



# FLIGHT DATA MANAGEMENT AND STORAGE

*Collect and save critical flight data*



When the security of flight data is of vital importance, the FreeFlight Systems Flight Data Management and Storage System provides low cost recording, storage and data transfer with high crash survivability and extreme temperature protection.

## Memory Management System

The FreeFlight Systems Memory Management System (MMS) is a light-weight, rugged, programmable unit that can record, store and transfer vital aircraft information provided by the pilot, or other aircraft systems (such as on-board cameras, microphones and sensors). The unit can also be used as an onboard network attached storage (NAS) system.

The MMS comes with a pilot-removable primary memory module with up to 256GB capacity, a secondary memory module (mini SD card) with up to 2GB capacity, and an 8GB USB thumb drive, allowing for maximum data management flexibility. For all of these memory types, FreeFlight Systems uses the best grade flash memory available to ensure the highest level of data integrity, reliability and protection.

The system allows for fast and easy transfer of the recorded information to and from other aircraft systems using gigabit Ethernet and/or USB 2.0 interfaces. The primary and secondary memory modules, as well as the thumb drive, are fully compatible with standard PC systems, allowing for an ideal low-cost solution for fleets or flight schools requiring regular review of flight data. Additional memory modules can be purchased separately.

## Hardened Memory Unit

The FreeFlight Systems Hardened Memory Units (HMU) have been designed to store and protect vital flight information for use in flight data analysis and, if necessary, flight information recovery. Extremely simple to install and maintain, FreeFlight Systems offers the HMU from 1GB to 8GB capacity in two models – the HMU and the HMU Lite. Both models use a standard USB 2.0 interface and are fully compatible with FreeFlight Systems' MMS and other equipment using the USB interface.

These extremely rugged HMUs use superior grade flash memory. Surrounding this memory is a multi-tiered protection system including specially coated electronics, high-temp phase change material, ceramic fiber insulation and a cryo-tempered stainless steel housing. Together, this system provides protection against crash, petro-chemical fires (1100 C for 1 hour) and shrapnel/small arms fire. The differences in the HMU and HMU Lite are size, weight and level of ballistics protection.

Whether for helicopters or jets, FreeFlight Systems offers a data management system that can meet your data storage, management and protection needs.

## HIGHLIGHTS

**Meets NTSB recommendations for "Flight Data Recorder-Like" System**

### Memory Management System

- High memory capacity, 32 - 256GB primary memory module (larger available soon)
- Flexible data management
- Standard data interfaces
- Fully automatic operation, low pilot workload
- Low-cost, rugged and reliable
- Memory devices compatible with standard PC or Mac equipment

### Hardened Memory Unit

- Multi-tiered protection system, crash survivable
- Up to 8GB capacity (larger available soon)
- Standard data interface
- Simple installation and use

# FLIGHT DATA MANAGEMENT AND STORAGE SYSTEM

## Memory Management System

SPECIFICATIONS	
<b>Size (HxWxL)</b>	Faceplate: 2.95 x 5.71 x 0.39 in Case: 2.8 x 4.96 x 7.91 in
<b>Weight</b>	3.9 lb
<b>Power:</b>	14 – 28 VDC
<b>Operating Temperature</b>	-15 – +50 degrees Celsius
<b>Cooling</b>	Ambient air
<b>Environmental Certification</b>	DO-160F
<b>Mounting</b>	Standard Dzus mounting with optional adapter for avionics bay mounting
<b>Data Interfaces</b>	T10/100/1000 Ethernet (1 back) USB 2.0 (1 front, 1 back)
<b>Primary Memory Module Capacity Interface</b>	32GB – 256GB SATA
<b>Secondary Memory Capacity Interface</b>	128MB - 2GB Micro SD
<b>Tertiary Memory Capacity Interface</b>	1 – 8GB USB Thumb Drive

## Hardened Memory Unit

SPECIFICATIONS	
<b>Size (HxWxL)</b>	HMU: 2.9 x 3.5 x 5.5 in HMU Lite: 2.8 x 3.2 in
<b>Weight</b>	HMU: 6.9 lb HMU Lite: 1.8 lb
<b>Power:</b>	Through USB connector
<b>Operating Temperature</b>	-40 – +85 degrees Celsius
<b>Temp Survivability</b>	1100 degree Celsius, 1 hour
<b>Cooling</b>	Ambient air
<b>Environmental Certification</b>	DO-160F
<b>Mounting</b>	HMU: 4 mounting bolts HMU Lite: 3 mounting bolts (mounting tray also available)
<b>Memory Capacity</b>	1 GB, 2 GB, 4 GB, 8 GB (Larger memory may be available)
<b>Data Interfaces</b>	USB 2.0
<b>Arms Protection:</b>	HMU: up to 7.62x39mm, 125 grain at 25 yards HMU Lite: up to 9mm, 115 grain at 10 yards



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