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ICAO 4th Civil Aviation Legal Advisers Forum

27 to 29 May 2026 | Nassau, Bahamas

Hosted by





Shaping Aviation Insurance for Emerging Aerospace Risks

ICAO Civil Aviation Legal Advisers Forum (CALAF/4)

Nassau, The Bahamas, 27th to 29th May 2026

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Shaping Aviation Insurance for Emerging Aerospace Risks

Agenda

1. Identification of emerging risks
2. Main aviation industry threats
3. Regulatory requirements
4. Risks and Insurance Solutions
5. Conclusions

Identification of emerging risks

Definitions

- “Emerging critical risks are those critical risks that are either new risks or familiar risks that are evolving due to new or unfamiliar conditions.”

[Source: OECD (2025), *Managing Emerging Critical Risks*; OECD Publishing, Paris, <https://doi.org/10.1787/1f9858ea-en>.]

- “A new or unforeseen risk that we haven’t yet contemplated. This is a risk that should be on our radar, but is not, and its potential for harm or loss is not fully known.”

[Source: Stanford University, [Definition of Emerging Risk](#) | Office of the Chief Risk Officer]

- Emerging aviation risks are evolving threats and have the potential to significantly affect an organization’s operations, financial performance and strategic goals. These risks aren’t isolated; they are interconnected and require a holistic approach to manage effectively.

[Source: [WTW Emerging and Interconnected Risks Survey Report – WTW](#)]

Identification of emerging risks

Key characteristics

- Evolving and dynamic
- Systemic impact
- Novel or unprecedented
- Interconnected



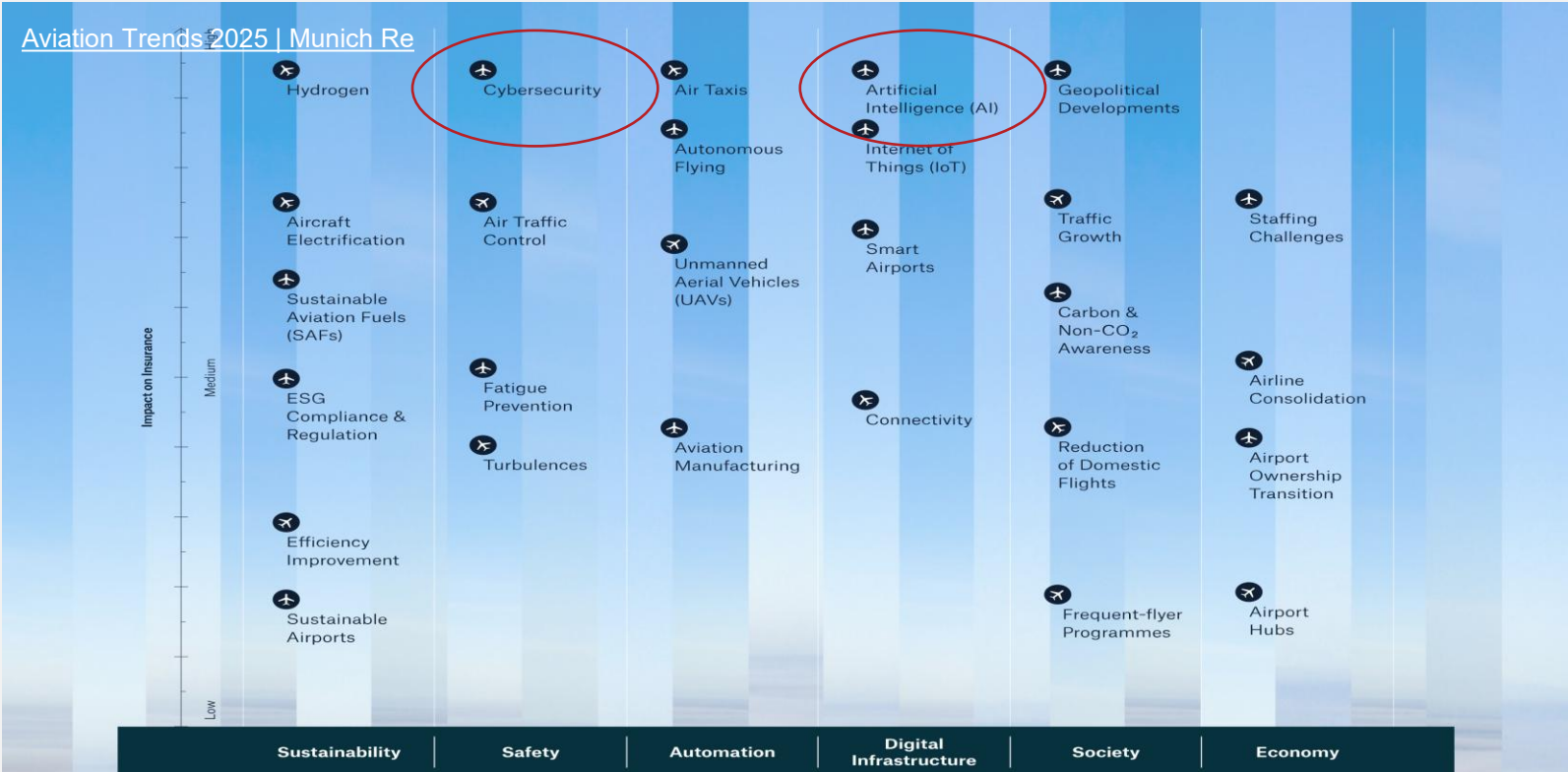
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Main aviation industry threats

