Icing Research Program (IRP)

PROGRAM/PROJECT:
LEAD AGENCY/COLLABORATING AGENCIES: U. S. Army Corps of Engineers (USACE) Engineer Research and Development Center (ERDC) Cold Regions Research and Engineering Laboratory (CRREL), National Aeronautics and Space Administration (NASA) Glenn Research Center, Federal Aviation Administration (FAA) Aviation Weather Research Program and the FAA Technical Center, National Center for Atmospheric Research (NCAR), and the National Oceanic and Atmospheric Administration (NOAA) Environmental Technology Laboratory.
LEAD AGENCY POINT OF CONTACT: Dave Johnson, DAMI POB, 703-601-2501, david.johnson@hqda.army.mil
PROGRAM POINT OF CONTACT: Dr. Charles C. Ryerson, CRREL, 603-646-4487, charles.c.ryerson@erdc.usace.army.mil

SERVICE AREA(S)/INITIATIVE(S)

- ***National Aviation Weather Initiatives:***
  5: 11, 14, 15

FUNDING

- ***Programmed/Planned ($'s/FY):*** $600K /FY04 $450K /FY05

TYPE OF PROGRAM/APPLICATION

R&D/Product Development

SCOPE OF PROGRAM/PROJECT

- ***What's being developed, procured, etc:*** *a capability to remotely detect icing conditions ahead of aircraft using radar and microwave radiometers from the air or from the ground, and development of methods to rapidly and safely de-ice Army helicopters during pre-flight preparations.*
- ***How operations will be changed/improved:*** *detection and avoidance of in-flight icing and improved methods of detecting and removing ice. This program is focused on improving the Army's capability for operating in icing conditions.*

PROGRAM/PROJECT MANAGEMENT

- ***Basic guidance document for this program:*** Icing Research Program Development Plan – internally developed at CRREL.
- ***Program/Project verification process:*** CRREL Technical Director, CRREL Management Information Office, ERDC, NASA, FAA.
- ***Method used for end product validation:*** Field programs.
- ***Operational training for the user:*** Not applicable yet. Hands-on and text materials anticipated.

SCHEDULE/IMPLEMENTATION

- ***Next major program milestone:*** N/A
- ***When program will become operational:*** Anticipate operational prototype in FY04.
- ***Plans for further improvements:*** Continued research and development to characterize operational meteorological conditions, development of icing condition retrieval algorithms, and development of simulation techniques for DOD applications.