



Integrated Flight Management System (IFMS™) for the Eclipse 550

Eclipse 550 Integrated Flight Management System (IFMS) Technical Overview

Innovative Solutions & Support designed the Integrated Flight Management System (IFMS) on board the Eclipse 550 to provide demonstrated airline reliability and systems capability unparalleled in the very light jet segment. The flight deck features an Integrated Flight Management System, Class 3 E-charts and XM Satellite Weather. 13 microprocessors in the IS&S displays control all major aircraft systems. Dual WAAS/SBAS beta-3 GPS receivers are utilized for precise navigation. With the enhanced situational awareness, electronic charts and maps, display and control of the aircraft systems and the integrated autopilot control panel, the pilot is provided with the most advanced FMS available for the light jet class. The IS&S IFMS in effect acts as a virtual copilot greatly reducing pilot workload and increasing situational awareness.

The IFMS features an integrated easy to use synoptic page for each aircraft system allowing pilots to move between graphical systems interfaces quickly, removing unnecessary data and allowing pilots to focus on flying. Each synoptic page is displayed on the large, high resolution multifunction display (MFD) providing all information in one location.



Flight Deck Features:

- Synthetic Vision
- Enhanced Vision
- Auto Throttles
- Redundant IFMS
- Radar Altimeter
- ADS-B Out Enabled
- Dual Diversity Transponders
- Standby Display Unit (3rd AHRS)
- TAWS
- TCAS
- Color Radar
- Stormscope
- Full-Size Charts
- Functional Evolution
- On-aircraft software updates

Integrated FMS

- Airways and Victor Routes
- Coupled LPV Approach
- Vector to Final
- OBS Mode
- RNP (Auto/Manual)
- Easy Insertion of Waypoints
- Easy Insertion of Holding Patterns
- Parallel Offsets
- Procedure Turns and Holding Patterns
- Active Waypoint, Missed Approach, and Destination Waypoint Information
- Nearest/On-Route Airports
- Ability to Store 99 Flight Plans

Mapping Features:

- Complete Route on Map
- Progressive Zooming to Reduce Workload
- Aircraft Position Information
- Scroll on Airport Information
- On-Screen Display of Airways High & Low, Airspaces, Airport Runways, Navaids/Intersections
- On-Screen Display of Stormscope

Satellite Weather:

- Graphical Freezing Levels
- Graphical Winds Aloft
- Canadian NexRad/Metars TAF

"The Eclipse 550's flight deck represents the pinnacle of avionics integration for this VLJ, and the IS&S avionics system is now a mature product that keeps getting better." - Matt Thurber, Aviation International News Pilot Report, October 1, 2014

FMS Depictions:



FMS Flight Plan and Route on Moving Map



Winds Aloft and Cloud Tops and Charts



Airspaces and Victor Routes



FMS Route and Airport Diagram on Moving Map

Synoptic Pages:



Synoptic pages allow the pilot to see all of the information relative to a complete system in one place.

Standby Display Unit:



The IS&S Standby Display Unit (SDU) calculates, processes and displays altitude, attitude, airspeed, slip/skid and navigation display information in a logical and concise single instrument display. The SDU is a truly standalone unit independent of the PFDs and MFD. The SDU is driven by an independent third AHRS and has its own ambient light sensor for dimming adjustments and its own magnetometer and air data sensors.



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> IS&S is the world's leading supplier of RVSM systems and integrator of Cockpit Information Systems (Cockpit/IP®) for the Commercial Air Transport, Military, and Business Aviation Markets. IS&S incorporates leading edge technologies into sophisticated, cost-effective solutions for the aerospace industry.



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