

Customer Focus

Date: August 2003

Vitals:

Aerophile Racing

Owners: Ray Debs & Curtis Weinman

Aircraft: Experimental Cassut Formula 1 Air Racer

Airspeed: 0 - 230mph

Purpose: Go fast!

Project: Data collection and real-time performance monitoring of an experimental home built racing aircraft



Ray Debs and Curtis Wienman like to go fast. In order to help them achieve that, RCATS assisted the Aerophile team at Reno 2003 with a telemetry system for their Formula 1 that could provide warning signs of engine vitals along with recording of data for post flight analysis.

Installation of the RCATS unit was performed so that multiple temperatures, airspeed, altitude, G' forces and vital engine parameters could be monitored in real time and recorded. A basic RCATS telemetry system was installed in the aircraft, adding less than a pound of

equipment to the racing aircraft. The sensors were non-intrusive to the aircraft's installed avionics and provided a valuable set of monitoring criteria for the race program. Moreover, the data capture capability of the RCATS™ Virtual Instrument panel allowed the pilot's workload to be lessened during racing, putting his focus on the racecourse and not about remembering data points during flight. After racing, the team could monitor the flight data, establish trends and compare to past flights. Flight testing showed greater than 5 miles of range line of sight (LOS) for the telemetry system.

Outcome: Much was learned from the data acquired prior to and during racing. Team Aerophile now has an invaluable set of measured data on file to compare future flights to. Moreover, any airframe or engine changes can be tested and measured for their impact.



Have a data acquisition need? Let RCATS "Measure the UNKNOWN" for you.