

# Weather Community of Interest (COI) and UAS Special Weather Action Team (SWAT)

Presented to: FPAW Federal Weather TIM

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Date: October 5, 2021



**Federal Aviation  
Administration**



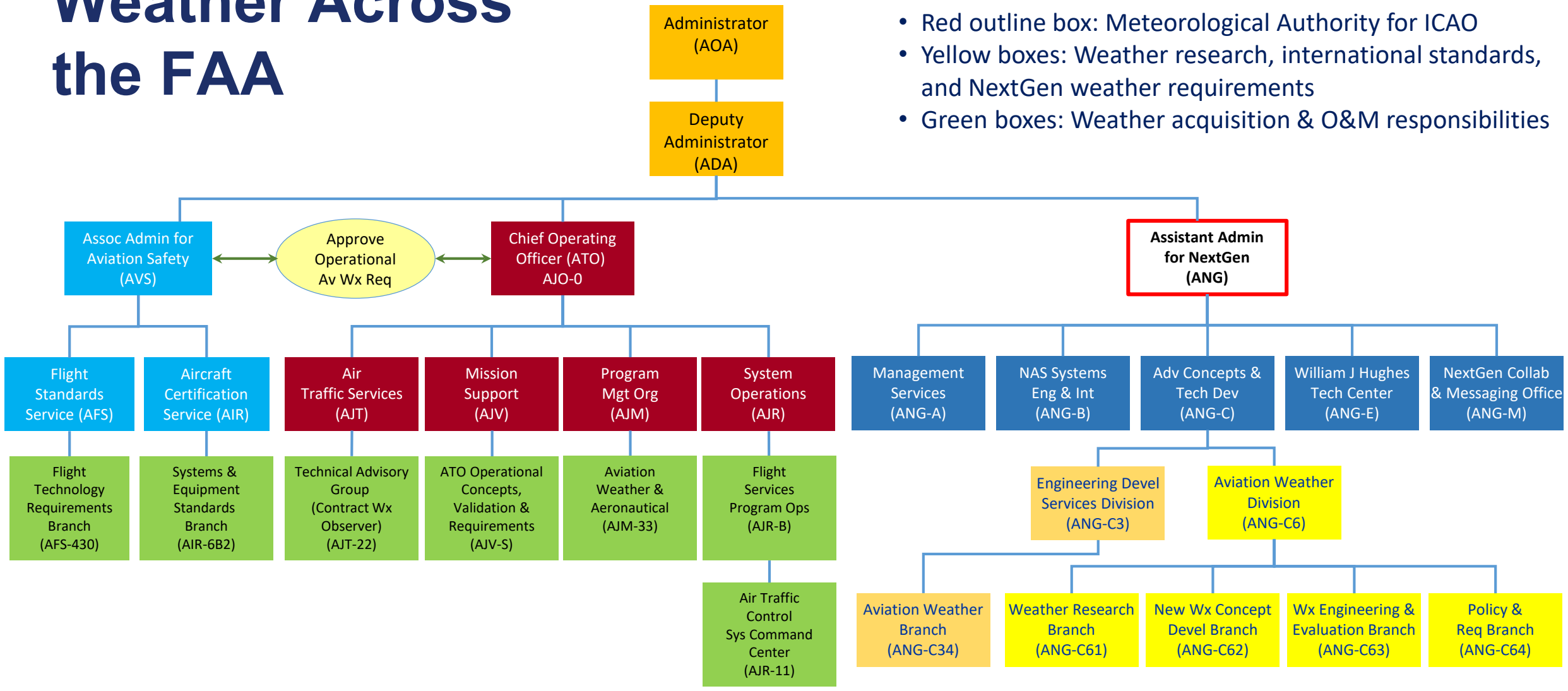
# What's the challenge?

