



# Risk & Insurance Management (RIM) Forum

## Post Forum Brief + Agenda

### Key Themes and Takeaways

#### **The Growth of AI and Its Impact on Aviation**

Artificial Intelligence (AI) continues to shape global industries, and aviation is no exception. The IATA Conference 2025 spotlighted how AI is disrupting traditional models, raising both potential and concerns.

AI's role in creating deepfake content—including fabricated images and videos of public figures like Donald Trump—has raised alarm bells. Notably, AI-generated content showing Trump's fake arrest or manipulated images of him kneeling in prayer were widely disseminated on social platforms like Twitter and Truth Social.

#### **The Numbers Tell a Story**

- \$4.8 trillion: Projected global AI revenue by 2033.
- \$244 billion: Current AI market revenue, up 26% from last year.
- \$730 million to \$23 billion: Projected growth of AI in aviation by 2031.
- \$6.7 trillion: Investment in AI infrastructure expected by 2031 (McKinsey).

Despite the staggering figures, experts urged caution. Lessons from the blockchain hype of previous years serve as a reminder that not all innovation translates into long-term success. French President Macron's \$110 billion AI commitment underscores the geopolitical importance of leading this domain.

#### **Risks and Ethics in AI**

The concern isn't just about robots taking over jobs—it's about balancing quantum innovation, equity, and ethics. With new threats like agentic AI (AI agents capable of independent decision-making), the need for safety frameworks is paramount.

Security issues such as quantum computing's ability to break encryption highlight the urgent need for mitigation strategies. These include:

- Regular model reviews and human oversight
- Explainability in algorithms
- Addressing data poisoning risks



- Creating incident reporting systems
- Industry collaboration

### **Sanctions Panel: Complexity and Compliance**

Sanctions remain a potent geopolitical tool, and the insurance industry is feeling the impact—particularly with sanctions related to Russia. The conference explored how sanctions affect reinsurance, where international players support local markets, creating unexpected ripple effects.

### **Key Clauses and Industry Practices**

- AVN111 and AVN111R: Widely-used clauses in aviation that void coverage if sanctions apply.
- LMA3100: A detailed Sanctions Limitation and Exclusion Clause, acting like an "onion" with many layers, particularly vital for cross-border aircraft leasing and finance.

Brokers must now perform thorough due diligence on insurers and reinsurers. The \$9 billion fine on BNP Paribas illustrates the high stakes of getting sanctions compliance wrong.

The *Celestial Aviation Services v UniCredit* [2024] case illustrates the risk: UK courts upheld Regulation 28 of the Russia Sanctions Regulations, blocking legacy payment contracts if sanctions apply. The court also criticized UniCredit for not securing an OFAC license, reinforcing the importance of proactive licensing strategies.

### **Fraud and Forensic Monitoring**

Fraudulent claims—like overpayments—are increasingly used to bypass sanctions, especially in shipping, healthcare, and energy. AI and forensic accounting tools are now vital for detecting patterns of fraud.

### **A New Age for Aviation Risk Management**

#### **Geopolitical Threats and Conflict Zones**

Missile strikes remain the deadliest threat to air transport. Since 2001, there have been 9 shootdowns or near misses.

Case in point: Flight PS752, shot down by the IRGC in 2020, killing all 176 on board, after being mistaken for a threat during U.S.-Iran tensions.

The aviation industry must develop predictive intelligence and dynamic risk modelling to navigate increasing geopolitical threats. This includes understanding speculative frameworks like the Mar-a-Lago Accord, a proposed U.S. policy involving tariffs and long-term debt instruments which could disrupt global investment and aviation safety initiatives.

#### **Climate Change: Aviation's Next Frontier**

##### **SAF and Net Zero Goals**

Aviation is now focusing on Sustainable Aviation Fuel (SAF) and a Net Zero strategy by 2050.

