledge, experience, flight instruction, skill and medical fitness, as are specified for the applicable licence or rating. Also, that, an applicant for any pilot licence or rating shall demonstrate, in a manner determined by the Licensing Authority, such requirements for knowledge and skill as are specified for that licence or rating.

1.2 EASA – The European Union Aviation Safety Agency

EASA administers the European Union's strategy for aviation safety. Its stated mission is to promote the highest common standards of safety and environmental protection in civil aviation. The Agency develops common safety and environmental rules at the European level. It monitors the implementation of standards through inspections in the Member States and provides the necessary technical expertise, training and research. The Agency works hand in hand with the national authorities which continue to carry out many operational tasks, such as certification of individual aircraft or licensing of pilots.

While it is generally the case that individual contracting ICAO member States worldwide are responsible for promulgating laws and regulations and for articulating rules (specific operating regulations) and procedures for the adoption of ICAO SARPs, in Europe we have adopted a shared approach to aviation regulation by implementing common rules in the field of civil aviation. These rules are given effect under a European Commission regulation generally referred to as the "Basic Regulation"^{iv}. The Basic Regulation lays down a suite of implementing rules, administered by EASA and enforceable in each European Member State.



1.3 Air Crew regulation - The European Sailplane Flight Crew Licence Regulation

The Basic Regulation's implementing rules include flight licence regulations depending on the relevant category of aircraft:

Aircrew Regulation^v

Balloon Flight Crew Licence,

Sailplane Flight Crew Licence,

Those regulations give legal effect to ICAO Annex 1 pilot licence standards in Europe. Among other things, the Flight Crew licence Regulations lay Regulation lays down the requirements for different ratings for pilots' licences and the conditions for issuing, maintaining, amending, limiting, suspending or revoking licences. Also, the privileges and responsibilities of the holders of licences, and the certification of persons responsible for providing flight training or flight simulation training and for testing pilots' skills (Examiners).

2.0 FEM – Flight Examiner Manual

The requirements for Sailplane pilot Examiners in the European flight crew licencing system are set out in the Part-SFCL subpart FE Flight Examiners (SFCL.400 Sailplane). This subpart deal with the common requirements for all Examiners and the specific prerequisites, experience and standardisation requirements for each category of Examiner. The Sailplane Flight Crew Licence Regulations also contain the Acceptable Means of Compliance (AMC) and Guidance Material (GM) for the initial standardisation of Examiners and the revalidation and renewal of Examiner certificates. The AMC material also contains a general guide to the content of a test.

This Flight Examiner Manual (FEM) is not intended to be legally binding and is designed as a companion document to the Examiner standardisation requirements and guidance already set out in the Aircrew Regulation. In addition to the regulatory contents of the Flight Crew Licence Regulations, the purpose of this FEM is to give standardisation and best practice guidance to Examiners for the conduct of tests.

Each competent authority may provide supplementary guidance and instructions specific to its territory. This information can be found in the Examiner Differences Document (EDD) and the content of this document should be covered in detail during Examiner standardisation and refresher courses. The EDD should be referenced by Examiners routinely when conducting tests on candidates for which the competent authority is not the same that issued the Examiner's certificate.

2.1 Feedback for future revisions:

The purpose of collecting feedback is to develop and improve all modules in the FEM. All comments and suggestions will be reviewed, and incorporated in the appropriate module, when applicable. Due to the volume of comments received, an individual response will not be sent to each commentator.

All module feedback for consideration is appreciated and should be sent to fcexaminers@easa.europa.eu.



3.0 FEM STRUCTURE & USE

The FEM contains the following chapters:

Chapter 1: Common requirements.

Chapter 2: Test standards for SPL –
General Applicable Framework
2.1 - Introduction,
2.2 – Test administration,
2.3 – Examiner Briefing,
2.4 – Candidate Flight Briefing,
2.5 – Oral Questions on ground,
2.6 – Skill test Item
2.6.1 – Skill test Item on sailplane
2.6.2 – Skill test Item on TMG
2.7 – Standards of completion
2.8 – Decision Making Flow Chart
2.9 – Test Debriefing
2.10 – Completion of all applicable records

Chapter 3: Test standards FI(S)
General Applicable Framework
3.1 - Introduction
3.2 – Assessment administration,
3.3 – Examiner Briefing,
3.4 – Program of assessment of competence AoC,
3.5 – Weather Minima
3.6 – Assessment Item
3.7 – Standards of completion
3.8 – Competence assessment guidance
3.9 – Decision Making Flow Chart
3.10 – Assessment Debriefing
3.11 – Completion of all applicable records

Chapter 4: Test Standards for Examiner Assessment of Competence

Chapter 5: Test standards: Senior examiners standardisation and assessments of competence for senior examiners (RESERVED)

All Examiners should be familiar with the FEM chapter 1 (Common Requirements) and additionally the module(s) specific to their Examiner privileges.



Each chapter contains guidance and additional explanations of each test items for the applicable Part-SFCL test.

They also contain the relevant competences to be demonstrated, presented in terms of Knowledge, Skill, and Attitude.

KNOWLEDGE	This cell describes the desirable knowledge of the Candidate when applying the skills and attitudes necessary to comply with rules, principles and to solve problems. Knowledge is specific information required to enable a learner to develop and apply the skills and attitudes to recall facts, identify concepts, apply rules or principles, solve problems, and think creatively in the context of work ^{vi} .
SKILL	This cell describes the desirable skill required by a Candidates to perform the test item. Skill is the ability to perform an activity or action. It may be divided into three skill types: motor, cognitive and metacognitive skills.
ATTITUDE	This cell describes the attitude required by a Candidates to perform the test item Attitude is a persistent internal mental state or disposition that influences an individual's choice of personal action toward some object, person or event and that can be learned. Attitudes have affective components, cognitive aspects and behavioural consequences. To demonstrate the "right" attitude, and a learner needs to "know how to be" in a given context
Note: The intention of this table is to provide typical, tangible assessment elements in order to evaluate the satisfactory performance of a task during a test.	

These tables are provided as guidance to assist the Examiner when assessing the requirements and the competencies required for satisfactory performance of each test item, appropriate to the licence, rating or certificate being sought. The Examiner is expected to use sound judgement when considering the overall competency of the candidate.

4.0 EXAMINER

4.1 EXAMINER ROLE

When conducting a skill test, proficiency check or assessment of competence an examiner:

- a) Assesses the level of knowledge, skill and attitude or proficiency of a candidate.
- b) Improves training and flight instruction in DTOs or ATOs by feedback of information about items or sections of tests or checks that are particularly well succeeded or failed. Therefore, the examiner should try to always have a DTO/ATO representative present at the debriefing.
- c) Assists in maintaining and, where possible, improving air safety standards by displaying good airmanship and flight discipline during tests or checks.

4.2 EXAMINER REQUIREMENTS & PRIVILEGES

Examiners are the main evaluators of entry standards for the aviation system. As such, they should set the example for their respective professions. They must have a thorough knowledge of the licensing system, high personal integrity and portray a professional and prepared approach to the conduct of any test.

This is attested by a certificate, which authorises the Examiner to conduct skill tests, proficiency checks and assessments of competence. Therefore, when conducting a skill test or proficiency check, Examiners are not acting on a delegation from their licencing authority but exercising the privileges that are given to them by the certificate they hold.



In case of assignment by the competent Authority to an Inspector or Senior Examiner for a particular test, specific rules may apply.

Additionally, to comply with the Basic Regulation, holders of an Examiner certificate shall:

- (1) hold, unless otherwise determined in the relevant Sailplane Flight Crew Licence Regulation, an equivalent licence, rating or certificate to the ones for which they are authorised to conduct skill tests, proficiency checks or assessments of competence and the privilege to instruct for them;
- (2) be qualified to act as PIC in the aircraft during a skill test, proficiency check or assessment of competence if conducted on the aircraft.

4.1 Limitations of Privileges in Case of Vested Interests

ICAO requires that "States shall ensure that personnel performing safety oversight functions are provided with guidance that addresses ethics, personal conduct and the avoidance of actual or perceived conflicts of interest in the performance of official duties"^{vii}.

In this respect, the Sailplane Flight Crew Regulation requires that Examiners shall not conduct:

- (a) skill tests or assessments of competence of candidates for the issue of a licence, rating or certificate to whom they have provided more than 50 % of the required flight instruction for the licence, rating or certificate for which the skill test or assessment of competence is being taken; and*
- (b) skill tests, proficiency checks or assessments of competence whenever they feel that their objectivity may be affected*

The Sailplane Flight Crew Licence Regulation gives guidance of situations where the Examiner should consider if their objectivity is affected. The examples given are when the Candidate is a relative or a friend of the Examiner, or when they are linked by economic interests or political affiliations, etc.

It is not possible to set out every situation where an Examiner may feel their objectivity may be compromised, for example:

- Examiners who are not familiar with the sailplane's equipment (e.g. engine in case of powered sailplanes, flaps, oxygen)
- Examiner who are not familiar with the environment (e.g. mountainous area)

Examiners are independent arbiters, individually responsible for the licence decisions they make. This means that the unique common factor in all tests, regardless of the environment, is the direct relationship between the Examiner and the Candidate for a licence or rating.

In all cases, when conducting a test or check, the Examiner's primary responsibility is to act professionally, in the best interest of aviation safety, regardless of the nature of the relationship with the test Candidate(s). In this respect, Examiners should only conduct tests where they are satisfied that their independence is not in doubt and when they are free of conflict of interest. It is the Examiner's responsibility when making an assessment to make sure that the test can be performed without having doubts about the impartiality of the result.

4.3 Threat and Error Management (TEM) – Evaluation of the Candidate

In addition to the skills and knowledge required for a particular licence, rating or certificate, it is equally important that the Examiner pays attention to the 'soft skills' required to make good decisions while piloting a sailplane.



All flight instruction for EASA licence, rating or certification include the principles of Threat and Error Management (TEM). Examiners conducting skill tests for the first issue of a licence should check that the Candidate clearly understands and is familiar with these principles at the level appropriate.

Regardless of licence, rating or certificate being examined, all Examiners should be familiar with the principles of Threat and Error Management (TEM) and be able to discuss the TEM framework with DTO/ATO instructors as well as test candidates.

The Aircrew Regulation sets out one model that explains the principles of Threat and Error management, simply referred to as the "the TEM model".

According to this model, three basic components of TEM from the perspective of flight crews are:

- Threats,
- Errors, and,
- Undesired Aircraft States.

This model proposes that threats and errors are part of everyday aviation operations that must be managed by flight crews, since both threats and errors carry the potential to generate undesired aircraft states.

More information on TEM is available in the Aircrew Regulation, ICAO Doc.9868 and ICAO Circular 314. (appendix 1).

Examiners need to be cautious to strike the right balance of knowledge and application required for the licence, rating or certificate sought i.e. the level of TEM application. Where a Candidate has a lack of knowledge or is weak in the application of TEM principles, Examiners will need to use sound judgement when deciding how to proceed. For instance, a SPL candidate may be unfamiliar with the TEM terminology but may still exhibit sound decision-making skills in the pre-flight and the flight. In this case, the Examiner can simply ensure that the Candidate is made familiar with the TEM principles in the flight debrief and may also consider briefing the HT of the DTO/ATO ensure that future candidates are better prepared.

4.4 Threat and Error Management (TEM) – Examiner

The examiner is aware that he may evaluate in an environment he is not familiar with (operational environment, local rules, sailplane and its equipment ...).

The examiner will also have to fly with a candidate he has probably never flown before and who is stressed by the test.

All these circumstances represent threats that the examiner has to take into account.

He will also have to admit that candidate's options may be different from those he has imagined.

The examiner has to adapted himself to those options except if they are risky or against the regulations (SERA/SAO/or training organisation's rules). For all that, he will never get out of his competency domain.

A well-prepared test is the condition for the examiner to reduce his own workload and consequently his own stress.

The Examiner can refuse to realise a test if he doesn't feel comfortable.



4.5 Just Culture

The civil aviation system should promote a 'safety culture' facilitating the spontaneous reporting of occurrences and thereby advancing the principle of a 'just culture'. 'Just culture' is an essential element of a broader 'safety culture', and these principles are regulated in Europe by regulation (EU) No 376/2014^{viii}.

'just culture' means a culture in which persons:

- are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training,
- are encouraged to report safety-related information.

It should not, however, absolve individuals of their normal responsibilities and gross negligence, wilful violations and destructive acts are not tolerated.

Examiners should be aware of the importance of reporting, analysis and follow up of occurrences in civil aviation and promote a positive Just Culture environment.

5.0 Approved & Declared Training Organisations (DTO & ATO)

A Declared Training Organisation (DTO) is an organisation which is entitled to provide training to pilots on the basis of a Declaration made to the competent authority. A DTO is required to have a "DTO training programme" describing in detail the training course provided by that DTO. On completion of a specific course, a candidate should receive a course completion certificate and a recommendation for Test from the DTO.

An Approved Training Organization (ATO) is an organization staffed, equipped and operated in a suitable environment offering flying training, and/or synthetic flight instruction and/or theoretical knowledge instruction for specific flight training courses approved by the competent authority in accordance with PART-ORA. ATOs are required to have a management system which corresponds to the size of the organization and the nature and complexity of its activities and a function to monitor compliance of the organization with the relevant requirements. On completion of a specific course, a candidate should receive a course completion certificate and a recommendation for Test from the ATO.

The sailplane regulation provides that the applicant for a test shall be recommended for the test by the organisation/person responsible for the training, once the training is completed. The training records shall be made available to the Examiner." In this respect, Examiners need to be aware that the Aircrew Regulation requires that "When conducting skill tests, proficiency checks and assessments of competence, Examiners shall verify that the applicant complies with all the qualification, training and experience requirements in this Part for the issue, revalidation or renewal of the licence, rating or certificate for which the skill test, proficiency check or assessment of competence is taken". This requirement can be met by carefully checking the course completion certificate or other relevant documentation required to ensure that the applicable competent authority will not reject the licence, rating or certificate application.

Examiners should be familiar with the organisational structure of DTOs and the management system of ATOs, particularly when conducting a test on a candidate using an DTO or ATO's facilities/aircraft.

The examiner should also be aware of DTO or ATO specific rules (e.g. : local procedures...).



6.0 Data Protection

Data protection is a very serious issue in the European legal framework, and it has a wide-ranging impact on different stakeholders and sectors. The EU General Data Protection Regulations (GDPR) are directly applicable in all EU member States, to provide legal certainty for individuals and businesses throughout the EU and the protection of natural persons in relation to the processing of personal data is a fundamental right^{ix}.

