

Request for proposal

Secure Autonomy Feedback and Evaluation Test Bed (SAFE-T)

Overview | Phase 1 – BVLOS Airspace Environment Development

The Tulsa Hub for Equitable & Trustworthy Autonomy (THETA Tech Hub) aims to become a global leader in developing and commercializing autonomous systems for use cases ranging from agriculture and pipeline inspections to regional transportation. The Tech Hub will leverage the Greater Tulsa Region's EDA Build Back Better Regional Challenge award, its university-based research institutes in uncrewed aircraft systems (UAS) and cybersecurity technologies, the Skyway Range flight corridor testing facility, and existing capital investments. These regional assets will enable the THETA Tech Hub to develop and innovate autonomous systems applications while increasing their security and integrity. This has the potential to strengthen national and economic security while connecting small manufacturers across the region with opportunities in the autonomous systems supply chain.

THETA has been selected by the U.S. Economic Development Administration (EDA) as a Tech hub for the development, testing, manufacturing of Trustworthy and Equitable Autonomous Systems (TEAS). In July 2024, EDA recommended this Tech Hub receive grant funding of approximately \$51 million to implement six TEAS related projects in the Tulsa region. This RFP is associated with one of those selected component projects, Secure Autonomy Feedback and Evaluation Test Bed (SAFE-T).

SAFE-T is fully funded by the U.S Economic Development Agency, <https://insideunmannedsystems.com/tulsa-secures-51-million-from-eda-to-bolster-autonomous-systems-development/>

Table of contents

1. Company information

- Introduction
- Company background
- Project contact

2. Project overview

- Problem statement
- Objectives and goals
- Scope of work

3. About this RFP

- RFP timeline
- Minimum criteria
- Submission criteria
- Evaluation process

4. Terms and conditions

1 Company information

Introduction

DronePort Network is accepting proposals for a vendor(s) to support the development of a beyond visual line of sight airspace region to support the SAFE-T project in Tulsa, OK

Company background

Founded in 2022, DronePort Network is an emerging aerospace infrastructure development company focused on turnkey solutions that will allow communities to support the rapid scalability of drone technology.

DronePort Network can provide a full infrastructure technology stack needed to safely integrate drone technology into your community's everyday life.

In 2024, DronePort Network was selected as the Program Design and Implementation lead for the SAFE-T project.

Project contact

Craig Mahaney
CEO
405-265-8939
cmahaney@dronports.net

2 Project overview

Problem statement The future of widespread adoption of trustworthy and scaled autonomous systems involves multiple heterogeneous actors operating in complex, ever-changing environments. However, current testing facilities and regulatory regimes focus primarily on single operator environments or in remote areas. Further, the lack of commercially available urban testing environments holds back adoption, threatening U.S. national security and the ability to realize widespread benefits from adoption. The Greater Tulsa Region (GTR) is a known leader in solving integration challenges at Skyway Range, the nation's most ambitious vision for a drone testing corridor.

To fully realize our ambition and to comprehensively address the new challenges faced by trusted autonomous technologies, GTR will partner with Skyway Range and DronePort Network to establish the **Secure Autonomy Feedback and Evaluation Testbed (SAFE-T)**. The Testbed will elevate GTR above national competition and develop a globally unique asset to fulfill the crucial next step toward full-scale autonomy. SAFE-T will support the maturation, integration, and deployment of the enabling technologies necessary to achieve complex autonomous operations. Expanding on existing partnerships and infrastructure of Skyway Range to include cybersecurity expertise, SAFE-T will integrate new categories of advanced sensors, develop cyber penetration testing capabilities, and construct a simulation environment to enable companies, researchers, and regulators to mature the technologies that will unlock rapid scaling of the industry.

Through these initiatives, SAFE-T will develop an unparalleled testing, simulation and commercially viable operational environment that will position the GTR as a destination for companies, researchers, and talent working on the cutting edge of secure and trustworthy autonomy.

Objectives and goals As part of Phase 1 of SAFE-T we are seeking the development of an operational beyond visual line of sight (BVLOS) airspace environment that covers the Tulsa metro area. To accomplish this, SAFE-T will build on existing Skyway Range infrastructure by adding additional UAS hardware, including aircraft tracking systems, communication systems, additional UAS-related IT systems, and weather monitoring and simulation systems. Furthermore, these hardware systems will be boosted by additional software infrastructure solutions including Uncrewed Traffic Management (UTM) solutions, a weather intelligence platform, cybersecurity monitoring tools, surveillance data fusion capabilities, command and control (C2) orchestration, and detect-and-avoid (DAA) systems. These will be rolled out in phases based on both regulatory and defense needs and industry tailwinds. Multiple RFP's will proceed from this project to capture the systems listed. This Phase 1 "Request for Proposal" covers some of the initial project development needs as described below.

