

## Weather Support to De-Icing Decision Making (WSDDM)

**PROGRAM/PROJECT:** Aviation Weather Research Program, Winter Weather Product Development Team  
[<http://www.faa.gov/aua/awr/>]

**LEAD AGENCY/COLLABORATING AGENCIES:** Federal Aviation Administration (FAA) and the National Center for Atmospheric Research (NCAR)

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### SERVICE AREA(S)/INITIATIVE(S)

- *National Aviation Weather Initiatives:*  
4: 1, 3, 4, 5, 6

### FUNDING

- *Programmed/Planned (\$'s/FY):* /FY04

### TYPE OF PROGRAM/APPLICATION

Product Improvement/Decision Support

### SCOPE OF PROGRAM/PROJECT

- *What's being developed, procured, etc.:* a graphical depiction of a real-time, 60 minute nowcast of precipitation, temperature, and wind speed/direction for the 10 km region surrounding an airport.
- *How operations will be changed/improved:* provides vital information on weather parameters integral to the ground de-icing and airport surface clearing decision making process.

### PROGRAM/PROJECT MANAGEMENT

- *Basic guidance document for this program:* FAA Winter Weather Research Product Development Team Technical Direction.
- *Program/Project verification process:* Monthly and quarterly reporting; semi-annual program reviews; science reviews, RE&D advisory committee project assessments
- *Method used for end product validation:* Reconstruction of freezing/frozen precipitation events after major storms
- *Operational training for the user:* Hands-on training is provided by the private vendor who is marketing the system. The system is user friendly and requires no previous meteorological background to operate.

### SCHEDULE/IMPLEMENTATION

- *Next major program milestone:* 4 hour freezing precipitation forecast (FY04).
- *Program becomes operational:* WSDDM is currently operational at Denver International Airport.
- *Plans for further improvements:*
  - Development of freezing/frozen precipitation events out to 12 hours.
  - Improve "Hotplate" snowgauge as a relatively inexpensive snow gauge.
  - Improve ability to forecast different precipitation types.
  - Improve algorithm that correlates radar reflectivity to liquid water equivalent of precipitation.
  - Continue to decrease WSDDM data transmission costs by using internet.