

SESSION DESCRIPTIONS

A Global Resilient Aviation Network

Moderator: Saulo Da Silva, ICAO

Panelists: Patrick Mana, Eurocontrol; Robert Segers, FAA; Jerry Hancock, ICCAIA/Industry: Inmarsat Aviation; Dan Diessner, ICCAIA/Industry: Boeing

Aviation is a safety critical business. The air navigation system is becoming more complex due to the continuous growth of air traffic — expected to double within the next fifteen years, moving passengers and cargo around the globe — and the emergence of “new entrants” with significantly different operational characteristics and needs. Therefore, to manage this complexity and improve the safety and efficiency of operations which ultimately provide financial or operating benefits, the air navigation system must transform and build upon the use of emerging technologies, information, connectivity and concept of operations, some of them not specifically designed for aviation purposes. The secure exchange of information on a global basis, enabled by a global resilient aviation network built upon a trust framework, is essential to allow this transformation, as reflected in the Global Air Navigation Plan. This places a premium on aviation’s approach to cybersecurity.

Air Traffic Control: Aligning Cybersecurity to the Mission

Luci Holemans and Susmit Panjwani, FAA National Airspace System Information Security

Join representatives from the US FAA as they present the process, considerations, and outcomes of their recent reclassification of National Airspace System (NAS) systems in accordance with Step 1 of the NIST Risk Management Framework, following FIPS 199 guidelines, and with NIST review.

An Airport CISO’s Dilemma

Cecil Pineda, Dallas-Fort Worth International Airport

The presentation covers the challenges of managing the cyber security threats and risks for airports today – from managing vendors and partners, securing and protecting IoTs/OT/ICS/SCADA, meeting compliance and regulations (PCI, CJS and Data Privacy), reporting security metrics to executives, working with auditors and cyber insurance brokers and underwriters, and preparing for that inevitable security breach.

How can Airport CISOs and Security Leaders keep up with all these tasks and responsibilities? Easy – Cecil will present a way to manage these cyber chaos. He will present a similar approach and strategy he implemented in his past organizations. This will also include a suggested framework that can be a blueprint for most airports and other organizations.

Aviation and Navigating Ever-Changing Global Privacy Regulations

Michael Mettenheimer, Oracle

Consider this: 26% of US air traffic goes to international destinations, and 20% of international travelers are European. Aviation is by definition a global business. And global businesses must abide by ever-changing global regulations. Most recently, the European Union’s new Global Data Protection Regulation has threatened to hoist some of the largest fines ever on any company that fails to comply with its standards for handling European citizen data. Understanding recent regulations like GDPR and strategies on how to address them is essential, not just for airlines or European-based companies, but also for anybody who does business with them. Join us for insights on how to keep up in this evolving world.

A World Tour of Enterprise Risk Management

Steven Chabinsky, White & Case

Privacy and compliance issues are changing almost daily. From GDPR to proposed Chinese cybersecurity laws, the global aviation community is hard-pressed to keep it all straight and become compliant. Listen as one of the most influential people in security challenges us to think strategically on enterprise risk management and pushes for ideas on how our organizations will get business processes in line with ever-evolving regulations.

Blockchain for Global Aviation Business Transformation: What Will It Take to Be Adopted and Integrated?

Jeffrey Moyer, IBM

Blockchain technology represents a significant time and cost improvement over conventional transactions. How can the aviation industry benefit? When and if we should be prepared to adopt blockchain as a means to track and record transactions. Today? Two years from now? What do some ideal blockchain use cases look like for the various businesses operating with the aviation space? Leading industry experts will show us the way.

Catching Threats before They Take Flight

Dan Katz, Anomali

Similar to the evolution of the IoT, and the challenges that introduces, the Aviation industry is undergoing a major evolution of modernization. This can come in the forms of automated boarding pass kiosks at airports, new entertainment systems for onboard passengers, or even new jet engine designs that present an entire new vector of Intellectual Property. These enhancements provide new benefits with new risks, forcing security professionals to weigh efficiency against unneeded complexity with more security. This talk discusses the threats those challenges introduce, and strategies to prioritize accordingly.

