ANG The Future of the NAS
Starts Here

Opening Remarks
Jessica Sypniewski
Air Transportation Information Exchange Conference

Date: *05/31/2023*

Conference Theme: *Deciding with Data: Leveraging Information to Make Better Data-Driven Choices*

Segment Title: *Embracing the Information Revolution*

[THANK THE EMCEE AND WELCOME PARTICIPANTS.]

- Thank you. I'm honored to welcome you to two-and-a-half days of learning and networking at ATIEC *[Pronunciation: AY-tick]* 2023.

- This is the first time in four years that we are together in person. I can already see that there will be some long-awaited reunions.

- You can see by the agenda how much thought went into ATIEC… providing—once again—excellent speakers… topics we absolutely need to hear… and time to discuss it with each other.

- We all have an opportunity to learn, and to contribute and share knowledge.

- With that in mind, I'd like to welcome you… on behalf of the Federal Aviation Administration… our colleagues at Eurocontrol… and the event organizers… to the ATIEC program: Deciding with Data.

- The Information Revolution is upon us.

- Information is critically important in many industries, **particularly** and **especially** in aviation.

- The Information **Revolution** demands the Information **Evolution** we are in… right now… creating the future of air traffic management.

- Clearly, we are at a pivotal time in aviation.

- We're planning for drones… commercial spacecraft… and advanced aircraft… in the skies and sharing airspace with traditional operations.

- Today, air traffic controllers… aircraft operators… flight operations centers… and other stakeholders… access data from the aircraft… navigation satellites… and on the ground… where sensors are continuously transmitting in—or near—real time.

- How do we continue to transform that data into meaningful information?

- Advances in automation are happening quickly: Artificial intelligence… machine learning… natural language processing—just to name a few.

- A fully integrated information environment **transforms** data into valuable insights, which enable decision-making **and** improve aviation safety and efficiency.

- The FAA's vision of the future airspace system is called the Info-Centric NAS.

- The Office of NextGen is heavily invested in research, development, testing, and evaluation… to accomplish our goals and achieve success.

- So, think of our overarching model—if you will—as "Research-to-Reality."

- Our research—which is second-to-none—will result in the reality of the Info-Centric NAS… as a global leader in airspace systems: interconnected… adaptable… and inclusive of stakeholders.

[PROVIDE RECENT EXAMPLES WHERE FAA IS COMMITTING TO AN INFO-CENTRIC FUTURE: FIXM CHANGE CONTORL BOARD, UTM FIELD TEST, UAM CONOPS, AND MR TBO.]

- I just mentioned being inclusive of stakeholders… the FAA is collaborating with new industries and new partners to prepare the Info-Centric NAS.

- I'd like to mention a few recent developments that highlight the critical importance of the Info-Centric NAS.

- We know developing an agile infrastructure that supports operations through connected aircraft and data exchange standards is imperative.

- Let's start with our transatlantic partnership… and the on-going collaboration for the Flight Information Exchange Model.

- The FAA… together with Eurocontrol… and other air navigation service providers… serve on the FIXM *[Pronunciation: FIX-em]* change control board to benefit the **global** aviation community.

- This past February, the latest version of FIXM Core was released to the public on a refreshed website... along with the Basic Message… and the Flight and Flow Information for a Collaborative Environment Message applications.

- We are defining the standards and fostering the data exchange relationships that will allow for greater global interoperability.

- In my organization, we have an incredibly talented workforce—some of whom are here with us today.

- Talented as they are, we **never** stop learning… and we **never** stop challenging ourselves.

- And… we **never** take our eye off of safety as the priority.

- So… as leadership, we made the decision to **invest** in education and training—across the board—to expand our knowledge, and experience, to succeed in this information revolution.

- To leverage data for meaningful decision-making, we need to demystify information systems… increase access to data… and think holistically to gain new insights.

- Our research and demonstration projects are providing us with the information needed for innovations for the Info-Centric NAS.

- A few weeks ago, the FAA… along with Virginia Tech's Mid-Atlantic Aviation Partnership… and the New York UAS Test Site… conducted live flights for the UAS Traffic Management Field Test.

- The project demonstrated technology standards… remote identification capabilities… a cybersecurity framework… and other advances in UAS traffic management technology that support small drone operations.

- The field test also demonstrated deconflicting drones through third-party services… and evaluated interoperability between service suppliers.

- We're seeing the future!

- Earlier this month, acting FAA Administrator Nolen unveiled the FAA's updated concept of operations for urban air mobility at the Wall Street Journal's Future of Everything Festival in New York City.

- We expect the global air taxi market to debut in cities around the world soon.

- For example, the company that operates airports in Paris has announced it plans to support air taxi services for next year's Summer Olympic and Paralympic Games.

- Are you ready for that?

- We need to be… and the FAA is preparing for these new operations using more connected aircraft from Day 1… and that will eventually require new traffic management concepts.

- The FAA has been working closely with aircraft manufacturers to certify electric aircraft capable of vertical takeoff and landing.

- In partnership with our colleagues in Air Traffic, the Office of Airports and many others, we are working to establish an advanced air mobility ecosystem that will enable those

aircraft to operate at one or more key sites in the U.S. by 2028.

- We make it a priority to work with our international counterparts because aviation is global.

- We learn from each other… we work together… and the **information revolution** will require an even tighter synergy for success.

- As the FAA expands trajectory-based operations domestically, we are also demonstrating the benefits of trajectory based operations across flight information **regions and countries**.

- We're working with aviation authorities in Japan… Thailand… and Singapore… and we'll conduct a Multiregional TBO, live-flight demonstration in a couple of weeks.

- We will fly between Seattle and Tokyo… Tokyo and Singapore overflying Thailand… Singapore and Bangkok… and Bangkok and Seattle.

