

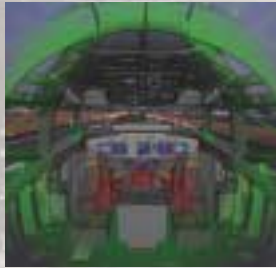
*Avionics
Technical Services
and Modifications*
RETROFIT SOLUTIONS

Avionics Modifications

RETROFIT SOLUTIONS ENHANCING FLEET VALUE

QUALITY AVIONICS UPGRADES FOR INCREASED PROFITABILITY

In today's competitive environment, operators need to maximize every opportunity to operate safely, effectively, and economically in increasingly



congested airspace. Boeing Avionics Technical Services and Modifications offers you engineering design packages and kits to upgrade and improve commercial airplane avionics systems. We provide high-value, low-risk retrofit solutions for all Boeing and McDonnell Douglas airplane

models. We offer a wide array of products that will add value to your fleet.

We manage all aspects of design, integration, validation, and certification to ensure that your upgrade is of the highest quality.

We work with you to make sure you get exactly what you want and need. Components of our service include

- The advantages of working with the original equipment manufacturer.
- FAA-certified master change kits and kit configuration notices.
- Configuration control for comprehensive technical support and future growth.
- Upgrades, maintenance, and accessibility of all your documents including drawings, service bulletins, and manuals.
- On-site technical and modification support.

- Twenty-four-hour product support for the lifetime of the airplane.
- More than 300 field service locations around the globe.
- The Boeing Warranty on the work we do.

All of our work is backed up by the full technical resources of The Boeing Company, a world aerospace leader, including our airplane knowledge and modification experience, consulting capability, design and installation standards, and approved parts and spares.



Navigation

Boeing avionics upgrades allow you to meet regulatory requirements for operating in reduced airspace, fly at optimum altitudes, perform approaches with more precision, reduce operating costs, and prepare for tomorrow's skies today.



- Boeing-designed and integrated flight management system features ensure superior navigation performance throughout the flight profile.

- Required Navigation Performance (RNP) capability saves time and fuel and reduces weather-related delays and diversions by allowing the airplane access to RNP approaches; preferred flight and track levels; reduced approach minimums; Future Air Navigation System (FANS-1) routes; and global airspace.

- Integrated Approach Navigation reduces approach procedures from 18 to 3. You can decrease flight crew workload and crew training costs.

- Pegasus, the next-generation flight management system hardware, prepares you for pending air traffic management developments by providing you with the capacity to add new capability such as FANS-1 features and controller-pilot data link.

- Boeing navigation products for classic airframes ensure a Boeing-supported growth path with operational commonality across your fleet.

Communications

Boeing provides a comprehensive family of communications master kits to support reliable, efficient, and global flight deck voice and data links connecting your airplane with your own airline operational control (AOC) and with air traffic control.

- Boeing Aircraft Communications Addressing and Reporting System Communications Management Unit (ACARS/CMU) retrofit provides a platform for flight management system-hosted AOC data link, allowing for two-way communication of flight plans, wind data, and more.

- Aero-H and Aero-I satellite communication (SATCOM) master change kits provide the data link capability required for operation in a FANS-1 environment, as well as voice communications for passenger services, including in-flight entertainment options and passenger telephones.

- Boeing communications upgrades use the original production designs of your airplane to ensure total airplane integration and allow for future upgrades.

Surveillance

Your avionics upgrade can give your airplane increased operational flexibility that translates into profitability.

- Weather Radar (WXR) systems aid in detecting and locating weather systems commonly associated with flight hazards, allowing you to reroute and to maintain flight schedules.
- The Traffic Alert and Collision Avoidance System (TCAS) alerts the flight crew of potential conflicts with other airplanes.
- The Enhanced Ground Proximity Warning System (EGPWS) warns the flight crew of hazardous terrain clearances. With the optional peaks-and-obstacles feature, terrain data can be displayed during all phases of the flight.
- The air traffic control (ATC) transponder system supplies airplanes with identifying information, including data to distinguish types of airplanes. This helps ATC to avoid collisions and other hazards created by improper airplane separation.

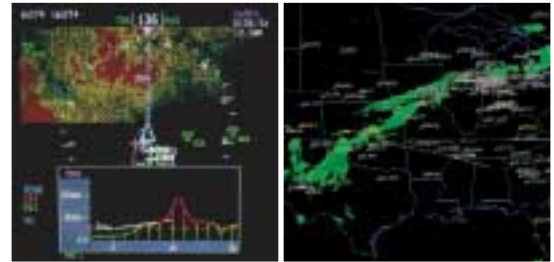
Liquid Crystal Display (LCD)

primary flight displays

We can retrofit your Boeing airplane with an electronic flight instrumentation system that replaces up to 24 separate instruments with two 15-inch LCDs, one for each pilot, and supporting equipment.