GDPR is designed to give individuals more control over their personal data. The key principles under the GDPR are:

- Lawfulness, fairness and transparency;
- Purpose limitation;
- Data minimisation;
- Accuracy;
- Storage limitation;
- Integrity and confidentiality, and,
- Accountability.

Part of an Examiner's responsibility is the protection of a Candidate's personal data when it is processed for the purpose of completing a test. Examiners need to be aware of these responsibilities and take care to comply with the applicable requirements taking account of the many varied circumstances in which a test might be conducted. Examiners shall maintain records for 5 years with details of all skill tests, proficiency checks and assessments of competence performed and their results.

7.0 PART SAO (Sailplane Air Operations)

When a test is conducted in a sailplane including TMG anywhere in the Union, the operation rules shall be as set out in Annex II (PART-SAO) Sailplane Air Operations.

PART SAO set out detailed operational rules applicable to the operation related to sailplane including TMG. Examiner conducting test shall be thoroughly familiar with the operational rules applicable to conduct the flight test.

Examiners should check that Candidates have a sufficient knowledge of the air operations requirements applicable to the grade of licence or rating sought.

He should also be aware of specific local procedures.

8.0 Schedule planning

An Examiner should plan a test or a proficiency check, or assessment of competence flight taking into consideration the maximum and minimum durations of an individual test and the proportion of time allocated to each test item. The maximum duration has two aspects to it. The Examiner cannot unnecessarily protract a test because that may unfairly degrade the Candidate's performance, and a Candidate must be able to perform all practical tasks and answer all questions within a reasonable time frame. The Examiner should consider the weather conditions, traffic situation, ATC requirements, local procedures and test airport security procedures.

Combined test schedules should be appropriately planned to allow all manoeuvres required by each test profile to be completed. When a test is combined this does not mean that the test times are cumulative. It is imperative that the Examiner allows for an appropriate rest period between subsequent tests.



9.0 Pilot in Command (PIC)

When conducting a test in an aircraft, the respective roles of the Examiner and Candidate must be clearly defined, particularly with respect to real or simulated emergencies. For flight tests, there must always be a clear understanding of who has control of the aircraft. Prior to flight, the pilots involved should conduct a briefing that includes reviewing the procedures for exchanging flight controls. Normally, the Examiner shall be the pilot-in-command, except in circumstances agreed by the Examiner with the Candidate.

The risk of out landing should be considered before flight (decision to realise an out landing and the roles on board).

10.0 Communication with the Candidate

An Examiner should have the ability to apply interpersonal and communication skills to establish an effective working relationship with the candidate without language barriers.

Communication in an aircraft cockpit is different from normal face-to-face communication because of the limited possibility to see each other. A Candidate can easily be confused by unclear communication during a test. The use of non-relevant communication must be kept to a minimum to reduce the possibility of errors and mistakes. This means that the careful use of unambiguous language is very important.

The Examiner should keep good voice communication habits in mind, such as remembering to:

- Give the 'candidate' precise instructions
- Articulate clearly
- Liaise with ATC and provide concise, easily understood intentions;
- If necessary, prompt the Candidate about required sequence of events (for example following a go-around on a TMG);

During the ground and flight portion of the practical test, the Examiner should assess the Candidate's knowledge of the topic in accordance with the level of learning most appropriate for the applicable skill test appendix of Sailplane Flight Crew Licence Regulations. While the oral questioning will continue throughout the entire practical test, the examiner must use discretion when asking questions during the flight portion of the evaluation and avoid distractions that could compromise the safety of the flight.

The candidate should feel free to ask any question or precision before and during the test.

11.0 CONDUCT OF THE TEST

11.1 Examiner Behaviour:

The Examiner should encourage a friendly and relaxed atmosphere to develop both before and during a test to enable the candidate to fully demonstrate their abilities. A negative or hostile approach should not be used. During the test, the examiner should avoid negative body language, comments or criticisms and all assessments should be reserved for the debriefing.

The performance of a Candidate under test conditions will often be adversely affected by some degree of nervous tension, but the Examiner can do much to redress the balance in their favour by the adoption of a friendly and sympathetic attitude. Any suggestion of haste during briefing should be avoided and the Candidate should be encouraged to ask as many questions as they wish at the conclusion of each section. Clear and unhurried



instructions at this stage will not only serve to put the Candidate at his ease but will ensure the test proceeds smoothly and without unnecessary delay.

Examiners are responsible for improving all training and flight instruction in DTOs/ATOs by feeding back information on items or sections of tests that are most frequently repeated or failed. They must also assist in maintaining and, where possible, improving flight safety standards by displaying good airmanship and flight discipline during tests. An Examiner should not re-examine a failed candidate without the agreement of the candidate.

11.2 Purpose of a test:

The purpose of a test is to determine through a practical demonstration that a Candidate has acquired or maintained the required level of knowledge, skill or proficiency consistent with the privileges of the certificate or rating being exercised. They must demonstrate competency in operating the sailplane in both normal and non-normal operations in accordance with the appropriate skill test appendix of Sailplane Flight Crew Licence Regulations.

All tests should contain the following basic sequence of events:

1. Test administration;
2. Pre-flight briefing;
 - A. Examiner Briefing
 - B. Candidate Briefing
 - C. Oral questioning on the ground
3. Skill Test Items;
4. Standard of completion;
5. Competence Assessment Guidance;
6. Test debriefing;
7. Completion of all applicable records.

12.0 Test Administration

When testing a candidate for the issue, check or rating of a licence the examiner should follow national administrative procedures.

When testing a candidate for the issue, check or rating of a licence for another competent authority, Examiners should review the Examiner Differences Document for the applicable procedures of the competent authority responsible for the Candidate's licence.

The Examiner is ultimately responsible for making the appropriate notification to the candidate's competent authority. A review of the competent authority's test paperwork, in particular the guidance on how to complete the form, should be reviewed for correct completion.

The test should begin at the appropriate time as determined by the Candidates licencing authority.

13.0 Pre-flight Briefing

13.1 Examiner Briefing

The Examiner should state the purpose of the test and outline their role at the beginning of the briefing to ensure no ambiguity exists that you are conducting a test. This ensures the Candidate understands that you are there to check them and not train them. The Candidate should approach the test as if it were a real flight.



The briefing should cover the following:

1. Licensing and identification checks, as necessary;
2. The objective of the flight;
3. Test or check sequence;
4. Contents of exercise to be performed;
5. Local procedures to be followed (including operation or safety manual in an ATO);
6. Agreed speed and handling parameters (for example speeds, bank angle, as applicable);
7. Simulated weather assumptions (relevant for the test);
8. Respective roles of the Candidate and the Examiner during the test (for example during emergency);
9. Administrative procedures (for example submission of flight plan).
10. Responsibility for the use of R/T, including simulated R/T
11. The freedom for the 'candidate' to ask questions must be emphasised.

13.2 Candidate Briefing

The Candidate should be given time and facilities to prepare for the test flight. Pre-flight preparation requires the Candidate to assess the weather conditions and make their decision whether to proceed with the flight or not. The Candidate must consider the requirements of all the sections of the test that they are taking. The Examiner should assess the applicant's decision. A decision to continue when the weather is forecast below the limits required to complete the flight shall be considered a failed item for test.

13.3 Oral Examination on the Ground (when applicable)

It is important that the Examiner prepares fully for the oral examination. The Examiner should define the level of knowledge the candidate needs to demonstrate and prepare questions that are fit for purpose.

The Examiner should consider the appropriate level of knowledge for the applicable test in the following order; what,

- The pilot **MUST** know
- The pilot **SHOULD** know
- Would be **BENEFICAL** to know

The Examiner should keep in mind that questioning in areas where the candidate needs to find information in documentation takes longer than memory answers.

Extended pre-flight activities may be an indication of substandard performance. If the Examiner decides that the candidate has failed the test due to knowledge deficiencies, the Examiner must record this in a suitable manner.

By the knowledge assessment (Oral Examination or questioning as relevant and Briefing), the Examiner shall determine if the candidate's level of knowledge is adequate to continue to the testing of skills.

The Examiner shall predominantly ask questions and have a good understanding of question techniques. Often, the candidate inputs may lead to new questions. This requires the Examiner to be flexible and follow leads but use questions to direct and get back on track.



14.0 Test Items

A test is intended to simulate a practical flight. The Examiner shall consider which kind of scenario enables the best evaluation possibilities for the candidate, while ensuring that the Candidate is not confused, and air safety is not compromised.

Except when the Examiner must give guidance or a reminder, the Candidate should be allowed to conduct the flight without interruption. It should be remembered, however, that the Examiner is responsible for the safe conduct of the flight and the prevention of any infringements.

The test schedule, as briefed, should not normally be altered by an Examiner. However, the Examiner may change the sequence of sections or manoeuvres to achieve an orderly and efficient flow of a practical flight having regard to existing conditions or circumstances but shall not miss out any items.

The Examiner should be flexible to the possibility of changes arising from ATC instructions, or other circumstances affecting the test. Should a flight not proceed as briefed, the Examiner shall remain flexible and alert in order to achieve as much as possible in the changed circumstances. In an aircraft, briefing a Candidate during the test for a change to the sequence of the test is acceptable, but the Examiner shall ensure that the Candidate fully understands and accepts the changes, otherwise the test should be suspended.

14.1 Aircraft Safety

The safety of the flight must be the prime consideration at all times. The Examiner is expected to use good judgement when simulating any emergency or abnormal procedure, having regard to local conditions and aircraft safety throughout. The Examiner and Candidate must be constantly alert for other traffic. When performing test items that have the potential to affect safety, the Examiner will ask the Candidate to simulate that portion of the manoeuvre. The Examiner will assess the Candidate's use of visual scanning and collision avoidance procedures throughout the flight portion of the test.

Aircraft systems must not be used outside the Flight Manual limits. Simulated emergency situation during and after take-off shall be carried out in safe condition or have to be evaluate throughout oral examination.

The Examiner must be prepared to intervene if safety will be compromised.



15.0 Standard of completion

An Examiner shall ensure that a Candidate completes a test in accordance with applicable test appendix to Sailplane Flight Crew Licence Regulation and is assessed against the required test standards. In-flight exercises shall include each relevant item or section of the test.

Although a test may specify flight test tolerances, a candidate should not be expected to achieve these at the expense of smoothness or stable flight. Each test has its own specific pass/fail criteria which is detailed in the applicable test appendix of Sailplane Flight Crew Licence Regulation. In general, there are 3 possible outcomes for all tests:

1. A 'pass', provided that the candidate demonstrates the required level of knowledge, skill or proficiency and, where applicable, remains within the flight test tolerances for the licence or rating;
2. A 'fail' provided that any of the following apply:
 - a. the flight test tolerances have been exceeded after the examiner has made due allowance for turbulence or ATC instructions;
 - b. the aim of the test or check is not completed;
 - c. the aim of exercise is completed but at the expense of safe flight, violation of a rule or regulation, poor airmanship or rough handling;
 - d. an acceptable level of knowledge is not demonstrated;
 - e. an acceptable level of flight management is not demonstrated;
 - f. the intervention of the examiner is required in the interest of safety.
3. A 'partial pass' in accordance with the criteria shown in the relevant skill test appendix of Sailplane Flight Crew Licence Regulation.

Each item within a test section should be completed and assessed separately.

Marginal or questionable performance of a test item should not influence an Examiner's assessment of any subsequent items.

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.

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

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.

Should a Candidate choose not to continue a test for reasons considered inadequate by an Examiner, the Candidate will be assessed as having failed those items or sections not attempted. If the test is terminated for reasons considered adequate by the Examiner, only these items or sections not completed shall be tested during a subsequent retest. An Examiner may terminate a test at any stage, if it is considered that the Candidate's competency requires a complete retest.



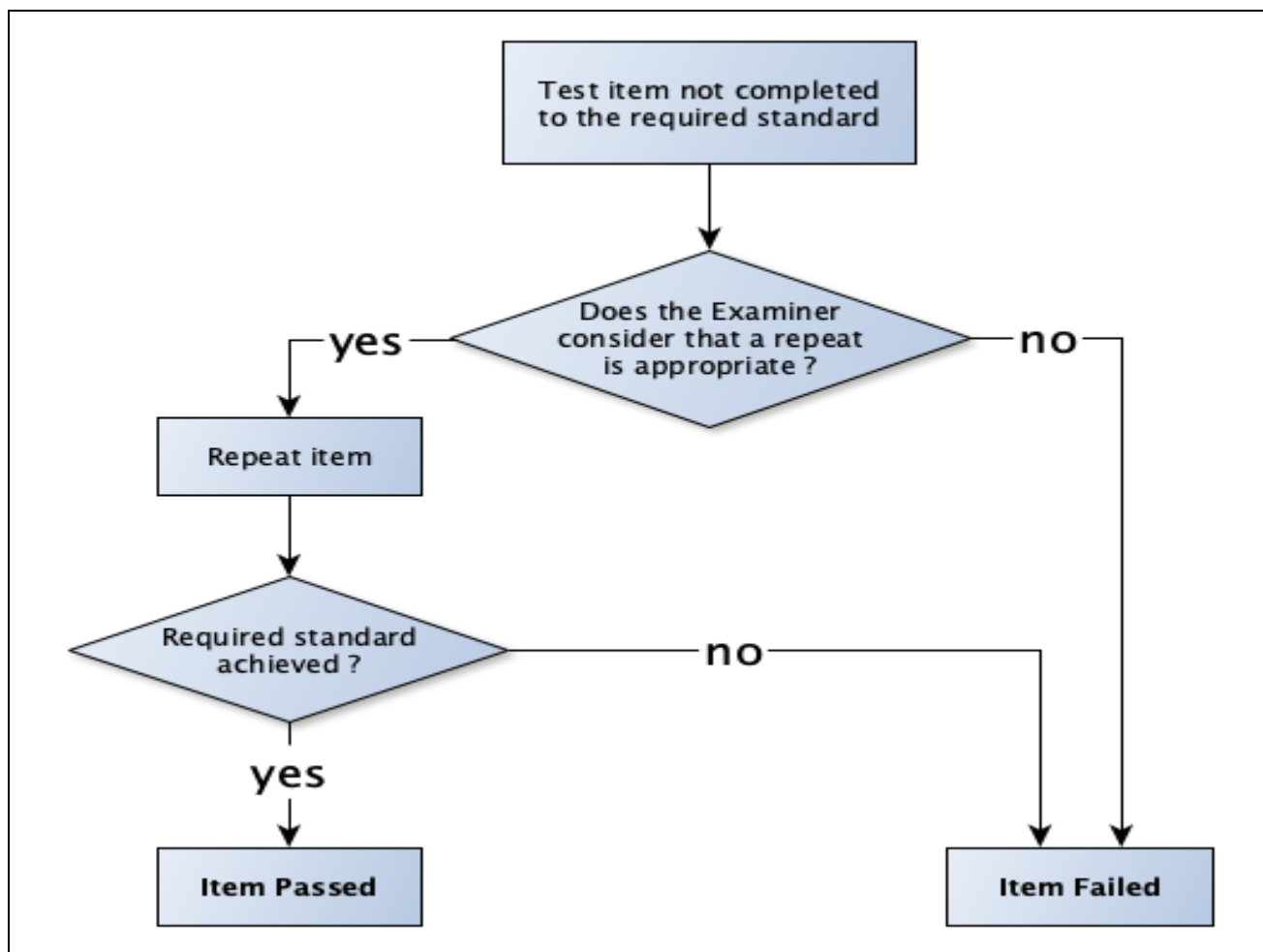
15.1 Repeat items

At the discretion of the Examiner, any manoeuvre or procedure of the test may be repeated once by the Candidate. The Examiner may stop the test at any stage if it is considered that the applicant's demonstration of flying skills requires a complete re-test.