- SAF sources: Used cooking oil, agricultural waste, algae, and municipal waste
- SAF reduces lifecycle emissions by up to 80%



- Compatible with existing infrastructure, helping reduce Scope 1 emissions

To achieve Net Zero, the industry must:

1. Scale SAF use
2. Modernize fleets
3. Optimize operations
4. Invest in carbon offset projects
5. Embrace hydrogen and electric aircraft

This transition won't be easy. The aviation ecosystem's complexity sets it apart from other transport modes. OEMs face major pressure due to material shortages (like titanium from the Russia-Ukraine conflict), and skilled engineers are in short supply—100,000 aircraft engineers left the US between 2019-2021.

### **Cybersecurity and Connected Risk**

Cyber threats are evolving rapidly. State actors, organized crime, and even children as young as 8 are exploiting aviation's data-rich environment.

The 2015 Tianjin explosion exposed how interlinked risks can cascade across systems. This realization has driven calls for Enterprise Risk Management (ERM) frameworks that tackle climate, cyber, and supply chain risks holistically.

Insurance, Innovation, and Financial Resilience

- \$10 trillion in global insurance capital could be mobilized through tools like:
  - Blended insurance models
  - Surety bonds
  - Parametric insurance (to inject cash swiftly after disruptions)
  - Captives and risk financing vehicles

This approach allows businesses to address non-damage business interruption, especially in critical areas like semi-conductor supply chains.

### **Culture and Competency in Aviation Risk**

People and culture are at the heart of sustainable change. The industry needs:

- A standard risk lexicon
- Tools from behavioural- science (e.g., nudge theory) to drive awareness
- Transparency: 52% of accidents lack a published final report
- Per the presentation by Boeing - Pilot competency frameworks and competence -based training -



- Regular pilot reassessments, similar to driving tests

### **Summing Up Day 1: A Brave New World for Aviation**

We are entering an era where old rules no longer apply. Global supply chains are more interconnected than ever—e.g., parts of a Boeing Dreamliner hull are made in Italy.

To manage modern aviation risk effectively, stakeholders must:

- Embrace strategic risk frameworks
- Rethink investment and compliance
- Leverage data and intelligence
- Cultivate skilled talent and robust infrastructure

The future of aviation is both promising and precarious. With foresight, collaboration, and innovation, we can navigate it safely.

### **IATA Conference 2025 – Day 2**

#### **War Risk and Nuclear Clauses: A New Era for Aviation Insurance**

The second day of the IATA Conference 2025 delved into some of the most complex and pressing challenges facing aviation insurance today—chief among them, war risk, nuclear threat exclusions, and the global industry's evolving response.

#### **What Happens If a Nuclear Weapon Detonates?**

One of the most sobering discussions revolved around the implications of a nuclear detonation in today's geopolitical context. Historically, just one nuclear strike triggered automatic grounding of all civil aviation, a hangover from Cold War-era thinking that any use of nuclear weapons would lead to global conflict.

But the situation is no longer so binary. With the rising threat of tactical nuclear weapons in regional conflicts like Ukraine or Kashmir, the industry is now moving toward more nuanced insurance responses.

#### **Evolving Clause Frameworks**

Several key updates to longstanding clauses were discussed:

- AVN52E provides widespread war risk coverage but excludes nuclear detonations. Critically, Paragraph A of this clause terminates all risk in the event of such an incident.
- AVN48B, a classic exclusion clause, remains limited and is under increasing scrutiny.
- The LIIBA 7-day clause, while not yet universally adopted, offers a transitional "breathing space" allowing insurers and operators to coordinate post-incident—effectively acting as a grace period before cover is cancelled.
- The IUA (International Underwriting Association) has developed a non-conflict-specific 7-day clause, supported by reinsurers and considered workable.



## **Challenges in Execution**

Despite industry efforts, coordinating aircraft and passenger movements globally within seven days—especially for repatriation—remains nearly impossible. Underwriters agree in principle, but the logistical scale is daunting. Governments have yet to formally commit to a contingency framework, and legal complications such as force majeure landings further complicate operational risk.

