Federal Aviation Administration

Memorandum

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To: Office of Airports Regional Directors, AXX-600s
Regional Airport Planning & Programming, AXX-610s
Airports District Office Managers, XXX-ADOs

From: Danielle J. Rinsler, Director, Airport Planning and Programming, APP-1
John R. Dermody, Director, Airport Safety and Standards, AAS-1

DANIELLE J RINSLER Digitally signed by DANIELLE J RINSLER Date: 2024.10.03 11:12:22 -04'00'

JOHN DERMODY Digitally signed by JOHN DERMODY Date: 2024.10.03 11:29:02 -04'00'

Subject: Program Guidance Letter (PGL) 24-01: Funding for Airfield Ground Vehicle Safety Systems

This Program Guidance Letter (PGL) addresses eligibility to purchase and install equipment on airport-owned ground vehicles that improve surface safety on the airfield: Vehicle Movement Area Transmitters (VMATs) using Automatic Dependent Surveillance - Broadcast (ADS-B) and Runway Incursion Warning Systems (RIWS). VMAT equipment can be used for vehicle tracking at airports selected in the FAA's Surface Awareness Initiative (SAI). RIWS equipment can be used to alert vehicle drivers at any Airport Improvement Program (AIP) eligible airport. FAA policy is to allow and encourage acquisition, installation, and use of VMATs and RIWSs in order to improve airfield safety.

VMAT background

The FAA and the aviation community are pursuing a goal of zero serious close calls as identified in the February 2023 Safety Call to Action Initiative, which includes mitigating incursions of both aircraft and ground vehicles. Currently, Airport Surface Display Equipment, Model X (ASDE-X) and Airport Surface Surveillance Capability (ASSC) surface surveillance systems, which are used to monitor airfield movements and enhance safety, are in-use at 43 civil airports in the National Airspace System (NAS).

Following the Safety Call to Action, the FAA established the Surface Awareness Initiative (SAI) to provide supplemental situational awareness for Air Traffic Control (ATC) at additional airports to deliver innovative, cost-effective technology solutions to airports without existing ASDE-X or ASSC capabilities. Similar to ASDE-X and ASSC systems, SAI systems use ADS-B to track aircraft and vehicles on the airport surface. At airports equipped with SAI systems, the

position and call sign of aircraft equipped with ADS-B and vehicles equipped with VMATs are shown on surface displays in the Air Traffic Control tower.

This PGL provides eligibility and justification guidance for VMAT installation costs at SAI-equipped airports in support of the FAA's safety goals.

Table L-2 of the Airport Improvement Program (AIP) Handbook (FAA Order 5100.38D, Change 1), *Safety and Security Equipment Project Requirements,* provides eligibility and justification guidance for VMAT (also known as squitter) acquisition and installation at airports equipped with ASDE-X or ASSC systems. This PGL complements that eligibility by extending similar eligibility and justification to SAI-equipped airports.

RIWS background

RIWSs are a cost-effective safety tool that provides an alarm to vehicle drivers when the vehicle is near or is inside the protected area of a surface that is designated to protect aircraft landing and takeoff operations. A RIWS also will provide an alarm to the vehicle driver to avoid temporary construction areas and other protected portions of the Air Operations Area (AOA).

Funding guidance

As AIP-obligated airport sponsors, those airports installing and using VMATs must comply with Advisory Circular 150/5220-26, *Airport Ground Vehicle Automatic Dependent Surveillance - Broadcast (ADS-B) Out Equipment*, or any successor document. RIWSs must follow Advisory Circular 150/5210-25A, *Performance Specification for Airport Vehicle Runway Incursion Warning Systems (RIWS),* or any successor document.

Consistent with Table 3-7 of the AIP Handbook, *Minimum Useful Life*, the useful life of VMAT and RIWS equipment is 5 years, except for instances where the equipment cannot be modified or upgraded to meet revised specifications or the costs to modify or upgrade the equipment to meet revised specifications exceeds replacement costs, in which cases the Regional Office or Airports District Office (ADO) can consider the equipment as having met its useful life and eligible for replacement.

Individual vehicles may be equipped with both VMAT and RIWS equipment. Acquisition and installation projects must comply with the following funding rules:

VMAT funding guidance

Topic	Additional Requirement for AIP Funded Equipment
a. Eligible Airports	VMAT costs are eligible only at airports equipped with ASDE-X, ASSC, or SAI systems approved by the FAA Air Traffic Organization.
b. Number of VMATs Allowed	A maximum of 200 VMATs are authorized at an airport per Advisory Circular 150/5220-26, and

Topic	Additional Requirement for AIP Funded Equipment
	acquisition of VMATs that do not exceed this limit are allowable. FAA recommends that all airport vehicles that regularly operate on the movement area of an airport equipped with an ASDE-X, ASSC or SAI system be equipped with VMATs.
c. Allowable Costs	Only the minimally required costs per Advisory Circular 150/5220-26 or any successor document to acquire and install the equipment, as well as commissioning services, including Site Acceptance Testing (SAT) costs, are allowable. The costs of acquiring any other or future computer hardware, software or software subscription services used to manage VMAT operations and maintenance or in support of airport surface displays are not allowable.
d. Operating Frequency	VMATs may only use the 978 MHz/UAT link.
e. ADS-B Out	Only ADS-B Out is allowable (ADS-B In is not eligible).
f. Allowable Products	Only qualified products that have been approved following certification testing and are so identified in Advisory Circular 150/5220-26 may be acquired and eligible for funding.
g. Type of Vehicles that can be equipped with AIP-funded VMATs.	For all acquisitions, AIP-funded VMATs are limited to installation in airport-owned, airport employee-operated vehicles that operate on pavements that are controlled by FAA Air Traffic Control, such as snowplows, airport rescue and firefighting vehicles, and airside operations vehicles. For VMAT-equipped vehicles, the airport must provide a listing of the vehicle, assigned use (such as airside operational vehicle), and its callsign designation (such as Operations Vehicle OPS-1, ARF-2) to the Airports District Office.

RIWS funding guidance

Topic	Additional Requirement for AIP-Funded Equipment
a. Eligible Airports	RIWS costs are eligible at any AIP-eligible airport.
b. Number of RIWSs Allowed	There is no limit to the number of AIP-eligible RIWSs.

Topic	Additional Requirement for AIP-Funded Equipment
c. Allowable Costs	Only the minimally required costs to meet RIWS performance requirements per Advisory Circular 150/5210-25A or any successor document to acquire and install the equipment, as well as commissioning services, are eligible. As RIWSs can be installed as a standalone unit within a vehicle or used as an app on a smartphone, one-time RIWS hardware and software costs are eligible in the following scenarios: • Standalone RIWS hardware with integrated software, including installation costs, for use on an eligible vehicle; • An airport-owned mobile device, including hardware and RIWS software, to be used in connection with operating an eligible vehicle; or • RIWS software that is compatible with existing airport-owned hardware when used in connection with an eligible vehicle. The costs of acquiring any other or future computer hardware, software or software subscription services used to manage RIWS operations and maintenance are not allowable.
d. Allowable Products	Only products that meet performance requirements in Advisory Circular 150/5210-25A or any successor document are allowable.
e. Type of Vehicles that can be equipped with AIP-funded RIWSs.	For all acquisitions, AIP-funded RIWSs are limited to installation in airport-owned, airport employee-operated vehicles that operate on Air Operations Areas (AOA), such as snowplows, airport rescue and firefighting vehicles, and airside operations vehicles.

Moving forward:

The FAA will update the current version of the AIP Handbook in its next version to reflect this guidance.