As general guidance, the Examiner's discretion should only be exercised when they consider that the Candidate does not require remedial training. Repeats, if possible, should be completed when all other test items have been attempted to allow the Examiner an opportunity to assess the overall performance of the Candidate.

Repeats should be recorded if required by the Candidate's licencing authority.

15.2 Repeat item flow chart



15.3 Pilot Competency Assessment Guidance:

The competency tables below may be used as support to debrief and provide guidance on how to improve a Candidates performance in the future. Lack of specific competencies may be identified as root causes of the failure of the performance of a task.



15.3.1 Competency Guidance

Airmanship is defined as the consistent use of good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives.

ICAO has defined Competency as a dimension of human performance that is used to reliably predict successful performance on the job. A competency is manifested and observed through behaviours that utilise the relevant knowledge, skills and attitudes to carry out activities or tasks under specified conditions.

Each test contains a guidance table including competencies.

EASA, based on the ICAO recommendations, has defined a set of pilot competencies describes in appendix 2

16.0 Test Debriefing

The examiner should try to always have a DTO/ATO's representative at the debriefing of a skill test.

The Examiner should conduct a fair, unbiased debriefing of the candidate based on identifiable factual items. The Examiner should refer to the flight test tolerances given in the relevant skill test. A balance between friendliness and firmness should be evident. The debrief must be transparent and if relevant, a school representative or the Instructor may be present.

The Examiner shall exercise sound judgement and impartiality throughout. To assist with this, each Examiner should maintain brief, factual, and unobtrusive notes of the event so that all aspects may be debriefed comprehensively.

Attention should be paid to the following points:

- Summarize the overall performance of the Candidate
- Factual elements, positive and negative, are used to assess competencies evaluation.
- Only observed performance can be evaluated
- Comments are important and they require factual explanations
- Advise the candidate on how to avoid or correct mistakes
- Mention any other areas for development noted
- Give any advice considered helpful for the improvement of flight safety
- Allow time for questions from the Candidate

Usually, the debriefing starts with giving the Candidate the result of the test. However, in case of fail or partial pass, it may be useful to facilitate the candidate to comment his flight first. However, comments given by the Candidate should not change the decision made by the examiner.



If the test is passed

The examiner should:

- Encourage the trainee to self-assess
- use the facilitation technique on 2 or 3 topics to analyse how the candidate may improve their performance
- Provide recommendations based on identifiable factual items
- Promote positive performance observed during the test.

If the test is partial passed or failed

The examiner should:

- Provide evidence based on identifiable factual items explaining why the performance does not meet with the required standard (should be ranked from the most to the least severe)
- Provide recommendations based on identifiable factual items.
- Promote positive performance observed during the test.

The Examiner shall inform the candidate that he/she shall not exercise the privilege in question until a full pass of their test has been achieved. The Examiner shall detail any further training requirements and explain the candidate's right of complaint and appeal.

Best practice of dealing with a failed test:

- Avoid telling the Candidate of a fail test result when in the aircraft
- Summarize and emphasize good performance where appropriate
- A fail or partial pass result must be founded on observable facts
- Give any advice considered helpful for subsequent tests.

In case of a failed or discontinued test, the Examiner should provide appropriate advice to assist the candidate in re-tests.

Any comment on, or disagreement with, an Examiner's test evaluation or assessment made during a debriefing will be recorded by the Examiner on the test form. This should be signed by the Examiner and countersigned by the Candidate if possible.



17.0 Completion of all applicable records

The Examiner should provide the candidate with a signed report of the test and submit without delay copies of the reports and documentation that are required by the competent authority responsible for the candidate's licence.

The Examiner notes used during the debriefing may normally contain more details than the test report, however, the test report must reflect the debriefing.

In case of a fail or a partial pass the justification for failure should be written clearly on the test report. The Examiner should write which item was failed and why it was failed.

The examiner should sign the candidate logbook and when required by the authority confirm the result of the test in the logbook.

Examiners shall maintain records for 5 years with details of all skill tests, proficiency checks and assessments of competence performed and their results.

Upon request by the competent authority responsible for the examiner certificate, or the competent authority responsible for the candidate's licence, examiners shall submit all records and reports, and any other information, as required for oversight activities.

18.0 COMPLAINTS & APPEALS

The examiner should inform the candidate that he or she has the right to complain or appeal the examiner's decision.

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.

Candidates should consult the appropriate competent authority for details of any applicable appeal/complaint procedure.



Skill Test standards – SPL :

General Applicable Framework

Flight rules:	VFR
Operational rules:	Part-SAO
Crew concept:	SPO
Equipment:	Sailplane or TMG
Privileges:	Sailplane or TMG,
Required examiner certificate:	FE(S)

2.1 Introduction

The basic privileges of a SPL holder are to fly worldwide, as PIC under VFR, in a sailplane, or TMG, in which the candidate has passed the skill test. In case of pure sailplane, the launch method will be the method used for the test. If the Candidate has received training for another launch method according to SFCL.135 and validated by the training organisation, he may also use those launch methods according to national procedures.

When conducting the skill test, the Examiner must have due regard for the limited experience that a SPL Candidate may have. Nonetheless, the Examiner shall also appreciate that upon licensing the pilot will be responsible for safety of the flight, with the privilege to operate internationally almost unrestricted. This may bring the new sailplane pilot into a variety of different situations, including unfamiliar airports, airspace, flight rules and terrain.

2.2 Test Administration

For SPL on TMG the Examiner should provide the Candidate with advance information regarding the examination flight routing, taking into account weather forecasts and local restrictions, to afford the Candidate with sufficient time to prepare the navigation part of the skill test.

The test is intended to simulate a practical flight, flown single-pilot under VFR. For the TMG, 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.

Usually, the Examiner occupies the instructor seat and is the PIC.

Before proceeding with the test, the Examiner shall verify that the prerequisites are met, including SPL skill test recommendation; the DTO/ATO shall make available the training records for verification if requested. Accordingly, the following documents and conditions shall be verified:

- Passport or ID;
- The Candidate is at least 16 years old;
- Medical EASA Class 1, 2 or LAPL;
- Training completion certificate or, if applicable, the relevant section of the skill test form filled by the Head of Training;



- Successful completion of the SPL theoretical exam within the last 24 months or, (note that in case of extending the privileges of an SPL to TMG or to sailplane privileges demonstration of an adequate level of theoretical knowledge for the privileges sought during the test);
- EASA logbook, showing the required minimum flight instruction for the privileges sought;
- Aircraft documents;
- Current navigation charts, and database if applicable;
- Insurance of aircraft (covering the planned flight);
- Specific equipment required for the flight (e.g. transponder).

When the Examiner is satisfied that the prerequisite requirements are met; they should seek confirmation that the Candidate is fit and ready for the test. If so, the Examiner formally starts the test.

It is a good practice to take this opportunity to show the examiner credentials.

2.3 Examiner Briefing

The Examiner must brief the following elements:

General consideration:

- Purpose and aim of the skill test;
- Freedom for the Candidate to ask questions;
- Applicable weather minimum;
- Examiner has PIC responsibility; the Candidate acts autonomously as if he or she was the PIC;
- Examiner role-play in normal operations and simulated emergencies;
- Handling of possible contingencies (technical, weather, ATC, radio communication ...);
- Take-off performance; selection of take-off rejection point, or point where releasing cable in case of poor performance behind the tow plane;
- Landing performance; selection of touchdown point and acceptable tolerances for the different types of landings; simulation of out-landings and short field;
- Crosswind take-off and landing if applicable : expectation on handling and precision;
- local navigation awareness and accuracy;
- navigation accuracy for TMG;
- Pass, fail, and partial pass criteria, repeat items option, and examination termination rules;

When covering pass/fail criteria the examiner should explicate the standards of completion laid down in subpart 6 of this module, including decision-making and airmanship. Some test items may require specific emphasis for the Candidate to understand what is required. The standards of completion should be agreed with the Candidate, and the Examiner should consider actual flight conditions when briefing them. Items which could require special emphasis could be:



Safety consideration

- Simulated emergencies :
 - expectation on handling;
 - checklist use and
 - what and how to simulate (minimum safety height, cable release or talk through).
- Handling of actual emergencies and handing over the controls (e.g. rope break during launch, engine failure procedures)
- Engine failure-simulation in case of TMG or Self-Launch and handing of engine-controls (minimum safety height,).
- Actual engine-shutdown and restart on TMG or Self-Launch

In any case, the examiner should consider safety aspects before executing emergency simulation.

In covering the standards of completion, the Examiner should also review how the Candidate has been trained by the DTO/ATO as procedures and flight techniques might differ between organisations. This is especially important for manoeuvres such as: unusual attitudes, stalls and engine-out procedures, aerotow out of position and recovery, possible descent during aerotow etc.

2.4 Candidate Flight Briefing

The Examiner should allow the Candidate to brief uninterrupted; the Candidate shall conclude their briefing by making a go/no-go decision. The briefing should cover the following aspects:

- Weather situation and forecast;
- NOTAMs, including relevant local military restrictions, as applicable;
- Mass and balance calculation;
- Performance calculation;
- Operational navigation flight plan;
- ATC flight plan, if applicable;
- Aircraft status and documents, including maintenance release;
- Threat and Error Management aspects;
- Fuel planning for self-launch and TMG.

2.5 Oral Questions on Ground

The Examiner should verify the relevant theoretical knowledge of the Candidate during the briefing on the ground by asking questions related, as far as possible, to the planned flight covering, for example, the following areas:

- Follow-up questions to the Candidate's briefing
- Regulations (EU and relevant specific national requirements)
- Licensing (e.g. SPL privileges, ratings validity, recency requirements)
- Operational aspects
- Weather information and interpretation
- Airspace structure and limitations
- Aircraft systems, limitations, performance, mass and balance
- Flight planning



- Navigation charts
- Emergency procedures

In case of extension of privileges from sailplane to TMG, or from TMG to sailplane the applicant shall also demonstrate to the examiner an adequate level of theoretical knowledge in the following subjects:

- principles of flight;
- Operational procedure,
- Flight performance and planning,
- Aircraft general knowledge, and
- Navigation

2.6 Skill Test Items with associated Skills and Attitude Assessment guidance

The use of checklist, airmanship, control of sailplane by external visual reference, lookout procedures apply in all sections.

The following tables are designed to give the Examiner guidance when assessing the candidate. The mandated skill test items are stated in the second column. Expanded guidance and additional explanations are provided in the third column.

For each section a brief narrative of the section's objectives is provided.

The fourth column gives the Examiner guidance when assessing the Knowledge, Skills and Attitudes required by the Candidate to successfully complete each section of the test. It should aid the Examiner to assess the standard of completion elements laid down in subpart 7 under (b) to (e), and determine the result.

For each section a brief narrative of the section's objectives is provided, together with the most relevant KSAs.



2.6.1. Skill Test on Sailplane

Section 1 - Pre-flight Operation and Departure			
planning and preparation of a safe and compliant flight, including the usage of TEM. Safe and compliant usage of the aircraft on the ground and during the transition to flight			
a	Pre-flight sailplane (daily) inspection, documentation, flight planning, NOTAM(s) and weather briefing	<ul style="list-style-type: none"> • check all documents required for a private • obtain and assess all elements of the prevailing and forecast weather conditions • obtain and assess all aeronautical information and NOTAMS • complete an appropriate flight navigation log and chart • determine that the sailplane is correctly fuelled for the flight (TMG or powered sailplane) • perform all elements of the sailplane pre-flight inspections as detailed • file flight plan if required 	
b	Verifying in-limits mass and balance and performance calculation	<ul style="list-style-type: none"> • complete mass and balance schedule • calculate sailplane performance criteria and limitations applicable to forecast weather conditions and make adjustments if required for actual conditions before take-off 	
c	Sailplane servicing compliance	<ul style="list-style-type: none"> • check sailplane serviceability record and technical log • confirm that the sailplane is in a serviceable and safe condition for flight 	
d	Pre-take-off checks	<ul style="list-style-type: none"> • complete all recommended taxiing checks and procedures 	
		Knowledge	<ul style="list-style-type: none"> • applicable regulations (rules of the air, operational, licensing) • weather information interpretation and understanding • Notams interpretation and understanding • aircraft flight manual structure, relevant information usage • aeronautical charts interpretation and usage • radio communication procedures and standard phraseology
		Skill	<ul style="list-style-type: none"> • flight preparation information retrieval • searching in official reference documents (e.g. AFM, AIP) • standard and local procedures and checklist usage • smooth aircraft handling • communicate clearly and assertively
		Attitude	<ul style="list-style-type: none"> • looking for information and assess them critically • safety-minded rather than mission-minded • takes effective decisions • assertive when in doubt (seek to remove any doubt) • aware of his limited experience and abilities • Adapt the plan to daily conditions • Manage task interruption



