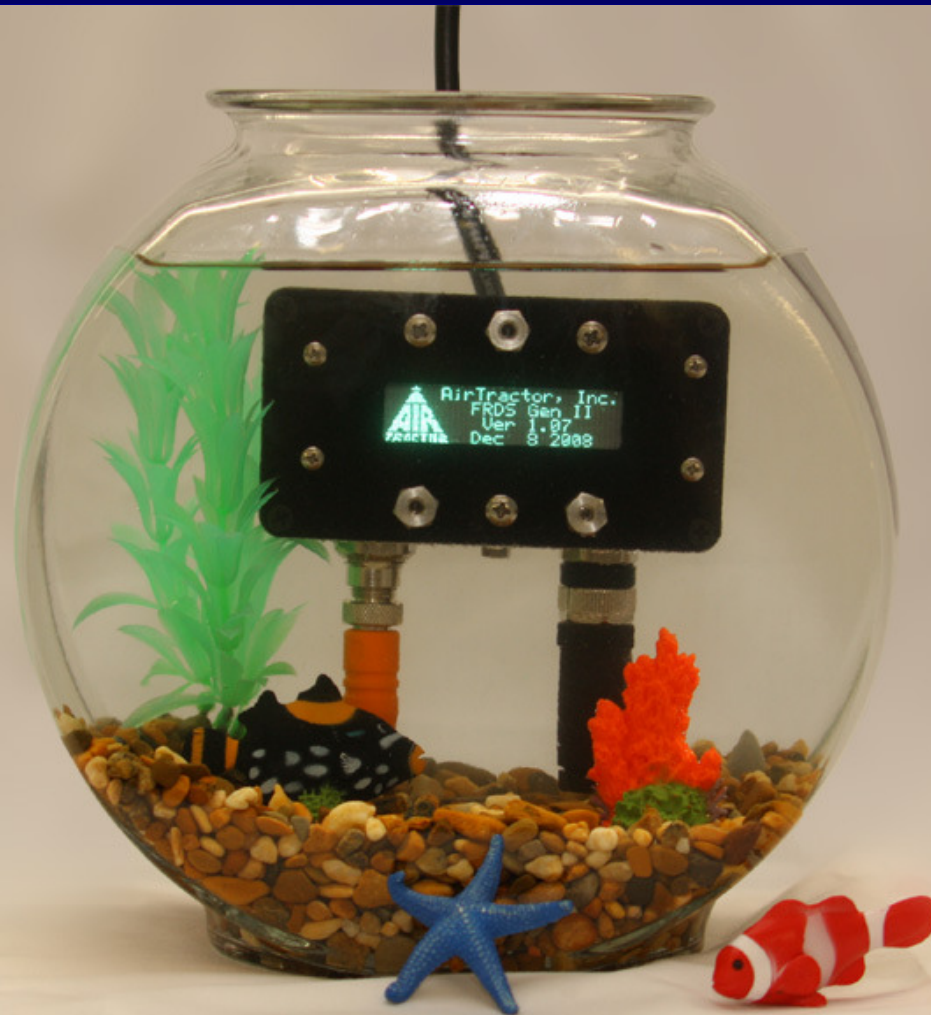


FRDS GENII

Status and development items

Victor Trotter



Background

- In 2006, 43 aircraft in Spain were upgraded in the field. Some had been in service for over 10 years
- Numerous problems were identified and repaired in the field
- Problems in all cases were due to the following:
 - Bad hydraulic pump
 - Contamination in the hydraulic system
 - Moisture and corrosion related (connectors)
 - Vibration Related
 - Extremely harsh environmental conditions
 - Routine maintenance needed
 - Complicated repair/troubleshooting procedures

FRDS GENII

- Based on over 15 years of field experience Air Tractor pursued a new ground up design to minimize or eliminate the following
 - Pump failures
 - Corrosion and vibration problems
 - Downtime
 - Training requirements for mechanics and operators
 - Wasted time diagnosing problems with electrical components, wires, and hydraulics

The result

- A dual redundant 93% efficient hydraulic pump
 - Shipping on GENI production aircraft now
 - Available as a retrofit kit now
 - Ships standard on GENII FRDS equipped aircraft
- FRDS GENII System
 - Ground up dedicated design (electronics & hydraulics)
 - Three redundant systems to ensure that the doors open when commanded
 - Vibration and corrosion hardened
 - Hydraulics are much simpler
 - New hopper contents sensor (non-contact)
 - Sealed digital side loader gauges
 - Enhanced accuracy and faster door speed
 - Much higher performance than GENI systems
 - Lower maintenance, built in hydraulics and electrical diagnostics

Summary

- GENII FRDS is:
 - Extremely Reliable
 - Hardened against moisture and vibration
 - Easy to operate
 - Easy to maintain
 - Shipping Jan 2009



