

Aviation Weather Training Vision

JPDO WxIPT Training Sub-Team
Presenters: Al Kaehn and Jeremy Andrucyk
Event: FPAW Vision Forum, September 12, 2005



Topics

- Training Sub-Team Mission
- Team Goals
- Team Strategy
- Progress to Date
- Training Consumers
- Near-Term Focus
- Mid-Term Focus
- Summary



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