Section 2A – Winch or car launch

safe and smooth aircraft operation throughout the certified flight envelope, awareness of the envelope limits and how to return to a safe flight, should an excursion occur

a	Signals before and during launch, including messages to winch driver	<ul style="list-style-type: none"> • Demonstrates standard signals and / or R/T procedures and phraseology as applicable • Communicate with accuracy 	Knowledge	<ul style="list-style-type: none"> • Sailplane limitation values • Cable weak link values • Communication and signals associated with the launch method • Risk associated with launch method and mitigation measures • GO/NO GO criteria for the launch • Aborted take-off procedures and criteria
b	Adequate profile of winch launch	<ul style="list-style-type: none"> • Maintain correct and stable pitch in relation to requested speed • Maintain proper axis and stable bank • Execute smooth and adapted actions on controls • Complete suitable checks after release. 		Skill
c	Simulated launch failure (during launch or free flight)	<ul style="list-style-type: none"> • Execute emergency drills without errors • Execute actions in compliance with the safety briefing 	Attitude	
d	Situational awareness	<ul style="list-style-type: none"> • demonstrate knowledge of the risks associated with the launch method • complete all checks and procedures • Consider emergency situation • Plan safety actions • Adapt plan to the context 		



Section 2B – aerotow launch		
safe and smooth aircraft operation throughout the certified flight envelope, awareness of the envelope limits and how to return to a safe flight, should an excursion occur		
a	<p>Signals before and during launch, including signals to or communications with the tow plane pilot for any problems</p> <ul style="list-style-type: none"> • Demonstrate standard signals and / or R/T procedures and phraseology as applicable • Communicate with accuracy 	<p>Knowledge</p> <ul style="list-style-type: none"> • Sailplane limitation values • Cable weak-link value • Communication and signals associated with the launch method • Risk associated with launch method and mitigation measures • Renouncement criteria • Aborted take-off procedures and criterias
b	<p>Initial roll and take-off climb</p> <ul style="list-style-type: none"> • Maintain control of bank and axis holding • Execute smooth and adapted actions on controls • Maintain a safe position behind the tow plane after take-off 	
c	<p>Launch abandonment (simulation only or 'talk-through')</p> <ul style="list-style-type: none"> • Realize emergency briefing adapted to daily situation • Execute emergency drills without errors, if simulated • Execute actions in compliance with the safety briefing, if simulated 	<p>Skill</p> <ul style="list-style-type: none"> • smooth, precise, and coordinated aircraft handling • smooth flight path changes, following the established Standards and local procedures • correct and systematic application of recovery drills <p>Attitude</p> <ul style="list-style-type: none"> • acquire and update his knowledge about his position and potential threats (e.g. traffic, terrain, flight path) and consider their future evolution • set priorities (Fly, Communicate) • assertive, seek clarification of doubts and misunderstandings before acting.
d	<p>Correct positioning during straight flight and turns</p> <ul style="list-style-type: none"> • Maintain correct staging and spacing • Detect and correct deviation appropriately 	
e	<p>Out of position and recovery</p> <ul style="list-style-type: none"> • Realize quickly the out of position and stop the error • Realize smooth and adapted actions on control to recover the correct position • Demonstrate a correct use of airbrakes in necessary 	
f	<p>Correct release from tow</p> <ul style="list-style-type: none"> • Ensure local flight before release • awareness of other traffic • Complete release procedure • Ensure that the cable is properly released before stating free flight 	
g	<p>Look-out and airmanship through the whole launch phase</p> <ul style="list-style-type: none"> • Realize effective look-out during the tow while maintaining a correct position behind the tow plane. • Awareness of other traffic 	



Section 2C – Self-launch (powered sailplane only)

safe and smooth aircraft operation throughout the certified flight envelope, awareness of the envelope limits and how to return to a safe flight, should an excursion occur

a	ATC compliance (if applicable)	<ul style="list-style-type: none"> • Demonstrates standard signals and / or R/T procedures and phraseology as applicable; • Communicate fluently and with accuracy; • Respect ATC clearance if applicable. 	Knowledge <ul style="list-style-type: none"> • Sailplane limitation values • Sailplane performance • Communication • Risk associated with launch method and mitigation measures. • Renouncement criteria • Aborted take-off procedures and criterias
b	Aerodrome departure procedures	<ul style="list-style-type: none"> • Comply with aerodrome departure procedures; • Check that the aircraft performances allow to respect departure procedure; • Obtain and respect ATC clearance when necessary. 	
c	Initial roll and take-off climb	<ul style="list-style-type: none"> • Realize normal and emergency briefing adapted to daily situation before initiating take off; • Complete all recommended actions and check list; • Respect the required speed for take-off and initial climb; • Ensure a safe climb and departure adjusting power and configuration as required. 	Attitude <ul style="list-style-type: none"> • acquire and update his knowledge about his position and potential threats (e.g. traffic, terrain, flight path) and consider their future evolution • set priorities (Fly, Communicate, Manage) • assertive, seek clarification of doubts and misunderstandings before acting • acquire and update his knowledge about his position and potential threats (e.g. traffic, terrain, flight path) and consider their future evolution • set priorities (Fly, Communicate, Manage) • assertive, seek clarification of doubts and misunderstandings before acting
d	Look-out and airmanship during the whole take-off	<ul style="list-style-type: none"> • Use of correct look out techniques; • Chose appropriate flightpath complying with local procedures and sailplane performances. 	
e	Simulated engine failure after take-off	<ul style="list-style-type: none"> • Fly the sailplane first ; • Realize smooth and adapted actions on control to maintain adapted speed ; • Chose a flightpath adapted to speed and height. 	
f	Engine shut down and stowage	<ul style="list-style-type: none"> • Ensure local flight before starting engine shut down procedure; • Demonstrate knowledge of the procedure; • Correct use of checklist; • Continue flying the sailplane during the engine shut down and stowage procedure. 	



Section 3 - General Airwork

safe and smooth aircraft operation throughout the certified flight envelope, awareness of the envelope limits and how to return to a safe flight, should an excursion occur

a	<p>Maintain straight flight : attitude and speed control</p> <p>□</p>	<ul style="list-style-type: none"> • Demonstrate control of heading, attitude and airspeed in straight flight while maintaining a correct lookout technique • Correct use of trim • Maintain a symmetric flight 	Knowledge	<ul style="list-style-type: none"> • Sailplane performance value (best glide speed, minimum sink speed) • Influence of wind on performance • recovery procedures from an unusual aircraft state (stall, approach to stall, spiral dive) • spin prevention and spin recovery procedure • causes of load-factor increase and effect on stall speed • critical airspeeds (e.g. Vs, Vne, Vno, Va) and respective ASI markings • Awareness and knowledge on airspace to be used 	
b	<p>Coordinated medium (30 ° bank) turns, look-out procedures and collision avoidance</p>	<ul style="list-style-type: none"> • demonstrate a correct look out before, during and after turns • Maintain a correct attitude and constant bank and IAS during turn • Coordinate correctly 		Skill	<ul style="list-style-type: none"> • establish stabilised flight path in trim, with the required airspeed, • Calculate local from suitable landing area in relation with glider performance • smooth, precise, and coordinated aircraft handling • smooth flight path changes, following the established procedures • correct and systematic application of recovery drills • Able to locate him or herself accurately using the map.
c	<p>Turning on to selected headings visually and with use of compass</p>	<ul style="list-style-type: none"> • Demonstrate a correct use of compass if applicable • Realize a correct look out 			Attitude
d	<p>Flight at high angle of attack (critically low air speed)</p>	<ul style="list-style-type: none"> • Consider all safety checks before executing the manoeuvre, • Maintain the correct attitude, bank and coordination to maintain the sailplane at the requested speed • Maintain a correct lookout 			
e	<p>Clean stall and recovery</p>	<ul style="list-style-type: none"> • Consider safety checks before stalling • Establish the stall at the proper angle of attack and configuration, • Recognise the symptoms of incipient and full stalls • Recover from stall, • Maintain a constant look out throughout the manoeuvre. 			



f	Spin avoidance and recovery (*) <input type="checkbox"/>	<ul style="list-style-type: none"> • consider all safety checks before the manoeuvres • The examiner initiates asymmetric stall. The candidate recognises the situation and recover it before the spin. • Realize smooth actions on controls.
g	Steep (45 ° bank) turns, look-out procedures and collision avoidance	<ul style="list-style-type: none"> • Demonstrate a correct lookout technique before, during and after turns. • Coordinate the entry to steep turn to achieve at least 45° bank. • Maintain attitude and speed in turn through at least 360°.
h	Local area navigation and awareness	<ul style="list-style-type: none"> • maintain local flight from airfield or suitable landing area. • Chose the best glide ratio according to Candidate competencies and daily conditions. • Demonstrate ability to maintain the thermal when applicable. • Adapt the track to encounter better lift when applicable. • Select suitable field for landing. • Respect airspace areas • Maintain local flight using criteria developed during briefing or adapted criteria due to circumstances. • Read the map accurately while ensuring flightpath and external safety

(*)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.



Section 4 – Circuit, Approach and Landing

a	Aerodrome circuit joining procedure.	<ul style="list-style-type: none"> • Compliance with instructions and integration trajectories • Comply with radio procedures and ATC Clearance when applicable 	Knowledge	<ul style="list-style-type: none"> • arrival procedures, standard pattern, visual approach chart reading, briefing structure and purpose • key positions updated with wind conditions • applicable landing techniques with different winds and configurations • radiotelephony requirements, procedures, and applicable standard phraseology • post-flight actions (e.g. post-flight inspection, logbook entry, flight plan closing, occurrence reporting) 	
b	Collision avoidance: look-out procedures	<ul style="list-style-type: none"> • Demonstrate a correct lookout technique • Awareness of other traffic in the circuit and on the ground 		Skill	<ul style="list-style-type: none"> • systematic configuration changes, operated within the applicable limitations • precise and stable approach path • positive touch down within the designated touch down zone, at the correct speed • correct and systematic application of go-around drills
c	Pre-landing checks	<ul style="list-style-type: none"> • Demonstrate knowledge of prelanding checklist and procedures • Check wind • Determine the approach speed 			
d	Circuit, approach control and landing	<ul style="list-style-type: none"> • Determine the aiming point on final according to daily configuration • Plan and realize the landing pattern according to the aiming point • Intercept and track the runway axis and flight path on finale • Maintain the approach speed • Use airbrakes correctly 	Attitude	<ul style="list-style-type: none"> • awareness of the other traffics, their intentions, and the resulting impact • mindful about the environment and its impact (e.g. wind, sun, other traffic) • Adapt flightpath function of other traffic or pedestrian on runway • Provide attentive care to control confusion • considerate for other traffics • assertive radiotelephony communication 	
e	Precision landing (simulation of out-landing and short field)	<ul style="list-style-type: none"> • Maintain an accurate speed • Maintain the aiming point with accuracy • Correct rapidly any discrepancies • Use airbrakes correctly • Manage wind gradient 			
f	Crosswind landing if suitable conditions are available	<ul style="list-style-type: none"> • Demonstrate knowledge of sailplane limitation • Knows his/her own limitation • Correct drift and counteract cross wind including on ground 			



2.6.2. Skill Test on TMG

Section 1 - Pre-flight Operations and Departure			
planning and preparation of a safe and compliant flight, including the usage of TEM. Safe and compliant usage of the aircraft on the ground and during the transition to flight			
a	Pre-flight documentation, flight planning, NOTAM(s) and weather briefing	<ul style="list-style-type: none"> • check all documents required for a private, • obtain and assess all elements of the prevailing and forecast weather conditions • obtain and assess all aeronautical information and NOTAMS • complete an appropriate flight navigation log and chart • determine that the TMG is correctly fuelled for the flight 	Knowledge <ul style="list-style-type: none"> • applicable regulations (rules of the air, operational, licensing) • weather information interpretation and understanding • Notams interpretation and understanding • TMG flight manual structure, relevant information usage • aeronautical charts interpretation and usage • radio communication procedures and standard phraseology
b	Mass and balance and performance calculation	<ul style="list-style-type: none"> • complete mass and balance schedule • calculate TMG performance criteria and limitations applicable to runway and forecast weather conditions and make adjustments if required for actual conditions before take-off 	
c	TMG inspection and servicing	<ul style="list-style-type: none"> • check TMG serviceability record and technical log • perform all elements of the TMG pre-flight inspections as detailed • confirm that TMG is in a serviceable and safe condition for flight • check and complete all necessary documentation 	
d	Engine starting and after starting procedures	<ul style="list-style-type: none"> • complete an appropriate passenger emergency procedure briefing for the Examiner • complete all recommended engine starting, after starting procedures and system checks • demonstrate the correct use of check list. 	SKILL <ul style="list-style-type: none"> • flight preparation information retrieval • searching in official reference documents (e.g. AFM, AIP) • Standards and local procedures and checklist usage • smooth TMG handling • communicate clearly and assertively
e	Taxiing and aerodrome procedures, pre-take-off procedures	<ul style="list-style-type: none"> • complete all recommended taxiing checks and procedures • comply with airport markings and signals • follow ATC instructions • complete all departure checks and drills including engine operation • obtain ATC departure clearance • confirm any aeroplane performance criteria including crosswind condition 	
f	Take-off and after take-off checks	<ul style="list-style-type: none"> • position the TMG correctly for take-off and advance the power levers(s) to take off power with appropriate checks • use the correct take off technique using the recommended speeds for rotation/lift-off and initial climb • ensure a safe climb and departure adjusting power and TMG configuration as appropriate 	
			ATTITUDE <ul style="list-style-type: none"> • looking for information and assess them critically • safety-minded rather than mission-minded • takes effective decisions • assertive when in doubt • aware of his limited experience and abilities



		<ul style="list-style-type: none"> • complete all necessary after take-off checks • demonstrate the correct use of check list 	
g	Aerodrome departure procedures	<ul style="list-style-type: none"> • use charts or other published information as required • execute a safe departure in accordance with clearance and with due regard for other air traffic • use correct lookout techniques • observe the Rules of the Air and ATC Regulations • maintain directional control and drift corrections throughout • follow any noise routing or departure procedures and ATC instructions • complete all necessary climb checks 	
h	ATC liaison : compliance	<ul style="list-style-type: none"> • demonstrate standard R/T procedures and phraseology • demonstrate compliance with ATC instructions 	



