Dassault Falcon EASy™ Flight Deck

Honeywell

Primus Epic® Integrated Avionics System

Increased situational awareness through intuitive, pilot-centered design

The objective is simple. Increase the pilots' situational awareness—their mental picture of the aircraft's current position and condition. The solution is just as easy. The Falcon EASy™ flight deck.

Simplicity achieved through advanced technology, the Enhanced Avionics System (EASy) is based on the Honeywell Primus Epic® integrated avionics system. Working together, Dassault and Honeywell created a revolutionary new flight deck designed for two things—the pilot and copilot. The result is a cockpit unmatched in capability and crew efficiency.

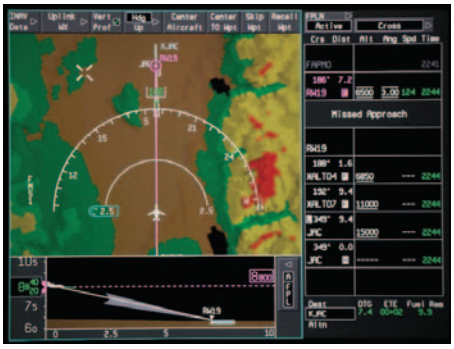
A Flight Deck That Fits Pilots to a T

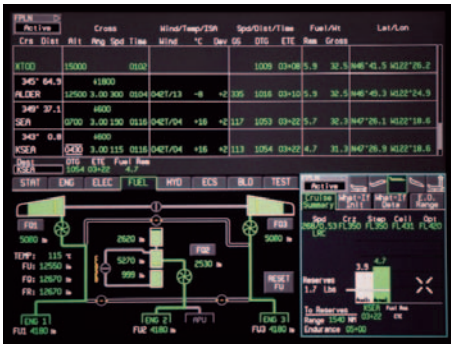
The EASy flight deck facilitates seamless flight crew cooperation and interaction during the flight.

At the heart of EASy are four 13 x10-inch flat-panel, high-resolution, active-matrix liquid crystal displays (AMLCD). Laid out in an efficient T-formation, the design puts the primary display unit (PDU) right where it should be. In front of each pilot.

The PDU shows critical flight information such as:

- Combined attitude director indicator
- Horizontal situation indicator
- Airspeed
- Altitude
- Vertical speed
- CAS
- Engine information
- Aircraft configuration





Multifunctional Display Units

Strategically stacked and centered for easy viewing by pilot and copilot are two multifunctional display units (MDU). These twin panels provide the flight crew with the information necessary to perform flight planning and aircraft systems management during the flight. That information includes planned route, ATC route modifications, optional electronic charts, and other important flight data.

Presented in the upper panel, Honeywell's Integrated Navigation (INAV™) merges navigation and sensor data onto a single display. Worldwide navigation data includes terrain, airports, airspace, airways, navaids, and geopolitical boundaries. Sensor data can display airborne and uplink weather, traffic, and Honeywell's Enhanced Ground Proximity Warning System (EGPWS) depending on options selected. INAV also provides a Vertical Situation Display (VSD) that renders terrain ahead of the flight path or terrain directly beneath the flight plan to aid in pilot awareness.

In standard configuration, the lower panel displays the Flight Management Window (FMW), synoptics, and checklist. Using a simple user interface, the FMW displays important data for preflight, departure, cruise, arrival, and post flight. Synoptics pages provide instant access to all aircraft subsystems. They are automatically linked to the electronic checklist enabling the crew to evaluate subsystems as they appear on the list.

Graphical Flight Planning

Honeywell's patented Graphical Flight Planning (GFP) enables flight crews to update and modify flight plans, waypoint lists, and all navigation objects on INAV. The GFP makes translating ATC clearances into a control display unit key and page sequences a thing of the past. Flight crews simply click on the object contained in the ATC clearance, and follow the prompts. All of which means less time punching keys and more time flying the aircraft.

Primus Epic for the Dassault Falcon EASy Flight Deck

Designed from inception to meet the rigorous demands of long-range travel, the EASy flight deck features the Honeywell Primus Epic integrated avionics system. This revolutionary system supports:

- Dual, fail-operational, automatic flight control system
- Dual flight management/performance management system
- Dual micro inertial reference systems
- Dual air-data sensors
- Dual 24-channel GPS sensors
- Primus® 880 turbulence detecting weather radar
- Enhanced ground proximity warning system (EGPWS)
- Radio altimeter
- Primus® II Epic: Integrated radio system with dual modular radio cabinets and digital radios

- Primus® II Epic: VHF data radio
- AV-900 digital audio system including telephony and SELCAL
- Central maintenance computer

In addition, Dassault Aviation proposes the following Honeywell optional systems, such as:

- Seven-channel MCS-7000 satellite communications
- Airborne Flight Information System (AFIS)
- AIS-2000 Regional One View Satellite TV System
- Third FMS
- Third micro inertial reference system
- LSZ-860 Lightning sensor system

Primus II Epic: Integrated Radio System

Introducing Primus II Epic—the world's most advanced digital radio suite. A digital remote integrated system, Primus II Epic encompasses standard navigation and communications functions, such as:

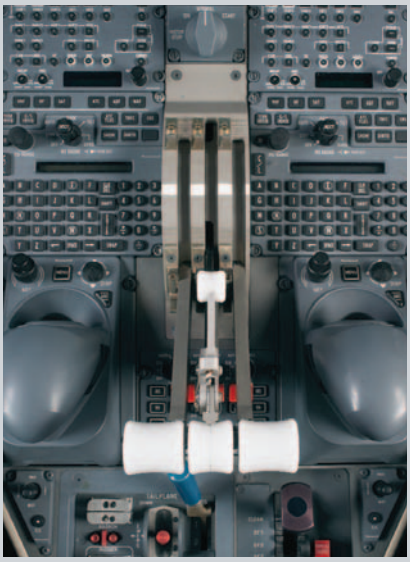
- VOR
- ADF
- DME
- ILS
- VHF communications
- Mode S diversity transponder modules

Offering reduced weight and power requirements, with increased reliability, Primus II Epic's modular radio cabinet (MRC) design reduces line replaceable units. The first of a new generation, the VHF data radio (VDR) and VOR/ILS/datalink (VIDL) provide more than one hundred times the computing power of current radios. Modulations, protocols, and data rates can be easily changed.

