



# An elevated approach to maintenance training

## Avianca set to save a significant cost annually and maintain regulatory requirements with Comprehensive Maintenance Training Solutions

Avianca Airlines, with over 21,000 employees, is the largest airline in Colombia and the second oldest airline in the world. Founded in 1919, it serves as the flagship carrier of Colombia and relies on the Boeing 787-8 Dreamliner for its long-haul routes.

As the airline continued to grow their fleet and maintenance staff, they realized their training programs weren't keeping up. Operational needs were outpacing their current training programs, and they were at risk of failing to meet staff regulatory requirements. Avianca needed a flexible, cloud-based training platform accessible across multiple locations.



### Customer

**Avianca**, Colombia's flagship airline and a leading operator of Boeing 787 aircraft.



### Challenge

Capacity and cost restraints made it challenging to maintain its Boeing 787 training program and meet regulatory compliance.



### Solution

Implementation of Advanced Boeing Learning Environment (ABLE), Maintenance Training Services (MTS) and Maintenance Synthetic Trainer (MST).

### Existing maintenance training struggled to scale and maintain requirements

Avianca puts an emphasis on training. They not only want to ensure they maintain strict regulatory requirements, but they also want to have the most skilled workforce to serve their customers.

Looking at continued growth, they faced several challenges in maintaining and scaling its Boeing 787 maintenance training program:

- **Limited training accessibility:** Previous training systems were dependent on physical computer servers set up in a single location in Bogotá, limiting flexibility and scalability.
- **Capacity constraints:** Training sessions had limited seats, forcing students to share simulation stations, which reduced hands-on experience quality.
- **Outdated instructional materials:** Training relied heavily on static PDFs and lacked interactivity, making updates cumbersome and sessions less engaging.
- **High operational costs:** Frequent travel and centralized training increased expenses and reduced efficiency.

## A cloud-based solution, creating a training ecosystem for success

In partnership with Boeing, Avianca adopted a comprehensive training solution, integrating advanced Boeing learning environment (ABLE), maintenance training services (MTS), maintenance synthetic trainer (MST) and airplane virtual tour (AVT) to modernize and expand their maintenance training capabilities:

- **Cloud-based training with ABLE:** Enabled remote, multi-location access to interactive, modular training content with flexible display options (single, dual, or triple screens), supporting diverse classroom setups.
- **Virtual simulation with MST:** Provided immersive, realistic 3D airplane simulations for hands-on practice without needing physical aircraft access, enhancing skill retention and confidence.
- **Comprehensive courseware with MTS:** Delivered up-to-date, regulatory-approved training materials, including manuals, videos, and virtual tours, backed by Boeing engineering expertise.
- **Customized lesson creation:** Leveraged ABLE's authoring tools to tailor lessons to Avianca's specific operational needs and regulatory requirements.
- **Scalable infrastructure:** Transitioned from server-dependent systems to cloud-based solutions, increasing training capacity and reducing physical space and maintenance costs.

## Comprehensive program expands training, improves compliance, reduces cost

The integration of Boeing comprehensive maintenance training solutions brought significant benefits to Avianca's maintenance training program, including:

- **Expanded training accessibility:** Enabled simultaneous training across multiple locations (Bogotá and Medellín), increasing seat availability and reducing bottlenecks.
- **Enhanced training quality:** Individualized simulation stations improved hands-on experience, boosting student engagement and practical skills.
- **Up-to-date content:** Continuous updates from Boeing ensured training materials reflected the latest standards, policies, and aircraft configurations.
- **Improved regulatory compliance:** Training aligned with strict international standards, facilitating smoother approval processes.
- **Positive student feedback:** Surveys indicate a 95% satisfaction rate, highlighting ease of use, realistic scenarios, and overall training effectiveness.

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## Enhanced operations predicts significant cost savings

By moving to cloud-based and digital training solutions such as MTS, MST, and ABLE, Avianca can achieve significant cost savings through reduced travel, optimized resource use, and improved airplane availability.

### Avianca's estimated cost savings based on Boeing's assumptions

- \$230,000 saved from reduced employee travel and data center costs
- \$600,000 saved on external training class expenses, including instructors, materials, or alternatively saved by not developing an in-house training program.
- \$250,000 opportunity cost saved by not having a Boeing 787 airplane grounded for maintenance training

Additional operational savings include a reduced need for physical classroom space, data center maintenance, and administrative overhead.

Leveraging Boeing comprehensive maintenance training solutions and optimizing internal resources, Avianca can potentially save **around \$1 million annually** through reduced travel, lower external training costs, and improved airplane availability.

# Avianca 500% ROI

“ABLE, MST, and MTS have revolutionized our maintenance training by providing flexible, immersive, and up-to-date learning experiences. This has allowed us to expand capacity, reduce costs, and maintain the highest standards of safety and operational excellence.”

**Ferney Castrillon**  
Maintenance Training Instructor  
Avianca

## A collaboration that continues to grow

The collaboration between Avianca and Boeing to implement ABLE, MST, and MTS has transformed Avianca's maintenance training framework. By embracing innovative, cloud-based, and interactive training technologies, Avianca has enhanced training accessibility, quality, and cost-efficiency. This partnership positions Avianca as a leader in aviation maintenance training in Latin America, supporting their commitment to safety, operational excellence, and continuous improvement.

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