

DATAVAULT

TELEMETRY & ACQUISITION

aerocloud.us/datavault

SATELLITE-BASED TRACKING AND **REAL-TIME** PROOF OF DELIVERY FOR AERIAL FIREFIGHTERS

LOGGED PROOF OF DELIVERY

- Simple instrument panel interface (optional)
- Pilot-accessible USB port
- Excel-compatible data files
- Mission playback with map overview for review and training
- Management software provides:
 - Management of multiple aircraft
 - Playback of missions
 - Storage archive of past missions
 - Mission summaries

REAL-TIME DATA

- Transmits location and operational data to fire services in real time via satellite
- Compatible with several GPS and data transmission services
- AFF compliant tracking

COMPLETE TELEMETRY CAPTURED

- Locations of start and end of drop
- GPS path of drop
- Real-time retardant quantity on-board
- Amount of retardant dropped
- Drop Mode (Auto, Timer, Manual, Salvo)
- Coverage Setting
- Calculated Ground Line
- Measured Ground Line (with GPS)
- Engine start and stop
- Take off and landing
- Pilot-selectable data formats and rates with optional Message Interface
- Optimized for FRDS GEN II Firegate
- Compatible with FRDS GEN I & third-party gate controllers
- And much more...

ADDED FEATURES WITH MESSAGE INTERFACE (OPTIONAL)

- MSG button provides two-way communication with ground units using a number of message presets.
- MARK button transmits points of interest.
- DISTRESS button sends distress message and location, and provides confirmation to the pilot that the message was received.



TROTTER
CONTROLS
OEM ELECTRONICS & AUTOMATION



EVERY DROP COUNTS. COUNT EVERY DROP.

Building on more than 20 years of experience in the aerial firefighting industry, the AeroCloud DataVault is a uniquely open platform which enables operators to easily comply with the increasingly stringent reporting needs of authorities worldwide.

Available to order now, DataVault is a high performance telemetry and data acquisition system tailored to meet the needs of the aerial fire-fighting community.

DataVault is a truly open "plug-and-play" device. Although optimized for use with the FRDS GEN II, our Remote I/O kit enables compatibility with older FRDS GEN I units and third-party gate controllers. For third party systems, the DataVault can either analyze the gate controller's serial bus, or monitor analog and digital sensors directly to capture proof of delivery data according to both NAFC and USFS requirements.

A built-in module is used to send gate and aircraft data in near real time via the Iridium satellite constellation for display to an operator or fire-fighting authority.

With its external GPS and Iridium dual function antenna, DataVault provides advanced tracking services which relay position data via satellite to TracPlus (NAFC AFAMS integration partner for Australia, and tracking service provider) on a configurable time or distance basis. The optional Message Interface, mounted on the aircraft's instrument panel, allows the pilot to easily adjust the tracking transmission interval parameter to a specific time or geo-fence to optimize transmission bandwidth when operating in limited geographical territory.

The Message Interface also supports transmission of geo-tagged waypoint markers such as "persons in danger" or "property at risk". In conjunction with TracPlus, acknowledged Distress Messaging and ground to air text messages are also supported without the need for a SIM card.

DataVault has both fixed and removable data storage, which when combined with its internal motion sensors, enables deep post-mission analysis to assess delivery efficiency, aircraft utilization and pilot performance. Internal memory constantly records more than 40 parameters, including geo-tags, at intervals as short as 0.1s and has capacity for more than 1,000 flight hours. Information can also be collected on a USB stick and uploaded to an internet accessible database for mission replay, plotting, reporting and sharing data with authorized third parties.

Configured via a comprehensive set of PC based DataVault tools, the PRO model delivers the ability to add user digital or analog inputs which can be easily scaled to actual units of measure, recorded and transmitted in real time to a base station via third-party products such as TracMap, or FlightCell's DMZ device.

Expansion boards for the DataVault include the ability to drive electric motors, on/off valves and proportional valves to enable control of other equipment on the aircraft.

AVAILABLE OPTIONS

Enclosure LCD & Keypad provides a direct method for configuring & interacting with the DataVault system, and is included on the PLUS and PRO models. The standard model requires a Message Interface.



Message Interface allows pilots to communicate with ground operations by sending and receiving text-based communications via Iridium network, no SIM card required.

Milspec USB Flashdrive Housing can be mounted anywhere that is convenient for pilot access. This provides access to the logging USB drive for proof of delivery data.



AUX I/O Connectors provide additional sensor inputs and high-current outputs for greatly expanded capability.

H-Bridge Drive output can connect to and control high voltage stepper motors, on/off and proportional valves, etc.



Satellite Modem enables real-time data sent from nearly anywhere in the world via Iridium Satellite, no cellular network required.

Custom Firmware and Sensors will unlock DataVault's flexible architecture to provide an excellent solution for your unique requirements.



Model	Base Price (USD)	Enclosure LCD	Enclosure Keypad	Message Interface	Satellite Modem	AUX 1 I/O	AUX 2 I/O	H-Bridge Drive	Oil PSI Switch Kit	Remote I/O Kit
DataVault w/Message Interface	\$9,900	✗	✗	✓	✓	✗	✗	✗	+\$125	+\$3,900
DataVault PLUS	\$6,900	✓	✓	+\$3,500	✓	✗	✗	✗	+\$125	+\$3,900
DataVault PRO	\$9,300	✓	✓	+\$3,500	✓	✓	+\$1,000	+\$1,000	+\$125	+\$3,900

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OEM ELECTRONICS & AUTOMATION

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