



**Operating with confidence
and efficiency**

Aviation and Aerospace

CGI



Contents

- 1 Why CGI for aviation and aerospace?
- 2 Advanced AI, data and automation for cost efficient operations
- 3 Mission-critical and regulated environments
- 4 End-to-end partnership across complex operational environments
- 5 Advancing aviation safety with CGI Signal Sense and CGI Virtual Flight Recorder
- 6 A next-generation, long-term transformation partner

Why CGI for aviation and aerospace?

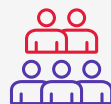


We support aviation and aerospace organisations to evolve and operate complex, regulated systems with confidence. We understand the aviation and aerospace sector faces increasing pressure to improve efficiency, reduce delays and meet sustainability targets, including lowering fuel burn and emissions. At the same time, organisations must manage legacy technology, rising cyber risk and the responsible adoption of AI.

Our focus is on ensuring resilience, enhanced performance and continuity in operational environments.



40+ years
of experience
delivering complex
aviation and regulated
systems at scale.



1,700+
cyber security professionals
globally, with strong UK-based
expertise across architecture,
governance and operations.

A broad range of aviation and aerospace organisations trust our expertise. They include:

- **Lufthansa Group**, where we act as a strategic partner for infrastructure and digital transformation
- **Finnair**, where we delivered a modern API platform and DevOps model to support digital growth and ancillary services
- **NATS**, where we are modernising critical digital infrastructure for more efficient and resilient UK airspace operations
- **Fraport**, where we support 24/7 airport operations by applying data, AI, machine learning and computer vision to improve punctuality, ground handling performance and passenger flow
- **European Space Agency**, where we have been working alongside Inmarsat to deliver a secure, satellite-based communication link between air traffic controllers and pilots. Iris will enable more efficient routing of aircraft leading to reductions in congestion, fuel and CO2 emissions
- **The US Federal Aviation Administration (FAA)** is working with CGI Federal to modernise its mission-critical Notice to Airmen (NOTAM) system, helping strengthen aviation safety and operational resilience across the US National Airspace System. The modernised service is designed to provide near-real-time data exchange and improved stakeholder collaboration and is hosted on a secure, scalable and resilient cloud architecture that supports a more reliable future for aeronautical information management
- **The UK Civil Aviation Authority**, where we are modernising drone registration, ensuring compliance, resilience and uninterrupted service



Advanced AI, data and automation for cost efficient operations

Increase efficiency, reduce delays and improve operational resilience by applying data, AI and automation directly within mission-critical environments.

By applying AI responsibly within operational environments, with appropriate governance and assurance, we reduce manual effort, simplify complexity and deliver consistent, dependable outcomes at scale.

Our approach spans flight and ground operations, electromagnetic environment awareness and monitoring, digital retail and distribution platforms, that is delivered on secure, scalable cloud environments, ensuring efficiency without compromising safety, reliability or regulatory assurance.



Experience at scale

Benefit from over four decades of global aviation and aerospace expertise, delivering end-to-end services that support seamless operations on the ground and in the air.

Our domain experience covers the full value chain from aircraft manufacturers and airspace management, through airlines, airports, ground operations, air navigation organisations and aviation authorities, helping clients improve performance, resilience and operational outcomes at scale. This experience underpins our work in the most demanding environments.

Mission-critical and regulated environments



A trusted partner to organisations operating critical national infrastructure, ensuring operational continuity, data integrity and reliability at all times.

We bring decades of experience delivering and operating regulated, safety-assured systems. This extends to satellite-based navigation and augmentation systems, including support to SBAS initiatives around the globe, delivering ground segment software and integrity assurance capabilities that underpin reliable, high-confidence positioning services in safety-related environments. We are an active contributor to the development of key aviation standards and regulatory frameworks.

Our default approach defines how we operate across aviation: safety-first, secure by design and focused on dependable operations. This includes addressing emerging risks such as GNSS interference and broader spectrum disruption, supporting the resilience and continuity of navigation and surveillance services.

End-to-end partnership across complex operational environments



Our work extends across the wider travel ecosystem, supporting organisations directly connected to airline operations and the end-to-end passenger journey, including more than 200 transport and logistics clients globally across rail, maritime and road.

We apply data and AI across both operational and commercial platforms to enable smarter retail, distribution and more personalised customer journeys, while maintaining the controls and resilience required in safety-critical environments.

This experience includes supporting large-scale, always-on operations such as global retailer Circle K, and cross-industry solutions like CGI Viewpoint POB, which provides real-time personnel visibility and secure movement coordination. Together, these capabilities help airlines reduce friction across partners and improve data flow across the travel ecosystem.



Cyber resilience by design

Cyber threats are persistent and increasingly sophisticated. Aviation organisations must operate securely without disruption.

Our managed and advisory cyber security services deliver integrated, assurance-led protection. We embed security across platforms, operations and delivery, supported by evidence-based validation.

CGI operates an NCSC-assured Cyber Resilience Test Facility (CRTF) in the UK, enabling validation of products and systems in realistic, high-assurance environments. We are also assured to offer Post Quantum Cryptography (PQC) Discovery and Migration Planning consultancy services.

Our cyber capabilities are complemented by aerospace safety innovation such as CGI VirtualFlightRecorder, developed with support from the European Space Agency and UK Space Agency.

Advancing aviation safety with CGI SignalSense and CGI VirtualFlightRecorder



Electromagnetic spectrum awareness and GNSS resilience with CGI SignalSense

CGI SignalSense addresses the growing risk of Global Navigation Satellite System (GNSS) interference to services such as GPS or Galileo in aviation, where reliance on satellite-based navigation is increasing. Interference, through jamming or spoofing, can disrupt or mislead aircraft systems, posing safety risks.

CGI SignalSense uses a global network of ground-based sensors to detect, characterise, and locate radio frequency interference in real time, even in areas without ADS-B coverage to distinguish and categorise risk to aviation of jamming and spoofing signals greatly enhancing situational awareness beyond traditional systems. By integrating CGI SignalSense, aviation organisations can quickly identify interference sources, maintain operational continuity, and improve resilience and safety in increasingly contested airspace environments.

CGI VirtualFlightRecorder

Harnessing data for smarter, safer aviation, A cloud-based aviation safety solution for secure and authenticated flight recorder data recovery in near real-time while in flight. Provides Global Aeronautic Distress and Safety System (GADSS) timely recovery of flight recorder data compliance through independent, secure, and provenance-controlled storage of transmitted data, helping operators strengthen operational safety, resilience, and assurance. Integrates with FDM/FOQA systems and Safety Management System workflows for straightforward fleet roll out.

A next-generation, long-term transformation partner



We operate as a long-term, accountable partner in complex, large-scale operational environments, taking responsibility for the stability, performance and evolution of critical systems, through:

- AI and intelligent automation
- Cloud and platform modernisation
- Digital transformation
- Cyber resilience
- Business change
- Deep technology, aviation and transport domain expertise.

We are outcomes focused, enabling safer operations, improved productivity and systems designed for long-term reliability. Helping aviation and aerospace organisations move from complexity to operational confidence by running resilient systems built to evolve.



About CGI

Insights you can act on

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomes-focused to help accelerate returns on your investments. Across hundreds of locations worldwide, we provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

cgi.com/uk

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The CGI logo, consisting of the letters 'CGI' in a bold, red, sans-serif font.