

FAA Office of NextGen (ANG)

REDAC / NAS Ops

Review of FY2022 – 2024 Proposed Portfolio

Runway Incursion Reduction Program (RIRP) S09.02-00 Scott Proudfoot, AJI-1550 Robert Higginbotham, ANG-C51 March 14 – 15, 2023

Runway Incursion Reduction Program (RIRP) Overview

- The objective of the Runway Incursion Reduction Program (RIRP) is to reduce the risk to people and property caused by collisions in the runway environment. The RIRP is focused on providing SAFETY benefits for the FAA.
- The program will research technologies, develop and evaluate prototype systems that can be used to detect the presence of hazards in the Runway Safety Area, and provide alerts to the individual(s) who can take corrective action.
- RIRP success is measured by the completion of the goals identified in the Research Management Plan (RMP) for each prototype activity. Initiatives that successfully complete all the RMP Goals identified are then presented as candidates for acquisition, or presented for AIP-funding eligibility.



Runway Incursion Reduction Program (RIRP) Program Support

Staff

- Sponsor: Ernesto Lasen, AJI-15
- HQ Runway Safety Team Lead: Scott Proudfoot, AJI-1550
- Program Manager: Robert Higginbotham, ANG-C52
- Subject Matter Experts: GEMS Inc., Level Strategy, RWSL Informatics, DOT Volpe Center



Current FY23 Accomplishments

- Runway Incursion Prevention through Situational Awareness (RIPSA)
 - RIPSA contract was awarded to SAAB, Inc. in June 2022 to install and test its proposed technical solution (i.e., First Article system) at San Antonio International Airport (SAT)
 - Completed draft memorandum of understanding with the City of San Antonio currently under legal review
 - Completed initial site survey report for Runway Entrance Lights (RELs) and surveillance sensor tower/shelter
 - Received initial determination for FAA Form 7460-1. Site RTR-D was selected for Surveillance Movement Radar (SMR)
 - Received Frequency Transmit Authorization (FTA) for SMR
 - Initiated discussions with ANG-B32 concerning formulation of Safety Risk Management Panel (Operations)



Anticipated Research in FY24

- Runway Incursion Prevention through Situational Awareness (RIPSA)
 - Activities:
 - Complete installation of RIPSA system at SAT
 - Commence for system Operational Test & Evaluation (OT&E)
 - Products:
 - First Article System(s) delivery at SAT

Runway Incursion Reduction Program (RIRP)

Research Requirements

- Research "direct to pilot" safety solutions capable of providing localized detection capabilities for all aircraft or vehicles at airport Hot Spot locations
- Develop surface surveillance sensor and operator annunciation concepts
- Develop Program Requirements, prototype, test and evaluate potential RIPSA technologies

Outputs/Outcomes

Products:

- Localized surveillance and annunciation technology test system at SAT
- RIPSA operational evaluation reports and system requirements

FY 2024 Planned Research

- Complete installation of RIPSA system at SAT
- Commence SRM Activities for RIPSA system OT&E at SAT

Out Year Funding Requirements

F&E (CIP)	FY23	FY24	FY25	FY26	FY27 & Beyond
	\$ 2.0M	\$ 3.5M	\$ 3.5M	\$ 5M	\$ 20M