The new 2023 U.N. 5 Powers Clause adds another layer of complexity. This clause excludes coverage in the event of war—declared or otherwise—between any of the five permanent members of the UN Security Council (US, UK, France, Russia, China).

## **A More Tactical, Real-Time Response**

In a bid to modernize response protocols:

- A 15-member risk panel would convene within four hours of a nuclear incident.
- These assessments would be made region-by-region, using real-time threat intelligence
- Flights could potentially continue in unaffected airspace, reducing the likelihood of global aviation paralysis.

One speaker summed it up best: “The old Armageddon assumption is out of date. Tactical nukes can now be as small as 0.3 kilotons, and the industry must evolve.”

## **Turbulence Panel: Forecasting Risk in a Shifting Climate**

Turbulence remains one of aviation’s most persistent safety issues—impacting operational resilience, insurance claims, and even passenger psychology.

### **Understanding Turbulence Risk**

Turbulence refers to air moving in conflicting directions. The eddy dissipation rate (EDR), measured in  $m^2/s^3$ , is now the standard metric for gauging turbulence intensity rather than probability.

- Turbulence is the leading cause of non-fatal injuries to cabin crew and passengers.
- It contributes to brand damage, legal claims, and operational costs.
- It is predicted to increase by 149% in the next decade, driven by climate change and CO<sub>2</sub>-induced convection.

### **IATA’s Turbulence Aware Program**

Modern solutions are emerging. The IATA Turbulence Aware program now collects real-time turbulence data from 2,700 aircraft across 27 airlines, producing 180 million+ reports to date.

Benefits include:

- Enhanced situational awareness
- Improved flight safety
- Reduced fuel usage and emissions



- Potential for lower premiums and maintenance costs

This data could also form the basis for parametric insurance—policies that automatically pay out based on measured turbulence levels (via EDR data).

### **The Human Element**

Turbulence doesn't just break tray tables. Some passengers experience trauma severe enough to warrant psychological first aid, now increasingly offered through virtual or in-person therapy.

While aircraft structures like the Boeing 777 are engineered to withstand 154% of the ultimate load, the legal landscape is shifting. A recent EU court ruling found airlines liable for psychological damages, even without physical injury—potentially expanding insurance exposure.

### **Legal panel**

Lawyers from Asia-pac, USA, South America, Europe and UK, who handle liability claims globally on behalf of insurers for airlines worldwide, gave updates on recent cases of importance to everyone involved in airline risk management and insurance.

## **State of the Market: Aviation Insurance Outlook**

### **Capacity, Claims, and Litigation**

The aviation insurance market remains well-capitalized, with premiums near the long-term average of \$1.6 billion. However, the sector is facing pressure:

- Three mass fatality events since December 2024
- First U.S. commercial airline crash since 2009
- Attritional losses are tracking at \$900 million
- Claim costs are 60% higher than pre-Covid levels
- Hull claim ratios exceed 100% due to repair complexity and inflation

### **Claims Trends and Pressures**

- Composite materials, engine repair exclusivity, and labour shortages are pushing up costs.
- Long-tail claims, involving legacy aircraft, are returning to the spotlight.
- Examples include the East River crash litigation and the UK billionaire helicopter crash.
- A \$116 million jury award in September 2024 shows the growing liability exposure.
- Swiss Re's reported withdrawal from certain aviation lines underscores market volatility.

Calls for tort reform are growing louder, as escalating litigation costs begin to affect society at large.

## **Summing Up Day 2: A Market in Transition**



The insurance industry is at a crossroads. From war clauses to climate-driven turbulence and litigation globally, risk complexity is accelerating. But innovation is catching up:

- Data-driven risk modelling is becoming standardised.
- Operational resilience is being embedded into underwriting.
- The market is healthier than it's been in years but faces sharper scrutiny, rising costs, and more stakeholders than ever.

Adaptability and collaboration will be the keys to navigating the uncertain skies ahead.