Section 2A - General Airwork (with engine power)

safe and smooth aircraft operation throughout the certified flight envelope, awareness of the envelope limits and how to return to a safe flight, should an excursion occur

a	ATC liaison	<ul style="list-style-type: none"> during this section the Examiner will be responsible for most of the ATC liaison and R/T procedures but this does not absolve the applicant from taking responsibility for the management of his TMG and for collision avoidance 		
b	Straight and level flight, with speed changes	<ul style="list-style-type: none"> demonstrate control of heading, altitude and airspeed in straight and level flight by visual attitudes while maintaining a correct lookout technique demonstrate correct use of trim. 		
c	Climbing i best rate of climb ii climbing turns levelling off	<ul style="list-style-type: none"> maintain directional control and balance throughout trim for nominated speed including best Rate of Climb speed (V_Y) complete all necessary climb checks turn onto given headings maintaining balance and speed and bank angle maintain lookout throughout return TMG to straight and level flight in cruise configuration at nominated level/ altitude complete all necessary drills and checks maintain heading and balance during transition from cruise or descent at $V_{SO} + 10$ kts to best Angle of Climb speed (V_X) complete all necessary climb checks turn onto given headings maintaining balance and speed and bank angle maintain lookout throughout return aircraft to straight and level flight in cruise configuration at nominated level/ altitude complete all necessary drills and checks 	Knowledge	<ul style="list-style-type: none"> aircraft pitch-power-configuration values recovery procedures from an unusual aircraft state (stall, approach to stall, spiral dive) spin prevention and spin recovery procedure causes of load-factor increase and effect on stall speed critical airspeeds (e.g. V_s, V_{ne}, V_{no}, V_a) and respective ASI markings
d	Medium (30° bank) turns, look-out procedures and collision avoidance	<ul style="list-style-type: none"> demonstrate the correct lookout technique before, during and after turns establish and maintain throughout the turn the nominated altitude and speed co-ordinate the entry to turns to achieve 30° bank co-ordinate the recovery from turns to straight and level flight on the specified heading or as appropriate without loss/gain of height 		
e	Steep (45° bank) turns	Steep Turn: <ul style="list-style-type: none"> demonstrate the correct lookout technique before, during and after turns establish and maintain throughout the turn the nominated altitude and speed co-ordinate the entry to steep turns to achieve at least 45° bank and maintain the turn through at least 360 degrees 	SKILL	<ul style="list-style-type: none"> establish stabilised flight path in trim, with the required power, airspeed, or vertical speed, as required smooth, precise, and coordinated aircraft handling smooth flight path changes, following the established Standards and local procedures correct and systematic application of recovery drills



		<ul style="list-style-type: none"> • co-ordinate the recovery from turns to straight and level flight as directed by the Examiner without loss/gain of height <p>Spiral Dive:</p> <ul style="list-style-type: none"> • recognise the manoeuvre and initiate prompt and correct recovery action • continue recovery action without exceeding any aeroplane limitations • complete all necessary checks and drills 		
f	Flight at critically low air speed with and without flaps	<ul style="list-style-type: none"> • consider all safety checks before the manoeuvres where necessary • select and stabilise the TMG at a nominated low airspeed above the stall speed whilst maintaining balance, trim and lookout. Maintain altitude/level, heading and speed as specified by the Examiner • maintain safe bank angles, speed, and altitude during turning and complete turns onto specified headings 	ATTITUDE	<ul style="list-style-type: none"> • acquire and update his knowledge about his position and potential threats (e.g. traffic, terrain, flight path) and consider their future evolution • set priorities (Fly, Navigate, Communicate, Manage) • assertive, seek clarification of doubts and misunderstandings before acting
g	<p>Stalling</p> <p>i clean stall and recover with power</p> <p>ii approach to stall descending turn with bank angle 20°, approach configuration and approach to stall in landing configuration</p>	<ul style="list-style-type: none"> • consider safety checks before stalling • establish the stall entry as appropriate from straight and turning flight and select the required aeroplane configuration • maintain heading (or bank angle 10° - 30° as required) to stall entry • recognise the symptoms of incipient and full stalls • recover systematically by reducing the AoA and then re-establishing a safe and stable flight path • complete all necessary checks and drills • maintain lookout throughout 		
h	<p>Descending</p> <p>i with and without power</p> <p>ii descending turns (steep gliding turns) levelling off</p>	<ul style="list-style-type: none"> • maintain directional control and balance throughout • trim for nominated speed including best glide speed • complete all necessary descent checks • turn onto given headings maintaining balance and speed and bank angle • maintain lookout throughout • return aircraft to straight and level flight in cruise configuration at nominated level / altitude • complete all necessary drills and checks • whilst gliding demonstrate awareness of increased stalling speed in manoeuvre 		



• **Section 2B - General Airwork (without engine power)**

• safe and smooth aircraft operation throughout the certified flight envelope, awareness of the envelope limits and how to return to a safe flight, should an excursion occur

a	Straight and level flight, with speed changes	<ul style="list-style-type: none"> demonstrate control of heading, and airspeed in straight flight by visual attitudes while maintaining a correct lookout technique demonstrate correct use of trim. 	<p>Knowledge</p> <ul style="list-style-type: none"> Sailplane performance value (best glide speed, minimum sink speed) Influence of wind on performance recovery procedures from an unusual aircraft state (stall, approach to stall, spiral dive) spin prevention and spin recovery procedure causes of load-factor increase and effect on stall speed critical airspeeds (e.g. V_s, V_{ne}, V_{no}, V_a) and respective ASI markings 	
b	Medium (30 ° bank) turns, look-out procedures and collision avoidance	<ul style="list-style-type: none"> demonstrate the correct lookout technique before, during and after turns establish and maintain throughout the turn the nominated speed with stable pitch co-ordinate the entry to turns to achieve 30° bank co-ordinate the recovery from turns to straight and level flight on the specified heading or as appropriate with stable pitch 		<p>SKILL</p> <ul style="list-style-type: none"> establish stabilised flight path in trim, with the required airspeed, Calculate local from suitable landing area in relation with glider performance smooth, precise, and coordinated aircraft handling smooth flight path changes, following the established procedures correct and systematic application of recovery drills
c	In-flight engine start and stop procedures	<ul style="list-style-type: none"> Demonstrate knowledge of the procedures Pay attention to engine temperature Operate cool flaps as appropriate Maintain local flight from a suitable landing area at any time 		
d	Stall in turns	<ul style="list-style-type: none"> Consider safety checks before stalling Establish the stall at the proper bank angle and configuration, Recognise the symptoms of incipient and full stalls Recover from stall, Maintain a constant look out throughout the manoeuvre 		<p>ATTITUDE</p> <ul style="list-style-type: none"> acquire and update his knowledge about his position and potential threats (e.g. traffic, terrain, flight path) and consider their future evolution set priorities (Fly, Navigate, Communicate, Manage) assertive, seek clarification of doubts and misunderstandings before acting Maintain local flight from landing area



Section 3 - En-route Procedures

<ul style="list-style-type: none"> • navigating safely and effectively between A and B, in compliance with the regulation; monitoring the flight and maintaining an awareness of the changing environment; implementing adequate solutions as necessary 		
a	Flight plan, dead reckoning and map reading	<ul style="list-style-type: none"> • complete all elements of VFR planning for the route prescribed with particular reference to planned altitudes and safe levels of operation • identify position visually by reference to ground features and map
b	Maintenance of altitude, heading and speed	<ul style="list-style-type: none"> • control TMG using visual attitude flying techniques • maintain the heading height and speed as computed in navigation log or advised to the Examiner within the prescribed limits
c	Orientation, airspace structure, timing and revision of ETAs and log keeping	<ul style="list-style-type: none"> • maintain awareness of surrounding terrain, obstacles and restricted airspaces • navigate by means of calculated headings, ground speed and time • achieve destinations or turning points within 3 minutes of ETA • maintain a navigation log to monitor flight progress and fuel situation • Read the map accurately while ensuring flightpath and external safety
d	Diversion to alternate aerodrome (planning and implementation)	<ul style="list-style-type: none"> • calculate heading, ground speed, ETA and fuel required during any unscheduled diversion • calculate Safety Altitude for track to new destination • navigate by means of calculated headings, ground speed and time • maintain the heading, altitude and speed as computed in navigation log or advised to the Examiner within the prescribed limits
e	Flight managing (checks, fuel systems, carburettor icing, etc...)	<ul style="list-style-type: none"> • complete all necessary checks and drills • set engine power for cruise or endurance performance in accordance with AFM • adjust and monitor fuel consumption for range or endurance as appropriate • make regular checks for carburettor icing, if appropriate • Adjust cowl flaps as necessary • display sound airmanship and cockpit management
f	ATC compliance and R/T procedures	<ul style="list-style-type: none"> • set and cross check altimeters to QNH or Standard pressure setting, as appropriate • maintain two way R/T communication using correct phraseology throughout • obtain ATC clearances or flight information, as appropriate • comply with ATC clearances and instructions when required
		•
		Knowledge
		<ul style="list-style-type: none"> • navigation charts legend and charts interpretation • operational flight plan usage • onboard navigation and communication equipment use and limitation • applicable regulation (airspace class, weather minima) radiotelephony requirements, procedures, and applicable standard phraseology
		SKILL
		<ul style="list-style-type: none"> • chart and ground reading (reconciliation of ground features and chart information) • proficient usage of onboard navigation and communication equipment • smooth tracking of the required ground track or radio-navigation track, while maintaining altitude • communicate clearly, assertively, and in due time • flight replanning and diversion implementation ability to fly basic manoeuvres, and maintain aircraft control
		ATTITUDE
		<ul style="list-style-type: none"> • aware of the current situation and its possible evolution, and proactively generating options • set priorities (Fly, Navigate, Communicate, Manage) and manage workload • takes effective decisions, displaying leadership • considerate about other traffics and the potential threat • ready and willing to seek assistance as necessary (e.g. from ATC)



Section 4 - Approach and Landing Procedures

safe arrival and entry into an airport area in compliance with the regulation; structured pattern and stable approach leading to a safe landing in different configurations; discontinuation of the approach or landing

a	Aerodrome arrival procedures	<ul style="list-style-type: none"> carry out appropriate checks and drills set altimeters and cross check in accordance with check list, or as required comply with published arrival procedure or clearance maintain adequate lookout and collision avoidance 	KNOWLEDGE	<ul style="list-style-type: none"> arrival procedures, standard pattern, visual approach chart reading, briefing structure and purpose key positions updated with wind conditions applicable landing techniques with different winds and configurations radiotelephony requirements, procedures, and applicable standard phraseology post-flight actions (e.g. post-flight inspection, logbook entry, flight plan closing, occurrence reporting) 		
b	Collision avoidance (look-out procedures)	<ul style="list-style-type: none"> Maintain constant look-out 				
c	Precision landing (short field landing), crosswind, if suitable conditions available	<ul style="list-style-type: none"> consider weather and wind conditions, landing surface and obstructions plan and follow the circuit pattern and orientation with the landing area 				
d	Flapless (if applicable)	<ul style="list-style-type: none"> from the circuit pattern establish the recommended approach configuration adjusting speed and rate of descent to maintain a stabilised approach achieve the selected touchdown area at the recommended speed adjust descent and flare to achieve a safe landing with little or no float with appropriate drift and crosswind correction maintain directional control after touchdown and apply brakes for a safe roll out complete all necessary checks and drills 	SKILL	<ul style="list-style-type: none"> systematic configuration changes, operated within the applicable limitations precise and stable approach path positive touch down within the designated touch down zone, at the correct speed timely decision to abort the approach or landing correct and systematic application of go-around drills safe engine-out approach and landing 		
d	Approach to landing with idle power					
e	Touch and go	<ul style="list-style-type: none"> maintain directional control carry out required configuration changes (airbrake/flap retraction etc) apply appropriate power for take-off. 				
f	Go-around from low height	<ul style="list-style-type: none"> execute a timely decision to discontinue the approach either when instructed or as considered necessary apply appropriate power and control aeroplane attitude to initiate a safe climb maintaining balance and heading adjust configuration and speed to achieve a positive climb at V_Y or V_X as appropriate maintain take off power until a safe manoeuvring altitude is reached and then adjust to a normal climb configuration and speed complete all necessary checks and drills 			ATTITUDE	<ul style="list-style-type: none"> awareness of the other traffics, their intentions, and the resulting impact mindful about the environment and its impact (e.g. wind, sun, other traffic) Adapt flightpath function of other traffic or pedestrian on runway Provide attentive care to control confusion considerate for other traffics assertive radiotelephony communication
g	ATC liaison	<ul style="list-style-type: none"> obtain and comply with ATC clearances using correct R/T phraseology if applicable. adjust circuit pattern/speed to maintain spacing with other traffic in the pattern 				



		<ul style="list-style-type: none">• maintain awareness of other traffic through R/T and lookout
I	Action after flight	<ul style="list-style-type: none">• Secure the TMG• Fill documentation appropriately



Section 5 - Abnormal and Emergency Procedures

This section may be combined with sections 1 through 4

spotting, assessing, and addressing emergencies or abnormal using the appropriate procedures, maintaining a safe flight throughout; decisions to discontinue the flight to ensure safety, if necessary

a Simulated engine failure after take-off	<ul style="list-style-type: none"> • <i>establish safe flight speed without delay</i> • <i>execute emergency drills as 'touch drills' without error</i> • <i>when time permits, investigate possible cause of engine failure and take corrective action</i> • <i>plan and execute further actions to ensure safe recovery of aeroplane, passengers and crew</i> 	KNOWLEDGE	<ul style="list-style-type: none"> • emergency drills memory items • understanding of all emergency and abnormal procedures • precautionary landing methodology • standard phraseology for emergency and abnormal situation • transponder codes for emergency or com-loss situations
b *Simulated forced landing	<ul style="list-style-type: none"> • <i>choose a suitable landing area with due regard for landing surface, surroundings and wind velocity</i> • <i>plan descent to achieve a safe approach to chosen landing area such that a safe landing would be likely</i> 		SKILL
c *Simulated precautionary landing	<ul style="list-style-type: none"> • <i>choose a suitable landing area with due regard for landing surface, surroundings and wind velocity</i> • <i>plan descent to achieve a safe approach to chosen landing area such that a safe landing would be assured</i> 	ATTITUDE	
d Simulated emergencies	<ul style="list-style-type: none"> • <i>analyse emergency or abnormal situation and formulate appropriate plan</i> • <i>execute abnormal or emergency drills</i> • <i>plan and execute further actions to ensure safe recovery of aeroplane, passengers and crew</i> • <i>use check list to confirm actions when time permits</i> • <i>make suitable emergency R/T calls (given to Examiner but not transmitted)</i> • <i>inform ATC of practice emergency situation and assistance required (where appropriate)</i> 		ATTITUDE
e Oral questions	<ul style="list-style-type: none"> • <i>demonstrate knowledge of maintaining, operating, emergency handling and limitations of the aeroplane used for the flight test</i> 	ATTITUDE	