## Silos of Excellence




# Weather Across the FAA

- Red outline box: Meteorological Authority for ICAO
- Yellow boxes: Weather research, international standards, and NextGen weather requirements
- Green boxes: Weather acquisition & O&M responsibilities



# Authority

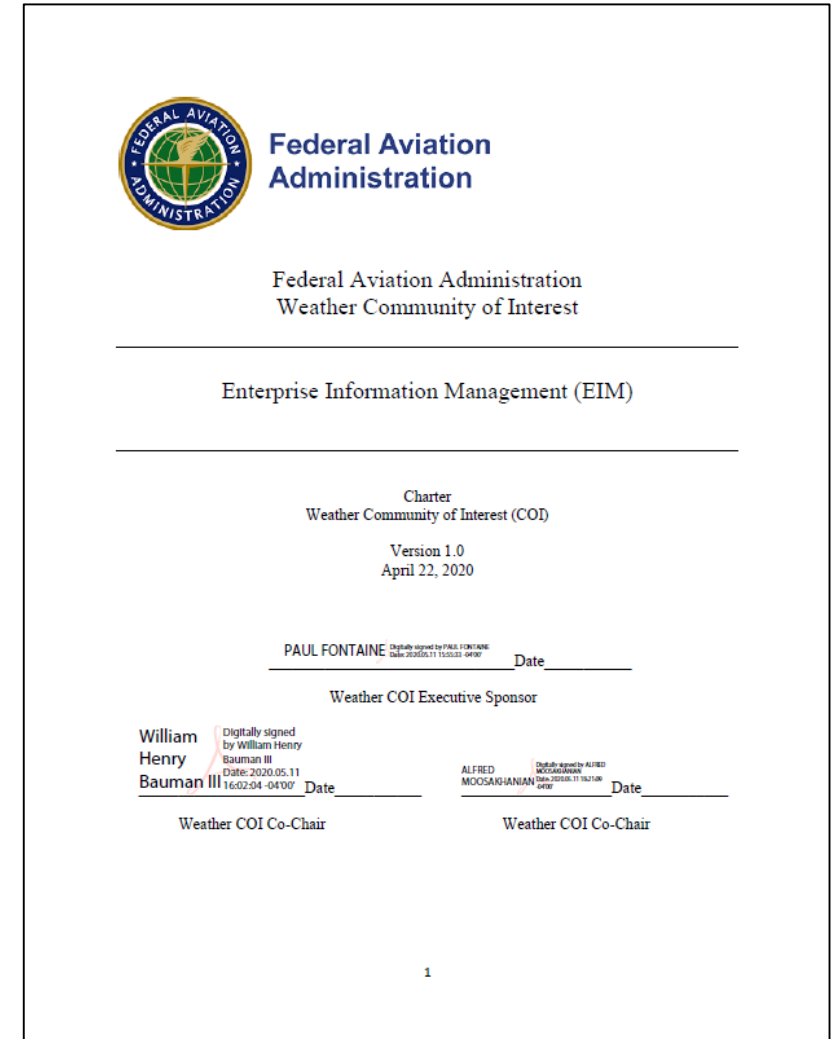
- Established through the FAA Enterprise Architecture Board
- Receives direction from Enterprise Information Group (EIG)
- Leadership is given sole authority in the execution of its routine business per FAA Order 1375.1E
  - Identify COI membership
  - Set COI schedules, meeting agendas, and priorities
  - Report findings and status to the EIG

