

FAA Office of NextGen (ANG)

REDAC / NAS Ops

Review of FY2024 – 2026 Proposed Portfolio

Runway Incursion Reduction Program (RIRP)

S09.02-00

Ingrid Rinker, AJI-1550

Robert Higginbotham, ANG-C51

March 19, 2024

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 traditional AMS acquisition or AIP-funding eligibility.

Runway Incursion Reduction Program (RIRP) Program Support

People:

- Sponsor: David Buczek, AJI-1500
- HQ Runway Safety Team Lead: Ingrid Rinker, AJI-1550
- Program Manager: Robert Higginbotham, ANG-C52
- Subject Matter Experts:
 - NATCA National Runway Safety Rep (Bridgit Singratanakul)
 - NATCA National NextGen Rep (Adam Rhodes)
 - PASS National NextGen Rep (Kurt Donnelly)
 - Regulus
 - Level Strategy
- Laboratories
 - MIT Lincoln Lab

Current FY24 Accomplishments

Runway Incursion Prevention through Situational Awareness (RIPSA)

- Activities:
 - Commenced installation of RIPSA system at San Antonio International Airport (SAT)
 - Commence system Operational Test & Evaluation (OT&E) in August 2024
- Products:
 - First Article System delivery / installation / optimization at SAT
 - Operational Evaluation Plan
 - Signed SRM Document
 - 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

Emerging FY26 Focal Areas

Runway Incursion Prevention through Situational Awareness (RIPSA)

- Removal of RIPSA prototype equipment and infrastructure per MOA with San Antonio Airport Authority
- Site restoration and remediation
- Development of preliminary cost benefit analysis

Runway Incursion Reduction Program (RIRP)

Research Requirements

- Develop Program Requirements, prototype, test and evaluate potential RIPSAs technologies at candidate airports (SAT)
- Evaluate low-cost surface surveillance sensor (SMR)
- Sponsor: Safety Services Group (AJI-15)
POC: Ingrid Rinker, Team Manager,
AJI-1550

Outputs/Outcomes

- Products:
- Localized surveillance and annunciation technology test systems at RIPSAs candidate airport
 - RIPSAs operational evaluation reports and preliminary system requirements

FY 2026 Planned Research

- Removal of RIPSAs prototype at SAT
- Market survey for solutions to Wrong Surface Operations

Out Year Funding Requirements

	FY24 (Enacted)	FY25 (President's Budget)	FY26 (CIP)	FY27 (CIP)	FY28 (CIP)	FY29 (CIP)
F&E	\$ 3.5M	\$ 3.5M	\$ 5.0M	\$ 5.0M	\$ 5.0M	\$ 5.0M