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





2.7 Standard of Completion

To pass the SPL Skill Test, the Candidate shall demonstrate the ability to:

- a operate the sailplane within its limitations;
- b complete all manoeuvres with smoothness and accuracy;
- c exercise good judgment and airmanship; that is, to consistently use good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives;
- d apply aeronautical knowledge;
- e 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;
- f **Only for TMG:** stay within the following limits. Those tolerances are for general guidance; the Examiner should make allowance for turbulent conditions and the handling qualities and performance of the used:

height:	normal flight	± 150ft
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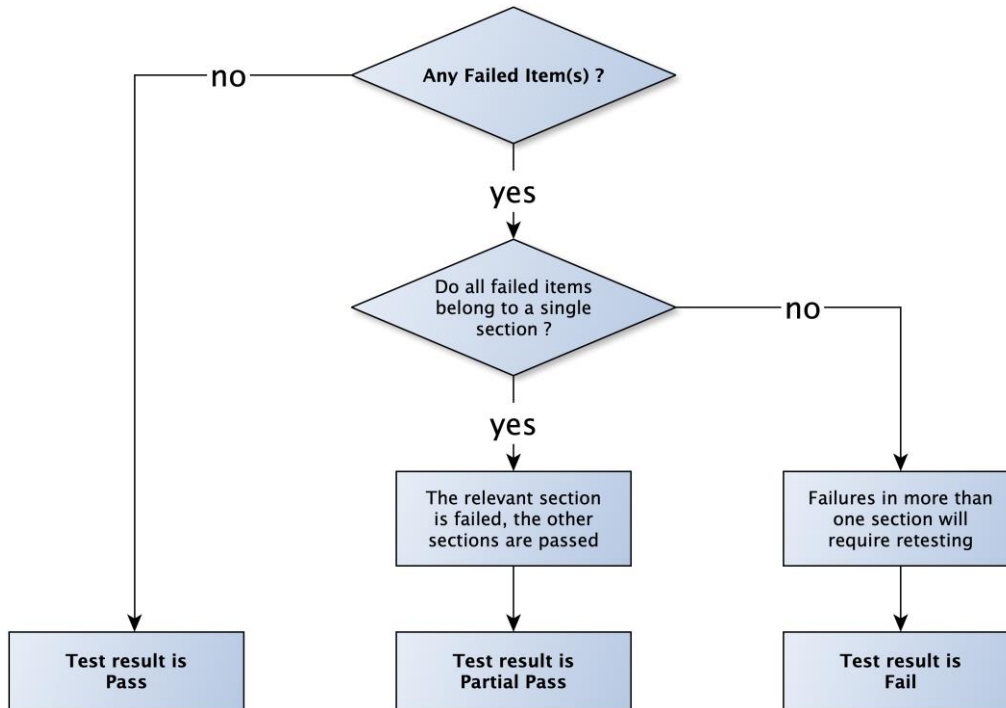
heading or tracking of radio aids:	normal flight	± 10°
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speed:	take-off and approach	+ 15/-5 kt
	all other flight regimes	± 15 knots

Compared to requirement (a) and (f), completion standards (b) to (e) don't rely on quantitative tolerance, but on qualitative one. Usage of guidance provided in subpart 8 should provide for a fact-based and consistent assessment and decision of those qualitative requirements.



2.8 Decision Making Flow Chart



2.9 Test Debriefing

The debriefing should begin with the Examiner informing the Candidate the result of the test. After that, the Examiner should make use of a facilitated discussion and emphasise the relevant strengths and weaknesses demonstrated by the Candidate. If the test is failed, the Examiner shall inform the Candidate and the training organisation regarding any training recommendation. The Candidate shall be explained their right of appeal, according to the procedures set by the Candidate's competent authority. With the agreement of the Candidate, the Examiner may allow, the responsible instructor, a Senior Examiner or an Inspector of the NAA, to take part in the debriefing.

2.10 Completion of all applicable records

All relevant records must be completed. Which includes but is not limited to:

- completion of sailplane logbook, as relevant
- completion of candidate's pilot logbook, as relevant
- completion and distribution of assessment form according to instructions of the applicant's competent authority, as required.

For any failed or partially failed test, the justification for failure must be printed on the examiner report. The ground for failure must be clear and motivated; a mere indication of which item was failed is not adequate nor sufficient. Any re-training recommendation should equally be written in the examiner report.



Assessment of competence – FI(S) :

General Applicable Framework

Flight rules:	VFR
Operational rules:	Part-SAO
Crew complement:	Single Pilot Operation
Equipment:	Sailplane
Applicable type or class:	Sailplane
Required examiner certificate:	FE(S) with SFCL.415 (c) privileges.
Possible combination with another test, check or AoC:	No

3.1 Introduction

The basic privileges of FI(S) are to conduct flight instruction for the issue or recency of SPL with sailplanes (a pure sailplane, powered sailplane or a TMG as relevant). According to Part-SFCL the assessment of competence for the initial issue of an FI(S) certificate shall be conducted in sailplanes, excluding TMGs.

3.2 Assessment Administration

The oral theoretical knowledge examination part of the assessment of competence, is subdivided into a test lecture of max. 45 minutes and an oral test for knowledge of items of section 1 and the ‘core instructor competencies: teaching and learning’ content given in the instructor course. For these, refer to item (b) of AMC2 SFCL.345. The examiner should provide the candidate with advance information regarding the topic of the assessment to afford the candidate with sufficient time to prepare the test lecture and the respective flight exercise.

During the assessment of competence, the applicant occupies the seat normally occupied by the instructor. The examiner functions as the ‘student’. The applicant is required to explain the relevant exercises and to demonstrate their conduct to the ‘student’. Thereafter, the ‘student’ executes the same manoeuvres. Execution of manoeuvres by the “student” shall be variably correctly made but variably include typical mistakes of inexperienced “students”. The applicant is expected to correct mistakes orally or, if necessary, by intervening physically.

The assessment of competence should also include additional demonstration exercises, as decided by the examiner and agreed upon with the applicant before the assessment. These additional exercises should be related to the training requirements for the applicable instructor certificate.



Before proceeding with the examination, the examiner shall verify that the prerequisites are met. The following documents shall be verified for completion, validity and correctness, and be ready for the assessment:

- Valid ID or passport;
- Licence SPL;
- Medical certificate class 1, 2 or LAPL;
- Training completion certificate from the DTO/ATO;
- Aircraft documents;
- Insurance of aircraft covering skill test;
- Specific equipment for the flight part.

Once satisfied that the requirements are met and conditions fulfilled, the examiner should seek confirmation that the candidate is fit and ready for the assessment of competence. If so, the examiner formally starts the assessment; it is a good practice to take this opportunity to show the examiner credentials.

3.3 Examiner Briefing

The examiner must brief the following elements:

- Seek confirmation from the candidate about his readiness and fitness to formally proceed with the assessment,
- Applicable weather conditions
- Examiner has PIC responsibility; the candidate acts autonomously as if he was the instructor;
- Handling of radio communications by the candidate during specific parts of the assessment,
- Examiner role-play in normal operations and simulated emergencies;
- Launch or engine failure simulation (minimum safety height,);
- Handling of possible contingencies (technical, weather, ATC);
- Handling of actual emergencies (e.g. launch or engine failures), change of aircraft control;
- Pass / fail criteria, repeat items option, and assessment termination rules.

When covering pass/fail criteria the examiner should cover general completion standards, including decision-making and airmanship. Some assessment items may require specific emphasis for the applicant to understand what is required. These completion standards should be agreed by the applicant and the examiner should consider actual flight conditions when briefing them. Items which could require special emphasis could be:

- Take-off performance; Launch abandonment; Simulated launch failure; Engine shut down and stowage
- Landing performance; selection of touchdown point and acceptable tolerances for the different types of landings
- Crosswind take-off and landing; expectation on handling and precision
- Local area navigation and awareness



- Simulated failures or emergencies; expectation on handling, checklist use (when applicable) and what and how to simulate.

The examiner will play the role of a student during the lesson in flight. The examiner and the candidate should agree on the expected level of the student before the test so that the examiner behaviour reflect the correct level.

In covering the completion standards the examiner should also review how the applicant has been trained by the DTO/ATO as procedures and flight techniques might differ from an organisation to another. This is especially important for manoeuvres such as: unusual attitudes, stalls, launch failures engine-out procedures (as applicable) and any emergency simulation etc.

3.4 Program of the Assessment of Competence (AoC)

The Assessment of Competence must include all applicable items laid down in the assessment form.

The topics of the AoC shall be provided by the examiner and the amount of time for preparation should be agreed with the candidate.

General procedure:

- a. Test lecture;
- b. Theoretical knowledge oral test during the assessment;
- c. Instruction flight including handling from the instructor seat.

a. Test lecture

The candidate acting as instructor teaches a test lecture to one or more 'flight students' not longer than 45 minutes including questions. The topic for this test lecture is selected by the examiner from the SPL training program.

b. Theoretical knowledge oral test

Oral test should take place during the assessment (test lecture and flight). The oral examination includes questions on the topics according to Section 1 AMC2 SFCL.345 and must be of such form and number that an objective assessment can be carried out.

c. Instruction flight including handling from instructor seat

The purpose of the flight is to assess the ability to teach and to fly a sailplane, radio communication included.

The assessment shall include exercises from the FI(S) syllabus, chosen by the FE(S) and agreed with the candidate to evaluate instructor competencies in flight.

The candidate has to manage the flight (local, radio communication, look-out...), as he/she is leading the lesson.

Maintain control of the sailplane as an instructor at all times in such a manner that the successful outcome of a procedure or manoeuvre is never in doubt.



An accurate and smooth handling is expected from the instructor candidate while he/she is giving demonstration to the examiner playing the role of the student. Guidance and explanations must be in step with demonstration and adapted to student level.

The objective of the lesson as described during candidate's briefing should be respected.

The common student's errors should be corrected.

The instruction flight includes the following elements:

1. Operational briefing (pilots briefing for the flight);
2. Instructor briefing with reference to the air exercise according to the given theme for the test lecture;
3. Instruction flight and/or handling of given malfunctions; and
4. Instructor debriefing.

3.5 Weather minima

The weather conditions for flights must allow the safe conduct of the planned training flight and is to be carried out in accordance with the operational rules of the respective DTO/ATO if applicable.

3.6 Assessment Items

The use of checklist, airmanship, control of sailplane by external visual reference, etc., apply in all sections.

The mandated assessment items are stated in the left column. Expanded guidance and additional explanations are provided in the right column.

Section 1 - Theoretical knowledge oral (including text lecture)		
1.1	Air law	<i>Refer to "4.b. Theoretical knowledge oral test" above</i> <ul style="list-style-type: none"> • Questions have to be relevant for an instructor teaching an SPL student. • An accurate knowledge is expected and clear explanation must be given to the examiner • Vocabulary used must be appropriate and accurate
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	<i>Competences acc. AMC1 SFCL.325</i> <ul style="list-style-type: none"> • <i>Prepare resources</i> • <i>Create a climate conducive to learning</i> • <i>Present the lesson objective and conduct the lesson in consequence.</i> • <i>Manage time to achieve training objectives</i> • <i>Present knowledge with accuracy and concisely</i> • <i>Make link from theory to practice</i> • <i>Facilitate learning</i> • <i>integrate TEM and CRM</i>
2.2	Technical accuracy	
2.3	Clarity of explanation	
2.4	Clarity of speech	
2.5	Instructional technique	
2.6	Use of models and aids	
2.7	Student participation	

Section 3 – flight		
3.1	Arrangement of demo	<i>Competences acc. AMC1 SFCL.325:</i> <ul style="list-style-type: none"> • <i>Prepare resources</i> • <i>Create a climate conducive to learning</i> • <i>Repeat the lesson objectives</i> • <i>Manage time to achieve training objectives</i> • <i>Facilitate learning</i> • <i>Operate an accurate and smooth handling during demonstration.</i> • <i>Communicate clearly and concisely.</i> • <i>Announce clearly who has controls.</i> • <i>Manage student's workload.</i> • <i>Assesses student performance</i> • <i>Monitor and review progress</i> • <i>Maintain and teach a constant look-out</i> • <i>Manage the flight planning</i> • <i>Integrate TEM and CRM</i>
3.2	Synchronisation of speech with demo	
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		
2.1	Visual presentation	<i>Competences acc. AMC1 SFCL.325</i> <ul style="list-style-type: none"> • <i>Create a climate conducive to learning</i> • <i>Facilitate student's feedback</i> • <i>Assesses student performance based on facts</i> • <i>Monitor and review progress</i> • <i>Evaluate training sessions</i>
2.2	Technical accuracy	
2.3	Clarity of explanation	
2.4	Clarity of speech	
2.5	Instructional technique	
2.6	Use of models and aids	
2.7	Student participation	



3.7 Standard of Completion

To pass the assessment of competence, the candidate shall demonstrate the ability to:

- (a) provide a student with the basis for an upcoming lesson during a long briefing (test lecture);
- (b) recognise errors and is able to discuss them briefly and comprehensibly to the student;
- (c) keep always control and overview during the instruction lesson;
- (d) qualify a flight lesson factually;
- (e) operate the sailplane smoothly, with accuracy and within its limitation;
- (f) exercise good judgment and airmanship; that is, to consistently use good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives;
- (g) apply aeronautical knowledge;
- (h) maintain control of the sailplane as an instructor at all times in such a manner that the successful outcome of a training flight, procedure or manoeuvre is never in doubt.