Aviation risk trend analysis



Main aviation industry threats

Cyber and AI risks as top global challenges



Agentic AI will become mainstream and shape offense and defense actions with scale, speed and precision.

Cybercrime with increasing franchise-like operations, end to end “Fraud as a Service” offerings and platforms will lead to ongoing industrialization of cybercrime.

Geopolitics will drive more APTs toward espionage, sabotage and disruption of AI infrastructure and critical infrastructure.

Digital supply chains have become essential for national & global security.

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Regulatory requirements



- (PRA) 2017: “...insurers do not currently have clear strategies and risk appetites for managing cyber risk, both **affirmative** and **silent**”.
- The PRA has significant concerns about the loss potential of ‘**silent**’ **cyber risk** and has identified material shortcomings in the management of this risk.
- Insurers are expected to **identify, quantify and manage** the risks emanating from affirmative and ‘silent’ cover.
- Provide policyholders with **greater contract certainty** as to their level and type of cyber risk coverage.

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Overview of regulatory requirements for cyber risks



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New focus in global regulatory approaches to AI Risks

- Because of concerns about **major AI risks**, including loss of control and terrorist misuse, regulators are trying to **balance innovation with public protection**.
- The **EU prioritises safety** through the AI Act, while the **US federal approach places greater emphasis on innovation**. At the **state level**, US regulators remain more focused on safety.
- With respect to **product liability** as applied to AI, the EU's Product Liability Directive now classifies **software as a product**, meaning **AI developers, vendors, and deployers** may be exposed to new liabilities.
- In the US, **some court decisions** have favoured the **concept of product liability being applied to software**, and hence AI.

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Typical cyber losses in aviation

Year	Country	Type of loss	Attack vector as reported
2026	Japan	Suspected data breach later reclassified to contractor error (no external leak)	Initially described as unauthorized access; later concluded no external access and contractor maintenance error with log alteration
2026	Côte d'Ivoire	Cyberattack with data exfiltration	Not disclosed
2025	Australia	Third-party platform breach / customer data theft	Compromise of third-party contact center/customer service platform
2025	United States	Cybersecurity event causing IT disruption	Not disclosed (Reuters notes language often used in ransomware contexts; airline did not confirm)
2025	France / Netherlands	Third-party data breach (contact center platform)	Unauthorized access to third-party platform used by contact centers
2024	Japan	Service disruption (DDoS suspected/reported)	DDoS / large volume traffic against network equipment (per reporting)
2023	France / Netherlands	Loyalty program account compromise / data exposure	Not confirmed (unclear whether credential stuffing or other access)
2023	Kenya	Ransomware claim with data leak sample (RansomExx)	Not disclosed

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Cyber coverage under aviation insurance

Aviation Insurance

Insured Interest (PD/BI)	Clauses	Coverage	Uninsured Interest (Pure Financial losses)
Liabilities for damages to Passengers, Baggage or Cargo	<p>AVN 48B War Hi-Jacking and other perils exclusion clause; malicious act and act of sabotage</p> <p>AVN 52 variants Extended coverage endorsement (Aviation Liabilities)</p>	<ul style="list-style-type: none"> • Full policy limit AVN 52 pax liabs • Full policy limit in case of accident AVN 2001A • Excess non aviation liability 	<ul style="list-style-type: none"> • Flight cancellations or delays • Airport or airspace closures • Data & Privacy breaches • Loss of data • Cyber Extortion • Crisis Management Costs (PR, IT Forensics, Legal etc.) • Regulatory fines and penalties • IP infringement
Liabilities for damages to Third Parties (Ground victims)	<p>AVN 2000A Date recognition exclusion clause; year, date and time data</p> <p>AVN 2001A Date recognition limited coverage clause – accidental BI/PD for aircraft liabs</p>	<ul style="list-style-type: none"> • Sublimit AVN 52 TPL • War excess AVN 52 TPL 	
Damage to Aircraft and spares	<p>AVN 2002A Date recognition limited coverage clause for non aircraft liability</p>	<ul style="list-style-type: none"> • Full policy limit in case of accident AVN 2001A • Full policy limit in case of accident AVN 2002A 	

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Cyber insurance – A modular concept

1st Party Costs



(Contingent) business interruption

Lost profits and extra expenses incurred due to the unavailability of data and IT systems at the insured or resulting from the IT failure of an external third party (e.g., cloud provider).



