Advanced Weather Awareness and Reporting Enhancements (AWARE)
Rockwell-NASA Cooperative Research Agreement (CRA)

PROGRAM/PROJECT: Weather Accident Prevention Project
LEAD AGENCY/COLLABORATING AGENCIES: Rockwell, National Aeronautics and Space Administration (NASA)
LEAD AGENCY POINT OF CONTACT: Gus Martzaklis, GRC, 216-433-8966, Konstantinos.S.Martzaklis@nasa.gov
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SERVICE AREA (S)/INITIATIVE (S)

- ***National Aviation Weather Initiatives:***
  N/A

FUNDING

- ***Programmed/Planned ($'s/FY):*** /FY03 /FY04

TYPE OF PROGRAM/APPLICATION

R&D/Prototype Demonstration

SCOPE OF PROGRAM/PROJECT

- ***What's being developed, procured, etc.:*** *technologies and prototype to enable display and briefing of flight plan relevant graphical and text-based weather information, and decision support tools to advise pilot of probability of mission success based on pilot preferences, risk tolerance, and aircraft equipage (advisory only).*

- ***How will operations be changed/improved:*** *improvements in pre-flight weather briefings, particularly for General Aviation pilots, consisting of flight plan relevant information and decision support aids, will lead to improved pilot situational awareness. These technologies will assist in the reduction of aircraft accidents attributable to weather.*

PROGRAM/PROJECT MANAGEMENT

- ***Basic guidance document for this program:*** WxAP Project Plan.
- ***Program/Project verification process:*** NASA sponsored annual Weather Accident Prevention reviews, Aviation Safety Program Executive Council reviews, and reviews/audits at the project/element level.
- ***Method used for end product validation:*** Combination of (a) system-level modeling and simulations, (b) laboratory-based experiments and (c) flight experiments via appropriate industry and/or NASA research aircraft. Many of these validation efforts are performed under cost-shared cooperative research agreements with industry.
- ***Operational training for the user:*** Training guidance for the use of new graphical weather pre-flight briefings will be developed in conjunction with the AvSP System Wide Accident Prevention (SWAP) project.

SCHEDULE/IMPLEMENTATION

- ***Next major program milestone:*** N/A
- ***Program becomes operational:*** The AWARE CRA has been completed and the technology is being integrated into NASA's Airborne Hazard Awareness System (AHAS).
- ***Plans for further improvements:*** N/A