

IGC GNSS Flight Recorder  
Approval Committee (GFAC)

UPDATE TO IGC PLENARY

Additions to agenda item 6.2.6 dated 10 January

Ian Strachan, GFAC Chairman

# IGC GNSS Flight Recorder Approval Committee (GFAC)

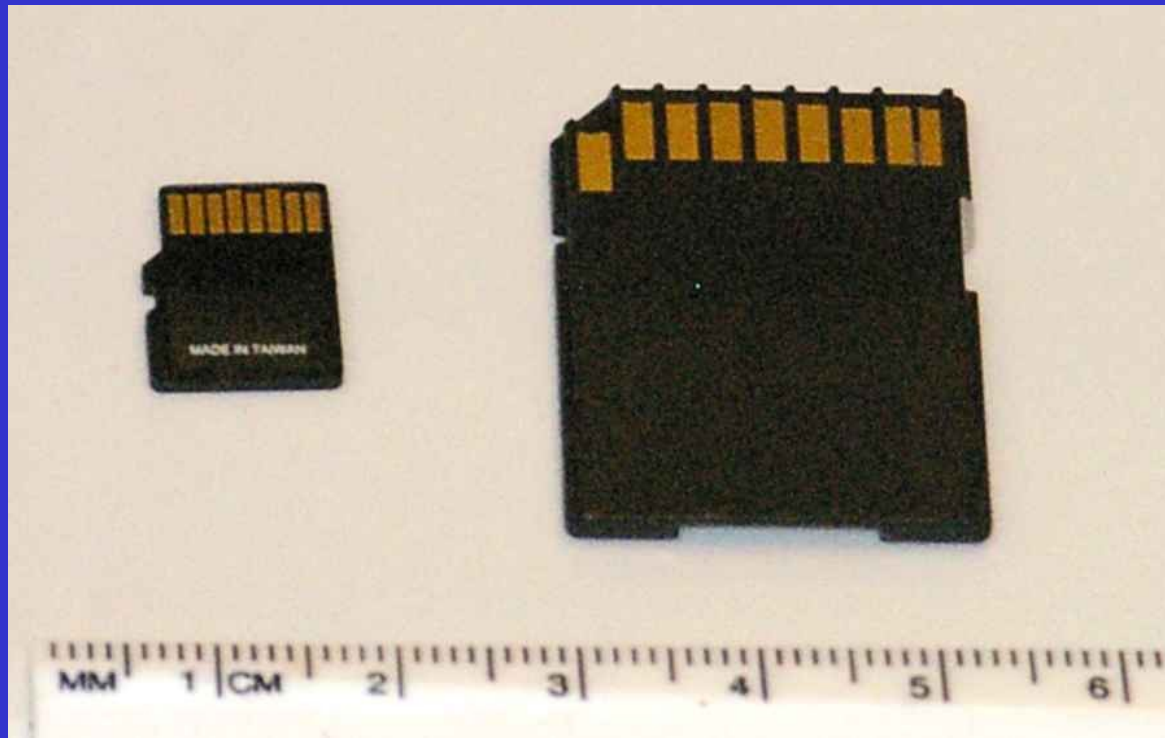


## GFAC testing Spring 2008



1. Flarm-IGC
2. LX8000
3. DSX T-Advisor
4. IMI Erixx
5. Triadis Altair
6. Nielsen-Kellerman ClearNav

# Trends



IGC flight data file  
auto download to SD card in recorder

# IGC flight file data

Check data files with the  
free IGC electronic Validation program

Ensures file comes from the correct recorder  
and  
has not been altered after download

Particularly for Championships (SC3A)

# IGC-approval Documents

## 5 Updates Issued:

1. 20 January 2008 - Garrecht Volkslogger
- 2-5. 20 February 2008 - Filser DX50, LX20, LX21 & LX5000 recorder approvals updated and changed to LX Navigation  
(Filser is now part of Funkwerk Avionics and these recorders are no longer supported by them. LXN was the original Design Authority)

# Results from GFAC tests

## Horizontal Accuracy

Average (50%) within 11.5m

Better than radar! (ADS-B & transponders)

