

Reducing Aircraft Downtime Through Real-Time Remote Inspections

How a leading aviation maintenance provider accelerated inspections, reduced travel, and achieved full digital traceability across global operations. Three Key



90%

Faster inspections through real-time collaboration with remote experts



95%

Lower travel costs by enabling SME oversight without site visits



100%

Digital traceability via centralized, auditable inspection records

Client: MRO Holdings

Industry: Aviation Maintenance, Repair, and Overhaul (MRO)

Scale: Four large facilities across El Salvador, Jacksonville (FL), Querétaro (Mexico), and Winston-Salem (NC)

Worker Environment: Onsite engineers performing maintenance, modifications, and inspections under time-critical delivery schedules

IT Environment: Secure public cloud enabling cross-facility expert collaboration

Devices: Vuzix M400 smart glasses for high-quality video; desktops/laptops for remote SMEs and inspectors

MRO Holdings operates one of the largest aviation maintenance and modification networks in the Americas, serving major commercial carriers across four facilities. Each site performs extensive airframe maintenance, structural modifications, and component repairs, supported by highly skilled teams working under strict delivery schedules.

However, subject-matter experts (SMEs) for specific aircraft platforms were often based at different facilities—or in entirely different countries—resulting in logistical challenges when on-site expertise was needed. Inspections and validations required extensive travel, lengthy coordination, and manual documentation processes that slowed turnaround times and increased operational costs.

The company needed a smarter, faster way to connect distributed teams in real time, without compromising precision or compliance. Travel constraints, fragmented communications, and manual inspection reports created costly bottlenecks, often delaying project delivery and impacting customer satisfaction.

“When a plane is grounded, every hour counts. Smart Ops lets our experts be there — virtually — the moment they’re needed.”

Solution: Telepresenz® Smart Ops™ for Digital Inventory Management and Remote Inspections

MRO Holdings deployed Telepresenz® Smart Ops™ to create a high-definition, real-time collaboration environment that connects engineers and remote experts across all facilities.

Using Smart Ops™, engineers stream live video of their work directly from the hangar floor through Vuzix M400 wearables or mobile devices.

SMEs and inspectors join remotely via laptops or tablets to view the live feed, share annotated visuals, provide step-by-step guidance, and verify repairs or inspections instantly.

Every session is automatically recorded and securely stored in the Telepresenz cloud, ensuring complete traceability, compliance, and audit readiness. The platform enables multiple experts to join a single session when required, creating a collaborative decision-making environment that eliminates travel delays and accelerates turnaround.

"Smart Ops brings our global expertise right to the hangar — no flights required."

With Smart Ops™, inspection cycle times were reduced from two to three days to same-day validation – a 90 % improvement. Aircraft downtime dropped dramatically, as engineers could now receive expert sign-off immediately after completing their tasks. The deployment has also significantly improved data transparency and team collaboration. All inspection documentation is now fully digital, centralized, and easily accessible for audit and compliance purposes. Subject-matter experts can support multiple locations in parallel without travel, improving workforce utilization and responsiveness to maintenance events.

Key Outcomes:

- 90 % reduction in inspection turnaround time
- 95 % decrease in SME travel costs and downtime
- 100 % digital auditability across all inspection records
- Full visibility for supervisors and compliance officers through real-time dashboards
- Enhanced team efficiency by connecting experts and engineers across borders
- Consistent, high-quality inspections with step-by-step digital workflows and media capture

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**About Telepresenz®**

Telepresenz® — AI-Powered. Frontline-Focused. Future-Ready. Telepresenz connects engineers, inspectors, and experts through live video collaboration and AI-driven operational workflows. With Smart Ops™, MRO Holdings now ensures faster turnaround, enhanced inspection precision, and seamless collaboration across continents — redefining operational excellence in aviation MRO.