

Automated Delivery of Wind Shear Alerts to Flight Deck

PROGRAM/PROJECT:

LEAD AGENCY/COLLABORATING AGENCIES: Northwest Airlines (NWA), Federal Aviation Administration (FAA)

LEAD AGENCY POINT OF CONTACT: Tom Fahey, Manager Meteorology, Northwest Airlines, 612-726-3256, tom.fahey@nwa.com

PROGRAM POINT OF CONTACT:

SERVICE AREA(S)/INITIATIVE(S)

- *National Aviation Weather Initiatives:*
6: 2

FUNDING

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

TYPE OF PROGRAM/APPLICATION

Product Development

SCOPE OF PROGRAM/PROJECT

- *What's being developed, procured, etc.:* automated delivery of wind shear hazard information to the flight deck. Northwest Airlines uses the in house Turbulence Plot System (TPS) and the FAA's Terminal Weather Information for Pilots (TWIP) system to deliver alerts of low altitude wind shear hazards to the flight decks of NWA aircraft. Alerts for shears are produced using the Low Level Wind Shear Advisory System (LLWAS), the Terminal Doppler Weather Radar (TDWR), and manually by NWA meteorologists.
- *How operations will be changed/improved:* minimizes the effects of hazardous weather to aircraft on arrival and departure.

PROGRAM/PROJECT MANAGEMENT

- *Basic guidance document for this program:* Part of the "Turbulence Plot Handbook".
- *Program/Project verification process:* N/A
- *Method used for end product validation:* N/A
- *Operational training for the user:* Part of an 8 hour class for new hire pilots; part of a 40 hour class for upgrading dispatchers; and part of the Enhanced Weather Information System (EWINS) approved training for all NWA meteorologists as documented in EWINS Training Manual.

SCHEDULE/IMPLEMENTATION

- *Next major program milestone:* N/A
- *Program becomes operational:* Has been operational since 1995.
- *Plans for further improvements:* Improved accuracy of the automated wind shear alerts.