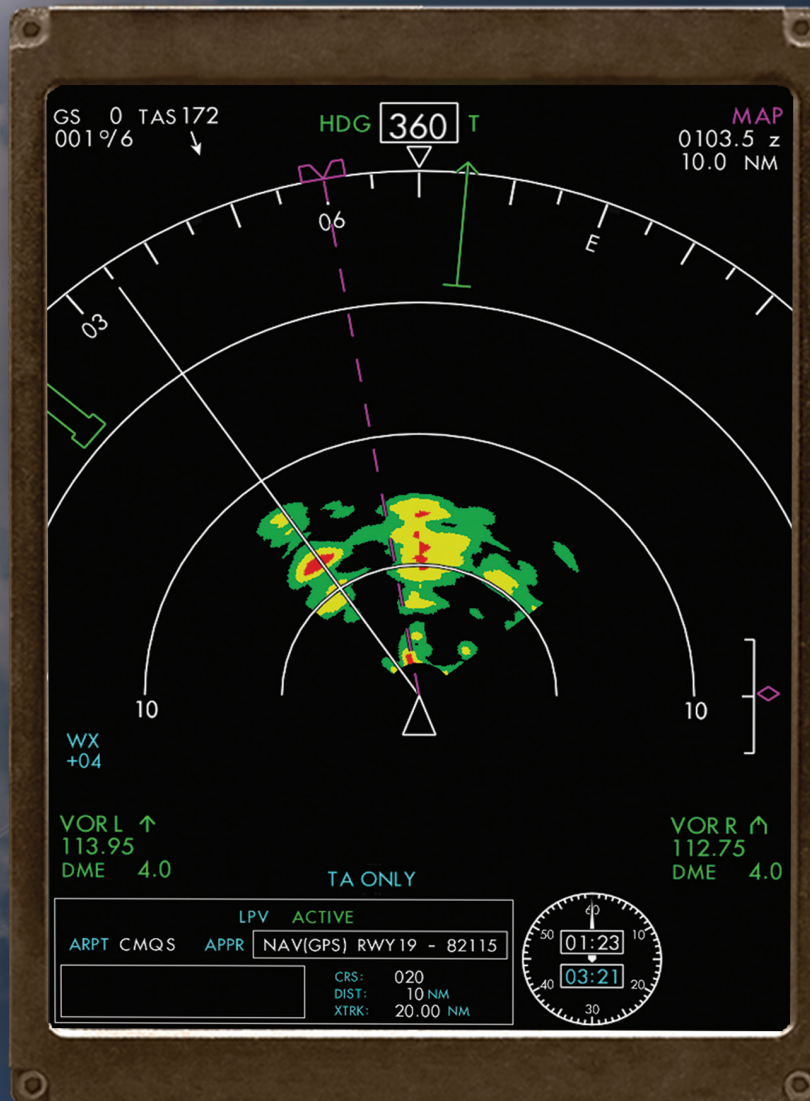




Innovative
Solutions & Support



LPV Navigator

LPV Approach Capability for Legacy Aircraft with
the IS&S Flat Panel Display System

LPV Navigator

Technical Overview

Innovative Solutions & Support designed its LPV Navigator to allow for LPV operations without having to modify the existing FMS in older aircraft. This saves many operators from performing costly FMS and MMR upgrades. The solution is easily integrated into our Flat Panel Display System increasing operator flexibility while minimizing aircraft downtime.