Cybersecurity and Risk Management Collaboration between Denver International Airport and Boeing: A Case Study

Tim Coogan, Denver International Airport; Shawn W. Lorimer, Boeing

One of Denver International Airport’s (DEN) biggest challenges is providing cybersecurity oversight to the 400 IT services required to operate a world-class airport. How can the organization provide proper ongoing risk management with such a small team? DEN approached Boeing to assist with the development of a light-weight risk management methodology and custom control framework. Two years later, the teams are ready to share the great results of their work together.

Defending Digital Transformation

Moderator: Andrea Webster, United Airlines

Panelists: Alex Tarte Garibaldi, COPA; Mark Guttman, Southwest; Becky Selzer, United Airlines; Jean-Francois Simons, Brussels Air; Olivia Stella, American Airlines

Digitalization is nothing new - but the pace of change it is driving is unprecedented. Agility is key in the race to “be disruptive - or prepare to be disrupted” and boardrooms are increasingly focused on the power of emerging technologies, embracing “app-ification” and harnessing the cloud. In these times of accelerated change, the role of the CIO has evolved to become an agent of transformation. New “Digital” or “DevOps” teams are emerging, often outside the confines of the IT department, yet cybersecurity continues to be one of the top concerns for CEOs. And so, Information Security needs to change its approach, in order to guarantee that digital transformation effectively disrupts the competition, whilst keeping the business, its customers and its assets secure.

A panel of Information Security specialists from American Airlines, Brussels Airlines (Lufthansa Group), Copa Airlines, Southwest Airlines and United Airlines will discuss how they are addressing this challenge.

Destructive Attacks: Changing the Game

Shawn Henry, CrowdStrike

The investigation and remediation of high-profile targeted intrusions and unprecedented destructive attacks have garnered global attention in the past year. The stakes have never been higher for businesses struggling to protect their networks from highly sophisticated adversaries – often exploiting the supply chain and breaking the trusted relationships of organization with their entire customer base.

This session will focus on enhanced adversary activity, supply chain attacks, the impact of these attacks on the businesses they target, and why the transportation sector and aviation industry are logical targets. It will also address critical lessons learned in the course of responding to recent attacks, as well as the IR and remediation efforts employed.

EASA Research on Impact Assessment of Cybersecurity Threats

Juan Anton, European Aviation Safety Agency (EASA)

EASA will share the initial results of its study on Impact Assessment of Cybersecurity Threats (IACT), including successes, areas for improvement, and quick wins to increase current safety levels. The objective of the study was to contribute to a knowledge base for the impact assessment of security threat on flight operations with a focus on successful vulnerabilities exploitation in a realistic, although simulated, operational environment, including average commercial crew, full flight simulator, and ATM.

EATM-CERT, SWIM Common PKI, and Trust Framework: Eurocontrol’s Cybersecurity Solutions

Patrick Mana, Eurocontrol

The European Air Traffic Management Computer Emergency Response Team supports the prevention and Pan-European response to ATM cybersecurity alerts and incidents. Hear directly from EUROCONTROL about how the agency provides the necessary proactive and reactive services to support ANSPs and airport operators of EUROCONTROL member states and EUROCONTROL itself. We will also hear about the proposed SWIM Common PKI/Bridge project to develop and deploy a common framework for both integrating local PKI deployments in an interoperable manner and provide interoperable digital certificates for SWIM.

Engaging with Threat Researchers

Jeff Troy, Aviation ISAC; Peter Cooper, Atlantic Council Cyber Statecraft Initiative

Jeff and Pete will discuss the opportunities and challenges of working with aviation cyber threat researchers.

Global Cybersecurity Regulatory Changes to Aviation by EASA and the FAA: Organizational and Aircraft

Moderator: Dr. Stefan Schwindt, GE Aviation Systems

Panelists: Siobhan Nyikos, Boeing; Juan Anton, European Aviation Safety Agency

EASA and FAA are in the process of updating the technical regulations for aircraft to include safety protections against cybersecurity attacks. These organizational requirements will form an Information Security Management System whose rules mirror those of the existing Safety Management Systems. As part of the organizational requirements, Shared Trans-Organizational Risk Management (STORM) workstream is investigating a framework for sharing risks and mitigations across the aerospace sector.

