



MISSION FLIGHT MANAGEMENT SOFTWARE (MFMS-1000)

PORTABLE GLOBAL ACCESS

Civil airspace navigation software

Add civil airspace navigation capabilities to your mission with Collins Aerospace's Mission Flight Management Software (MFMS-1000). Our MFMS-1000 provides global civil airspace access and easy integration of existing mission flight management capabilities in a portable, software-only package.

Its design maximizes affordability and portability across disparate aircraft platforms, while minimizing the time it takes to field required navigation performance (RNP) and area navigation (RNAV) flight procedure capabilities.

The Collins MFMS-1000 forms the core of an advanced flight management capability that you can easily customize through its open architecture interfaces. These application program interfaces (APIs), along with our pre-built and verified options, enable MFMS-1000's navigation, flight-plan management and guidance capabilities to smoothly integrate with existing mission systems and functions.

Affordable, low-risk acquisition

The MFMS-1000 contains market-leading flight management technology that is flying worldwide on the latest commercial business and regional aircraft. This technology is deployed on more than 30 commercial and military fixed- and rotary-wing platforms, with more than 20 million accrued flight hours.

From takeoff to touchdown, MFMS-1000 provides comprehensive navigation, flight planning (supporting all ARINC 424 leg types) and lateral and vertical guidance, as well as time-management functions.

Customizable for unique mission and civil airspace needs

With this software, you have the flexibility to meet specific mission needs with no vendor lock. It provides an open architecture, third-party mission interface using industry standards and data model constructs. An available programmer's toolkit enables software developers to more easily create, test and integrate custom components with the MFMS-1000 core. Additionally, the MFMS-1000 can be integrated with a Collins LPVC-1000 or Delta 4 compliant receiver to enable Localizer Performance (LP) without Vertical Guidance and Localizer Performance with Vertical Guidance (LPV).

KEY FEATURES & BENEFITS

- Reduced pilot workload and training with smooth, global interoperability between civil and mission airspace
- Affordable configurability across fixed-, rotary- and tilt-wing platforms, as well as unmanned aircraft and associated ground stations
- Low risk – ready to integrate now, with support artifacts
- Open architecture, enabling customer-driven enhancements or replacement
- Seamless integration reduces program risk and pilot/machine interface time

PLATFORM INTEGRATION

With MFMS-1000, you get a mature, proven flight management capability that's ready to integrate with your fixed- or rotary-wing, manned or unmanned aircraft fleet. It offers a low-risk path to affordably meet your civil and mission airspace requirements.

Its modular design provides hardware-independent components that minimize integration complexity across platforms, while enabling aircraft-unique mission capabilities. The MFMS-1000 provides the necessary data output for integration with a third-party Pilot Vehicle Interface (PVI) or a Collins PVI to support platform specific needs. A complete set of safety documentation supports rapid completion of system certification efforts.

CIVIL AIRSPACE CAPABILITIES

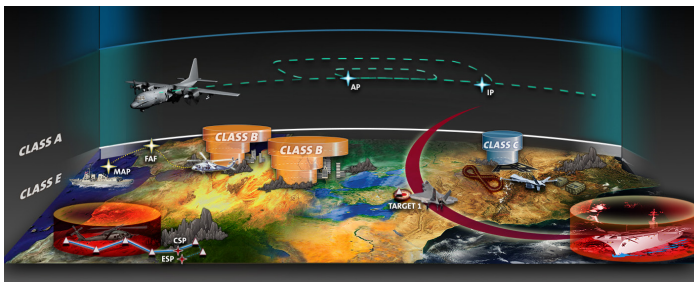
- Enables global, unrestricted civil airspace access
- RNAV routes, standard instrument departures (SIDs) and standard terminal arrival routes (STARs)
- RNP approach precision down to 0.3 NM
- LP and LPV approach support requires Collins LPVC-1000 or a TSO-C146 Delta 4 compliant receiver
- Approach with Baro-VNAV (APV)

MISSION OPTIONS

- Customizable database features
- Allows third-party-defined mission patterns

FUTURE CAPABILITIES

- Search-and-rescue patterns
- Surveillance and loitering patterns
- Precision airdrop
- Refuel and rendezvous



ARCHITECTURES

- Open-system architecture developed to be MOSA-ready and aligned with the Future Airborne Capability Environment (FACE™) Technical Standard and Open Mission Systems (OMS)
- Compatible with real-time and general-purpose operating systems (OS) including major real-time OSs (RTOS) Lynx Software Technologies LynxOS®, Green Hills® Software INTEGRITY™, and Wind River Systems VxWorks®

SERVICES/SUPPORT

- Type 2 Letter of Acceptance (LOA) navigational database packing services
- FSDK-1000 software development kit for third-party development and integration
- Airworthiness certification support and documentation
- Training and simulation support
- Third-party avionics system integration support

CAPABILITY

GOVERNING DOCUMENTS

U.S./European RNP/RNAV	FAA AC 90-100A, AC 90-105A, AC 90-108, AC 90-96A, TSO C115B, TSO C146C, AMC 20-4, 20-27, JAA TGL-10, RTCA DO-236C, DO-283B
GPS/RNAV/Baro-VNAV	FAA AC 20-138D, RTCA DO-229D
U.S./European RNP approach to LPV minima	FAA AC 90-107 AMC 20-28
U.S./European RNP authorization required	FAA AC 90-101A AMC 20-26
Database integrity	FAA AC 20-153A, RTCA DO-200A, DO-201A
U.S. DoD MOPS	U.S. Navy/Army FRD - Rev B, Change 1 U.S. Air Force GPM/PAM (RNP 4, 1, 0.3, etc.)
Software development methods	FAA AC 20-148 RTCA DO-178C

Specifications subject to change without notice.



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