The large-display system replaces most flight instrumentation, giving you the primary flight display capability of a Boeing 777 at an affordable price.

- Fewer components means lower maintenance costs.
- Terrain, traffic, weather, and navigation information are integrated, easing the task of modern navigation.
- The system offers the display space and processing capacity to facilitate current and future safety, air traffic management, and airplane security capabilities.



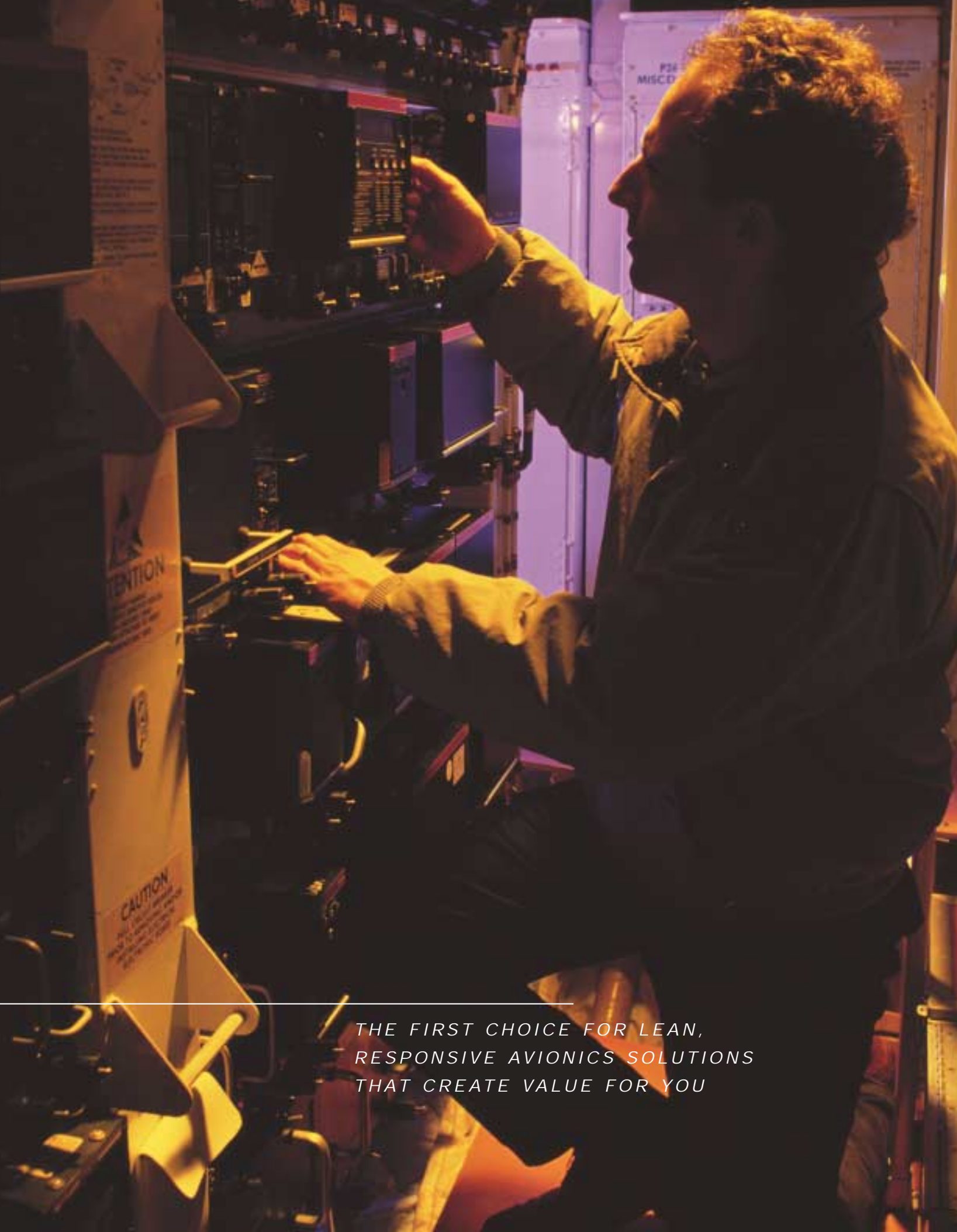
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For sales-related inquiries, please call your Customer Services Sales Director.

We invite you to visit our web site at

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