

757/767 Integrated LDS Cockpit Modernization Program



A KEY UPGRADE FOR LONGEVITY AND SAVINGS

Transform your legacy aircraft's capability
with Large Display System (LDS) options



Collins Aerospace

UPGRADE NOW TO REAP SIGNIFICANT BENEFITS

Key advantages to upgrading include technical efficiency, guaranteed longevity and a financial benefit rarely seen in an upgrade program. The LDS upgrade provides:

- Integrated cockpit with the latest display architecture and symbology, creating a 787-, 777X- or 737 MAX-like experience for aircrews
- Simplified maintenance due to 29 legacy LRUs removed and 11 modern LRUs installed
- Future capability is the key to the longevity of the airframe, and the LDS is technically capable of handling a fully integrated, fully connected cockpit that includes the latest technology
- Life-cycle cost and payback. Collins Aerospace has developed a sophisticated economic business analysis that an airline can tailor to its business model and fully capture the tremendous savings behind an LDS upgrade
 - 80 percent reduction in line maintenance actions
 - 80+ percent reduction in maintenance costs – Guaranteed maintenance costs can be provided
 - Dramatic improvements in dispatch rates over the current avionics
 - Support for NextGen®/mandates and connected cockpit applications
 - Boeing supported installation with service bulletin/updated manuals
 - Potential three-year payback, depending on airline operating costs

Three ways you'll save

REDUCE MAINTENANCE

An 80 percent reduction in maintenance actions and an 80+ percent reduction in maintenance costs are the result of the dramatic reliability improvements of LDS.

Keeping your aircraft flying is the goal. Maintenance savings can be guaranteed under a Collins Aerospace maintenance contract.

FEWER REPAIRS

Because LDS replaces legacy LRUs and adds a four-year warranty, you will have fewer repair costs than with a non-LDS cockpit.

LOWER TRAINING COSTS

Upgrading to our LDS means your legacy 757/767 displays will have a similar look and feel to those on the 787, 777X and 737 MAX. That means your crews will be interchangeable – reducing training costs.

An upgrade to a fleet of

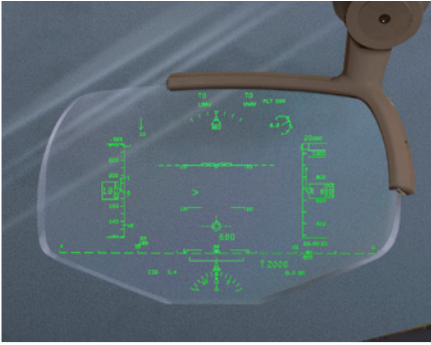
40
aircraft



Could equal savings
of up to \$23
million

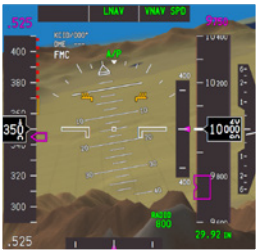
Over the next

10 years



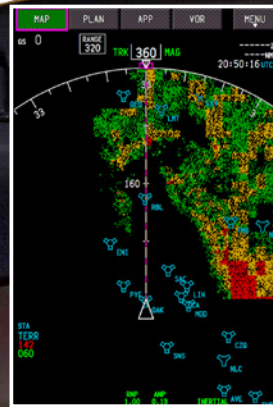
HGS™+EVS

- HGS for eyes-forward situational awareness and precision energy management in all phases of flight
- Available with third-party STC for the HGS and optional software upgrade and database for global synthetic vision capability
- Couples with Collins Aerospace wide spectrum infrared EVS external mount camera
- Coordinated video feed to copilot MFD video source area allows maximum cockpit crew coordination under low visibility conditions



HEAD-DOWN SVS

- Future upgrade that integrates and coordinates flight information with HGS for maximum situational awareness



MAP WITH TERRAIN/WEATHER

- Four map modes supporting eight different ranges, including routing from 5 to 640 NM for weather display and from 5 to 320 NM for terrain
- User selectable chronometer or clock

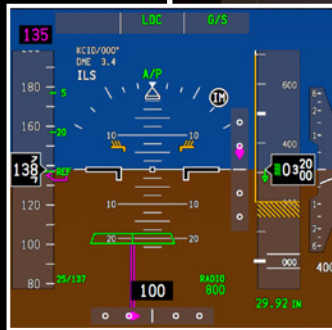
MAP WITH TRAFFIC ALERTS

(below)



NAVIGATION PERFORMANCE

- LNAV deviation scale and pointers
- VNAV deviation scale and pointers
- LOC/GS ghost pointers



Rising runway symbol on PFD



Current and next flap settings on airspeed tape with persistent "UP" indication



ENGINE INDICATION AND CREW ALERTING SYSTEM (EICAS)

- The only display system that removes the EICAS cathode ray tube displays
- Provides LDS-specific caution and status messages in the message stack

CHOOSE YOUR OPTIONS FOR TOP PERFORMANCE

Pick and choose the options that best fit your needs.

