

Aircraft Total Lightning Advisory System (ATLAS)

PROGRAM/PROJECT:

LEAD AGENCY/COLLABORATING AGENCIES: Airborne Research Associates, Rockwell-Collins Corp.

LEAD AGENCY POINT OF CONTACT:

PROGRAM POINT OF CONTACT: Ralph Markson, 781-899-1834, rmarkson@comcast.net

SERVICE AREA (S)/INITIATIVE (S)

- *National Aviation Weather Initiatives:*
2: 5, 9

FUNDING

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

TYPE OF PROGRAM/APPLICATION

R&D

SCOPE OF PROGRAM/PROJECT

- *What's being developed, procured, etc:* a single sensor and total lightning (cloud to ground and cloud to cloud etc.) mapping system for use on aircraft or on the ground.
- *How operations will be changed/improved:* detection of cloud-to-cloud lightning, typically provides 5 to 20 minutes advanced warning of air mass thunderstorm development and associated convective hazards. Advanced warning of convective hazards associated with thunderstorms can potentially reduce accidents and increase efficiency of operations within the National Airspace System.

PROGRAM/PROJECT MANAGEMENT

- *Basic guidance document for this program:* N/A
- *Program/Project verification process:* N/A
- *Method used for end product validation:* Product validation for the current development of an aircraft system is through comparison with data from the Kennedy Space Center's Lightning Detection and Ranging System (LDAR) and the National Lightning Detection Network (NLDN).
- *Operational training for the user:* N/A

SCHEDULE/IMPLEMENTATION

- *Next major program milestone:* N/A
- *Program becomes operational:* Dependent on other companies for marketing and production.
- *Plans for further improvements:* Complete a new algorithm utilizing spectrographic analysis to better identify first pulses.