

British Gliding Association

Position Recorder for Silver and Gold Badge Flights

Approval Document: QSTARZ BT-Q1000X

Dated: 15 July 2010

1. Introduction

- 1.1. This document authorises the use of the GPS recording device described below, for use as a Position Recorder in UK under the rules specified in the FAI Sporting Code Section 3 (Gliders), in particular Chapter 4 and the Appendix to Chapter 4. These rules specify the circumstances in which a Position Recorder may be used for the validation of a Silver and Gold Badge performance only (The use of an IGC-approved GNSS Flight Recorder, if available, for such flights is unaffected).
- 1.2. This approval covers only the instrument itself and any operational requirements for its use. The process for attempting a badge flight and providing the necessary evidence to the BGA's FAI Certificates Officer is provided in the Sporting Code and in other BGA documentation.

2. Equipment Approved

- 2.1 Name of equipment: QSTARZ BT-Q1000X
Manufacturer: Qstarz International Co., Ltd.
6F-2, No. 160, Ming Chuan E. Rd., Sec. 6,
Taipei 114, Taiwan, R.O.C.

Info@Qstarz.com

- 2.1. Details of this instrument can be found at:

<http://www.qstarz.com/Products/GPS%20Products/BT-Q1000X-F.htm>

- 2.2. This approval applies to the flight data recorded internally in the instrument and downloaded directly in the form of an IGC format file with a verifiable security record. See para 3.2 for information on the secure download and verification program.
- 2.3. It has been determined that, in order to comply with the Sporting Code for Position Recorders:
 - 2.3.1. This device records only in the WGS84 datum (ellipsoid Earth Model) and that other Datums are not selectable.
 - 2.3.2. Fixes in the downloaded IGC file are always derived from GPS data. No predictive fixes are recorded without GPS data.
 - 2.3.3. No pressure sensor is fitted, and therefore this device may be used only to demonstrate position and flight continuity.
 - 2.3.4. The downloaded IGC file can be electronically validated at any time to ensure that the file is identical to when it was initially downloaded.

3. Approval Limitations

3.1. This equipment is approved as a Position Recorder for Silver and Gold Badge Flights only, as specified in the documents referenced in Paragraph 1 and Annexes B and C to the Sporting Code for Gliding.

3.1.1 GPS altitude may only be used to demonstrate flight continuity, and not as evidence for any height gain claim or to demonstrate other height related evidence such as start and finish heights. For such evidence, a separate approved and calibrated barograph must be carried.

3.2. This device is not able to detect the operation of a Means of Propulsion (MoP). Gliders with a functioning MoP must do one of the following:

3.2.1. Disable it prior to flight to the satisfaction of the Official Observer

3.2.2. Carry a separate device acceptable to the Official Observer and the FAI Certificates Officer that records MoP use, or

3.2.3. Seal the MoP in such a way that the Official Observer can detect if it has been operated.

3.3. It should be noted that the name "Flight Recorder" does not imply that this device is approved by IGC as a secure Flight Recorder.

4. Operational Requirements

4.1. This equipment may be mounted anywhere in the glider, however the Official Observer must be able to guarantee that the device was present in the glider throughout the flight for which the performance is claimed, and that the downloaded IGC flight file used to evaluate the flight came directly from that device.

4.2. Files downloaded from this equipment must be in IGC file format (so that they can be read unmodified by the SeeYou evaluation program) and must contain a security record that passes later validation to show the data has not been changed since download. The download and validation program Max-punkte.exe can be found at:

http://www.maxpunkte.de/MaxPunkte_5_1_Setup.exe

5. Authority

5.1. This approval has been issued by the British Gliding Association to permit the use of the specified equipment to be used for the validation of claims for Silver and Gold Badges (for which an IGC-approved Flight Recorder may also be used).

5.2. Any questions in regard to this document should be addressed to Chairman, BGA Competitions Committee whose contact details can be found on the BGA website.

References: Sporting Code for Gliding, main volume and annexes B and C.