# ADS-B INTEGRITY™
## ADS-B Out Integrity Test Application

COBHAM

Cobham AvComm

ADS-B INTEGRITY™, Cobham AvComm's new software application, controls the IFR6000 or IFR6015 Transponder Test Set and GPSG-1000 Positional Simulator to support Supplemental Type Certification (STC) and post approval testing for ADS-B Out equipment installations. For R&D requirements, the application will control the IFF-45TS/A MK XII/A Bench Test Set and the GPSG-1000 for ADS-B Out performance. A complete detailed ADS-B Out compliance report in FAA format will be generated showing Pass/Fail criteria.

## Features/Benefits

- ADS-B equipment installation verification

- Complete AC 20-165B fast and convenient reporting to identify installation issues

- STC support

- Eliminate post STC operational flights

- Coupled testing in the hangar or on the flight line, eliminates:
  - ✓ Open sky requirements
  - ✓ GPS repeater
  - ✓ Weather issues
  - ✓ Interference with ATC operations

- Saves time and money

## Accuracy and Integrity Performance Test (requires IFR6000 or IFR6015)

- Parameter checks per 20-165B (91.227) and FAA ADS-B Operation Compliance Report
- Mode S address validation (from GICB to ADS-B and against known problem values)
- ADS-B Out performance requirements for SIL, SDA, NIC/NUC, NACp, NACv
- Latitude/Longitude positional accuracy per bounds of NACp
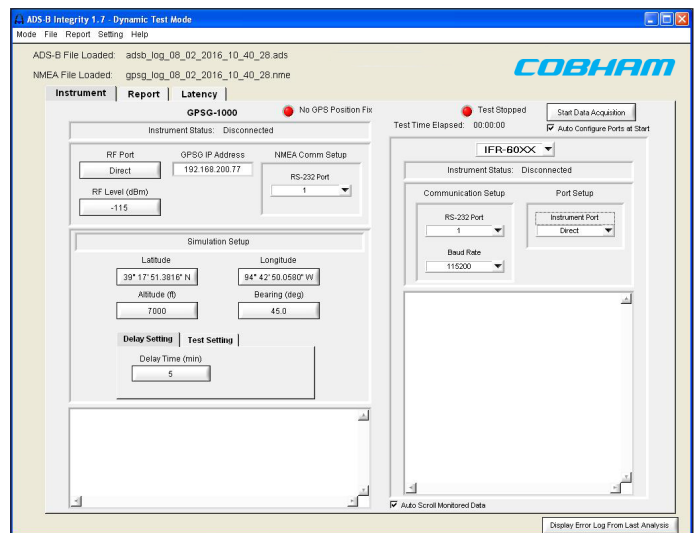- Emitter category reporting

## Positional Accuracy Test (requires GPSG-1000)

- Log of latitude and longitude positional data for evaluation of accuracy and integrity over a simulated flight path
- Exact simulated time and position information logged
- ADS-B squitter data received and logged
- Squitter positional data compared against coordinated simulation
- Logging and evaluation of SIL, SDA, NIC/NUC, NACp, NACv values in static or dynamic motion scenarios
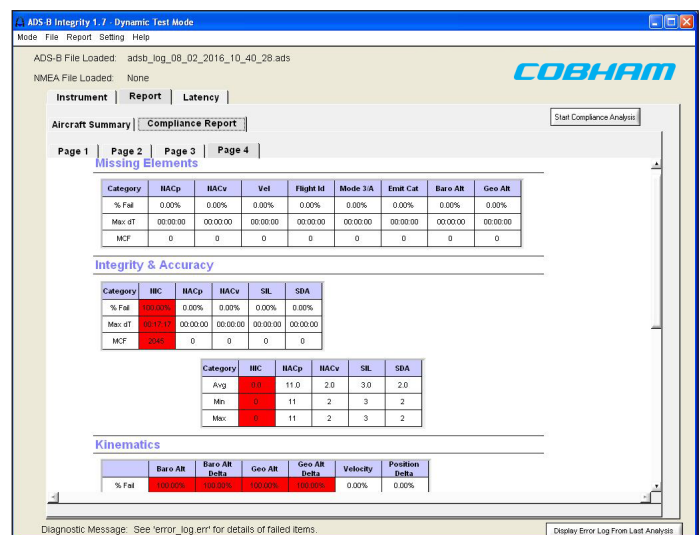- Logging of N/S, E/W Velocity data with reasonableness testing per bounds of NACv

## Application

Performance verification of:

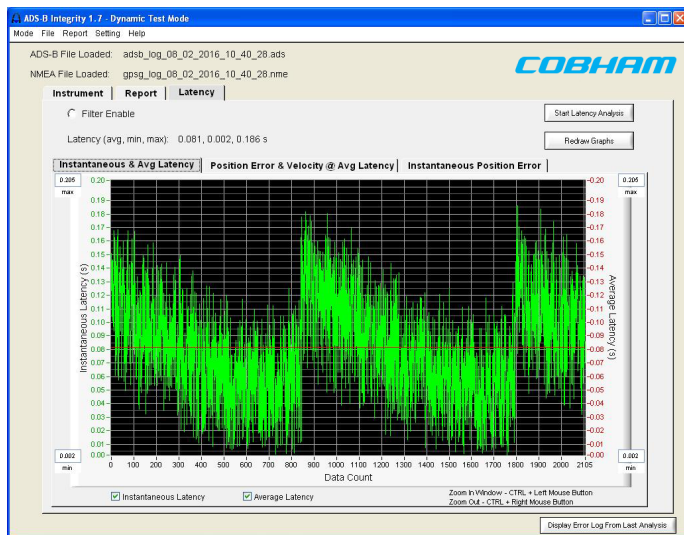ADS-B Transponders
UAT Transceivers
GPS Receivers



*Instrument Setup*



*Data analysis screen identifies compliance failures*

## Latency

Plots of instantaneous and average system latency, velocity at average latency, and instantaneous positional error based on linear track are available.



*Instantaneous Latency*

## PC Minimum Requirements

Windows® XP or Windows® 7 32-bit (or later)

CPU: Intel® Core 2 Duo P8400 2.26 GHz or equivalent

RAM: 2GB

Monitor: XGA (1024 x 768) or higher

Free Disk Space: 1GB

## Required Equipment for ADS-B Installation/Verification and Compliance Report

| Part No | Model | Description |
|---|---|---|
| 72422 *or* (72424 | IFR6000 *IFR6015* | Mode A/C/S Transponder/DME Test Set *Military version including E-TCAS and TACAN)* |
| 83411 | 6000OPT3 | ADS-B 1090 Mhz Option |
| 112795 | 6000OPT5 | UAT 978 Mhz Option (If applicable) |
| 140609 * | 6000OPT6 * | 6000OPT6 ADS-B Integrity Test Option* |
| 112350 | UC-584 Kit | UC-584 Coupler Kit Single Antenna |
| 87339 | GPSG-1000 | Twelve Satellite GPS Simulator |
| 140607 | GPSGOPT3 | GPSGOPT3 ADS-B Integrity Test Option |

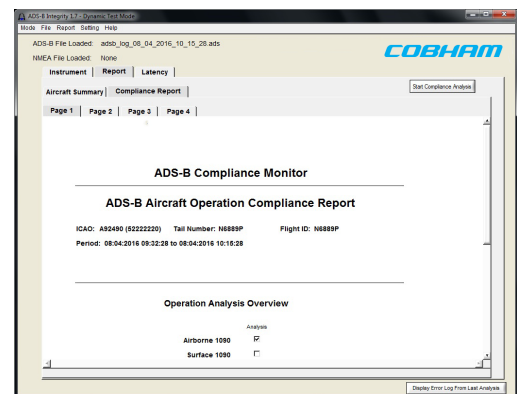*\* This option includes the ADS-B INTEGRITY™ app.*

## Order Information

ADS-B INTEGRITY™ app is included with the IFR6000/IFR6015 Option 6. The below options are listed to show what accessories are included.

| Order Number | Description |
|---|---|
| **140609** | **6000OPT6 ADS-B Integrity Test Option** |

*Standard Accessories*

| | |
|---|---|
| 140610 | CD, ADS-B INTEGRITY™ app |
| 140606 | Cable, serial str thru DB9 F/F |
| 108892 | USB to serial adapter |
| 140671 | CD, ADS-B adapter drivers |
| 11959 | Cable pouch |

| Order Number | Description |
|---|---|
| **140607** | **GPSGOPT3 ADS-B Integrity Test Option** |

*Standard Accessories*

| | |
|---|---|
| 140604 | Cable, ADS-B INTEGRITY™ |
| 121888 | Cable, Ethernet 7ft |
| 140599 | USB to Ethernet adapter w/ 3 port USB HUB |
| 108892 | USB to serial adapter |
| 140671 | CD, ADS-B adapter drivers |
| 11959 | Cable pouch |

| Order Number | Description |
|---|---|
| **140608** | **IFF45TS/A-OPT10 ADS-B Integrity Test Option** |

*Standard Accessories*

| | |
|---|---|
| 140610 | CD, ADS-B INTEGRITY™ app |
| 30050 | Cable, molded shield DB9 data Line |
| 140605 | Cable, ADS-B Integrity™ IFF-45TS |
| 108892 | USB to serial adapter |
| 140671 | CD, ADS-B adapter drivers |
| 11959 | Cable pouch |



*Generate a full detailed compliance report in FAA report format*

For further information please contact:

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