



# City of San Antonio

## Agenda Memorandum

**File Number:**

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**Agenda Item Number:** 16

**Agenda Date:** June 15, 2023

**In Control:** City Council A Session

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**DEPARTMENT:** Aviation Department

**DEPARTMENT HEAD:** Jesus H. Saenz Jr.

**COUNCIL DISTRICTS IMPACTED:** Citywide

**SUBJECT:**

Runway Incursion Prevention through Situational Awareness Program at the San Antonio International Airport

**SUMMARY:**

This ordinance authorizes a Memorandum of Understanding between the Federal Aviation Administration (FAA) and the City of San Antonio in support of Runway Incursion Prevention through Situational Awareness system, an initiative sponsored by the FAA's Runway Incursion Reduction Program (RIRP) and aimed at reinforcing protection of the Runway Safety Area at the San Antonio International Airport. The agreement outlines the roles and responsibilities of both parties.

**BACKGROUND INFORMATION:**

The Federal Aviation Administration (FAA) introduced the RIRP to reduce the risk to people and property caused by collisions in the runway environment in 2000-2001. In 2017, a new initiative was introduced to this program – the Runway Incursion Prevention through Situational Awareness (RIPSA) system – a technology-based solution aimed at reinforcing protection of the Runway Safety Area. The Runway Safety Area is defined as the area within the 250 feet of each side of a runway center line. The RIPSA system utilizes a “Right-Site-Right-Size” approach to address

specific runway incursion causal factors identified at candidate airports. It is primarily intended to mitigate pilot deviations and vehicle/pedestrian deviations, which result in approximately 80% of all runway incursions reported to the FAA.

San Antonio International Airport (SAT) was identified to participate in the RIPSAs system based on factors such as the presence of a diverse operational mix, an expressed desire to partner as a technology testbed and runway incursions that require additional mitigations to supplement planned construction, signage upgrades, training, and outreach efforts. San Antonio International Airport will be the first airport to participate in the RIPSAs system.

The RIRP team will work with the selected primary system vendor, Saab, Inc. to prototype, install and conduct test evaluations of the RIPSAs prototype system at SAT. The outcome of these evaluations will be a set of operational evaluation reports summarizing the performance of the RIPSAs prototype system at SAT. This emerging technology will potentially improve runway incursion reduction at airports by utilizing targeted surveillance technologies to drive direct-to-pilot annunciators at key runway entry points (referred to as “protected intersections”) that provide “just-in-time” situational awareness to pilots and vehicle operators.

## **ISSUE:**

The Memorandum of Understanding outlines the responsibilities of the Federal Aviation Administration (FAA) and City of San Antonio (City) in support of the Runway Incursion Prevention through Situational Awareness system at the San Antonio International Airport.

### *Federal Aviation Administration*

The federal agency will provide the contractor to complete the scope of work specified in the agreement. Tasks will include:

- Complete and provide engineering documentation to the Aviation Department, which include site surveys, system installation plans and details, electrical design and layout, and test and evaluation plans.
- Coordinate and conduct any planning and construction progress meetings with all key parties to discuss installation plans, operations and safety issues.
- Ensure the testing and evaluations are unobtrusive and do not adversely affect the live operations of the air traffic system. The FAA will take immediate action to halt operation, identify and resolve the source of interference if negative interference does occur.
- Provide the Spectrum Frequency Transmit Authorization (FTA) application request and approval, and the results of the on-site Spectrum Frequency Analysis Report to ensure that the RIPSAs prototype system does not interfere with any existing systems at SAT.
- Provide all requests and determinations for 7460-1 (Notice of Proposed Construction or Alteration), and 7460-2 (Notice of Actual Construction or Alteration including on-site construction by sub-contractors).
- Submit the Surface Movement Radar (SMR) tower and shelter plans to SAAS for siting and code compliance as necessary. It is the FAA’s responsibility to ensure that any structure is sited in accordance with the FAA-approved 7460-1.
- Designate a FAA Resident Engineer (RE) to coordinate and ensure that all subcontractors performing work within SAT Airport Operating Area (AOA) adhere to all local,

state, and federal regulations including the overview of standard operating procedures, Airport Rules and Regulations, and appropriate FAA Advisory Circulars (ACs) and Notices to Air Missions (NOTAMs).