	<b>U.S. DEPARTMENT OF TRANSPORTATION</b> FEDERAL AVIATION ADMINISTRATION	<b>ORDER</b> <b>1375.1E</b>
	National Policy	Effective Date: 11/16/11
<b>SUBJ:</b> Information/Data Management		
<p>1. <b>Purpose of this order:</b> This order establishes a policy for managing both information and data across the Federal Aviation Administration (FAA).</p> <p>2. <b>Who this order affects:</b> Anyone who develops, manages, or otherwise maintains FAA information and data assets. Managers at all levels must ensure that information systems and services adhere to the information/data management requirements of this order.</p> <p>3. <b>Where Can I Find This Order?</b> This order is located in electronic format on both the FAA's Intranet and Internet Web sites at the following links: <a href="https://employees.faa.gov/tools_resources/orders_notices">https://employees.faa.gov/tools_resources/orders_notices</a> <a href="http://www.faa.gov/regulations_policies/orders_notices">http://www.faa.gov/regulations_policies/orders_notices</a></p> <p>4. <b>What This Order Cancels.</b> FAA Order 1375.1D, Data Management, dated July 25, 2006, is canceled.</p> <p>5. <b>Scope:</b> This order applies to sharable FAA data and information used to perform our mission. Data and information are both enterprise assets that need to be managed like any other asset. Data becomes information when analyzed and combined with other data to extract meaning and provide context to the business. Managing these assets is necessary to create, store, maintain, and securely share accurate quality data and information. However, all Classified National Security Information (CNSI) will be in accordance to FAA Order 1600.2. This document will focus on management of information assets which is crucial to achieving the FAA mission. Analyzing specific aspects of the information content and flow between business functions assists in identifying authoritative data sources.</p> <p>6. <b>Explanation of changes:</b> This revision,</p> <ul style="list-style-type: none"><li>a. Changes the FAA Data Governance Board (FDGB) to an Information and Data Advisory Board (IDAB) that supports the FAA Enterprise Architecture Boards (EABs).</li><li>b. Introduces the concepts of managing information within Communities of Interest (COI's).</li><li>c. Specifies in detail the new roles and associated responsibilities of information and data management.</li><li>d. Defines the difference between information and data.</li></ul>		
Distribution: A-WXYZ-2; A-FOF-0 (LTD)		Initiated By: ARD-1



# Activities: Establish Governance and Organization

- Charter Established
- Executive Sponsor
  - Paul Fontaine, NextGen, Portfolio Management & Technology Development Office
- Co-chairs
  - Bill Bauman, NextGen, Aviation Weather Division
  - Alfred Moosakhanian, Program Management Organization
- Secretariat
  - David Strand, MITRE Corp
- Core Team is co-chairs & secretariat plus:
  - Matt Fronzak, MITRE Corp



