

Current and anticipated FAA and EUROCAE requirements for crash protected recorders could be a considerable burden to your fleet and your business. A combined solution for the future also provides operational benefits today.

Curtiss-Wright Controls Integrated Sensing (CWCIS) have developed the most versatile recorder available, in the most compact package, fully approved for current and anticipated requirements. On-aircraft download is achieved in less than 1 minute and can be networked directly to a remote operational base for remote diagnostics and fault reporting.

- Less than 3.2kg (7.0lb) including under water locator beacon
- Attaches directly to airframe
- Maximum 10W of power at 28v d.c.
- Fast Ethernet and wireless data recovery options
- 25,000 hours MTBF

MPFR is packaged as a compact unit ideal for the rotary wing or small/medium aircraft market. Importantly, this compact unit may be attached directly to the airframe without the need for bulky equipment racks or anti-vibration mounts, thus permitting optimum aircraft performance to be attained for lower operating costs.

Based on state-of-the-art solid state memory systems, MPFR features also include 4 channel voice recording for 120 minutes (one wide band, 3 narrow band audio channels), a rotor tachometer interface, 25 hours of flight data recording at 256 words/second and provision for HUMS data recording. Higher FDR data rates up to 4096 words/second are available, making MPFR ideal for general aviation or flight test recording.

Information retrieval is made via a 10/100MB Fast Ethernet interface directly to a portable transfer device or analysis PC using standard network hardware and protocols, alternatively connection may be made to transfer FDR data via an aircraft Wireless Data Link (WDL).

Exceeds FAA, EUROCAE and UK CAA requirements. The MPFR exceeds the requirements of EUROCAE and FAA requirements ED-55, ED-56A Amendment 1, (J)TSO-C123a and (J)TSO-C124a, and is qualified to RTCA/DO-160D and RTCA/DO-178B



Cockpit Voice and Flight Data...

- more versatility
- more compact
- more information
- more comprehensive ground support
- less weight
- less operational costs

Quality Approvals

CWCIS are committed to complete customer satisfaction in all products and services. International quality approvals include BS EN ISO9001:2000 and Civil Aviation Authority

www.cwcontrols.com

MPFR

MULTI PURPOSE FLIGHT RECORDER

MPFR

MULTI PURPOSE FLIGHT RECORDER **TYPICAL OUTLINE SPECIFICATION**

KEY FEATURES

Configurable Options:	Flight Data Recorder (FDR) Cockpit Voice Recorder (CVR) Combined Voice and Flight Data Recorder (CVFDR)
CVR:	4 channels x 120 minutes, rotor tachometer
FDR:	25 hours @ 256wps
Data recovery:	FDR data < 1.5min, CVR data < 2min using Ethernet interface direct to network or PC

Remote diagnostics capability.
Installation in any attitude.
Compact size, low weight
Meets and exceeds EUROCAE ED55 and ED56A Amdt 1.
UK CAA and FAA approved to (J)TSO-C123a and (J)TSO-C124a.

SPECIFICATION

Cockpit Voice Recorder (CVR) function

Recording duration:	4 channels x 120 minutes
Audio bandwidth:	150Hz to 3.5kHz (3 voice channels) 150Hz to 6.0kHz (single area-microphone channel)
Playback:	Off-aircraft high-speed download of complete CVR record using Ethernet interface to portable PC or recovery device
Fault reporting:	Via discrete output or via web status pages
Internal CVR/FDR synchronisation	
18V output power for CCU	

Flight Data Recorder (FDR) Function

Duration:	25 hours (at 256 words/sec)
FDAU interface:	Harvard bi-phase in accordance with ARINC 573/717
Data rates:	64, 128, 192, 256, 384, 512, 1024, 2048 and 4096 wps
Replay:	Real-time output of recorded data using ARINC 573/717 interface. On- or off-aircraft high speed downloads of complete FDR record using Ethernet interface into portable PC or recovery device.
Fault reporting:	Via discrete output or via web status pages

MPFR Common to all configurations

Locator beacon:	Fitted with miniature ultrasonic locator beacon, to TSO-C121
Electrical power:	28Vdc, 10W max
Cooling:	Free air convection, no forced cooling
Connector:	MIL-C-38999 Series III.
Environmental:	RTCA/DO-160D (E2BBB[U/T]EWFDZSZZAZZWH2F3XAA)
Operating temperature:	-55°C to +70°C
Storage temperature:	-55°C to +85°C
Altitude:	-1500ft to +55,000ft
Lightning protection:	to AC20-136
Crash protection:	Exceeds ED-55, ED-56A Amdt 1, TSO-C123a, TSO-C124a
Impact:	3,400g for 6.5 msec
High temp fire:	1100°C for 60 minutes
Low temp fire:	260°C for 10 hours
Static crush:	2,270kg for 5 minutes
Penetration:	227kg from 3m
Deep water immersion:	60MPa (20,000ft)
MTBF:	25,000 hours – fixed wing 10,000 hours - rotary wing
Software level:	RTCA/DO-178B Level D
Field reprogrammable via Ethernet interface	

Dimensions

Size:	253 x 118 x 89mm (10 x 4.6 x 3.5 in) including ULB
Weight	< 3.2kg (7.0lb) including Underwater Locator Beacon (ULB)

Optional Equipment

Miniature Cockpit Area Microphone (CAM)
Slimline Cockpit Control Unit (CCU) (single or dual recorder support), NVG option
Mounting adapter for ARINC 757 retrofit installations
Portable Replay Equipment (PRE)
Flight Data Acquisition unit (FDAU)
Recorder independent power supply

This data sheet provides basic technical details for the Multi Purpose Flight Recorder (MPFR) product.

For further information please contact the sales department.

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Innovation In Motion

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