Scope of work

The selected vendor(s) will provide support in the following areas:

System Design

The design work involves the development of advanced, flexible infrastructure to enable scalable and secure autonomous operations. Key elements include the creation of a live BVLOS urban testbed in Tulsa, Oklahoma, to address challenges in high-density airspace management. This requires integrating commercial assets, implementing robust safety management systems, and fostering public-private data-sharing partnerships with an emphasis on resiliency and scalability. The system must process vast operational data streams from various autonomous platforms, ensuring these are cleaned, managed, and optimized for industry, regulatory, and research needs. Additionally, the system will incorporate cybersecurity "penetration testing" capabilities to validate the hardware and software used in autonomous operations. SAFE-T's design prioritizes interoperability, threat detection, and the resilience of autonomous technologies, ultimately supporting commercialization and the integration of autonomous systems into complex environments.

System Integration

Integration of advanced sensors, radar, communication systems, and data management tools, Detect and Avoid tools, and a UTM Platform into a cohesive operational framework.

Vendor should plan for the integration of various hardware and software products many of which will be purchased during the early phases of SAFE-T and product specifics are unknown at this time. System Integration support will be over a four-year period.

Centralized Data Exchange

SAFE-T's goal is to limit the amount of individual integration work from users of the Tulsa BVLOS operational airspace and associated infrastructure. Vendor(s) will be required to have an existing, or be able to develop, a plug and play solution for accessing the related digital infrastructure. Access to the data exchange will be for a period of four years. Some options for achieving that might be:

- **Modular Architecture:** Use a modular approach to support interoperability and scalability.
- **Standards Compliance:** Adopt open standards and protocols (e.g., MQTT, REST APIs) to enable integration across multiple systems.
- **Centralized Data Platform:** Develop a secure central platform for data ingestion, processing, storage, and visualization.

- Unified API Layer: Create an API framework that standardizes how sensors and systems connect to the software.
- Interoperability Protocols: Implement protocols for seamless communication between heterogeneous systems.

Safety Management System (SMS) Development

Design and implementation of SMS to ensure safety assurance in complex multi-user autonomous environments.

UAS BVLOS Waiver Support and NTAP Support

We expect to enter the FAA's Near-Term Approval Process (NTAP) to become a Supplemental Data Service Provider (NTAP). This will support the development of BVLOS waiver applications for TWO "pilot" SAFE-T mature commercial operators to utilize the Tulsa BVLOS airspace environment. Waiver will be in compliance with FAA regulations, leveraging data-driven safety assurance processes.

Data Fusion

Development of systems to collect, clean, and integrate operational data streams from diverse sensor feeds in simulated and live urban environments. Data fusion support will be for a period of four years.

System Monitoring

Focus will be on ensuring the reliability, security, and operational performance of autonomous systems and data feeds within the testbed. This includes deploying advanced monitoring tools to oversee data streams from diverse autonomous platforms operating in live urban environments. Key components will involve automated real-time surveillance and analysis of communication systems, weather data integration, and system performance metrics to detect and address potential disruptions or anomalies. Additionally, the monitoring infrastructure will support interoperability across systems, enabling the safe coexistence of multiple operators in shared airspace. System Monitoring support will be for a period of four years.

3

About this RFP

RFP timeline	Action	Date
	RFP issued	03/27/25
	Vendor questions due	04/04/25
	Q&A responses	04/09/25
	RFP submission deadline	04/25/25
	Proposal evaluation	04/28/25
	Selection announcement	05/02/25

- Minimum criteria** Qualified vendors must:
- Submit an “Intent to Respond” via email if you would like to see response to questions.
 - Prepare a complete and compliant proposal. Individual proposals for piecemeal support are not allowed. Award will not be divided among multiple respondents. Prime and sub-prime relationship responses are allowed.
 - Provide two clients as references.
 - Have completed previous work technically equal to the scope of the proposed project.

- Submission criteria** Proposals must include:
- Overview of the company’s experience and relevance to the project objectives.
 - Technical approach and methodology and technologies to be employed for each scope area. Detailed software development roadmap and strategy is required.
 - Project plan, timeline, milestones, and deliverables.
 - Team composition, key personnel qualifications and roles (including sub-primes).
 - Total budget, cost breakdown over time, and justification.
 - Past experience to include examples of similar projects completed.
 - Response is limited to a 25-page maximum (not including team composition, key personnel qualifications and roles)
 - Contact information for two client references

Submit Intent to Respond and Proposals via email to:

- Craig Mahaney (CEO) – cmahaney@droneports.net and Emily Bell (Chief of Staff) – ebell@droneports.net

Evaluation process After the response deadline, proposals will be reviewed by DronePort Network and scored individually. The sections will be weighted as follows:

- Technical expertise and innovation (30%)
- Experience with similar projects (30%)
- Feasibility and clarity of project plan (20%)
- Cost-effectiveness and best value (20%)

4 Terms and conditions

Contract terms and conditions will be negotiated upon selection of the winning bidder for this RFP. All contractual terms and conditions will be subject to review by DronePort Network legal department and will include scope, budget, schedule, and other necessary items pertaining to the project.

Any intellectual property created in response to the work laid out in this RFP will belong to DronePort Network and shared use or licensing agreements may be negotiated upon request.