ATM-Weather Integration Training

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Friends/Partners in Aviation Weather (FPAW)

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Shortfalls and Lessons Learned

- 11 years of EOSR data: Training & Education consistently cited as a shortfall in attaining NAS efficiency

- Training Lessons Learned:
  - Non-standard and subjective content delivery and performance assessments = inconsistent quality
  - Human resource intensive methods = costly and less efficient training
  - Limited time and funding = “buttonology” training versus instruction on operational concepts of use and expected benefits
What about Weather Training?

- Weather Basics: still required
  - Don’t turn ATM decision-makers into meteorologists
  - Decision support tools are likely to be human-over-the-loop

- **Integration, Integration, Integration**

- Scenario-based training
  - Focus on weather impacts on ATM
  - Understanding of probabilistic forecasts and risk management
  - Learning new role as Human-over-the-loop with new DSTs

- Consider holistic approach
  - Include human factors & change management
Integrate Weather Impact Scenarios with Advanced Methods in ATM Training

Key findings indicated that advanced training technologies (PC based-games, simulations) are critical for realizing improvements, and are characterized by the following:

- Increased efficiency, availability, and decreased cost
- Self-paced, stand-alone training
- Skill Development Training
- More efficient use of resources
- Standardized delivery of training content
- Objective assessment of student performance
- Flexibility to support continuous workforce training for new automation capabilities & procedures – the evolution to NextGen
Research Opportunities

• **Increased training demands + Support the transition to NextGen**

• Approach opportunities and technology applications earlier - in primary education, for example - Air Traffic Collegiate Training

• Apply new learning methods to TFM
  – Weather Impact scenarios
  – Weather decision-making processes and mitigation strategies

• Match work force skills to NextGen capabilities