Data restoration & recreation costs

Reimbursement of costs to restore data and software after a cyber incident.



Incident & breach response costs

Reimbursement of cost of responding to an event such as IT forensics, notification, credit-watch services.



Cyber Extortion

- (Threat of or) loss, leak or destruction of (customer) data
- Includes payment of ransom where legally permissible



Cyber Crime

Reimbursement of loss of funds (e.g., CEO fraud).



PCI DSS

- Reimbursement for contractual fines and penalties for non-compliance against Payment Card Industry Data Security Standards (PCI DSS)
- Costs can cover a PCI forensic investigation, PCI-DSS recertification, reissuing of credit/debit cards

3rd Party Liability Claims



Network security liability

3rd-party liabilities arising from security events occurring within the insured's IT network or passing through it in order to attack a third-party.



Privacy & data breach liability

Covers 3rd-party claims following a data breach relating to confidential information or personal data of a 3rd-party made against the policyholder.



Media liability

Cost for investigation, defense cost and civil damages arising from defamation, libel, slander, copyright/trademark infringement, negligence in publication of any content in electronic or print media.



Tech E&O

Coverage for third-party claims relating to failure to provide adequate technical service or technical products, including legal costs and expenses of allegations resulting from a cyber-attack or IT failure

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Looking ahead: AI Agents

- AI agents are software systems that can perceive inputs, make decisions, and take actions autonomously to achieve specified goals, often by interacting with digital tools, data sources, other systems, or users.
- AI agent can plan, act, transact, and execute on a company or individual's behalf using the LLM as a 'brain'.
- Identified **challenges** of Gen AI are:
 - Hallucinations
 - Agent misalignment (the intention of the consumer is misinterpreted).
 - Cybersecurity risks (prompt injection, data privacy and hacking risks).
- New liabilities for **developer**, **distributor** and **deployer**

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Traditional Insurance and AI

- London market cyber clauses include a consistent definition of **Computer System** which implies AI if qualified as **software**.
- Potential **Coverage gaps** might be related to **unique AI exposures** which are **not specifically addressed** by current Cyber, Tech E&O, Product Liability or CGL policies such as
 - Hallucinations
 - New ways of IP infringement
 - Data disclosure via outputs
 - AI-specific or technology-neutral regulatory non-compliance.

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Traditional Insurance and AI

- New ISO CGL exclusion endorsements **explicitly exclude Gen AI** from general liability cover to varying degrees and these are being slowly adopted by some US carriers.
- Many policies, especially cyber, commonly treat AI risks as ‘silent’, neither affirmatively covered nor excluded. Underwriters will be exploring if they will provide cover and, if so, how to price for these exposures, and aggregation across multiple lines remains a challenge.
- Limited examples of **AI specific clauses** or policy language have been seen in London market to date.

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Standalone AI covers

Standalone AI insurance products targeting these coverage gaps:

- Performance Guarantee Insurance covering a first-party performance guarantee of the model itself (which requires an invasive evaluation)
- AI liability (third-party) insurance for enterprises deploying Gen AI.
- AI liability cover which requires a double trigger:
AI underperformance leading to financial or legal claims.

Shaping Aviation Insurance for Emerging Aerospace Risks Unmanned Aerial Systems (UAS/UAV)

- Hull “All Risks” and Liability Coverage
- Payload or Equipment Coverage
- Ground Equipment Coverage
- Personal Injury Coverage
- Non-Owned Liability Coverage
- Loss of Revenue or Business Interruption Coverage
- Regulatory Compliance Coverage

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Summary & Conclusions

- As AI becomes globally more embedded in electronic operational processes, the insurance market will need to **evolve** its approach to **risk assessment, policy design, and claims management**.
- AI risk is a **present and accelerating exposure** that is already testing the limits of current insurance products and, inevitably, insurance contracts.
- Whether addressed through **standalone solutions** or broadening of existing products, **clarity and collaboration with other stakeholders** will be key to ensuring that insurance keeps pace with technological change.

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Summary & Conclusions

*“Man errs as
long as he strives”*

[Quote: Johann Wolfgang von Goethe]

More insights: [ICAO Training - Aviation Liability and Insurance \(ALIC EN\)](#)



Image:

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