



Systems for General Aviation Flight Data Monitoring



Brian D. Morrison, President and CTO
(774) 248-4964 — bmorrison@ga-fdm.com

Flight Data Monitoring... and why its important

- Accidents are often preceded by unsafe behavior (pre-cursors)



- Airlines studied flight data, and used it to find adverse trends

- The result?
 - Airline accidents were cut by a factor of 4
- FDM reduced accidents, and saved lives and \$'s

Flight Data Monitoring... proven to reduce and avoid accidents

- Until now, FDM was felt too expensive for General Aviation (GA)

If we could detect dangerous low-altitude behaviors...

- GA accident rate > 50X higher than airlines

We could reduce and prevent GA accidents.

- Our goal is to improve GA safety and reduce accidents
 - Immediate access to *Data*
 - Analyze, validate, & classify, to assimilate *Information*
 - Review for pre-cursor events
 - Timely sharing of *Knowledge*

■ Affordable GA-Flight Data Monitoring

- Comprehensive (86–170+ parameter) rugged, affordable flight recorder
- Self-contained AHRS for non-glass-cockpit (legacy) aircraft and rotorcraft

■ Real-time embedded monitoring of engine (MOQA) and flight (FOQA) FDM events, plus ETMS

- Pro-active analysis to reduce and avoid accidents
- Timely knowledge, to support an effective SMS

■ Automatic data uploads, from aircraft to Internet to you upon landing

- AV-Mail and FD-Mail sent right from aircraft



■ Terrabyte relational database

- Web-centric analysis and reports
- FOQA/MOQA analysis tools
- Flight simfiles for replays
- GoogleEarth trackfiles
- Analysis graphs
- Comprehensive on-line reports
- On-line access from any browser



■ FAA-approved Part 135 automatic Engine Trend Monitoring System

- ETOPS-like focus on single-engine health

■ Skytrax for Automatic Flight Following, with real-time FDM

■ Interior and exterior Digital Video

- Optional Digital Audio for CVR



- **Real knowledge of accident causes**
 - **Significant cost savings**
- **Fewer accidents**
- **Enhanced safety**
- **Objective warranty data**
- **Early identification of product issues**
- **Valued connection with customers**
- **Customer/brand loyalty**
- **Avoided litigation prep and settlement costs**



- **Continuing aviation proficiency**
 - **‘Silent mentor’ for VLJs**
- **Reduced operating costs**
- **Increased engine Time Between Overhaul (TBO)**
- **Electronic logbooks**
- **Simplified maintenance (similar to On-Star)**
- **Comfort that plane is ‘talking to the factory’**
- **Enhanced resale value**
- **Peace of mind / safety**



Our Mission: Making flights safer, affordably

GA-Flight Data Monitoring

- Helps save money
- Highlights abnormal operations
- Detects adverse trends in normal operations
- Identifies accident precursors
- Assists in training and playback
- Helps modify behaviors

**GA-FDM : Using Today's Data to Make
Tomorrow's Flights Safer**

GA-FDM
Fly with Intelligence.™

Notes

