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Federal Office of Civil Aviation FOCA
Safety Division - Flight Operations

FOCA GM/INFO

Guidance Material / Information

FOCA Accepted Logbook Formats

Scope	This document specifies which pilot logbook formats are acceptable to FOCA
Applies to	Flight Personnel
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0 Introduction

By issuing this GM/INFO, FOCA aims to establish and make publicly available the forms and manners of recording of flight time acceptable by FOCA.

0.1 Terms and Conditions

The use of the male **gender** should be understood to include male and female persons.

The most frequent **abbreviations** used by the **EASA** are listed here: easa.europa.eu/abbreviations.

When used throughout the GM/INFO the terms such as «shall, must, will, may, should, could, etc.» shall have the meaning as defined in the English Style Guide of the European Commission.

The term "Part-FCL" and reference to FCL.050 and AMC1 FCL.050 is used for conciseness. It is to be understood as the combination of the relevant part of the recent versions of Part-FCL, Part-SFCL and Part-BFCL.

0.2 Legal References

Commission Regulation (EU) No 1178/2011:

- − FCL.050 Recording of flight time
- − AMC1 FCL.050
- − SFCL.050 Recording of flight time
- − AMC1 SFCL.050
- − BFCL.050 Recording of flight time
- − AMC1 BFCL.050

0.3 Purpose of this GM/INFO

The purpose of this GM/INFO is to establish which formats of logbook are accepted by FOCA to be used to log and submit flight time, including paper and electronic formats.

Part FCL.050 specifies fhe following:

The pilot shall keep a reliable record of the details of all flights flown in a form and manner established by the competent authority.

AMC1 to FCL.050 is applicable and binding. It specifies in *(c) Format of the Record*, that electronic/digital logging is allowed, if the specified format of this AMC is complied with.

0.4 Scope

This GM/INFO specifies:

1. FOCA general requirements for logbooks
2. Conditions to seek acceptance of a digital logbook intending to submit datasets to the digital license application system dLIS.

1   Logbook formats acceptable by FOCA

Pursuant to FCL.050/SFCL.050/BFCL.050, a pilot shall keep a reliable record of all hours flown. The competent authority shall establish the form and manner that is acceptable.

FOCA as competent authority establishes the following forms and manners of a pilot's logbook to be acceptable:

1.1   Paper version in the format as established in AMC1 FCL.050; submission to FOCA for license applications shall be in the form of a pdf attachment signed in handwriting page by page by the applicant

1.2   Electronic book: an industry electronic logbook can be used, provided that it meets the requirements of AMC1 FCL.050; submission to FOCA for license applications shall be in the form of a pdf extract compliant with AMC1 FCL.050 and signed in handwriting page by page by the applicant

1.3   FOCA accepted digital logbook: an industry electronic logbook that has been accepted by FOCA as per Chapter 3 and is listed on the FOCA Website; submission to FOCA for license applications shall be in the form of a dataset sent from the applicant to the dLIS license application system.*

Note*: the datalink will be available at the end of 2024 only. In the meantime, a pdf format can be used.

2   Conditions for acceptance of a digital logbook

A digital logbook (in this text also "tool") may be used to log flight time electronically and generate experience records (exports / print outs) for the attention of the competent authority.

The following conditions shall be fulfilled before FOCA approves a digital logbook:

2.1   Basic Requirements

1. A copy of all data shall be stored in at least one location outside of portable devices, e.g. on a secure server.
2. All data shall be recoverable in case all portable devices of the pilot are lost or stolen, especially in the case of an accident.
3. User identity shall be verified at the least through a confirmed email address. Their basic data (forenames, surnames, date of birth, licence number, address) shall be saved in the user account and included in exports / print outs.
4. The following aircraft categories shall be supported with their specific properties as defined in Part-FCL: aeroplane, helicopter, sailplane, balloon.
5. Flight entries and FSTD (Flight Simulation Training Device) session entries shall be supported with their specific properties as defined or implicitly required in Part-FCL.

2.2   Format of the Record and Supported Values

1. All data relevant to the evaluation of licence and endorsement eligibility according to Part-FCL as well as national Swiss attachments shall be tracked electronically in a way that can be processed and evaluated digitally.
2. The format of record shall include at least the properties (table columns/fields) defined in Part-FCL. The properties for sailplanes and balloons shall be adapted and adjusted for these categories.
3. Additional entry attributes shall be tracked electronically in a way fulfilling position 1 in this list. As a minimum the following attributes shall be supported: skill test; proficiency check; operator proficiency check; operator line check; language proficiency check; refresher training; training flight; familiarization; difference training; ZFTT; aerobatic privilege; launch privilege; cloud flying privilege; course completed; instruction training course; demonstration of the ability to instruct; solo; cross country; series of flights; towing; low visibility landing (including type); sea landings; mountain landings for aeroplanes (including ski or wheels) and, if applicable,

helicopter operations HESLO1-4 and HEC1-2 including number of cycles, as used in Helicopter Pilot Training (https://www.bazl.admin.ch/dam/bazl/en/dokumente/Fachleute/Flugverkehr/Flugoperationen/flugbetriebe1/f_helikopter/pilot_training_heslo_hec.pdf.download.pdf/Pilot_Training_HESLO_and_HEC.pdf).

