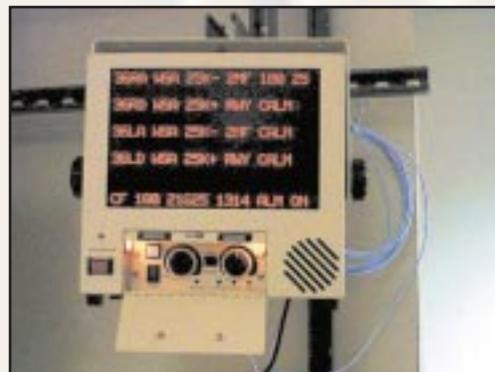


Low-Level Windshear Alert System-Relocation/ Sustainment (LLWAS-RS)

Purpose: The Low-Level Windshear Alert System (LLWAS) measures wind speed and direction at remote sensor station sites situated around the airport terminal.



Currently, each airport may have as few as 6 or as many as 32 remote stations. The remote sensor data received is transmitted to a master station, which generates warnings when windshear or microburst conditions are detected. Current wind data and warnings are displayed for approach controllers in the Terminal Radar Approach Control Facility (TRACON) and for ground controllers in the air traffic control tower (ATCT). Air traffic controllers (ATCs) relay the LLWAS runway specific alerts to pilots via voice radio communication. LLWAS alerts assist pilots during critical times when they must determine whether to attempt to land or takeoff in hazardous weather conditions.

BACKGROUND

The LLWAS-RS is intended to upgrade the current LLWAS at 40 LLWAS-2 operating sites and 4 support sites to last another 20 years.

The LLWAS-RS program is divided into two efforts: pole relocation and system sustainment. The program began in response to the National Transportation Safety Board (NTSB) investigation of the aircraft accident at Charlotte, NC, in 1994. From that accident, a determination was made that LLWAS must regain and retain its original capability. Due to increased obstructions around remote station wind sensors and equipment obsolescence, the capability has been lost over the years.





- Critical Design Review (March 1999)
- Test Readiness Review (June 1999)
- Development Test and Evaluation (July 1999)
- Operational Test and Evaluation at the FAA William J. Hughes Technical Center (September 1999)
- On-Site OT&E in Fort Myers, FL

For additional information regarding the Low-Level Windshear Alert System Relocation/Sustainment program, please contact:

ACCOMPLISHMENTS

- Preliminary ultrasonic wind sensor testing at Los Angeles International Airport, Los Angeles, CA (May 1997)
- Contract award (August 1998)
- Post Award Conference (September 1998)

FUTURE WORK

- System Design Review (November 1998)
- Preliminary Design Review (January 1999)

Communication/Navigation/Surveillance Engineering and Test Division, Weather Branch

Federal Aviation Administration
William J. Hughes Technical Center
Atlantic City International Airport, NJ 08405
Phone: (609) 485-5308
Fax: (609) 485-4035
<http://wx.aw.tc.faa.gov>

Safety