IS&S Flat Panel Display System with Integrated LPV Navigator

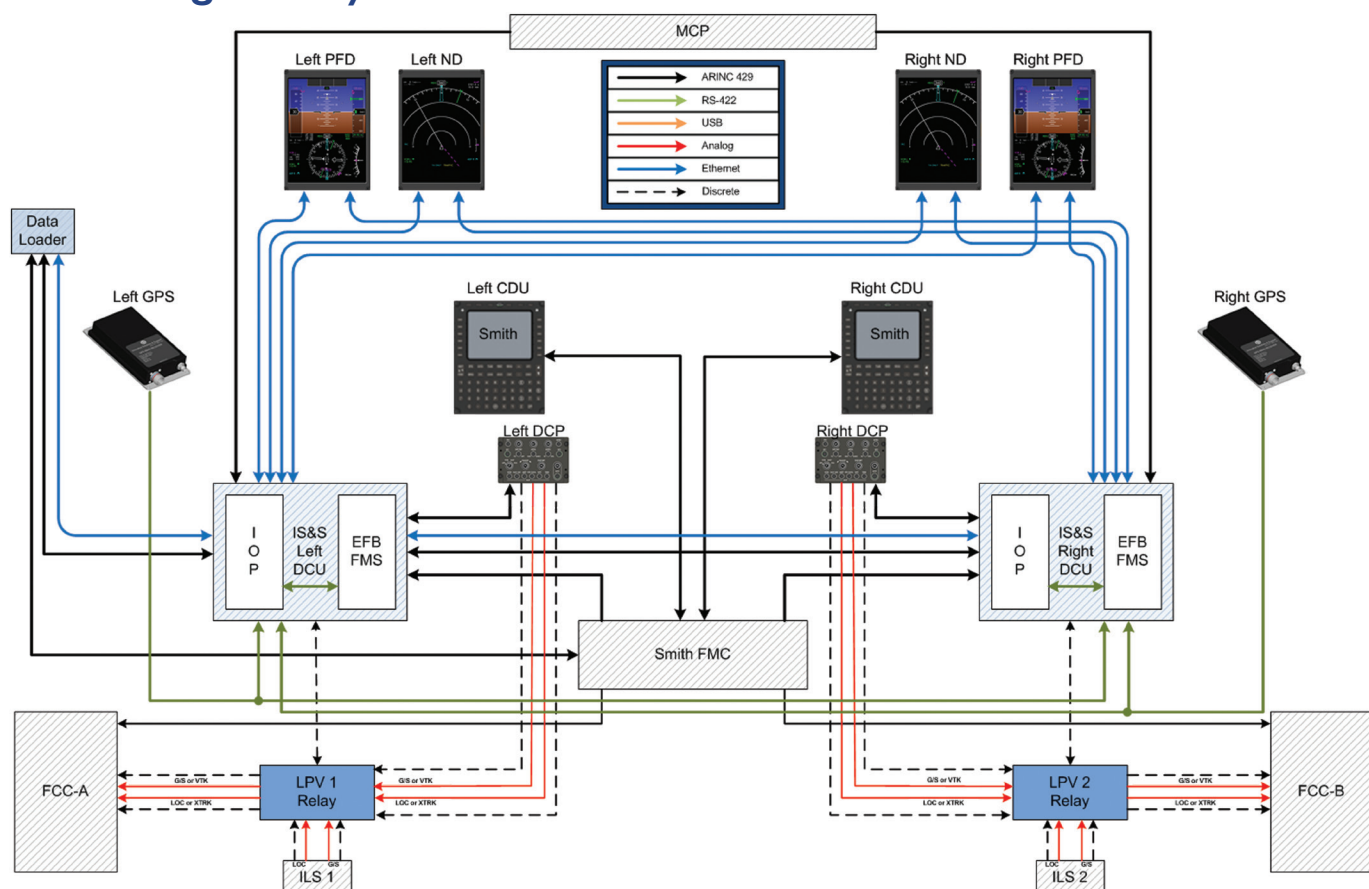
- Adds 2 Beta-3 WAAS GPS Receivers with antennas.
- Able to be viewed on IS&S Flat Panel Display System
- Retains Legacy FMS
- Adds the core IS&S Navigator Processor in the primary display system
- Adds relays to switch flight controls from legacy FMS to the LPV Navigator
- Provides the capability to perform LPV approaches.
- Provides DO-60B ADS-B Out compliant position data output.

Operators will continue to fly takeoff, departure, en route, and arrival flight segments using their legacy FMS which provides the proven OEM performance algorithms. The IS&S system will provide the existing FMS accurate position information from the Beta-3 GPS receiver with much more accurate WAAS position information.