4. Pilot functions required for licence and endorsement eligibility according to Part-FCL shall be supported: PIC/PICUS/SPIC, Dual, Copi, Instructor on pilot seat/on jump seat/supervising/as examiner.
5. Special properties for sailplanes like the launch method shall be supported.
6. Special support shall be provided for TMGs and powered gliders which can be logged in the categories aeroplanes or sailplanes as specified in Part-FCL.
7. Time of day entry shall be possible in both UTC and local time, with default UTC. Any exports / print outs shall indicate clearly if an entry is made in local time.

2.3   Integrity of the Record

1. Any values, entered by the user, imported or calculated by the tool, shall be validated to be of the correct type and in the correct range (e.g. correct dates; times of day; durations). Data shall be saved in structured data stores with corresponding data formats and not just as text (with the exception of pure text values like PIC name, remark, etc.).
2. Aircraft shall be selectable from a common database either provided or supervised by the provider. The aircraft properties shall include as a minimum its registration, model, ICAO designator, variant (where applicable), pilot mode certification (where applicable), engine type and number, hot-air balloon group. Several entries for the same registration shall be supported, in case a registration is reused or the variant is changed during the lifetime of the aircraft. The same shall apply for FSTD, including the type of device (FNPT, FFS, etc. including level).
3. Airports shall be selectable from a common database either provided or supervised by the provider. Only valid ICAO codes for airports or a no location indicator shall be selectable. If no location indicator is specified the name of the landing aerodrome or place shall be entered in a free text field.
4. Flight time as well as all other time values (single pilot, multi pilot; single engine, multi engine; pilot function; operational conditions; etc.) shall be calculated automatically.
5. The automatically calculated time values may not be editable for the user with the exceptions provided by Part-FCL (series of flights; relief pilot; etc.). Such edits shall only be allowed when the corresponding attribute (see above) is applied to the entry. The modified value may only reduce the automatically calculated value.
6. All data shall pass a rigorous plausibility, completeness and correctness validation on entry by the user; import from external sources e.g. files; and on saving in the data store. Even manual entry on data store level e.g. on a server may not allow the entry of incorrect or inconsistent data.
7. Any alteration of values relevant to the experience of the pilot shall be traceable (change log). The tool shall prevent the user from editing or tampering with the change log. The change log shall be an integral part of any exports / print outs. An exception of this rule is allowed for a period of 48 hours after the initial entry is made.

2.4   Entry Signatures

1. Entries shall be signable by instructors, examiners, ATO/DTO, HOT, airports and other parties for the confirmation of fulfilled requirements, passed tests and checks, completed courses, etc.
2. Both single and multiple entries shall be signable at once.
3. Supported signature formats shall be:
    a. signing on a device screen and saving the signature as an image; or
    b. any format accepted officially by the Swiss Federation, when such are defined.

The tool shall be prepared to add support for new formats, shall the Swiss Federation introduce the official support of such.

4. The tool shall prevent the user from tampering with the signature.
5. Any alteration of values relevant to the experience of the pilot shall invalidate the attached signature automatically.
6. Entries requiring but missing a signature (skill test, proficiency check, etc.) shall be clearly indicated on any exports / print outs.

2.5   Exports / Print Outs Presented to FOCA or Its Representatives

1. The complete experience of the pilot as well as periods relevant for revalidation of licences or endorsements shall be exportable in a printable format.
2. The export / print out shall include as a minimum:
   a. the data defined in AMC1 FCL.050;
   b. any applied attributes according to **Format of the Record and Supported Values**;
   c. any signatures according to **Entry Signatures**; and
   d. a complete change log according to **Integrity of the Record**.
3. These exports / print outs may be attached to the corresponding form and handed in to FOCA when pilot experience has to be validated, e.g. for new licence/endorsement or endorsement revalidation.

3   Digital logbooks accepted by FOCA

A list of all digital logbooks accepted by FOCA is published on FOCA website.

All tools listed therein can be used by FOCA issued licence holders as per Chapter 1.3.

In order to qualify as a FOCA accepted digital logbook, an electronic log book provider shall apply for acceptance. The acceptance process consists of:

3.1   Declaration of conformity
The applicant shall issue a declaration of conformity with the terms of this GM/IFO and in particular with the requirements of chapter 2. A sample declaration form is available on request.

3.2   Subjective testing
The applicant shall provide to FOCA a test user account free of charge; FOCA will conduct a cursory review of the software behavior; in case of questions, the applicant shall provide FOCA with the necessary clarification. The applicant shall test his software against a test environment of dLIS when new versions of the API are released.

3.3   Data format and testing
Upon completion of 3.1 and 3.2, FOCA will provide a standardized data format for direct submission of relevant flight hours into the dLIS license application system; the data transfer will be tested by FOCA.

3.4   Acceptance letter
On completion, FOCA will issue an acceptance letter to the provider subject to certain conditions, and list the product as FOCA accepted digital logbook on its website

The request for acceptance shall be submitted with product details and intentions to:

pel-inspector@bazl.admin.ch

All costs concerning the test and acceptance process shall be carried by the applicant. FOCA may require periodical reviews of the correctness of the tool operation. FOCA may withdraw the acceptance of a software if necessary.