Software FMS Next-Generation Scalable Flight Management System

The CMC Electronics Software (SW) FMS is a next-generation scalable flight management system designed to be used as a portable ARINC 653 application. By providing civil-certifiable flight management features along with specialized tactical functions, the SW FMS is well positioned for a variety of current and future applications and installations.

The core RNP/RNAV functions leverage more than 30 years of experience and proven, in-service history on a wide range of fixed wing and rotary wing aircraft for both civil and military applications. Compliance with the latest civil standards enables aircraft to fly in civil airspace, while also reducing operating costs by flying more precise routes and by minimizing missed approaches.

The SW FMS is the perfect RNP/RNAV solution to bring civil certifiable navigation functions to military aircraft or as a standalone navigation solution on civil aircraft. The SW FMS also provides a broad set of functions optimized to reduce pilot workload at critical moments.

FEATURES

- Runs in an ARINC 653 partition and uses standard ARINC 429/Discrete/Serial Ports/UDP through ARINC653 ports.
- Offers an API that allows customisation of the user interface and enables the user interface to be located remotely from the core flight management function – whether on a separate processing platform, onboard the aircraft or within a ground station for unmanned and/or remotely piloted aircraft applications.
- Includes an architecture and interfaces providing the flexibility needed to enable integration in a wide range of aircraft architectures, supporting both legacy installations as well as next-generation architectures.
- Satisfies and exceeds the minimum operational performance standards for required navigation performance for area navigation.
- Helps meet PBN airspace requirements both for today and for the future.
- Enables full RNP/RNAV capability (RNAV 2, RNAV1, RNP 4, RNP2, RNP1, RNP 0.3, RNP APCH (LNAV, LNAV/VNAV and LP/LPV), worldwide.
- Is designed to meet the requirements of TSO-C115D/DO-283B Class B and TSO-C146D/DO-229D Class Gamma 3 for approach operations. CMC can provide the documentation package required to support certification of the SW FMS on a third-party platform.
- Provides an extended set of configurable functions and equipment that can be enabled when needed to fit various types of applications (see graphic on the right).Extended FMS functions are designed to reduce crew workload and to provide improved situational awareness.





Software FMS

Next-Generation Scalable Flight Management System

RNP/RNAV FLIGHT MANAGEMENT CORE FUNCTIONS

- Multi-sensor navigation (GPS, DME/DME, VOR/DME, IRS, TACAN, ...)
- Flight planning
- Navigation database generated as per DO-200B
- Company/custom and user databases
- Trajectory predictions and guidance

RADIO MANAGEMENT FUNCTIONS

Radio management capabilities can be added to the flight management function. The radio management function can tune and provide status on a wide range of radios, e.g. for navigation, communication and transponders.

USER INTERFACE

- Designed with a touch-screen interface for minimal training and quick function access.
- Suitable for use on a variety of screen sizes and types (multifunction display with or without line select keys, touch-screen control unit, large area display).
- · Flexibility to support user interface customization to adapt to different cockpit environments.



For more information, visit www.cmcelectronics.ca or email us at sales@cmcelectronics.ca

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