This talk will provide EASA and the FAA’s views on the motivation of the updates as well as a response from industry on how to satisfy the regulations. This talk will also encourage discussion on the role of the International Aviation ISAC and ECCSA in satisfying the new regulations.

Leading from the Front

Mandy Hickson

Flying a multi-million pound fighter jet in hostile territory is not an everyday career, and comes with a high degree of pressure and responsibility. It’s a dream job that takes years of ambition, training and commitment but, for Mandy Hickson, it was a dream that became reality.

Mandy will share with her incredible journey to become one of the UK’s first female, fast-jet pilots and how she overcame many obstacles to develop the skills to succeed in such a demanding career. She will help us see how her successes can be applied to our challenges.

Most of Your Customers Are Bots

Patrick Sullivan, Akamai Technologies

Digital transformation means new opportunities and threats for airlines. But bots that scrape digital sites and apps for tickets drive up traffic to APIs and lock up seats, resulting in increased costs from false bookings as well as lost revenue opportunities from legitimate travelers. In this session, Akamai will review data collected from 1.3 billion client interactions everyday that highlight how over 82% of online activity for travel businesses is generated by bots, the anatomy of a bot campaign, how threat actors have been evolving their behavior, and how to keep airline security leaders educated to maximize their defenses.

NASA’s Innovation Engine - Addressing the Challenges of the Future

Dr. Christyl Johnson, NASA Goddard

In order to address the critical issues facing the global aviation community, creative solutions must be brought to the table. Since the challenges impact multiple communities, solutions must be sought in a collaborative manner using innovative technologies and coordinated policies to realize efficiencies where possible. NASA has been an innovation engine not only for the aerospace community, but for diverse communities across the nation. This presentation will reveal how NASA has been partnering with multiple communities to help solve some of the most critical challenges they face today, and some of the technology investments NASA is making to address the challenges of the future.

Stress-Testing Global Aviation Operations: An Interactive, Real-World Scenario Crisis Management Exercise

Good Harbor Consulting

Though cyber attacks are inevitable, the resulting damage to an organization or industry is not. Preparing for cyber incidents is essential to minimizing their impact. Without adequate crisis management preparedness, organizations and industries can suffer severe reputation, operational, financial, and legal harms.

The Table Top Exercise (“TTX”) is a “stress test” exercise for senior information security professionals that uses a tailored scenario to test and improve their ability to manage a cyber security crisis.

Tabletop Participants are by Invitation; all Summit attendees are welcome to observe. The Organizational Structure of Airports and Airport Cybersecurity: One Size Does Not Fit All

Tim Coogan, Denver International Airport

The structure of our global airports vary from location to location. Where does IT fall? Where does OT fall? Who owns and operates the airport? Who has ultimate decision making authority? How is cybersecurity funding prioritized and capitalized? All of these questions impact our ability to work collaboratively to better protect our airport infrastructures. This engaging and interactive roundtable takes the first steps to identify commonalities that can bring cohesion to our airport infrastructure differences. The results of the roundtable will be presented during Thursday’s general sessions.

The Rising Tide: A Collaborative Approach to Managing Risks and Crises

Emilian Papadopoulos, Good Harbor Security Risk Management

Aviation companies have embraced the fact that protecting their own enterprise is not enough, especially in this interdependent industry. Companies must also manage risks from being connected to, and dependent on, third parties. But, third-party risk management can be cumbersome, inefficient, and ineffective, and third party relationships are often not ready to bear the stress of a crisis situation. These problems are compounded in the case of product security. This panel explores how the aviation industry can collectively tackle third-party risk and crisis management.

Venus or Mars: Which Planet is Your Local Airport From?

Tim Coogan, Denver International Airport

The results of a Wednesday roundtable on the organizational structure of airports and how it impacts airport cybersecurity will be summarized and presented to attendees. The different governance models that airports are part of impacts the way they interface and integrate with the rest of the aviation industry.

Working Your Way Through the Logjam

Moderator: Jeff Troy, A-ISAC

Panelists: Pascal Andrei, Airbus; John Craig, Boeing; Ciro Guida, Bombardier

e-Enabled planes are generating gigabits of data. How are manufacturers working with airlines on log ingestion and analysis? What does the future of analysis of e-enabled planes look like?