- Provide general assistance in system assessment activities and operational evaluation, including coordinating and conducting informational briefings, distribution of system information for users, and coordinating with local airport representatives, including the FAA Airport Traffic Control Tower (ATCT) and Technical Operations Managers.
- Develop materials and conduct training for pilots/ vehicle operators/ ATC/ operational staff.
- Conduct a Limited Environmental Analysis (Entrance/Exit) for the project site and provide SAAS with its findings for the presence of any/all hazardous materials, for proper disposition and chain of custody records.
- Develop and publish Program NOTAMs and any information to be transmitted on the Automatic Terminal Information Service (ATIS).
- Coordination Protocol for Installation Phase: Any interruptions to regular operations (Scheduled or Unscheduled) during the RIPSA system installation phase will be coordinated with the City. The FAA will work with SAAS to develop a Construction Safety Phasing Plan (CSPP) and its exhibits prior to the commencement of installation activities.
- Coordination Protocol for Operational Test and Evaluation Phase: Any interruptions to regular operations (Scheduled or Unscheduled) during the RIPSA OT&E phase will be coordinated with the City.

#### *City of San Antonio*

The Aviation Department will support this program as outlined in the agreement. Tasks will include:

- Providing to the FAA Resident Engineer (RE) and Runway Incursion Reduction Program (RIRP) Engineers, SAT-specific requirements of standard operating procedures, and airport regulations.
- Providing general assistance in system assessment activities and operational evaluation, including coordinating informational FAA briefings to airport operators, distributing system information for users, and coordinating with local airport representatives.
- The City will provide real estate at SAT at no cost to the FAA, to house equipment in use under this agreement.
- Coordinating with FAA to allow authorized project personnel to access applicable real estate portion(s).
- Coordinating with FAA on the publication of letters to Airmen and NOTAMs, as necessary.
- Reviewing and, upon reaching mutual agreement on the improvements or modifications, approving any, and all facility improvements or modifications on airport property.
- Assisting with obtaining a joint use agreement for CPS Energy electric company to provide power supply for FAA equipment, if required.
- Assisting the FAA RIPSA Team in applying for AOA access credentials to include the Transportation Security Agency (TSA)-governed security badge, SAAS-managed Airfield Driver's License, and amendments to the Airport's Security Plan for construction activities.
- Taking good and reasonable measure to ensure that no further intersection, taxiway, or runway construction disrupts the RIPSA prototype system.
- Providing all airport-specific Construction Safety Phasing Plan (CSPP) requirements for the deployment of RIPSA such as recommended haul routes (i.e., entry/exit points).
- Developing and publishing construction-related NOTAMs.

**ALTERNATIVES:**

The City Council may choose not to support the Memorandum of Understanding between the Federal Aviation Administration and City of San Antonio regarding the Runway Incursion Prevention through Situational Awareness system at the San Antonio International Airport. This action would delay the City from working with the Federal Aviation Administration on this program, and delay the implementation of a program to support runway safety.

**FISCAL IMPACT:**

This ordinance authorizes a Memorandum of Understanding between the Federal Aviation Administration (FAA) and the City of San Antonio in support of Runway Incursion Prevention through Situational Awareness system, an initiative sponsored by the FAA's Runway Incursion Reduction Program (RIRP) and aimed at reinforcing protection of the Runway Safety Area at the San Antonio International Airport. The agreement outlines the roles and responsibilities of both parties. No funding is obligated by the FAA or City under this agreement.

**RECOMMENDATION:**

Staff recommends the approval of the Memorandum of Understanding between the Federal Aviation Administration and City of San Antonio in support of Runway Incursion Prevention through Situational Awareness system at the San Antonio International Airport.