

# Next GEN



**FAA**

# Weather Information: A Paradigm Shift



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# Paradigm Shift

- **“Build it [weather information] and they will come.”**
- **“Understand the impact of weather on NAS Operations and operational decisions, then build supporting weather information.**
- **The shift to the latter requires:**
  - **Researching operational decision making**
  - **Assessing the operational impact of weather phenomena**
  - **Developing the required weather information**
  - **Integrating weather information into decision support processes, both manual and automated**

# Which Operational Decisions?

- **How do we prioritize operational decisions?**
  - Reliable, near-term and measurable operational improvements
  - Support for and keyed to other NextGen improvements
- **Example: Improved Airport Arrival Rate (AAR) decision support in wind compression events**
  - Data shows major potential benefits in New York Metro
  - Requires a couple of things to happen at once
    - Maturation of metering and spacing tools
    - Improved (if needed) wind profiles in terminal airspace

# Tools and Discipline to Pick Winning Ideas

- **Data-driven service analyses to determine magnitude of impacts**
- **Validated Concept of Operations**
- **Development/utilization of modeling, simulation, and demonstrations**
- **Aviation stakeholder support**

# Where do winning ideas come from?

- **Operational decision makers**
  - **Controllers**
  - **Dispatchers**
  - **Pilots**
- **Operations Research**
  - **Weather and operations**
  - **Modeling**
  - **Simulations**
  - **Demonstrations**



# How can you have input?

- **Data driven problem analysis**
  - Provide ideas at the front end with solid data on operational incidence and impact.
- **Participating in demonstrations to:**
  - Validate Concept of Operations
  - Validate requirements
  - Assess workability and utility of integrated solutions