3.8 Competence Assessment Guidance

The relevant instructor's competences to be demonstrated, are:

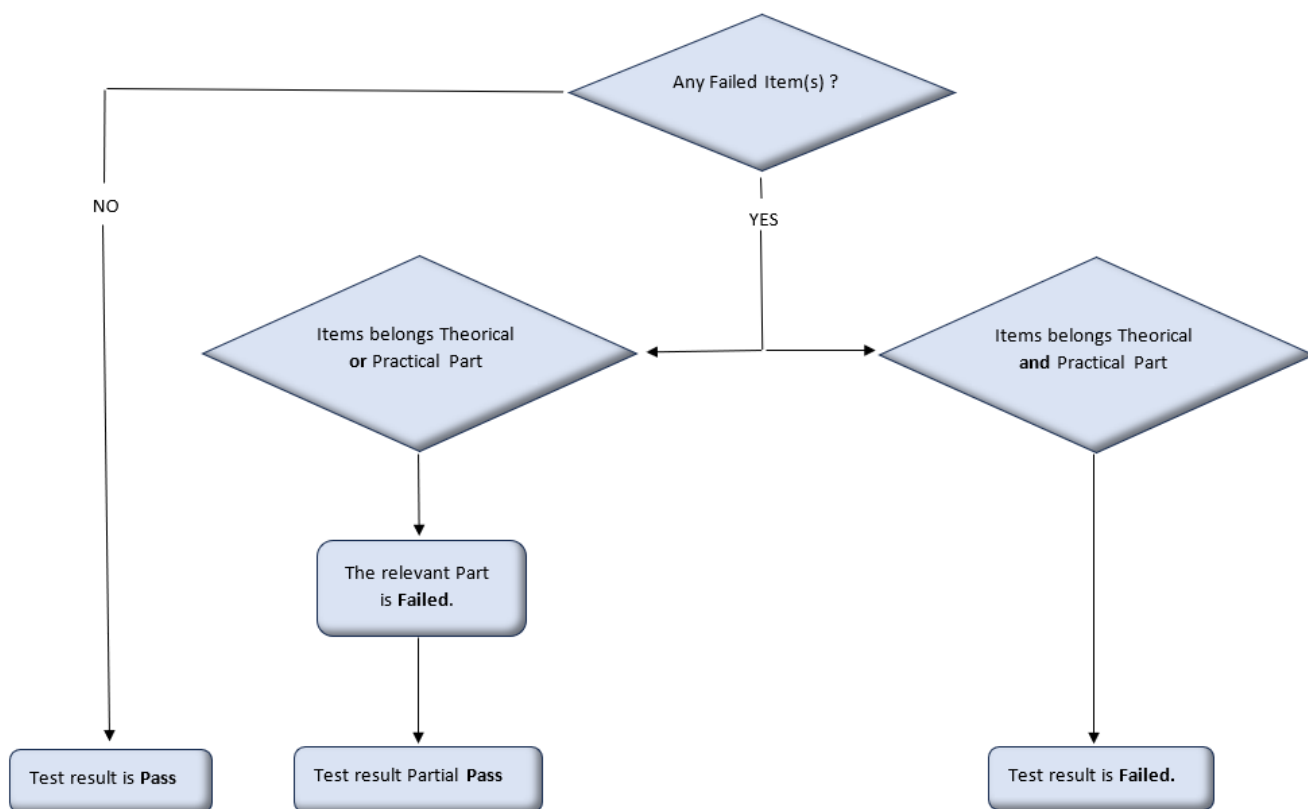
- Prepare resources;
- Create a climate conducive to learning;
- Present knowledge;
- Integrate Threat and Error Management (TEM) and crew resource management;
- Manage time to achieve training objectives;
- Facilitate learning;
- Assess student performance;
- Monitor and review progress;
- Evaluate training sessions; and
- Report outcome.

Note: See also AMC1 SFCL.325 competencies and assessment

It should enable the examiner to assess the standard of completion elements laid down in subpart 6 under (a) to (h) and determine the result.



3.9 Decision Making Flow Chart



3.10 Assessment Debriefing

The debriefing should begin with the examiner informing the candidate the result of the assessment. After that, the examiner should make use of a facilitated discussion and emphasise the relevant strengths and weaknesses demonstrated by the applicant. If the assessment is failed, the examiner should inform the candidate and the training organisation regarding any training requirements. The candidate shall be explained his right of appeal, according to the procedures set by the applicant's competent authority.

The feedback should be given also to the training organisation, and it is recommended to invite the instructor to the debriefing.

3.11 Completion of all applicable records

All relevant records must be completed. Which includes, but is not limited to:

- completion of sailplane logbook, as relevant
- completion of candidate's pilot logbook, as relevant
- completion and distribution of assessment form according to instructions of the applicant's competent authority, as required.



For any failed assessment, the justification for failure must be recorded in the assessment form. The reason for failure must be clear and motivated; a mere indication of which item was failed is not adequate nor sufficient. Any re-training recommendation should equally be recorded in the assessment form by the examiner.



Examiner Assessment of Competence FE(S):

General Applicable Framework

Flight rules:	VFR
Operational rules:	SAO
Crew concept:	SPO
Equipment:	Sailplane or TMG
Applicable type or class:	Sailplane
Assessment of Competence (AoC) conducted by:	Inspector or Senior Examiner specifically authorised by the Examiner Applicant's NAA

An Examiner Applicant shall demonstrate their competence to the Inspector or Senior Examiner specifically authorised by the Examiner Applicant's NAA through the conduct of a skill test, proficiency check or assessment of competence in the examiner role for which privileges are sought.

1. Introduction

The standards of competence of pilots depends to a great extent on the competence of Examiners. This chapter compliments the standardisation requirements set out in Part-SFCL, Subpart FE : SFCL.430 FE(S) certificate – standardisation course, in order to standardise an Examiner Applicant for an initial, revalidation or renewal of an EASA examiner certificate.

This chapter should be used by the Inspector or Senior Examiner in conjunction with the appropriate FEM chapter (SPL or FI(S)) for the test being conducted by the Examiner Applicant.

Considering the sailplane configuration (two seats), the inspector or senior examiner plays the role of a candidate taking his skill test or assessment of competence.

In case of revalidation, the inspector or senior examiner may decide to attend the briefing and the debriefing of the skill test or assessment of competence with a real candidate, as well as observing the flight from the ground.

2. Test Administration

An NAA Inspector or Senior Examiner must be specifically tasked by the Examiner Applicant's NAA to conduct the AoC. The Examiner Applicant should provide the Inspector or Senior Examiner with advance information regarding their chosen skill test or proficiency check scenario, including the route to be flown, in order to assess and agree that the planned test is compliant with the relevant Part-SFCL appendix test profile.

The Inspector or Senior Examiner should verify the Examiner Applicant's credentials and check documentation such as:



1. Licence, Instructor Certificate and Medical
2. Standardisation course completion certificate

3. Inspector or Senior Examiner Briefing

The Inspector or Senior Examiner must brief the following elements to the Examiner Applicant:

- Purpose of the AoC
- Confirm and agree the contents of the test or check to be observed and how it will be achieved.
- Examiner Applicant's PIC responsibility;
- Examiner role-play in normal operations and simulated emergencies
- The Examiner Applicant is expected to display sound judgement, particularly when establishing any abnormal or simulated emergency exercise so that the safety of the flight is never placed in doubt.
- Remind the Examiner Applicant that the briefing and de-briefing are to be directed to the Candidate. The Inspector or Senior Examiner will emphasise that they will take no part in the conduct of the detail.
- Ask the Examiner Applicant if they have any questions and confirm that they have been adequately briefed.

4. Examiner Applicant Flight Briefing

The Examiner Applicant should be allowed to brief the Candidate(s) uninterrupted following the guidance in the appropriate FEM test module. The briefing should include at least the following elements:

- Purpose of the skill test;
- Applicable weather minimum;
- Pass, fail, and partial pass criteria, repeat items option, and examination termination rules;
- Examiner responsibility;
- Freedom for the Candidate to ask questions;
- A safety and emergency briefing for the briefing room, Aircraft or Simulator.

5. Oral Examination on Ground

The Inspector or Senior Examiner should be satisfied that the Examiner Applicant demonstrates adequate knowledge of the regulatory requirements associated with the function of an examiner.



6. Assessment of Competence

The following tables are designed to give the Inspector or Senior Examiner guidance when assessing the competency of the Examiner Applicant during the AoC. The assessment items are stated in the left column. Expanded guidance and additional explanations are provided in the right column. This will aid the Inspector or Senior Examiner when debriefing the Examiner Applicants performance and analysing each section of the test in relation to specific competencies required for a successful outcome.

Section 1 – Briefing the Candidate		
1	the objective of the flight	<ul style="list-style-type: none"> • The Examiner Applicant gives the candidate time and facilities to prepare for the test flight. • Demonstrates an appropriate level of engagement and interaction with the candidate. • Uses a board or other visual mediums during the briefing. • All briefing items comprehensively and constructively delivered. • Introduces non-technical competency and behavioural markers appropriately. • Generates a positive and constructive atmosphere. • Answers questions from the Candidate and provides references where applicable. • Invites Questions. • Clear structure and clarity of the test profile. • Generates a high level of engagement. • Defines clearly what is expected of the crew. • Pass, fail, and partial pass criteria including test limitations • Appropriate safety and emergency briefing. • Makes appropriate reference to operator* behavioural marker scheme if applicable.
2	licensing checks, as necessary	
3	freedom for the 'candidate' to ask questions	
4	operating procedures to be followed (for example operators manual)	
5	weather assessment	
6	operating capacity of 'candidate' and examiner	
7	aims to be identified by 'candidate'	
8	simulated weather assumptions (for example icing and cloud base)	
9	use of screens (if applicable)	
10	contents of exercise to be performed	
11	agreed speed and handling parameters (e.g. V-speeds, approach minima)	
12	use of R/T	
13	respective roles of 'candidate' and examiner (for example during emergency)	
14	administrative procedures (for example submission of flight plan).	



Section 2 – Conduct of Test		
1	involvement of examiner	<ul style="list-style-type: none"> • The Examiner Applicant should maintain the necessary level of communication with the candidate. • Comprehensively observes the Candidate's conduct and performance. • Makes a comprehensive observation of the candidate's R/T standards. • Takes clear, accurate and effective notes. • Never obstructs or distracts the crew under test, acting intuitively to not impede the efficient conduct of the detail. • Does not intervene unless absolutely necessary. • Advocates Health & Safety and welfare and ensures that this is to the highest standards at all times. • In an aircraft – demonstrates the best possible practice to avoid an unsafe situation developing. • Correctly sequences failures. • Flexible where necessary to adjust the test item sequence to optimise time management. • Skilled use of Repeats for maximum value of the candidate. • Make effective use of available simulator functions and time to create a realistic checking environment. • Allows Candidate to demonstrate situational awareness with regard to position and time available. • The standard of radiotelephony demonstrated by the Examiner Applicant should be assessed and must be at the high standard.
2	the need to give the 'candidate' precise instructions	
3	responsibility for safe conduct of the flight	
4	intervention by examiner, when necessary	
5	liaison with ATC and the need for concise, easily understood intentions	
6	prompting the 'candidate' about required sequence of events (for example following a go-around)	
7	keeping brief, factual and unobtrusive notes	
Section 3 – Candidate Assessment		
1	questions from the 'candidate'	<ul style="list-style-type: none"> • The Examiner Applicant should refer to the flight test tolerances given in the relevant Part-SFCL test appendix form. • Fully at ease with assessing the required standard and identifying this to candidate. • Assesses overall competency including non-technical performance with no missed items. • Clear and irrefutable evidence gathered to support their assessment. • Identifies in-depth root causes of performance. • Assesses areas of good performance as well as areas that require improvement. • Comprehensive knowledge of company behavioural markers when making an assessment as applicable.
2	give results of the test and any sections failed	
3	give reasons for failure	



Section 4 – Debriefing		
1	advise the candidate on how to avoid or correct mistakes	<ul style="list-style-type: none"> • The Examiner Applicant should demonstrate 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. • A proficient facilitator always moving the de-brief in the required direction. • Allows the crew to drive the conversation whilst controlling the debriefing agenda. • Integrates company behavioural markers into all aspects of the operation when applicable. • Checks understanding and summarises the salient debrief points. • Maintains awareness of the Candidate's welfare. • Assesses areas of good performance as well as areas that require improvement. • Clear understanding of root causes to all actions.
2	mention any other points of criticism noted	
3	give any advice considered helpful	
Section 5 – Recording of Documentation		
1	the relevant test or check form	<ul style="list-style-type: none"> • The Examiner applicant should demonstrate the ability to complete the relevant records correctly. • Demonstrate concise & factual contemporaneous note taking. • Demonstrates adherence to the Candidates Licencing Authority's forms and requirements. • Is mindful of their Data Protection responsibilities.
2	license entry	
3	notification of failure form	
Section 6 – Demonstration of Theoretical Knowledge		
1	The Examiner Applicant should demonstrate to the inspector a satisfactory knowledge of the regulatory requirements associated with the function of an examiner	<ul style="list-style-type: none"> • Excellent standard of regulatory and theoretical knowledge • The Senior Examiner should assess the level of the examiners knowledge throughout the AoC and use that assessment to form a judgement.

7. Standard of Completion

Please refer to the applicable FEM chapter (SPL or FI(S)) for the test being conducted by the Candidate.

8. Competence Assessment Guidance

N/A

9. Decision Making Flow Chart

N/A



10. Test Debriefing

The examiner applicant will debrief the Inspector or Senior examiner and propose the assessment.

Thereafter, the Inspector or senior Examiner will debrief and assess the Candidate Examiner in return.

11. Completion of all applicable records

All relevant NAA records must be completed.

For a failed Assessment of Competence, the justification for failure must be printed on the examiner report. The reason for failure must be clear and based on factual evidence. Any re-training recommendation should equally be written in the examiner report.



Appendix 1 : TEM

Pilots must also manage undesired sailplane states, since they carry the potential for unsafe outcomes. Undesired state management is an essential component of the TEM model, as important as threat and error management. Undesired sailplane state management largely represents the last opportunity to avoid an unsafe outcome and thus maintain safety margins in flight operations.

Threats:

- 1) Threats are defined as events or errors that occur beyond the influence of the pilot increase operational complexity, and which must be managed to maintain the margins of safety. During typical flights, pilot have to manage various contextual complexities. Such complexities would include, for example, dealing with adverse meteorological conditions, operations surrounded by high mountains, sailplane malfunctions, errors committed by other people in charge of maintenance or assistance before take-off, and so forth. The TEM model considers these complexities as threats because they all have the potential to negatively affect flight operations by reducing margins of safety;
- 2) Some threats can be anticipated, since they are expected or known to the pilot. For example, pilot can anticipate the consequences of a cable release during launch by considering and briefing his response in advance;
- 3) Some threats can occur unexpectedly, such as an in-flight aircraft malfunction that happens suddenly and without warning. In this case, pilot must apply skills and knowledge acquired through training and operational experience;
- 4) Lastly, some threats may not be directly obvious to, or observable by, pilot immersed in the operational context, and may need to be uncovered by safety analysis. These are considered latent threats. Examples of latent threats : equipment design issues, leading to controls confusion;
- 5) Regardless of whether threats are expected, unexpected, or latent, one measure of the effectiveness of a pilot's ability to manage threats is whether threats are detected with the necessary anticipation to enable the pilot to respond to them through deployment of appropriate countermeasures;
- 6) Threat management is a building block to error management and undesired aircraft state management. Although the threat-error linkage is not necessarily straightforward, and although it may not be always possible to establish a linear relationship, or one-to-one mapping between threats, errors and undesired states, archival data demonstrates that mismanaged threats are normally linked to pilot errors, which in turn are often linked to undesired aircraft states. Threat management provides the most proactive option to maintain margins of safety in flight operations, by voiding safety-compromising situations at their roots. As threat managers, pilot is the last line of defence to keep threats from impacting flight operations.

