

Approval document for an IGC Position Recorder



Issuing Authority: Irish Gliding and Soaring Association
Gowran Grange Airfield
Punchestown, Naas, Co. Kildare

Date of effect: 1st February 2014

References:

- A. FAI Sporting Code Section 3 (Gliders and Motor Gliders) (SC3)
Particularly: SC3 Appendix A to Chapter 4 on Position Recorders
- B. Annex B to the Code (SC3B), Glossary items on Position Recorder and Validation,
and paras 1.7, 2.1.1.2, 2.2.2.
- C. Annex C to the Code (SC3C), particularly para 6.1 and 6.2, also 1.1, 1.5, 3.3.
- D. Specification for the IGC file format, Appendix 1 to
the Technical Specification for IGC-approved Flight Recorders

1.1. This document authorises the use of the GPS recording device described in para 2 for use as an IGC Position Recorder (PR) for flights under the jurisdiction of the above NAC under the rules and procedures for PRs in the FAI Sporting Code Section 3 (Gliding), in particular under References A-D above. At the date of publication of this document, Reference A allows IGC Position Recorders to be used for flights for Silver and Gold IGC Badges.

1.2. This document covers only the PR recording function and the data in the IGC-format file that is downloaded from it (Reference D and 3.3 below). Other functions in the PR and other modules that can be connected, are not the responsibility of the NAC or IGC.

Type of IGC Position Recorder

2.1. Name of IGC Position Recorder: FlyWithCE FR300

Manufacturer:	Name:	FlyWith CE
	Address:	Ulica Lojzeta Hrovata 9, 4000 Kranj, Slovenia
	email:	uros.podlogar@flywithce.com
	web:	www.flywithce.com
	Contact:	Uros Podlogar s.p.

2.3. Technical Specifications

General	
Dimensions	78 mm x 28 mm x 18 mm
Weight	32 grams
RoHS	yes
Warranty	1 year
Hardware	
GPS	V1: 65-channel GPS receiver V2: 48-channel GPS receiver
Antenna	built in antenna
Communication	USB 1 and 2 built in connector (no cable needed)
Battery	built in 450mAh rechargeable battery
Battery operation	>10 hours
Flight recorder	
Recording time	71 hours with 1 s interval rate
Recording interval	adjustable between 1 – 30 seconds
Recorder data	date and time, position, GPS altitude, ground speed, pilot event
IGC certification	no



3. Compliance with the IGC Sporting Code

This type of IGC Position Recorder complies with the Sporting Code requirements for Position Recorders (References A-D above) as follows.

3.1. The WGS84 ellipsoid Earth Model is used for all fixes in the IGC file (SC3 Chapter 4 para A2 refers).

3.2. All fixes in IGC files downloaded from this Recorder are all obtained from real-time GPS data, and no predicted fixes are recorded (SC3 Chapter 4 para A3 requirement).

3.3. The downloaded IGC file can be electronically validated at any time to ensure that the file is identical to when it was initially downloaded (SC3 Chapter 4 para A6 requirement).

3.3.1 The Download program/method is:

The FlyWithCe Logbook application (version 4.30 or higher) is used for downloading the IGC file from the FlyWithCe device to a PC. During download the PC has to be connected to the Internet, because the FlyWithCe webserver is used to sign the downloaded flight and generate the security record so that the IGC file can be validated.

If an Internet connection is not available, the G (security) record is not generated in the IGC file and the electronic Validation check will fail. However, the process can be repeated later, when an Internet connection is available and the G record will be added to the IGC file.

Any flight declaration has to be entered before the flight. The user can change the flight declaration later, but this or any other change to the IGC file after flight will cause it to fail the electronic Validation check. The Program FlyWithCE Logbook is available on the website; <http://www.flywithce.com/download.html>

3.3.2 The file validation program to be used with such downloaded IGC files is:

VALI-FWC.EXE and associated DLL are available from the manufacturers download page;

<http://www.flywithce.com/download.html>

3.4. Recording of Altitude. References: SC3 Chapter 4 para A7, Annex C to SC3 para 6.2c, Reference D.

3.4.1 Altitude data from this IGC PR - for accurate measurement is from figures in the IGC file for:

GPS altitude above the WGS84 Ellipsoid, applying the margin over Pressure Altitude requirements as specified in the Sporting Code (Reference A), currently 100 metres due to the different characteristics of GPS and Pressure Altitudes.

3.4.2 The IGC file – Field for Pressure Altitude. In IGC files from this type of Position Recorder, the field for Pressure Altitude is recorded as Zero, in accordance with SC3C para 6.2 and Reference D,

4. **Engine Recording**

This PR is not able to detect the operation of a Means of Propulsion (MoP).

For gliders with a MoP, SC3 4.5.4 and SC3C 12.1 apply and one of the following must be carried out:

- 4.1 Carry a separate device that records MoP use and is acceptable to the NAC or:
- 4.2 Seal the MoP in such a way that the Official Observer can detect if it has been operated, or:
- 4.3 Disable the MOP prior to flight to the satisfaction of the Official Observer and NAC

5. **Mounting in the Glider.**

5.1 This Position Recorder may be mounted anywhere in the glider.

5.2 The Official Observer must be able to show that it was in the glider for the flight concerned, and that the IGC file used to assess the flight came from it.

6. **Authority.** This approval document is issued by the Irish Gliding and Soaring Association

Signature

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