

Engine Trend Monitoring Systems (ETMS) and Flight Data Monitoring (FDM)



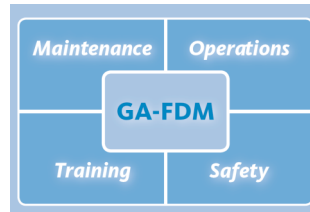
1. SATSair (www.satsair.com) was the first Air Taxi to obtain FAA approval for a Trend Monitoring program
 - a. SATSair operates a fleet of Cirrus SR22's from Virginia to Florida
 - b. Local FSDO approved Part 135 unrestricted operation in single engine / IFR conditions under Part 135.421 for SATSair's Engine Trend Monitoring program
2. Other fleet operators have proposed widely-varying trend monitoring programs to other FSDOs, but no particular standard has been established.
 - a. Air Taxi, Air Cab, Fractional Ownership, and Training fleets are growth-areas for NAS and are important to 21st century transportation goals. To operate SEIFR, they need to meet 135.421.

3. Alakai Technologies has advanced Engine Trend Monitoring capabilities by implementing a computer-based automatic Engine Trend Monitoring System (ETMS) that satisfies the requirements of Part 135.421. Alakai has received FAA STC SA03407AT for ETMS. ETMS capabilities include:

- a. Captures necessary data whenever trend conditions are satisfied
- b. Reduces pilot and maintenance personnel workload, and reduces costs
- c. Internet-Accessible Recorder (IAR™) for automatic uploads upon landing
- d. Avmail™, for MOQA and FOQA reports sent right to your PDA or iPhone
- e. Identifies potential engine and performance problems *before* they occur, by projecting engine trends and watching for exceedances
- f. Provides Flight Data Recorder, storing engine, flight and fault history for > 10,000 flight hours
- g. Creates flight visualization files for training and playback
- h. Provides web-based Trend Monitoring graphs and analysis logs



4. Alakai and CAPACG have teamed (visit www.ga-fdm.com) to expand ETMS into a full Flight Data Monitoring service. FDM is the methodology for *collecting, analyzing, and applying* flight data; in short, *pro-actively using today's data to make tomorrow's flights safer.*

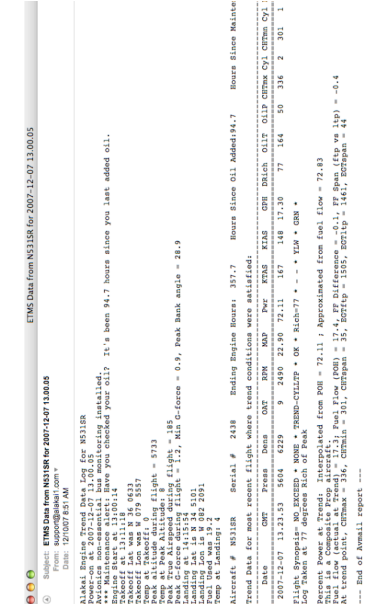


- a. Formal risk and resource management for airframes and fleets
- b. Early identification of adverse safety trends
- c. Encourages adherence to Aircraft Operating Manual limitations
- d. Automated monthly & on-demand reports, analysis, & comparisons
- e. Flight reconstruction and visualization for accident investigations
- f. Maintenance warnings for G-loading, flap overspeed, RPM, etc
- g. Exceedance and Fuel Management reports, E-debrief, and more
- h. Automatic file uploads, and flight briefs right to your handheld

5. FDM benefits include:

- a. Reduced aircraft operating and maintenance costs
- b. Reduced engine failures and costly overhauls
- c. Enhanced flight safety and accident investigations
- d. Improved on-time service and customer satisfaction
- e. Improved long-term engine performance and fuel economy
- f. Subject to regulatory approval, increased maintenance intervals
- g. Reduced manufacturer's warranty costs
- h. Reduced owners' insurance premium costs

Web-accessible flight data graphs



Avmail™ to your PDA or iPhone

