Enhanced Weather Radar (EWxR)

PROGRAM/PROJECT: Aviation Safety Program/Weather Accident Prevention Project
LEAD AGENCY/COLLABORATING AGENCIES*:* National Aeronautics and Space Administration (NASA), Federal Aviation Administration (FAA), National Oceanic and Atmospheric Administration (NOAA), Department of Defense (DoD)
PROGRAM POINT OF CONTACT: Gus Martzaklis, GRC, 216-433-8966, kmartzaklis@grc.nasa.gov
LEAD AGENCY POINT OF CONTACT: Paul Stough, LaRC, 757-864-3860, h.p.stough@larc.nasa.gov

SERVICE AREA (S)/INITIATIVE (S)

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

FUNDING

- ***Programmed/Planned ($'s/FY):*** FY04 FY05

TYPE OF PROGRAM/APPLICATION

R&D

SCOPE OF PROGRAM/PROJECT

- ***What's being developed, procured, etc.:*** *technologies and prototype to enable display of combined up-linked and on-board sensed graphical weather radar information in transport cockpits. .*
- ***How will operations be changed/improved:*** *combined data from diverse weather sources will provide a complete weather picture including information sensed in the near-vicinity of the aircraft, leading to improved pilot situational awareness and allowing collaborative decision making between pilots, ATC, and AOC's.*

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 partners.
- ***Operational training for the user:*** Training guidance for the use of new graphical weather information technologies will be developed in conjunction with the AvSP System Wide Accident Prevention (SWAP) project.

SCHEDULE/IMPLEMENTATION

- ***Next major program milestone:*** EWxR activity completed. Technologies to be integrated into the Airborne Hazard Awareness System (AHAS).
- ***Program becomes operational:*** N/A
- ***Plans for further improvements:*** N/A