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FAA Office of NextGen (ANG)

REDAC / NAS Ops

Review of FY2023 – 2026 Proposed Portfolio

Runway Incursion Reduction Program (RIRP)

S09.02-00

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August 22, 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: David Buczek, AJI-15
- HQ Runway Safety Team Lead: Scott Proudfoot, AJI-1550
- Program Manager: Robert Higginbotham, ANG-C52
- Subject Matter Experts: Level Strategy, RWSL Informatics, DOT Volpe Center, MIT Lincoln Lab

Current FY23 Accomplishments

- Runway Incursion Prevention through Situational Awareness (RIPSA)
  - RIPSA contract was awarded to SAAB, Inc. in June 2022. First Article system delivered in place at Syracuse pending completion of site prep at San Antonio International Airport (SAT)
  - Completed Memorandum Of Understanding with the City of San Antonio; final MOU signed by all parties
  - Completed initial site survey report for Runway Entrance Lights and surveillance sensor tower/shelter
  - Submitted revised FAA Form 7460-1 for relocated Surveillance Movement RADAR (SMR) radar tower and shelter
  - Received Frequency Transmit Authorization for SMR
  - Continued discussions with ANG-B32 concerning formulation of Safety Risk Management Panel (Operations)
  - Commenced System Security Assessment for STARS connection to RIPSA data processor

Anticipated Research in FY24

Runway Incursion Prevention through Situational Awareness (RIPSA)

- Activities:
  - Complete installation of RIPSA system at San Antonio International Airport (SAT)
  - Commence for system operational test & evaluation (OT&E)

- Products:
  - First Article System(s) delivery / installation / optimization at SAT
  - Operational Evaluation Plan
  - SRM Documentation
  - Training materials for controllers, pilots, and vehicle operators

Anticipated Research in FY25

Runway Incursion Prevention through Situational Awareness (RIPSA)

Planned Research Activities:

- Completion of RIPSA Operational Evaluation at SAT

Expected Research Products:

- OpEval Report on evaluation findings and recommendations

Runway Incursion Reduction Program (RIRP)

Research Requirements

- Develop Program Requirements, prototype, test and evaluate potential RIPSA technologies at up to 2 candidate airports, SAT and DAB
- Develop low-cost surface surveillance sensor
- Sponsor: Safety Services Group (AJI-15)
  POC: Scott Proudfoot, Team Manager, AJI-1550

Outputs/Outcomes

Products:

- Localized surveillance and annunciation technology test systems at RIPSA candidate airports
- RIPSA operational evaluation reports and system requirements

FY 2026 Planned Research

- Investigation of RIPSA control tower display
- Potential second RIPSA site installation

Out Year Funding Requirements

F&E

FY23 (Enacted)	FY24 (President's Budget)	FY25 (CIP)	FY26 (CIP)	FY27 (CIP)	FY28 (CIP)
$ 3.0M	$ 3.5M	$ 3.5M	$ 5.0M	$ 5.0M	$ 5.0M