When it comes to upgrading your 757/767 with LDS, you have options. Lots of options. We can work with you to help you decide which options make the most sense for your operation.

Cockpit display of ADS-B traffic (CDTI) that provides situational awareness and growth to In Trail Procedures (ITP)



ADS-B TRAFFIC LIST

SEL	FLT ID	DIST	CAT	GRD SPEED	REQ SPACING
✓	NWA796	7 NM	HEAVY	169 KTS	5.0
	KLM111	8 NM	HEAVY	290 KTS	--
	QTR231	9 NM	HEAVY	145 KTS	--
	DAL521	16 NM	LARGE	290KTS	--
✓	NWA342	16 NM	HEAVY	284 KTS	--
	ARC521	20 NM	LARGE	250 KTS	--
	SAS177	23 NM	HEAVY	250 KTS	--
	THA871	31 NM	HEAVY	280 KTS	--
	AAL123	33 NM	LARGE	310 KTS	--

Future capability

MULTIFUNCTION DISPLAY WINDOW

- HUD repeating video feed
- Provides space for display window reconfiguration
- Security or other camera feed
- EVS camera video feed
- Any ARINC 818 video input

Future capabilities

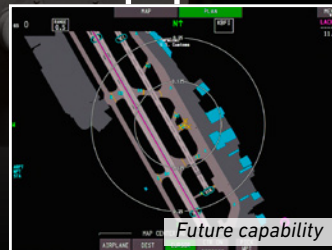
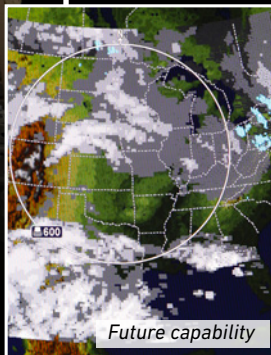
Mini map in reversionary backup mode

NAVIGATION DISPLAY



RETURN TO SERVICE PAGE

- Displays LDS status and fault information for enhanced troubleshooting (left)
- Displayed for all GGUs
- On-ground functionality only



SURFACE APPLICATIONS

- Airport moving map
- Optimal runway exit
- Selectable target aircraft with accompanying identification and information data block

VERTICAL SITUATION DISPLAY



RICH CONTENT, HIGH-DEFINITION NAVIGATION DISPLAYS

Uplink graphical weather over enroute charts, winds aloft, icing forecast, satellite imagery, turbulence forecast and more – all with selectable altitude viewing



MAXIMUM EFFICIENCY TODAY

Not only is LDS flying now,
it's also future ready

The Integrated LDS Cockpit Modernization Program offers you guaranteed maintenance savings and the exceptional, ongoing global support for which Collins Aerospace is known.

Our customers enjoy global spares pools and technical support, aircraft-on-ground (AOG) support and guaranteed pricing to help you achieve your desired life-cycle cost.

LDS, combined with Boeing service bulletins, provides you with customization for your displays, flight management computer and the Engine Indication and Crew Alerting System (EICAS). Enjoy greater efficiency and safety while reducing crew workload.

KEY BENEFITS

- Three-year estimated payback
- Dramatic reliability improvement
 - 29 legacy line replaceable units (LRUs) removed with 11 new added
 - 80 percent reduction in line maintenance actions
 - Improved dispatch
 - 80+ percent maintenance cost reduction
- Symbology commonality across Boeing platforms
- 85 pound reduction in weight*
- Integrated system supports future mandates and NextGen
 - Upgrades supported by Boeing service bulletins
- Display commonality across 787, 737 MAX and 777X drives
 - Reduced sparring
 - Reduced pilot transition training
 - Common maintenance procedures

**Weight differential of LRUs is 150 pounds. The actual differential currently STC'd is 85 pounds. The differential is installation infrastructure.*

To learn more, go to
collinsaerospace.com



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