### **Conclusion**

To sum up the main message from the two days of the event, aviation risk is evolving rapidly—technologically, geopolitically, and environmentally. The industry is moving toward more adaptive, data-driven, and collaborative approaches to manage complex, interconnected threats. But success hinges on cross-sector alignment, regulatory agility, and a shift in risk culture and workforce readiness.



**IATA RIM Forum  
London, 21-22 May  
2025**

**Addressing the Day-to-Day Issues Faced by Airline Risk  
and Insurance Managers Globally  
in a Fast Changing and Unstable World**

**1. IATA RIM25 KEYNOTE ADDRESS: "DEMYSTIFYING ARTIFICIAL INTELLIGENCE"**

**Keynote:** Professor Salma Abbasi, PhD, FRGS, FCMI, FRSA - Founder, Chairperson and CEO, eWorldwide Group

**2. SANCTIONS**

**Chair:** David Sales - Price Forbes

**Panel:** Philip Clayton – Willis; Sam Mason – Kennedys; Anousheh Bromfield – Clyde &Co; David Savage – HFW

**3. WHAT ARE THE GREATEST THREATS TO GLOBAL AIR TRANSPORT – PARTS 1 AND 2**

**Chair:** Tarquin Folliss OBE and Vice Chair SASIG

**Co-Chair part 2:** Suki Basi MD Russell Group

**Panel:** Ano Kuhanathan – Allianz; Andrew Nicholson – OspreyFS; Andrew Hall – Howden Group; Scott Hudson - Bridewell; Lazar Vrbaski - Clyde and Co; Vince Sherlock – McLarens; Peter Coles HFW; Matthew Smith – Liberty; David Hully - RISCs; Muhammed Anwar – Willis; Cynthia Mukiwa – AJ Gallagher; Sandy Lonsbury - AJ Gallagher; Yann Krattiger – SwissRe; Preeti Jain – IATA

**4. CYBER BREACH PREVENTION – CAN WE CHANGE INSECURE BEHAVIOURS IN REAL-TIME?** Tim Ward, CEO ThinkCyber

**5. BOEING – PILOT – COMPETENCE BASED TRAINING & ASSESSMENT (CBTA)**

**Panel:** Erin Lombardi; Kieran Byrne

**6a) SAFETY OVERVIEW - Mark Searle, Director**

**6b) PRESENTING SAFETY TO UNDERWRITERS**

**Chair:** Jason Humphreys – Howden Group

**Panel:** Catalina Triana Martinez – Air Canada; Nalini Lalla – Caribbean Airlines; Alexander Waintrub Fischer – LATAM

**7. WAR RELATED COVERAGES**

**Chair:** David Sales LIIBA

**Panel:** Andrew Bratby - LIIBA; Rob Sterry – AJ Gallagher; Jette Varnals – IUA; Johnny Wadhams – Willis

**8. TURBULENCE THE TOTAL PICTURE**

**Chair:** Rob Lawson - Clyde and Co and Peng Lim – Liberty

**Panel:** Turbulence Aware, Alberto Fornaci – IATA; Mark Searle – IATA; Gary Clift – McLarens; Steve Wilkinson – AJ Gallagher; Ashleigh Ovland – HFW; David Mitchell – Kennedys; Elmarie Marais – GoCrisis; Dr Jai - Trauma Psychologist; Bart Banino – Condon & Forsyth LLP; Shabita Sumaraj – Kenyon; Abigail Pollard – Blake Emergency; Andrew Bowman - Willis; Preeti Jain IATA

**9. GLOBAL LEGAL PANEL –**

**Chair:** Saleema Brohi - Knights plc

**Panel:** Julio Costa – HFW (Brazil); Bart Banino - Condon & Forsyth LLP (New York); Charles Robin - Clyde & Co (London); Benjamin Rathelot – Kennedys (Paris); Mark Welbourn – Kennedys (London); Matthew Reeve KC – Quadrant Chambers

**10. MARKET UPDATE – Gareth Howell: Underwriting Director Global Aerospace**