## **Automated Surface Observing System (ASOS)**

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**PROGRAM/PROJECT DESCRIPTION:** ASOS system improvements: upgrades to the ACU processor, all-weather precipitation accumulation gauge, ice-free wind sensor, precipitation identifier, ceilometer, and improved freezing precipitation algorithm and ceiling/visibility reporting; results in increased reliability, reduced maintenance, and better observations to support aircraft operations.

I. TRAINING REQUIREMENTS:	increased remainity, reduced maintenance, and better observations to support aircraft operations.
A. Trainees	B. Skill Level of Designated Trainees
Air Traffic Controllers	· <u></u>
⇒ Flight Service Station	Developmental ☐ Journey Level ☐ En-Route Flight Advisor ☐ Operations Supervisor ☐
⇒ En-Route	Developmental ☐ Journey Level ☐ Operations Supervisor ☐
⇒ Terminal (Radar	Developmental ☐ Journey Level ☐ Operations Supervisor ☐
Control/Tower)	
⇒ DoD Controller	Apprentice ☐ Journeyman ☐ Craftsman ☐
Traffic Managers	Command Center Traffic Management Specialist
	Traffic Management Unit Traffic Management Specialist
Dispatchers	Operations Planner   Assistant Flight Dispatcher   Flight Dispatcher   Flight Dispatcher   Assistant Flight Dispatcher   Flig
	Chief Dispatcher
Ground Operations Crews	Airport Operations Officer
Flight Standards Personnel	Flight Operations
National Trans. Safety Board	Accident Investigator
Pilots	
⇒ Commercial	Flight Engineer First Officer Captain
⇒ General Aviation	Student Private Commercial Instrument Rated Instructor
⇒ Military	Student \( \subseteq \text{Line } \subseteq \text{Instructor } \subseteq \text{Examiner } \subseteq \text{.}
Navigators (DoD)	Student \( \subseteq \text{Line } \subseteq \text{Instructor } \subseteq \text{Examiner } \text{Examiner } \subseteq \text{Examiner } Examine
DoD Forecaster/Meteorologists	
Air Force	
⇒ Enlisted	Apprentice Journeyman Craftsman
⇒ Civilian	Forecaster
⇒ Officer	Entry Level  Fully Qualified
Navy	
⇒ Enlisted	Apprentice Forecaster   Master Forecaster
⇒ Civilian	Forecaster
⇒ Officer	Accession Forecaster  Forecaster
National Weather Service	
⇒ Forecasters/Meteorologists	Intern  Journeyman  Senior Forecaster  Science and Operations Officer
	Warning Coordination Meteorologist ⊠ Meteorologist-in-Charge ⊠
	Hydro-Meteorological Technician Incident Meteorologist (e.g. Fire Weather)
	Center Weather Service Unit Meteorologist Applied Research Meteorologist
⇒ Headquarters	Program Manager   Staff/Senior Management   ■
University/Laboratory	Instructor   Research Scientist    Research Scientist
Private Sector	
⇒ Broadcast Meteorologists	Uncertified NWA or AMS Certified
⇒ Forecasters	Under Supervision Independent Forecaster Senior Forecaster
⇒ Researchers	Undergraduate ⊠ Bachelor's ⊠ Master's ⊠ Doctorate ⊠
⇒ Consultants	Uncertified AMS Certified Consulting Meteorologist
⇒ Program/Project Managers	Scientist Senior Scientist Program/Project Director
⇒ Meteorological Technicians	Technical School ⊠ Technical School with Training ⊠ Senior Technician ⊠
Others: All weather users and providers with a need for weather observation data.	
C. <u>Training Required</u>	
Familiarization Refresher Training Basic Knowledge Basic Task Performance	
Intermediate Knowledge Intermediate Task Performance	
Advanced Knowledge X Advanced	Task Performance  X

II. TRAINING DEVELOPMENT/DELIVERY:
A. Training Program Status
Periodic Updates and Reviews (Current)
Other: It is assumed that each separate user and provider has implemented training as needed.
B. Training Method
Computer Based Training (Web-on-line, CD training modules)
Formal Classroom (Lecture/Discussion)
Laboratory (Demonstration/Performance, Research Lab)
Formal Classroom (Lecture/Discussion)  Laboratory (Demonstration/Performance, Research Lab)  Self-study (Text, Videotape)  Distance Learning (Satellite/Remote)  On-the-job Training (Operational Area)  Contractor provided with system delivery on site
Distance Learning (Satellite/Remote)
On-the-job Training (Operational Area)
Other: Assumed that all methods apply, based on user or provider training capabilities or requirements.
C. <u>Training Delivery Resources</u> (X indicates all that apply)
Computer Based Instruction
Operational Product
Operational System
Training System
Prototype \(\sigma\)
Simulator
Test Bed
Other: Assumed that all deliver resources apply, based on user or provider training capabilities or requirements.
D. <u>Training Provider</u> (X indicates all that apply)
Private Sector/Industry (e.g. Airlines, Flight Safety, Inc.)
Professional Associations/Organizations
$\Rightarrow$ AOPA/ASF $\boxtimes$
Academic Institution
Contractor (manufacturer)
Federal Agency
$\Rightarrow$ NOAA $\boxtimes$
$\Rightarrow$ NASA $\boxtimes$
$\Rightarrow$ FAA $\boxtimes$
Non-Government Organizations
$\Rightarrow$ UCAR/COMET $\square$
$\Rightarrow$ NCAR $\square$
Other:
E. <u>Training Measurement</u>
Written (e.g. multiple choice, fill in blanks)
Performance (task performance and evaluation)
Other: Based on user, provider measurement requirements.
F. Training References
Technical References Product Description Document/Guide System Manuals Lesson Plans
Measurement Materials Other: Assumed that all could apply dependent upon user/provider requirements.
G. Training Completion Documentation (X indicates all that apply)  Individual Training Passards  Continue Passards  Automated Passards  Automated Passards  Automated Passards  Automated Passards  Continue Passards  Automated  Automated Passards  Automated  Automated Passards  Automated
Individual Training Records Certification Records Certificates Automated Document Systems
III. TRAINING IDENTIFICATION/DESCRIPTION
A. <u>Training Identification</u>
Name:
Location: Various Agencies, depending on requirements (see section IID)
B. Training Length
Number of Weeks: 1 week (System Managers)
Number of Hours: 2 hours (Familiarization) 16 hours (Intermediate)
C. Group Size
Minimum: 1 Desired: 8-10 Maximum: 16
D. Trainer to Trainee Ratio
One trainer for 6 to 12 trainees
E. Point of Contact to Request Training Contact training branch of applicable agency – reference section IID.