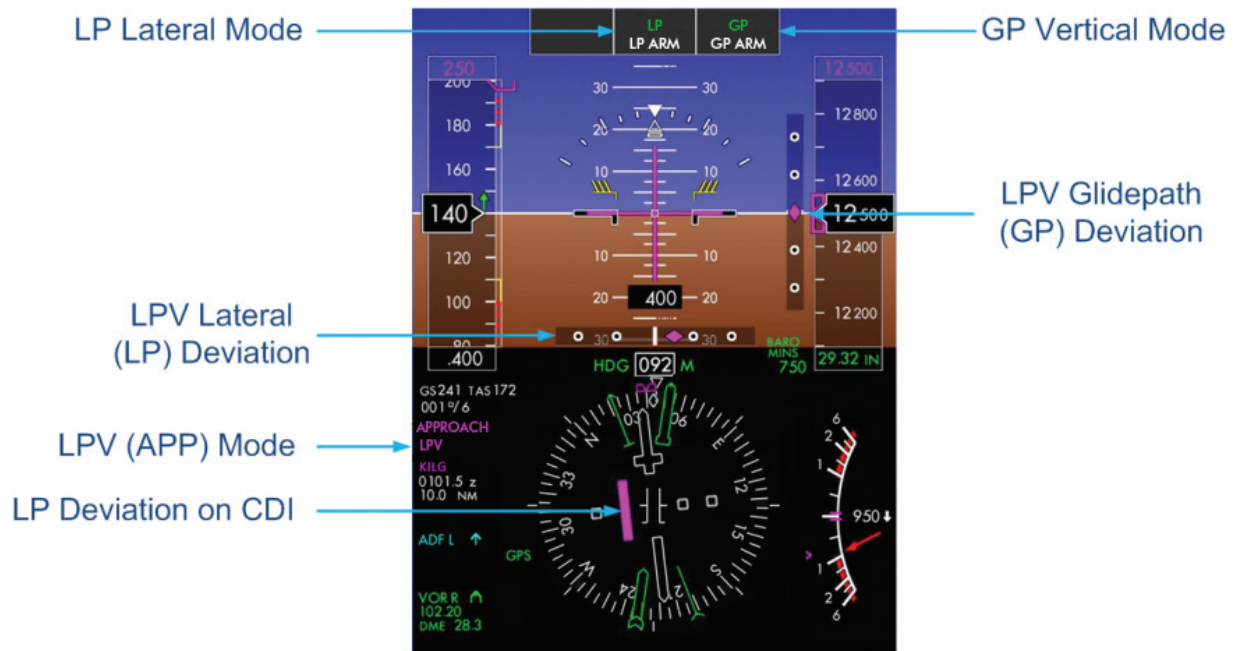
Once a flight is cleared for an LPV approach, that approach is entered into the IS&S display system via the control panel. Aircraft control can be switched to the IS&S LPV Navigator for the approach segment with the flight plan presented seamlessly to the pilot on the IS&S Flat Panel Display System.

This Next Generation upgrade solution provides LPV navigational guidance using high accuracy GPS position data and complies with RTCA DO-229 Class Delta-4 architecture. The IS&S navigation system is already certified and installed on the Eclipse E500, E550, C-130 and L-100. The included Beta 3 GPS Navigation system provides three-dimensional position and velocity information accurate to 10 feet and data required as part of full ADS-B Out mandate compliance.

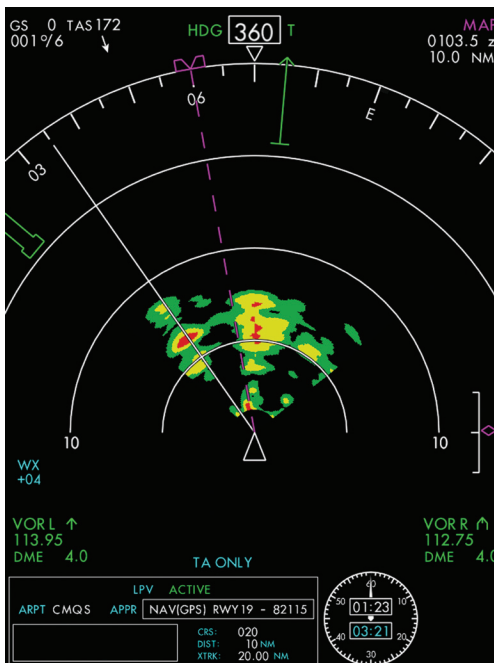
LPV Navigator System Architecture



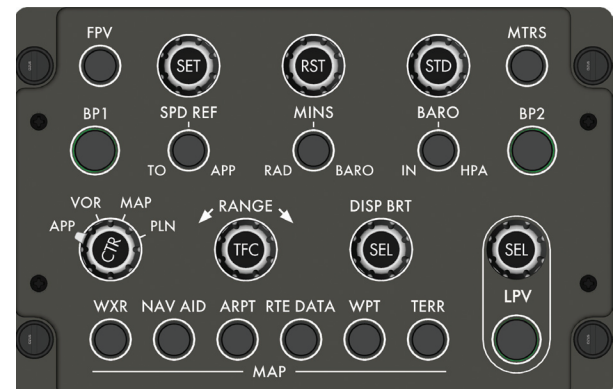
IS&S LPV PFD Presentation:



IS&S LPV Approach Window on ND Display:



IS&S LPV Control Panel:



IS&S LPV Navigator Advantages:

- Coupled Lateral Navigation using existing autopilot Approach modes (ILS)
- Coupled Vertical Navigation using existing autopilot Approach modes (ILS)
- Meets ADS-B Out NextGen/SESAR requirements
- No need to update legacy FMS hardware, software or Database
- Full Integration with IS&S FPDS requiring no FMS replacement
- Saves operator from performing costly MMR installation
- LPV Approaches
- Beta-3 WAAS GPS certified in accordance with TSO C145c.
- LPV Navigator certified in accordance with TSO C146d
- Retain the fuel economy performance of the existing FMS



Data Sheet and all information contained in it is proprietary to Innovative Solutions & Support, Inc.
All specifications subject to change without notice from the manufacturer.

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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