Terminal Services

Airport Surface Surveillance Capability (ASSC)

Presented to: NATCA
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ASSC Program Description

With the completion of the Airport Surface Detection Equipment, Model X (ASDE-X) Program, nine Airport Surface Detection Equipment, Model 3 (ASDE-3)/Airport Movement Area Safety System (AMASS) systems remain

- Andrews Air Force Base
- Cincinnati/Northern Kentucky International Airport
- Cleveland-Hopkins International Airport
- Kansas City International Airport
- Louis Armstrong New Orleans International Airport
- Pittsburgh International Airport
- Portland International Airport
- San Francisco International Airport
- Ted Stevens Anchorage International Airport

In order to be Automatic Dependent Surveillance-Broadcast (ADS-B) compatible, the ADS-B program baseline includes funding to replace the remaining nine ASDE-3/AMASS systems with ASSC, a multilateration ADS-B capable system.

The ASSC system will also work with the FAA’s Runway Status Lights (RWSL) system.
ASSC Program Status

The FAA is in the middle of the acquisition strategy process for ASSC.

– The market survey, completed in May 2010, resulted in an Agency decision to fulfill this requirement via competitive means.
– Schedule:
  • Proposals received: 6/3/11
  • Planned contract award: October 2011

At this time, there is no deployment schedule for ASSC. A detailed deployment schedule will be developed after contract award.

– Once the acquisition process is complete and funding is provided, based on deployments of previous similar systems, it takes approximately three years for a system to become operational at an airport.
– This process includes site survey, site design, lease approval, completion of environmental requirements, site preparation and construction, installation, system optimization, training, and acceptance and commissioning activities.
– Additional time may be necessary for activities such as project initiation (ramp up) by the selected vendor, system development and testing, and if there are more stringent environmental requirements at a specific site.
ASSC Program Status (continued)

Because Phase I (site planning and design) of the system deployment schedule takes a minimum of 23 months, the FAA decided to start the design process before contract award.

- The ASSC design process has started at San Francisco and Cleveland.
- Preliminary candidate sites for the multilateration sensors have been identified.
  - SFO: completed the initial Siting Analysis Report, which identifies the proposed multilateration sensor locations
  - CLE: the draft initial Siting Analysis Report is scheduled to be completed in October
- Preliminary general airport environmental analysis for all 9 ASSC sites is scheduled to begin soon.
- Note: Since a vendor has not yet been selected for ASSC, at a minimum, a review of the site planning and design work at these sites will be required once the ASSC equipment is determined. Changes to the design may be required.
Other Surface Surveillance Activities

ASDE-X is working with the SBS Program to upgrade all 35 ASDE-X sites to perform multilateration using the UAT 978 MHz signal (DO-282B) and process the 1090 MHz Extended Squitter signal (DO-260B).

– UAT upgrade has started at 11 ASDE-X sites.

The FAA is in the beginning of completing an investment analysis on a potential service life extension program for the Airport Surface Detection Equipment, Model 3 (ASDE-3) radar.

– The ASDE-3 radar system was first commissioned in the 1990s with a projected lifespan of 20 years.
– They are nearing the end of their lifecycle and there are supportability and logistics challenges.
– This effort would affect 29 ASDE-3 radars
  • 18 ASDE-X systems (that use the ASDE-3 surface surveillance radar)
  • 9 ASDE-3/AMASS systems (planned ASSC sites)
  • 2 ASDE-3 support systems