Aviation Weather Training Vision

JPDO WxIPT Training Sub-Team
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Topics

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WxIPT Training Sub-Team Mission

Enable aviation weather consumers to maximize the use of weather information and products to achieve a safe, effective, robust, and high capacity aviation environment.
Training Goals

• Program Management
  – Assure that clear, well planned investment strategies for NGATS are supported by a sustained, broad, and responsive aviation weather training program for all job specialties

• Program Review
  – Routinely address policy, regulatory, and procedural issues driven by expected changes in the NGATS concept of operations (CONOPS)

• Requirements Definition
  – Develop aviation weather training requirements which flow from the NGATS CONOPS
Training Goals

• Evaluation of Training
  – Training yields weather related improvements in safety, effectiveness and capacity within the NGATS
  – Results are quantifiable (return on investment)

• Training Delivery
  – Lead the conversion of today’s classroom-based instruction into a technology-based learning experience
  – Make widely accessible to reach all audiences

• Instructional Design
  – Examine the way in which aviation weather is taught in initial training (and recurrent training)
  – Sharpen and focus new curricula to address needs driven by NGATS implementation
Sub-Team Strategy

- Establish today’s baseline
  - Regulations and Policies
  - Existing training programs

- Developing the workforce
  - Competency requirements
  - Shared training materials and expertise
  - Depth and source of skilled workforce

- Build broader sub-team membership
  - Interact with Aviation Weather Technology Transfer (AWTT) Board
  - Seek Director-level support in FAA
  - Plan focused response from other agencies
Progress to Date

- Met with FAA functional areas:
  - Air Carrier Training, AFS-210
  - Airport Safety & Ops, AAS-300
  - AFSS Specialist Training, AFS-410
  - Aviation Safety Inspector/Operations, AFS-820
  - Controller Training, ATO-A
  - Dispatcher Certification, AFS-200
  - General Aviation & Commercial Division, AFS-800
  - FAA Academy, Air Traffic Division, AMA-500
Progress to Date

• Attended ATC Training for the Future: Issues and Challenges conference; topics included:
  – Collegiate Training Initiative
  – Training policy – ICAO Language Standards
  – Human factors and new training methods being considered
  – Knowledge management

• Met with AOPA Air Safety Foundation:
  – Briefed on training program in partnership with NWS and FAA
  – Discussed challenges in general aviation

• Contacted FAA Academy
  – Requested curriculum from resident NWS instructors

• Sept. 28th site visit to ATC Command Center, Herndon, VA
Training Consumers

• Job specialties:
  – Meteorologists
  – Traffic Flow Management
  – Air Traffic Controllers
  – Flight Service Specialists
  – Dispatchers
  – Pilots
  – Airport Operations

• Within each job specialty, there may be a government (civilian), military, and/or private sector requirement
Near-Term Focus: Controller Curriculum

• Sharpen the weather portion of the training curriculum being developed for the new 12,500 Controller hires:
  – Identify recent weather system acquisitions or other technological advancements (i.e., communications and display) across the wide range of controller functions to be included in training curriculum
  – Recommend existing or develop training to meet gaps in Controller curriculum

• Benefit: Establishes baseline training program for Controllers to effectively use advancements in aviation weather technology
Near-Term Focus: Distance Learning

- Accelerate the development and refreshment of the Distance Learning Aviation Course (DLAC) series by COMET:
  - Forecasting Fog and Stratus
  - Building Effective Terminal Aerodrome Forecasts
  - Convective Forecasting
  - Turbulence Forecasting
  - Local Aviation Weather Hazards Forecasting

- Benefits:
  - Shortens the development timeline as much as 40% or 5.5 years over 11 years
  - Available to all
  - Content can be repurposed to other audiences
Mid-Term Focus: “Probability” in Forecasting

• Promulgate the understanding of “probability” in aviation weather forecasting in the aviation weather enterprise
  – Develop standard terminology and practices
  – Develop training initiatives on the preparation and application of probability forecasts
  – Develop training materials for education of all job specialties

• Benefit: Sensitizes forecast end-users to the terms, application, and usage of “probability” in aviation weather forecasts
Summary

- Position training to be included in development of new systems, technology, and policy
- Ensure weather training is responsive, relevant, and tailored to job specialties using the latest and most appropriate technology
- Build efficiencies in development of training materials by baselining existing programs