



Key Takeaways - IATA Webinar on Use of AI in Safety Management (18 Feb 2026)

Overview of AI at IATA

- IATA - not only an airline trade association - a trusted industry partner for Data and AI, managing global datasets in various scopes within the aviation community
- AI is disrupting the Aviation Industry on the full value chain: in customer satisfaction, ground operations, flight operations, sustainability, etc.
- AI portfolio at IATA includes AI Governance, AI, Communities and delivery of AI Projects.
- IATA actively contributes to the creation of frameworks for AI adoption (Code of Practice, EASA RMT), fosters collaboration between airlines, tech players, and regulators
- AI practitioners are welcome to join and participate in [IATA - AI Network For Airlines](#)
- More detailed information and use cases can be found in the presentation *Overview of AI at IATA – 2026* in Safety Issue Hub under issue: [Artificial Intelligence \(including trustworthiness\)](#)

LATAM Use Case

- The transition from Safety I to Safety II requires leveraging all available data to understand operational variability and anticipate risk.
- AI-driven safety models enable a shift from reactive analysis to proactive risk identification through predictive and prescriptive analytics.
- Integrating multi-source operational data (crew, meteorology, aircraft sensors, and flight context) is key to building robust safety models.
- Delivering simple, personalized pre-flight alerts to pilots helps translate analytics into actionable decisions and strengthens safety culture.
- Early-stage implementation showed high pilot acceptance and behavioral impact, highlighting the importance of usability and trust.
- Experimental validation through A/B testing is critical to measure the causal impact of safety interventions.
- Initial results demonstrate measurable improvements in safety indicators, confirming the value of data-driven approaches.

Delta Air Lines Use Case

- Delta is exploring the use of ML/AI on the processing and analysis of safety reports across a few of its operational safety teams. Several models have been implemented and are being used daily to help categorize safety reports through a custom taxonomy as well as summarize the narratives, remove PII, and identify elevated risks or trends. Additionally, there has been incredible value found in the ability to use a conversational AI model to search within the categorized narratives and quickly summarize safety topics of interest - from user-inputted topics to known safety hazards. Overall, the work done has

focused on ensuring that the analysis can quickly glean insights from expert-validated taxonomy applied to the cleaned data, saving hours and days of work as well as quickly highlighting risk-based insights.

IATA GADM – Introduction of AI and Use Cases

GADM Presentation part 1:

- Global Aviation Data Management (GADM) is IATA's centre of excellence for aviation safety, security, operational data, and advanced analytics.
- GADM leads key industry programs including the Flight Data Exchange (FDX), Incident Data Exchange (IDX), Maintenance Cost Exchange (MCX) while supporting the IATA Annual Safety Report which. In 2024 GADM launched the FuelIS and SafetyIS to provide fuel efficiency and safety insights to airlines and other stakeholders respectively. Today, GADM represents more than 347 aviation related organizations (Airlines and Ground Handling Service Providers) worldwide.
- Beyond program data collection, GADM integrates additional sources — including weather, NOTAMs, airport and runway data, global ADS-B, and turbulence — to build comprehensive aviation datasets. These enable in-depth safety studies, global safety analysis, and evidence-based reporting. The organization works closely with industry and academia and applies AI responsibly, supported by clear bias-detection and Responsible AI principles.
- Incident Data Exchange (IDX) is a global, de-identified incident database covering operational and security events. Protected under IATA's rule-of-three confidentiality framework, it enables contributors to identify trends through advanced dashboards. IDX leverages three AI layers: Generative AI for data enrichment, AI-driven incident classification, and AI scoring to enhance report quality and training outcomes.

GADM Presentation part 2:

- In this presentation, we shared some of the real projects our team has been working on to make safety data easier to understand and more insightful for our airline members. We walked through how we process and summarize incident reports, how we automatically map airline classifications to a common taxonomy, and how we help airlines compare themselves to similar peers. We also highlighted the practical challenges we face with large, complex datasets, and how we make sure our work stays safe, responsible, and supported by human expertise.

GADM Presentation part 3:

- This presentation highlights how Actionable Insights will help airlines move from manual insights exploration to automated identification of meaningful safety trends in the FDX and IDX programs. By introducing a new trend-variation metric and delivering insights through an executive-focused dashboard, we simplify complexity, surface hidden patterns, and guide users toward the SPIs that matter most. The result is a clearer, faster, and more proactive approach to safety performance monitoring across the industry.
- Additionally, the new IDX BIAS scores will provide further contextual information for the analysed data points, strengthening user decision-making and improving interpretation of analysed trends.