

# Introducing Aviation Data Exchange (AVDEX)

**Presented to:** IORS Workshop Köln, Germany

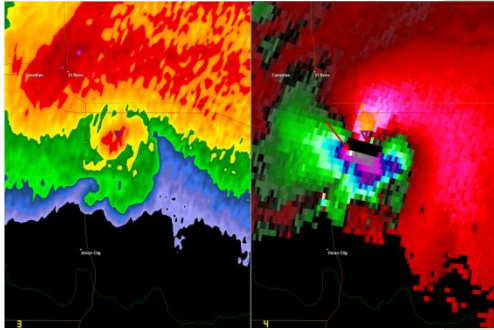
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**Date:** June 2017



**Federal Aviation  
Administration**

# What is the Aviation Data Exchange?



AVDEX will convert aircraft safety data into  
usable information electronically –  
**an early warning system**



# Why do we need AVDEX?

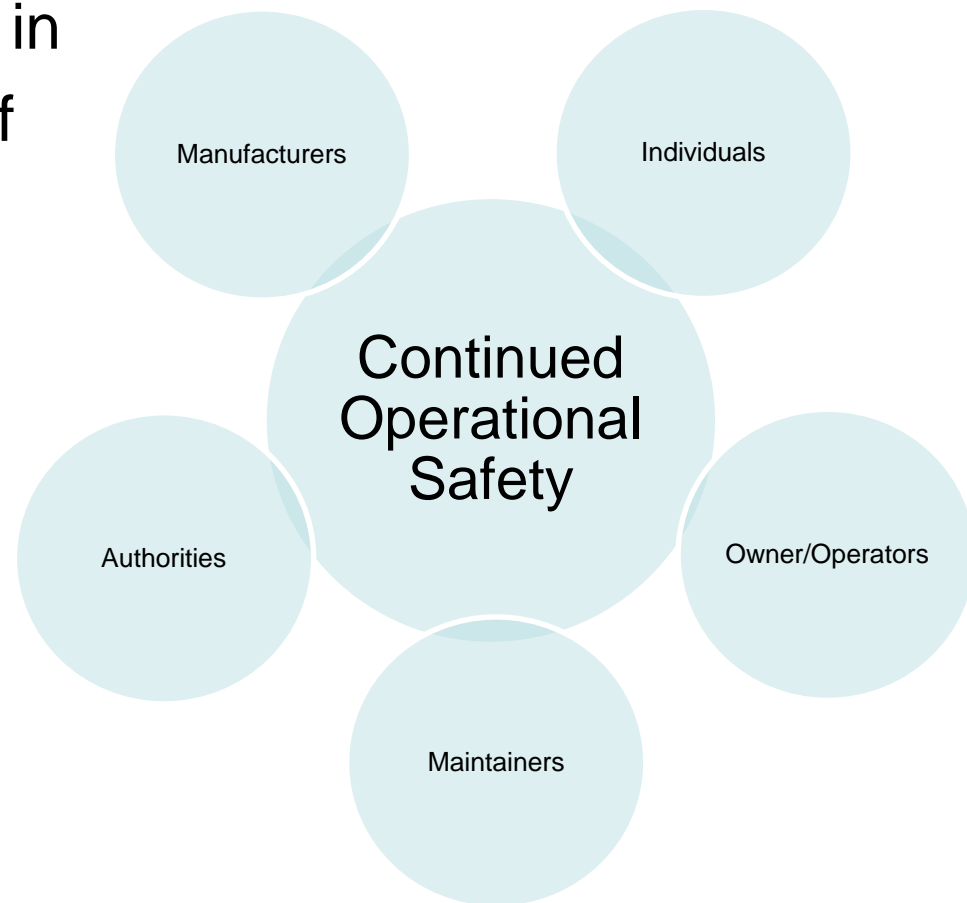
- **Easier to search/identify potential issues using an international database**
  - Quickly filter data to identify difficulties specific to your aircraft
  - We can grow smarter together through each other's experience
- **We need a better way of exchanging/sharing voluntary data**
  - Past efforts have not been successful as it was seen as only providing info to a government organization

# Who is AVDEX?

- **The entire global aviation community**

- Each of us have a role in managing the safety of aircraft and their components

- Individual pilots & mechanics
    - Owner/operators
    - Maintainers
    - Manufactures
    - Authorities





# AVDEX's purpose

- **Address any mechanical difficulties before they become incidents or accidents**
  - Identify and react to small things to prevent major accidents



# AVDEX's goals

- **Connect people with problems to people with solutions**
- **Share potential issues throughout global aviation community to alert other owners, operators, maintainers, etc.**
- **Provide a tool with tangible and valuable benefits to authorities, manufacturers, operators, maintainers, pilots and aircraft owners.**

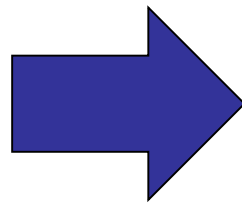


# AVDEX – globally connected

- **Personalize the communication methods – more than just emails and memos**
  - Deliver relevant, real-time information in a single location where you don't have to search for it
- **Make it mobile**
  - Take knowledge about your aircraft with you: have information about problems/solutions in your pocket at all times

# How AVDEX will change us

- **We will ensure that all community members will have access to the information**
  - Old way: one-way submittal of records
  - New way: a system that makes reports immediately available - authorities become a participant in the information exchange and not the focus





# What will change?

- Old way: placing event reports in separate categories and having a dedicated IT system for each category with no direct tie-in to the other reports
- New way: **COMBINE** reporting programs together as a single, cohesive unit

## AVDEX



Operators



Authorities

Manufacturers



Maintainers

# AVDEX's value

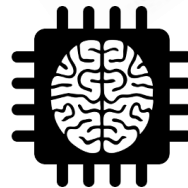


INPUT  
DATA

- *User input*
- *Feedback*



- *Artificial Intelligence*
- *Machine Learning*
- *Predictive Modelling*



ADD VALUE



OUTPUT

*Decisions!*

# Can you help us?

- **Active participation so we can have our early warning system**
- **Your involvement in the community**



# An invitation to OKC in October 2017 – y'all come!

- We would like to invite you to a meeting in October at the Mike Monroney Aeronautical Center in Oklahoma City to discuss next steps on our AVDEX project
- We have a problem to solve – better exchange of data



# Summary

- **AVDEX will**

- Be an early warning system
- Be collaborative
- Make it easier to share and search global aviation safety data, utilizing today's mobile technology
- Consolidate data, search and notifications in one location
- Provide tangible value to the community

# Contact details

## Please Contact

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- Keith Lardie, [Keith.Lardie@FAA.gov](mailto:Keith.Lardie@FAA.gov)
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**THANK YOU!**  
**ANY QUESTIONS?**

# BACKGROUND INFORMATION

# Current Stakeholders Shaping AVDEX

- **Industry (U.S.)**

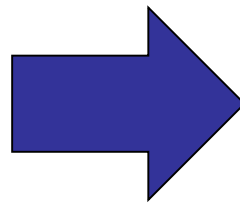
- Airlines/Operators
- Manufacturers
- Repair Stations
- Industry Groups and Associations
- Individual Owners, Operators, and Mechanics

- **International**

- ANAC (Brazil)
- CAANZ (New Zealand)
- CASA (Australia)
- EASA (European Union)
- TCCA (Canada)
- **ICAO?**
- **Other CAAs?**

# What will change?

- **We will build an AVDEX community, ensuring we will all be part of the conversation**
  - Replace the perceived one-way direction of records to a system that supports conversation



# Demonstration



# Oklahoma

