

NORTHROP GRUMMAN

FlightSuite™ satisfies all military and civil requirements for current and future air traffic management regulations

FlightSuite™ Quiet Cockpit Technology



Overview

Northrop Grumman's FlightSuite™ offers an open architecture, versatile, scalable and combat-proven avionics suite for rotary- and fixed-wing aircraft. It features an advanced crew/aircraft interface utilizing high-resolution liquid crystal displays where a single button push provides access to every major function of the avionics suite. Flight crews have greater operational success because critical flight and mission information is immediately accessible in an intuitive format.

FlightSuite™ is Communications, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) compliant through 2020. This is due to the growth capability afforded by this scalable integrated system. CNS/ATM compliance is provided by the software contained in its FlightPro™ mission computers, together with the features of its radios, transponders, and inertial navigation and global positioning systems. FlightSuite™ consists of one or more FlightPro™ mission computers, multi-function displays, control display units, stores station control units, air data computers, standby attitude sensors, navigation and communication radios, keyboard units, head-up displays, integrated helmet displays, and weapon subsystems. FlightSuite™ integrates these components and streamlines them into a focused system. It offers the required resources to efficiently control the aircraft and execute the mission. The cockpit includes Night Vision Goggle compatible displays that provide full operability in all crew locations, lighting environments and weather conditions.

The Northrop Grumman FlightPro™ scalable mission computer is the core element of FlightSuite™ and operates as the primary computer, performing mission, display and weapons processing. It is the central flight avionics collection point for incoming warning and caution advisory, messages, aircraft controls, and data from navigation sensors. FlightPro™ can accept up to 11 video sources simultaneously in a multitude of formats. FlightSuite™ can also process discrete signals, digital video, and keyset selection data from other line-replaceable unit and sensor systems throughout the aircraft. It has DO-178B compliant, open systems architecture that allows for rapid technology insertion. As a flight-qualified, commercial-off-the-shelf computer system, it offers rapid installation of applications by the user, which means a more efficient placement of capability within the battlespace. This partitioned system gives the warfighter ultimate control over the configuration of the software capability and less reliance on others to determine the when and where of improved functionality within the Operational Flight Program. A DO-178B certified Flight Management System is embedded in the FlightPro™ mission computer, which has been proven in commercial use by similar systems now flying in rotary- and fixed-wing platforms.

Benefits

FlightSuite™ integrates its aggregated components and unites them into a single, easy-to-use system dedicated to providing mission critical data to the flight crew. This instinctive system allows flight crews to focus on the mission and safely execute it.

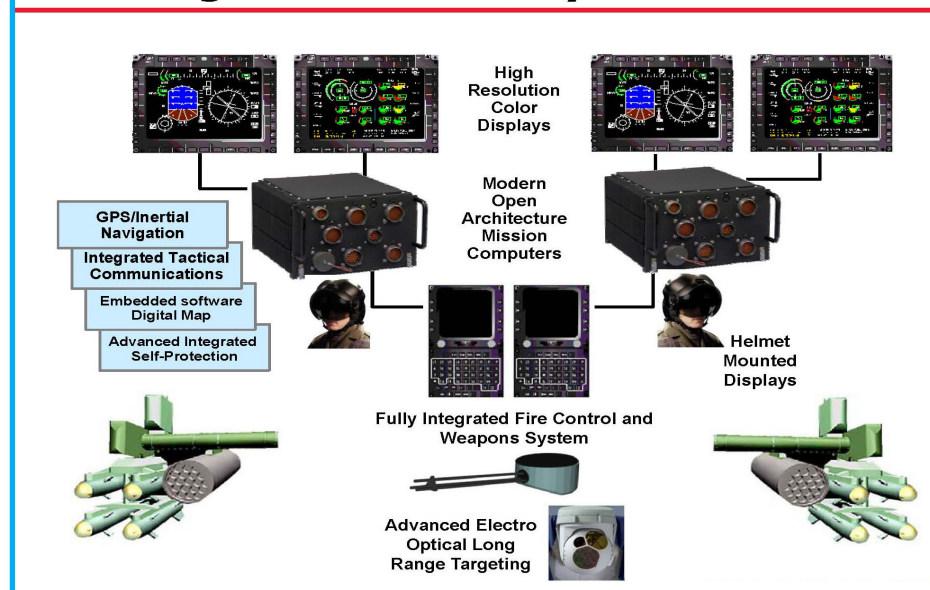
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The FlightPro™ mission computer is capable of Required Navigation Performance/Relative Navigation (RNP/RNAV) in all flight regimes, including departure, en route, terminal, and non-precision approach using a highly capable inertial navigation/Global Positioning System. Containment integrity is continuously

selectable from RNP-20 for oceanic/remote airspace down to RNP 0.3 for approach and advanced cockpit display formats are provided to support this capability. This permits the crew a real-time view of their current progress, including all flight legs, navigation waypoints and other critical situation information.

H-1 Integrated Avionics System



Features

FlightSuite™ is composed of the following key components:

- FlightPro™ scalable mission computer(s)
- High resolution multi-function displays
- Control display units
- Ground proximity warning and terrain avoidance warning system
- Flight management system
- Navigation and embedded software digital map system with:
 - Threat intervisibility
 - Cultural features with photo-specific overlay and texture
 - Radar integration
 - Communications, Navigation, and Surveillance/Air Traffic Management
- Communications suite with:
 - UHF/VHF SATCOM
 - Tactical data communications
 - Streaming video to accommodate manned/unmanned teaming and alternate targeting
- Electronic warfare and aircraft survivability with:
 - Missile warning receiver
 - Radar warning receiver
 - Infrared countermeasures
 - Laser warning receiver
 - Chaff/flares dispensing
- Weapons delivery/control and stores management
- Head-up display and advanced helmet mounted display systems
- Expansion options:
 - Synthetic Vision System
 - Health-Usage Monitoring System
 - Fully designed to accommodate future battle-field requirements through open systems

For more information, please contact:

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