

A photograph of a modern, multi-story university building with a curved facade and large glass windows. The building is set against a blue sky with scattered white clouds. In the foreground, a paved walkway leads towards the building, and several people are walking. A palm tree is visible on the left side of the frame.

Where Have We Been; Where Are We Going?

Tom Weitzel
&
Dave Esser

Personal Introduction to the Programs



Some Good Help

- ✈ Carl Halford
- ✈ Don Hunt
- ✈ Doug Farrow
- ✈ Loren Rosenthal
- ✈ Sagem Avionics
- ✈ Roger Mason
- ✈ Applied Av Sci
- ✈ Graduate Students
- ✈ Han Wu
- ✈ Neil Roberts
- ✈ Heather Seltzer
- ✈ Aalap Trivedi
- ✈ Ethan Money
- ✈ Luis Bucheli
- ✈ Allen Cleveland
- ✈ Julie Wilson

ERAU COA Courses (DAB)

- ✈ **Master of Science in Aeronautics**
 - ✈ **MSA 610 – programs and international**
 - ✈ **MSA 615 – methodology and statistics**
- ✈ **Undergraduate**
 - ✈ **George Neal**
 - ✈ **Anthony Brickhouse**
 - ✈ **Gatekeeper**

Use of FOQA Techniques in General Aviation Training: Analysis of Feasibility

✈ Research Questions

- ✈ What difficulties are encountered while equipping general aviation aircraft with FOQA recording abilities?
- ✈ What difficulties are encountered in monitoring the data from FOQA equipped general aviation aircraft data?
- ✈ What information can be drawn from the collected FOQA data?

✈ Internal Grant

Fall 2006 Progress

- ✈ **Initially received support from all constituents**
 - ✈ **Guidance from FAA AFS-230 (Dr. Doug Farrow)**
 - ✈ **ERAU Administration (Dean COA, Chair of the Flight Department, Eagle Works)**
 - ✈ **Instructors' Union President (Joe Hanley)**
 - ✈ **External Expertise (Carl Halford)**

What Exactly is FDM?

- ✈ **Another name for FOQA** (Flight Operational Quality Assurance)
 - ✈ **Objective data from the airplane**
 - ✈ **De-identified and analyzed for trends**
- ✈ **AC 120-82: The AFS-230 blueprint for an authorized FOQA program**
- ✈ **The blueprint should work for an FAA-authorized GA FDM program**

The Complement to FDM

- ✈ **ASAP** (Aviation Safety Action Program)
 - ✈ Subjective data from operating personnel (pilots, mechanics, etc.)
 - ✈ De-identified and analyzed
- ✈ **AC 120-66B: The AFS-230 description of the program and its MOU**
- ✈ **Has been referred to as “ASRS on Steroids”**

Programs Working Together

- ✈ **FDM – what was done**
 - ✈ **Airplanes**
 - ✈ **Flight Training Devices (FTDs)**
- ✈ **ASAP – why it was done**
 - ✈ **Pilots**
 - ✈ **Mechanics**
- ✈ **ERAU COA: FDM combined with ASAP**
- ✈ **The first collegiate version of an SMS**

Graduate Research Projects (GRPs)

- ✈ **Analysis of Current Hardware and Software for GA – Aalap Trivedi**
- ✈ **Analysis of the GA environment and acceptability of FDM – Heather Seltzer**

Next Phase: Spring 2007

- ✈️ **Acquire hardware and software**
- ✈️ **Install on aircraft**
- ✈️ **Begin data collection**
- ✈️ **Review data at the end of the Spring Semester – Ethan Money**