Designed for the world, the Primus II Epic radio system is fully ICAO-compliant, offering FM immunity, and the 8.33 kHz communication bandwidth required for European flight and Change 7.

Other system advantages include:

- Fewer units
- Reduced wire count
- Extensive built-in test (BIT) and integrated maintenance features



Putting it all on the Pedestal

Nestled between both pilots are dual, multifunctional keyboards (MKB) and dual cursor control devices (CCDs). The MKBs' combination of alphanumeric keyboard and "hot keys" give pilots quick access to commonly used functions. Pull-down menus, Windows-style display pages, and "soft keys" reduce pilot workload and aid in increased situational awareness, while also saving the costs, weight, and wiring associated with traditional controllers.

Easy to Maintain Design

Honeywell's unmatched expertise in systems integration brings EASy to the leading edge of commercial aviation technology. Primus Epic's modular design means high reliability and dispatchability for cost-effective operation.

The heart of the EASy platform is two, dual-channel, cabinet-based modular avionics units (MAUs). Highly rationalized, the MAU integrates functional cards for several applications into a single module. Each functional card performs multiple tasks previously requiring dedicated computer processors. Such increased integration results in improved power, weight, reliability, maintainability, and volume.

The result is a more intuitive, more interactive, more "heads-up" cockpit, with more situationally aware pilots.

Epic Flight Management

Robust and full-featured, the Primus Epic Flight Management System (FMS) for the EASy flight deck sets the standard for others to emulate. Integrated with INAV, the FMS enables the pilot to define the flight plan laterally and vertically using a worldwide navigation database. The navigation function of the FMS combines onboard sensors for GPS, IRS, radios, and air data to compute the aircraft's position and speed for all phases of flight. This data is also used by the FMS to provide lateral and vertical guidance to the flight crew and flight guidance system.

With SmartPerf, the FMS performance functions can be customized specifically for the aircraft. The FMS "learns" the characteristics of the airframe and engine settings and fine tunes calculations for optimum performance.

Takeoff and Landing Data (TOLD) software automatically computes takeoff and landing data to significantly reduce pilot workload. Primus Epic offers an optional third FMS which results in true, full triplex operation.

Epic Weather Avoidance

Dual-operator capable, with its unique high-power output, short pulse-width transmissions, and Honeywell's patented REACT mode, the Primus 880 full-color radar combines traditional precipitation displays with Doppler detection to ferret out even small areas of turbulence.

Talk to Me

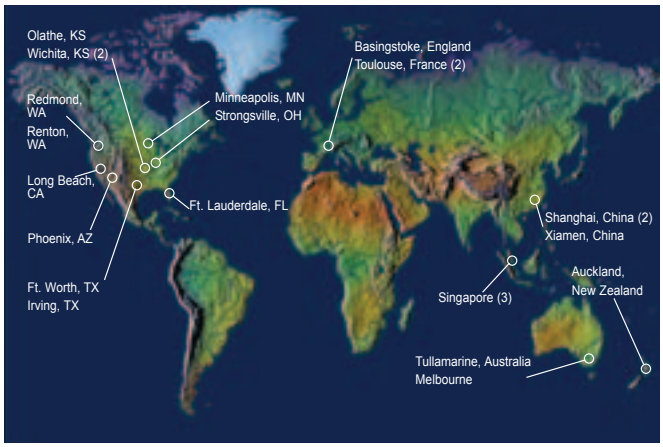
In today's fast-moving business world, you can't afford to be out of touch. The optional MCS-7000 satellite communication system (SATCOM) ensures you never are. Providing worldwide, continuous multi-channel voice and data, the system can be used for cabin or cockpit voice communications. It also supports airborne flight information service (AFIS) data transmissions.

The AV-900 Digital Audio System

The AV-900 integrates all cockpit audio functions, including telephone handsets, SELCAL, cockpit voice-recorder control, cabin call, and other critical functions. Adaptable to future CNS/ATM changes, AV-900 functions include call pick-up and hang-up, transfer call, conference call, pilot and copilot intercoms, and hands-free operation.

Making it Easier

Flying a business aircraft is demanding work. It takes state-of-the-art avionics and equipment. It takes skilled pilots and seamless teamwork in the cockpit. The EASy Flight Deck offers it all.



Worldwide Customer Support

In addition to providing avionics designed for rigorous business travel environments, Honeywell also provides extensive support, including maintenance training, pilot courses, support documentation, and on-site assistance. This level of service ensures a smooth transition from aircraft delivery to line operation. And it continues for the life of the aircraft.

Honeywell's customer support engineers and service centers are strategically located around the world to provide efficient, responsive support. Our SPEX exchange service is available 24 hours a day.

Find out more

To learn more about Honeywell's Primus Epic system contact:

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