

Water Vapor Sensing System (WVSS)

PROGRAM/PROJECT: Aviation Weather Research Program [<http://www.ofps.ucar.edu/wvss/wvss.html>]

LEAD AGENCY/COLLABORATING AGENCIES: Federal Aviation Administration (FAA), National Oceanic and Atmospheric Administration (NOAA) and the University Corporation for Atmospheric Research (UCAR)

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SERVICE AREA(S)/INITIATIVE(S)

- *National Aviation Weather Initiatives:*

1: 3 2: 4 5: 4, 6

FUNDING

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

TYPE OF PROGRAM/APPLICATION

R&D/Product Development

SCOPE OF PROGRAM/PROJECT

- *What's being developed, procured, etc.:* a sensor to obtain and continuously downlink moisture data from commercial aircraft.
- *How operations will be changed/improved:* moisture data will be used in numerical weather models to improve the accuracy of all weather parameters including wind, temperature, in-flight icing, ceiling, and visibility forecasts.

PROGRAM/PROJECT MANAGEMENT

- *Basic guidance document for this program:* The guidelines for this project are documented in an FAA-UCAR cooperative agreement.
- *Program/Project verification process:* Quarterly reporting; semi-annual program reviews, RE&D advisory committee project assessments; science panel reviews; demonstrations and evaluations on air carrier aircraft.
- *Method used for end product validation:* Comparisons with rawinsonde observations and test sensors.
- *Operational training for the user:* Technical information is provided to numerical modelers who will incorporate the WVSS data into RUC, Eta, and other models.

SCHEDULE/IMPLEMENTATION

- *Next major program milestone:* Test and installation of new WVSS-II sensor on commercial aircraft (FY04).
- *Program becomes operational:* FY04
- *Plans for further improvements:* Purchase and install WVSS II sensors on aircraft from national and regional carriers.