99% within 27m

95% within 20m

90% within 18m

70% within 15m

60% within 13m

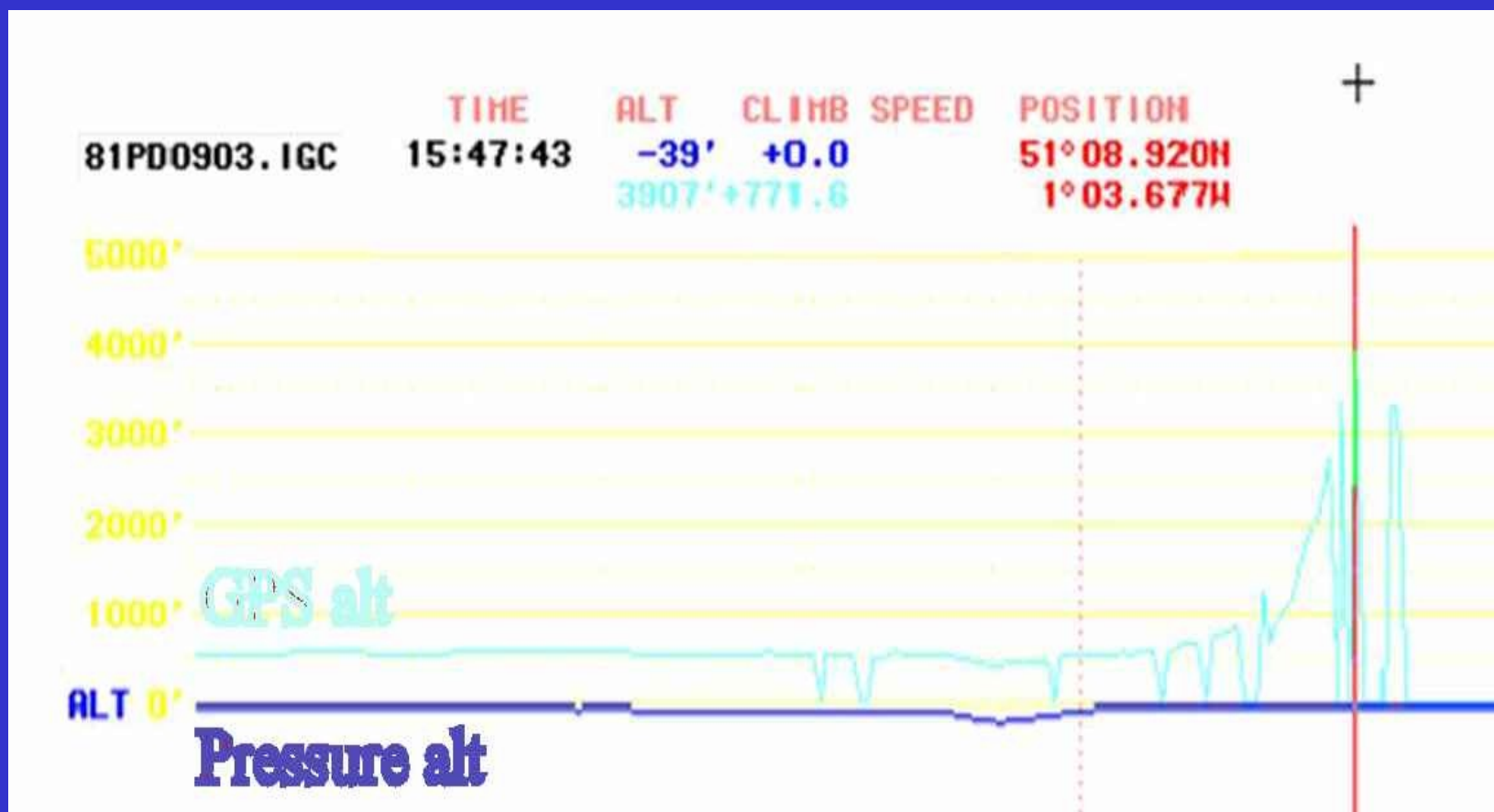
# Results from GFAC tests

GPS altitude as recorded in IGC files

Significant errors continue to be found  
in GPS Altitude

when Lat/Long fixing continues to be OK

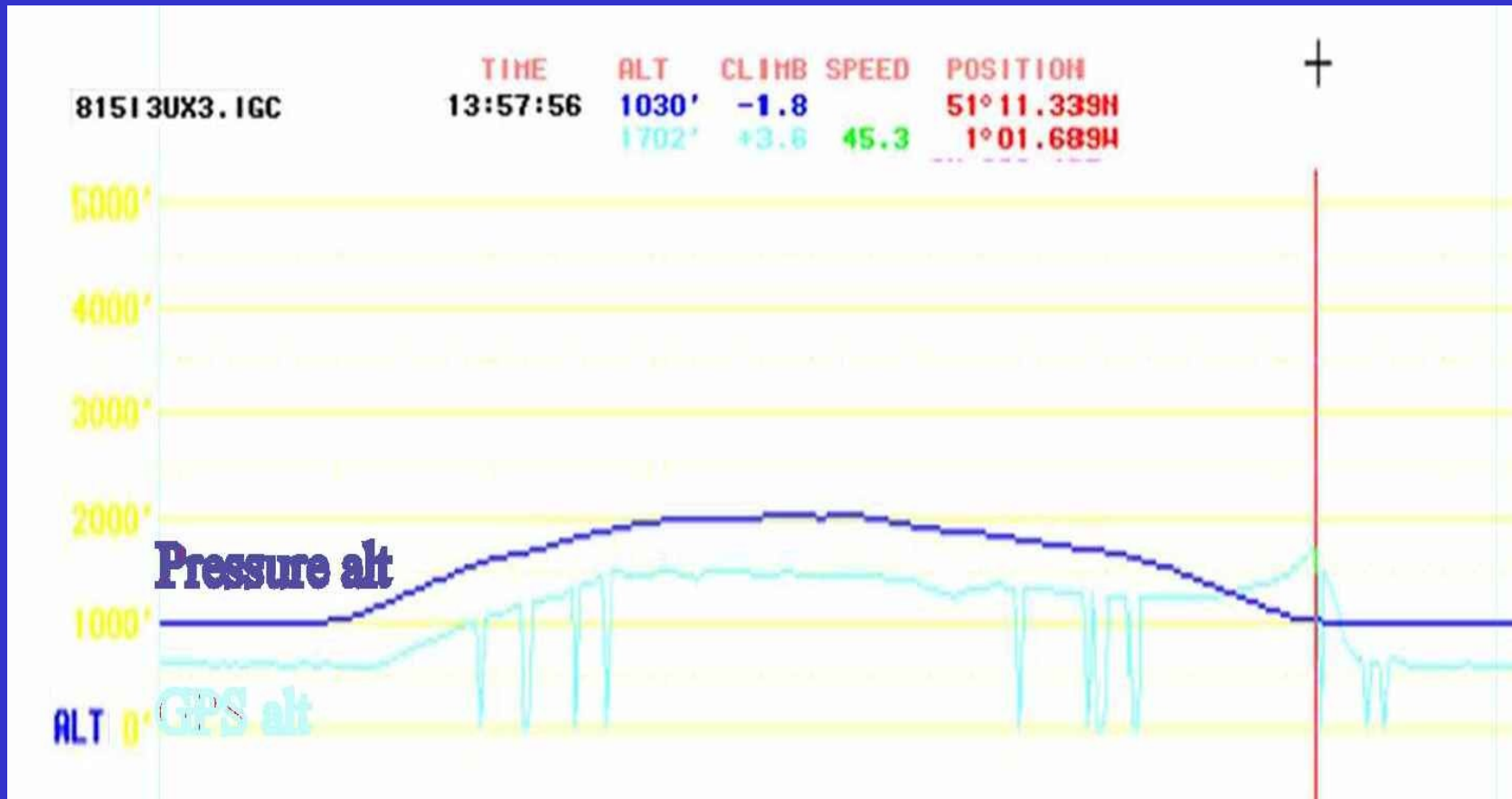
# Ground test from a Car drive 25 Jan 2008



Start: GPS alt 500 ft above Pressure Alt  
10 mins later: GPS alt 4000ft above Pressure Alt



# Winch Launch 5 Jan 2008



Start: GPS alt 400 ft below Pressure Alt  
10 mins later: GPS alt 600ft above Pressure Alt

# Commercial GPS for Gold & Silver

A political decision by IGC

GFAC position: Para 9 and Appendix 1 of GFAC agenda report

“Whatever is decided on COTS GPS should not devalue the existing IGC-approval system for Secure Flight Recorders

or

discourage manufacturers from designing secure recorders to the IGC Specification”

# FAI Matters

Formation of FAI Technical Commission  
on Navigation and Airspace (NAVAC)

First meeting 19 March 2008 in Paris

IGC Representatives Bernald Smith and Ian Strachan  
have been briefed by IGC Bureau

Need for Commission representatives on Technical  
Commissions to have same status as National Delegates  
(currently only have Observer status)

# FAI Commission on Navigation and Airspace (NAVAC)

## Agenda:

SatNav systems - review

Radar Transponders - avoid if possible

GNSS-based systems - Flarm & ADS-B

need for low-cost ADS-B for sport aircraft

Aircraft battery technology - review

Airspace - preserve for gliders

NAVAC Terms of Reference - agree

# GFAC Report - Conclusion

## Business is booming !



### GFAC testing Spring 2008



Nielsen-Kellerman ClearNav system



Triadis Altair recorder



IMI Erixx recorder

DSX T-Advisor Panel model

*Any Questions?*





1. GPS alt unlocks when Lat/long fixes continue
2. GPS alt when recorded is erratic  
(generally below pressure alt but sometimes above it)