



Date: 13 August 2026

## **GPS Loggers and Live Trackers — Pilot Good Practice Guide**

### **Why this matters**

GPS loggers and live trackers are now the primary means of scoring many of our flying competitions.

**If a logger does not produce a usable track after the competition flight, we have no means of scoring the flight, and it may have to be recorded as Not Observed.**

Reliable logging is therefore a shared responsibility between the **pilot, crew and scoring officials**.

### **1. Approved Equipment**

Only GPS loggers and live trackers that have been tested and approved for competition use may be used for scoring.

The current list of approved equipment is available on the FAI GAC website:

<https://gac.fai.org/administration/approved-equipment/>

### **Important — Canmore loggers**

Some Canmore models use interpolation to keep GPS points on a road. These models are **not suitable for flying competitions**, even though they may work perfectly well for other applications.

**Canmore loggers must not be downloaded using Canmore software.** This produces a timing error in the downloaded file.

Canmore loggers must be downloaded using FFA\_SkyTraq\_V6-0.1.5.exe.

### **2. Test Your Logger Before the Competition**

Older loggers generally use replaceable batteries, which can have a useful life of around five years.

We do not yet have sufficient experience with the long-term life of the integral rechargeable batteries used in some newer loggers and live trackers.

### **Recommended annual test**

The owner should test all their loggers **once a year** with a **six-hour battery-life test**.

The logger should be switched on and left recording for at least six hours. Check that it has recorded a continuous track for the entire period.

**If a logger cannot record continuously for six hours, it should not be relied upon for a future competition.**

### **3. Use Two Loggers Per Flight**

It is strongly recommended that each crew use **two independent loggers** on every competition flight.

For maximum reliability:

- The two loggers should not be the same age.
- Avoid using loggers with sequential serial numbers.
- Where possible, use two different makes or models.
- A Live tracker and a logger are recommended.
- Designate the newer logger as the **primary scoring logger**.

Using two independent loggers provides valuable redundancy if one fails during the flight.

### **4. Position and Orientation of the Loggers**

GNSS signals received inside an aircraft can be significantly weaker than those received with a clear view of the sky.

For reliable reception:

- Place the logger where it has a **\*\*clear view of the sky\*\***.
- Orient the logger with its antenna facing towards the sky, as specified by the manufacturer.
- Avoid placing a logger on the back seat underneath the wing.
- Avoid placing the antenna at more than approximately **\*\*45°** from the sky**\*\***.
- **Do not stack loggers on top of each other.**
- Keep separate loggers at least **100 mm apart** where practical.
- Make sure each logger is securely positioned and cannot fall off the glare shield or otherwise move during flight.

Good positioning is particularly important because a logger can appear to be operating normally while recording an incomplete or poor-quality track.

### **5. Make Sure Both Loggers Are Recording**

Add this check to your normal **pre-flight, in-flight and post-flight procedures**.

#### **Before take-off**

Confirm that **both loggers are switched on and recording** before the aircraft takes off.

#### **During the flight**

If practical, check that both loggers continue to indicate that they are recording.

#### **After landing**

**Do not switch either logger off immediately.**

First confirm that both have continued recording and have a usable track extending through the competition flight.

Check the manufacturer's operating instructions to determine which indicator lights show that the logger is recording.

## **6. Protect Your Loggers from Excessive Heat**

GPS loggers contain electronic components and batteries that can be affected by high temperatures.

Some equipment may shut down when its internal temperature becomes excessive, and temperatures of around **60 °C** can be sufficient to cause problems with electronic equipment.

This is particularly important when loggers are placed on the glare shield in direct sunlight.

### **Good practice**

**Only switch the loggers on and place them in their operating position as part of the pre-flight procedure.**

Do not leave them sitting in direct sunlight unnecessarily before the flight.

Black equipment can become particularly hot when exposed to direct sunlight.

## **7. Travelling with Rechargeable Batteries**

Airline and dangerous-goods regulations place restrictions on the number and type of devices containing lithium batteries that may be carried by passengers or placed in baggage.

**Check your airline's current requirements before travelling to a competition.**

Remember to include all your rechargeable devices, such as:

- Mobile phones
- GPS loggers and live trackers
- Laptops and tablets
- Power banks
- Other rechargeable electronic equipment

Do not assume that the rules are the same for every airline.

## **8. If You Suspect a Problem, Tell the Scoring Official**

If you suspect that one of your loggers has stopped recording or has developed a problem during the flight, **please report it to the scoring official as soon as possible.**

Do not wait until the end of the scoring process.

Early information can save the scoring official considerable time in diagnosing the problem and may help to recover a good downloaded track for scoring.

**A suspected logger failure is not something to hide. Reporting it early may help us solve the problem.**

## **9. Questions and Contributions**

If you have questions about GPS loggers, live trackers or their use in competition, or if you have information that could improve the reliability of our equipment and procedures, don't hesitate to get in touch with me: [frank.eckard@mweb.co.za](mailto:frank.eckard@mweb.co.za)

Yours sincerely,

**Frank Eckard**