



## RnR Products

### APV-3 UAV

#### Preface

Flying a UAV for 8 hours requires a reliable system. RnR Products came to us seeking a way to monitor their UAV during an autonomous 8 hour flight. Their new onboard generator system was going to be put to a real life endurance test. Critical system voltages, temperatures, and engine parameters had to stay within limits, or the mission would not be successful and their customer unhappy. That's why companies like RnR products understand the importance of real-time information systems.

#### Challenge

RnR came to us with the task of delivering a custom telemetry unit in less than 4 weeks time. Compounding the schedule was the fact that the RCATS unit wasn't even publicly available yet. They needed to monitor system health during an upcoming endurance flight. Knowing of any impending anomalies would help ensure success. The RCATS solution kept tabs on the 150 watt payload pod's voltages, currents, and temperature. Meanwhile, up front, the engine's vitals were being monitored by the system.

"Having the real-time voltage measurements and engine information allowed us to select an optimum flight envelope to ensure a successful mission."

**-Rich Spicer**



#### Result

We quickly modified a pre-production telemetry unit, customized the virtual instrument panel software and integrated the telemetry unit into their APV-3's payload pod. RnR flew their 8 hour autonomous mission utilizing the RCATS telemetry system, having the peace of mind knowing what was going on inside their aircraft at all times.

In fact, nearly three years later, RnR is still flying RCATS unit number 1 to test new generations of their aircraft and integrated systems.