Research To Operation

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Research to Operations Objectives

• Drive research from performance requirements from the outset
• Efficiently and effectively move research results into operational use
• Clearly identify what is expected from both types of operations
  – Operational *production* of weather information
  – Operational *use* of weather information
• Learn from past efforts
Challenges We Face Today In R&D

• ICAO, Airline Industry, and FAA are embracing a safety culture that features QMS, SMS, ISO/iCMM practices
  – Impacts every FAA change to the NAS including weather support
  – Slow start as new process but will become second-nature, streamlined

• Weather-in-the-cockpit evolving from situational awareness to tactical decision support
  – Information latency, reliability, human factors become critical
  – Ground service, communications, data link reliability become critical

• New regulatory approach needed for 4D Wx grids
  – Migration away from regulating visualizations
  – Standards for information quality and visualizations may be the approach
Challenges We Face Today In R&D

- **More efficient transition of research software to operational software needed**
  - Better coupling of R&D and production environments through adoption of Open Standards

- **Need to manage research to reduce number of “products”**
  - Each new “product” should replace one or more existing product
  - New “products” should become “primary” from the outset

- **Improved performance requirements to support NextGen capabilities are needed to guide research**
  - Performance requirements tied directly to operational impacts
  - Machine-to-machine integration presents significant challenges