- Along the way, the flights will explore different scenarios and use cases with the Connected Aircraft concept.

- The demo will also be an opportunity for us to gain feedback and refinement for the Flow Information Exchange Model.

- As I said earlier… Research-to-Reality! … on a global scale.

- We are—together—advancing global aviation safety, operational excellence, and innovation, and doing so by leading and collaborating globally.

- I want to thank all of the people who helped make ATIEC 2023 a success.

- This is a robust program that elevates key aspects of the vision of the Info-Centric NAS.

- Today, the conference will focus on how information is used to support operations in the United States, Europe, and Asia.

- Tomorrow will focus on the importance of information exchange and the need to develop global standards to enable these exchanges.

- For day three, we will gain insight into the possible future of operating in a rich digital information environment… using technologies like artificial intelligence and machine learning, evaluating the information with data analytics, and securing the information with zero trust.

- This is—indeed—an **exciting time** to be in aviation.

- Embracing this **information revolution** within air traffic management provides opportunities for **innovation** and **performance enhancements** in the U.S. National Airspace System and around the world.
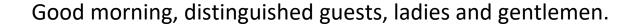
- Thank you.

Dennis HART

Head of Information and Cyber Unit

Good morning, distinguished guests, ladies and gentlemen.

I am honored to welcome you all to the Air Transport Information Exchange Conference. This is an exciting time for the aviation industry as we continue to advance our understanding of the technology and practices that are driving the future of air travel.

Over the next few days, we will be hearing from some of the most innovative and forward-thinking minds in the industry. We will be discussing the latest trends and developments in air transport, as well as exploring the challenges and opportunities that lie ahead.

This year's conference theme is ,"Deciding with Data | Leveraging information to make better data-driven choices". This theme reflects the ongoing efforts of the industry to work together and drive innovation in order to meet the needs of our customers and stakeholders.

As we gather here today, we are faced with a range of challenges, from the impact of climate change on the environment, to the need for greater efficiency and safety in air travel. But these challenges also provide us with opportunities to innovate and collaborate, to develop new technologies and processes that will enable us to build a better future for air transport.
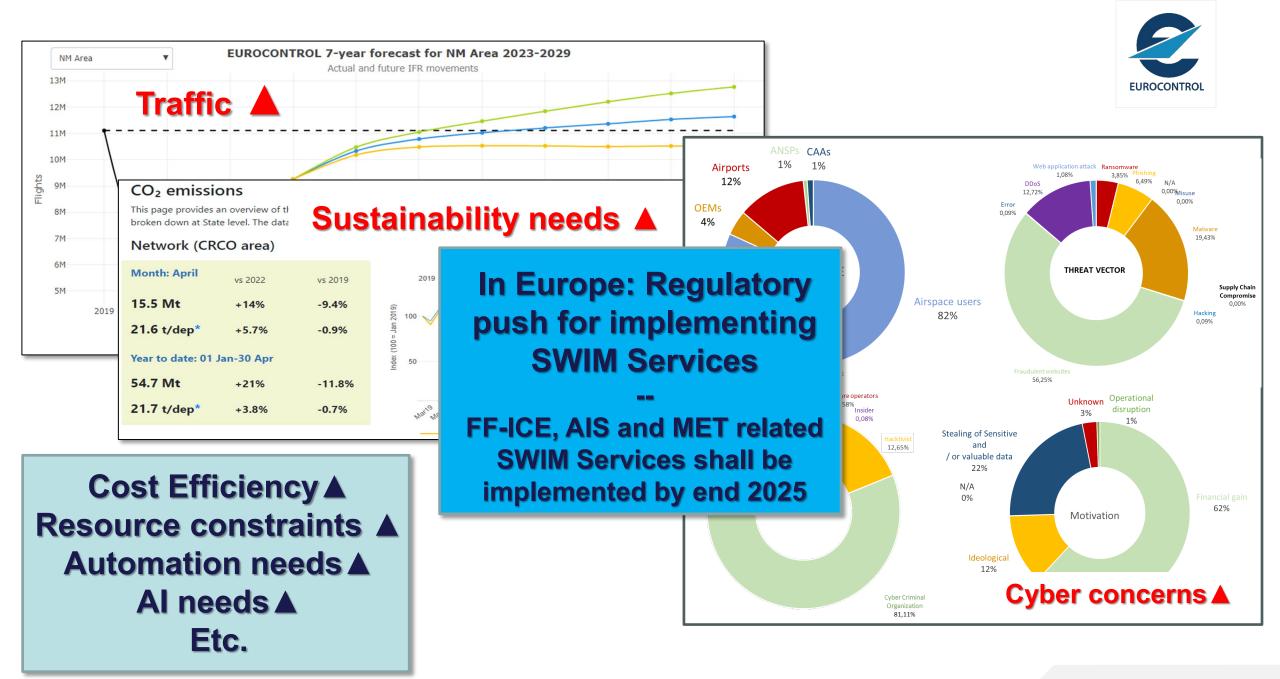
ChatGPT only one example........

The unleashed power of data

...needs, possibilities and concerns shall be managed

The need for
Air Transport Information Exchange
has never been greater

System Wide Information Management

Information security

ATIEC 2023
AIR TRANSPORTATION INFORMATION EXCHANGE CONFERENCE

Information services

Information exchanges and models: AIXM, FIXM, iWXXM

Back to ChatGPT...

……… we need to **work together** as an industry. We need to **share our knowledge and expertise,** to learn from each other's successes and failures, and to collaborate in order to find solutions to the challenges we face.

…….. I am confident that this **conference will be an exciting and productive event**, and I look forward to the insights and ideas that will be shared over the next few days.

Thank you for joining us, and let's get started!