Errors:

- 1) Errors are defined actions or inactions by the pilot that lead to deviations from organisational or pilot intentions or expectations. Unmanaged or mismanaged errors frequently lead to undesired aircraft states. Errors in the operational context thus tend to reduce the margins of safety and increase the probability of adverse events;
Exemple: take-off with unlatched airbrakes
- 2) Errors can be spontaneous (for example without direct linkage to specific, obvious threats), linked to threats, or part of an error chain. Examples of errors would include the inability to maintain stabilised approach, or misinterpreting an ATC clearance;
- 3) Regardless of the type of error, an error's effect on safety depends on whether the pilot detects and responds to the error before it leads to an undesired aircraft state and to a



potential unsafe outcome. This is why one of the objectives of TEM is to understand error management (for example detection and response), rather than to solely focus on error causality (for example causation and commission). From the safety perspective, operational errors that are timely detected and promptly responded to (for example properly managed), errors that do not lead to undesired aircraft states, do not reduce margins of safety in flight operations, and thus become operationally inconsequential. In addition to its safety value, proper error management represents an example of successful human performance, presenting both learning and training value;

- 4) Capturing how errors are managed is then as important, if not more, as capturing the prevalence of different types of error. It is of interest to capture if and when errors are detected and by whom, the response(s) upon detecting errors, and the outcome of errors. Some errors are quickly detected and resolved, thus becoming operationally inconsequential, while others go undetected or are mismanaged. A mismanaged error is defined as an error that is linked to or induces an additional error or undesired aircraft state;
- 5) The TEM model classifies errors based upon the primary interaction of the pilot at the moment the error is committed. Thus, in order to be classified as aircraft handling error, the pilot must be interacting with the aircraft (for example through its controls). In order to be classified as procedural error, the pilot must be interacting with a procedure (for example checklists; Standards and local procedures; etc.). In order to be classified as communication error, the pilot must be interacting with people (ATC, ground crew, passengers, etc.);
- 6) Aircraft handling errors, procedural errors and communication errors may be unintentional or involve intentional non-compliance. Similarly, proficiency considerations (for example skill or knowledge deficiencies, training system deficiencies) may underlie all three categories of error. In order to keep the approach simple and avoid confusion, the TEM model does not consider intentional noncompliance and proficiency as separate categories of error, but rather as sub-sets of the three major categories of error.

Undesired aircraft states:

- 1) Undesired aircraft states are pilot-induced aircraft position, misapplication of flight controls, associated with a reduction in margins of safety. Undesired aircraft states that result from ineffective threat or error management may lead to compromising situations and reduce margins of safety in flight operations. Often considered at the cusp of becoming an incident or accident, undesired aircraft states must be managed by pilot;
- 2) Example of undesired aircraft states would include an unstabilized approach. Events such as equipment malfunctions can also reduce margins of safety in flight operations, but this would be considered threats;
- 3) Undesired states can be managed effectively, restoring margins of safety, or pilot response(s) can induce an additional error, incident, or accident.
Exemple : selfsustained sailplane : starting the engine at a hight that allows landing on a suitable area in case of engine start failure.

Countermeasures:

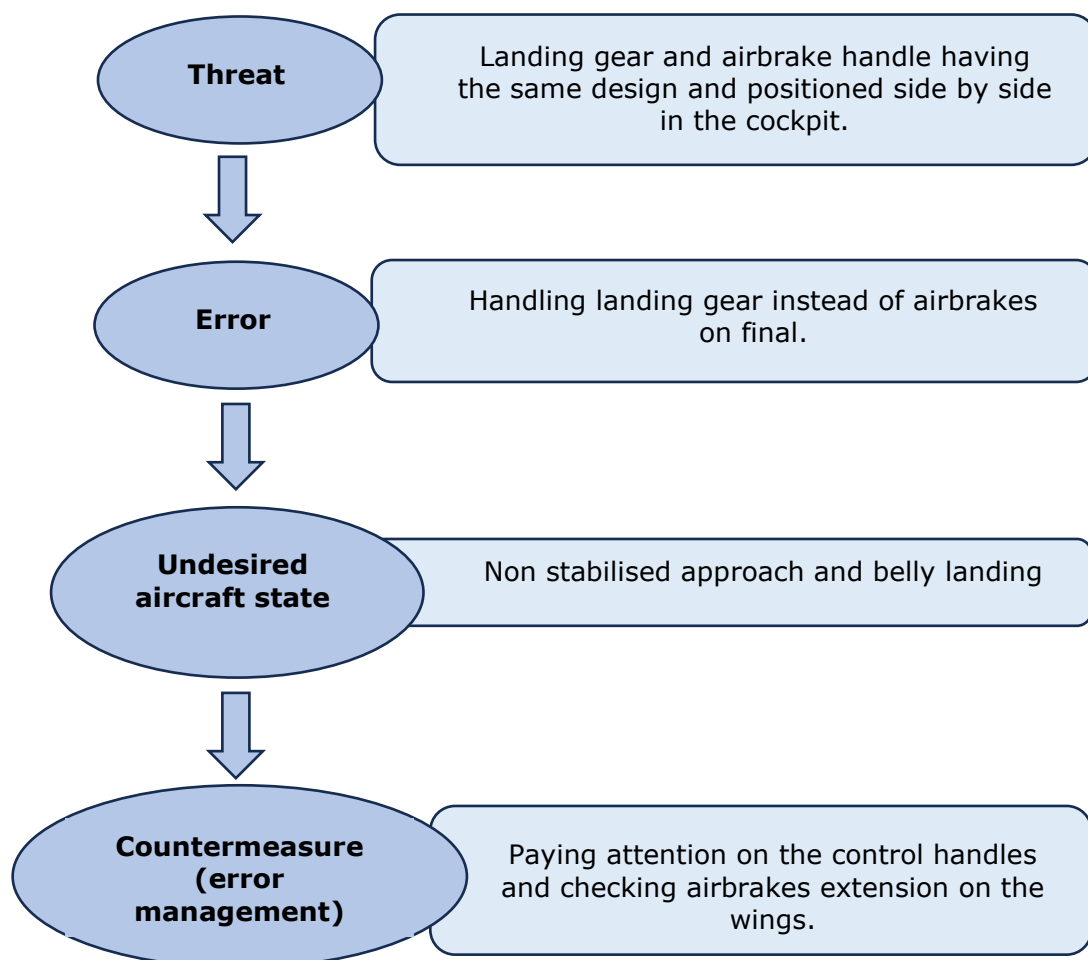
- a. pilot must, as part of the normal discharge of his operational duties, employ countermeasures to keep threats, errors and undesired aircraft states from reducing margins of safety in flight operations. Examples of countermeasures would include checklists, briefings and Standards and local procedures, as well as personal strategies and tactics. Pilot dedicate significant amounts of time and energies to the application of countermeasures to ensure margins of safety during flight operations. Empirical observations during training and checking suggest that as much as 70 % of pilot activities may be countermeasures-related activities.
- b. Other countermeasures are more directly related to the human contribution to the safety of flight operations. These are personal strategies and tactics, individual and team countermeasures that typically include canvassed skills, knowledge and



attitudes developed by human performance training. There are basically three categories of individual and team countermeasures:

- A. planning countermeasures: essential for managing anticipated and unexpected threats;
- B. execution countermeasures: essential for error detection and error response;
- C. review countermeasures: essential for managing the changing conditions of a flight.

Example of a risk of an error due to a latent threat:



Appendix 2 : Competencies

- Application of Knowledge [KNO]
- Application of procedures and compliance with regulations [PRO]
- , [FPA]
- Sailplane Flightpath Management, manual control [FPM]
- Communication [COM]
- Leadership and Teamwork [LTW]
- Problem Solving and Decision Making [PSD]
- Situation awareness and management of information [SAW]
- Workload Management [WLM]

The competencies provide individual and/or team countermeasures to threats and errors to avoid undesired aircraft states¹.

This table should only be used as guidance for an Examiner to debrief the Candidate's airmanship performance overall and give guidance on how to improve their airmanship in the future. This competency assessment does not affect the pass or fail criteria of the applicable test appendix of SFCL S.

Competency	Competency description	Observable Behaviour (OB)
Application of Knowledge (KNO)	Demonstrates knowledge and understanding of relevant information, operating instructions, aircraft systems and the operating environment	<ul style="list-style-type: none"> • Demonstrates practical and applicable knowledge of limitations and systems and their interaction • Demonstrates required knowledge of published operating instructions • Demonstrates knowledge of the physical environment, the air traffic environment including routings, weather, airports and the operational infrastructure • Demonstrates appropriate knowledge of applicable legislation. • Knows where to source required information • Demonstrates a positive interest in acquiring knowledge • Is able to apply knowledge effectively
Application of procedures and compliance with regulations [PRO]	Identifies and applies appropriate procedures in accordance with published operating instructions and applicable regulations	<ul style="list-style-type: none"> • Identifies where to find procedures and regulations • Applies relevant operating instructions, procedures and techniques in a timely manner • Follows Standards and local procedures unless a higher degree of safety dictates an appropriate deviation • Operates sailplane systems and associated equipment correctly • Monitors sailplane systems status

¹ For more explanation, refer to ICAO Doc 9868 – Threat & Error Management Model – TEM. Undesired aircraft states are characterized by divergences from parameters normally experienced during operations (e.g. aircraft position or speed deviations, misapplication of flight controls, or incorrect systems configuration) associated with a reduction in margins of safety.



		<ul style="list-style-type: none"> • Complies with applicable regulations. • Applies relevant procedural knowledge
Communication [COM]	Communicates through appropriate means in the operational environment, in both normal and non-normal situations	<ul style="list-style-type: none"> • Determines that the recipient is ready and able to receive information • Selects appropriately what, when, how and with whom to communicate • Conveys messages clearly, accurately and concisely • Confirms that the recipient demonstrates understanding of important information • Listens actively and demonstrates understanding when receiving information • Asks relevant and effective questions • Uses appropriate escalation in communication to resolve identified deviations • Uses and interprets non-verbal communication in a manner appropriate to the organisational and social culture • Adheres to standard radiotelephone phraseology and procedures
		•
Aircraft Flight Path Management, manual control [FPM]	Controls the flight path through manual control.	<ul style="list-style-type: none"> • Controls the sailplane with accuracy and smoothness as appropriate to the situation • Monitors and detects deviations from the intended flight path and takes appropriate action • controls the sailplane using the relationship between sailplane attitude, speed, and navigation signals or visual information • Maintains the intended flight path during manual flight whilst managing other tasks and distractions • Uses appropriate flight management and guidance systems, as installed and applicable to the conditions • Effectively monitors flight guidance systems if applicable
Leadership and Teamwork [LTW]	Influences others to contribute to a shared purpose. Collaborates to accomplish the goals of the team	<ul style="list-style-type: none"> • Encourages team student and open communication (FI(S) or FE(S)) • Demonstrates initiative and provides direction when required • Engages others in planning • Considers inputs from others • Gives and receives feedback constructively • Addresses and resolves conflicts and disagreements in a constructive manner • Exercises decisive leadership when required • Accepts responsibility for decisions and actions • Carries out instructions when directed • Applies effective intervention strategies to resolve identified deviations



		<ul style="list-style-type: none"> • Manages cultural and language challenges, as applicable
Problem Solving and Decision Making [PSD]	Identifies precursors, mitigates problems, and makes decisions	<ul style="list-style-type: none"> • Identifies, assesses and manages threats and errors in a timely manner • Seeks accurate and adequate information from appropriate sources • Identifies and verifies what and why things have gone wrong, if appropriate • Perseveres in working through problems whilst prioritising safety • Identifies and considers appropriate options • Applies appropriate and timely decision-making techniques • Monitors, reviews and adapts decisions as required • Adapts when faced with situations where no guidance or procedure exists • Demonstrates resilience when encountering an unexpected event
Situation awareness and management of information [SAW]	Perceives, comprehends and manages information and anticipates its effect on the operation	<ul style="list-style-type: none"> • Monitors and assesses the state of the sailplane and its systems • Monitors and assesses the sailplane's energy state, and its anticipated flight path • Monitors and assesses the general environment as it may affect the operation • Validates the accuracy of information and checks for gross errors • Maintains awareness of the people involved in or affected by the operation and their capacity to perform as expected • Develops effective contingency plans based upon potential risks associated with threats and errors • Responds to indications of reduced situation awareness
Workload Management [WLM]	Maintains available workload capacity by prioritising and distributing tasks using appropriate resources	<ul style="list-style-type: none"> • Exercises self-control in all situations • Plans, prioritises and schedules appropriate tasks effectively • Manages time efficiently when carrying out tasks • Offers and gives assistance • Delegates tasks (FI(S) or FE(S)) • Seeks and accepts assistance, when appropriate • Monitors, reviews and cross-checks actions conscientiously (FI(S) or FE(S)) • Verifies that tasks are completed to the expected outcome • Manages and recovers from interruptions, distractions, variations and failures effectively while performing tasks



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- i Manual of Procedures for Establishment and Management of a State's Personnel Licensing System - Doc 9739
 - ii Convention on International Civil Aviation ICAO - Doc 7300/9
 - iii Annex 1 to the Convention on International Civil Aviation - Personnel Licensing
 - iv REGULATION (EU) 2018/1139 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2018 on common rules in the field of civil aviation
 - v COMMISSION REGULATION (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew
 - vi ICAO PNS TRG Doc 9868
 - vii Conflicts of Interest in Civil Aviation Consolidation of ICAO Provisions July 2019
 - viii REGULATION (EU) No 376/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation
 - ix REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data