# FAA organizational members

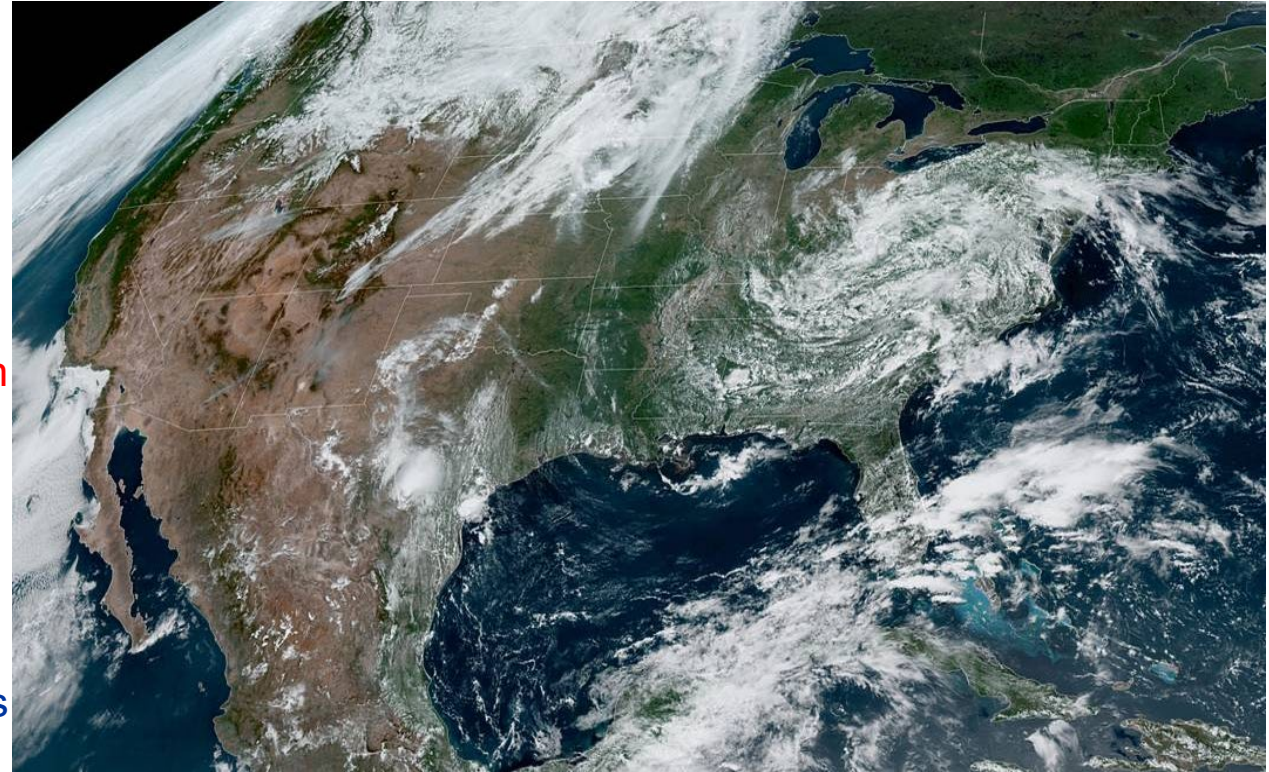
Line of Business or Staff Office	Organization Routing Symbol	Organization Name
<b>AJO</b> Air Traffic Organization	AJI	Safety and Technical Training
	AJM	Program Management Organization
	AJR	System Operations Services
	AJT	Air Traffic Services
	AJV	Mission Support Services
	AJW	Technical Operations
<b>ARP</b> Airports	ARP	Office of Airports
<b>AST</b> Commercial Space Transportation	AST	Office of Commercial Space Transportation
<b>AVS</b> Aviation Safety	AAM	Aerospace Medicine
	AFS	Flight Standard Services
	AIR	Aircraft Certification Services
	AOV	Air Traffic Safety Oversight Services
	AUS	UAS Integration Office
<b>AIT</b> Information & Technology Services	AIT	Information & Technology Services
<b>ANG</b> NextGen	ANG-B	NAS Systems Engineering & Integration
	ANG-C	Portfolio Management & Technology Development
	ANG-E	William J. Hughes Technical Center
	ANG-M	NextGen Collaboration & Messaging





# Weather COI PURPOSE

- Manage weather information across the FAA
- Review problems, gaps, and shortfalls determined by members
- Work to resolve and/or mitigate mission-specific, information-sharing challenges affecting the use of weather information
- Increase information-sharing and best practices across FAA programs and organizations
- Foster collaboration within and across weather information users
- Identify and help resolve enterprise weather information issues
- Inform architecture and business practices within the weather information domain
- Leverage overall weather knowledge through other forums to benefit all relevant stakeholder communities



# Special Weather Action Teams (SWATs)

- Volcanic Ash
- PIREPS
- Winter Weather
- Systems Data Flown
- Winds
- Alaska Infrastructure
- Standards and Policy
- UAS





# UAS SWAT

- Working Problem Statements 22 (Wind) 43 (Standards) and 44 (Weather Information Gaps)
- Developing Enterprise Architecture Operational Improvement (OI) and Supporting Activities for Qualifying Weather Information
- Interface with ASTM-F38 Weather Group on standards development
- Identified important weather thresholds
  - Convection
  - Icing
  - Precipitation Intensity
  - C&V



# UAS Weather Focused R&D with AWRP Funds

- Report on Weather related UAS activities (AvMet); completed September 2022
- Micro-scale Modeling (wind); (Mitre) Initial report due March 2022
  - Expected results provide excellent opportunity to collaborate with other functional FAA interests to support UAS integrated research
    - Planning weather observation networks
    - Developing safety scenarios for risk-based assessments
    - Enabling training
    - Informing infrastructure/airspace planning
- C&V PDT; improving fog forecasts using drones to sample atmosphere.

