



NATIONAL SAFE SKIES ALLIANCE

Program for Applied Research in Airport Security

PARAS 0012 Project Summary

Project Title:	Guidance for Integrating UAS into Airport Security		
Program Officer:	Jessica Grizzle	865-738-2080	jessica.grizzle@sskies.org
Research Agency:	Faith Group		
Principal Investigator:	Dave Fleet		
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BACKGROUND

A great deal of information is available about using unmanned aircraft systems (UAS) for numerous applications, including security at airports. While much information on UAS capabilities exists, little is available specifically for airport officials to make informed and accountable decisions regarding the use of UAS as part of a risk-based, layered approach to security at their airports. The information that is needed includes, but is not limited to, Federal Aviation Administration and other governmental regulatory and legal requirements; availability of technology to help control, monitor, and independently confirm UAS flight activity; performance data on UAS operations at airports or in similar-to-airport situations; staff training needs and costs; maintenance and operating costs; potential legal liabilities; and potential added insurance requirements.

Consolidated guidance is needed to assist in determining the avenues for successful UAS use within the overall airport security environment.

OBJECTIVE

The objective of this research is to develop a guidebook to assist airports of various types and sizes in the use of UAS for airport security applications. Examples of potential applications include perimeter surveillance, inspection, alarm response, and breach tracking. At a minimum, the guidance should include:

- U.S. regulatory and legal considerations, including but not limited to:
 - Paths available to UAS use
 - Requirements for use
 - Pilot qualifications and training
 - Insurance and liability
 - Airspace
 - Privacy
 - Public records laws and retention
- Evaluation of existing and emerging UAS technology (e.g., platforms, sensors, command and control, etc.)
- Potential technology integration into systems at the airport, including IT/network security considerations

- Frequency spectrum and interference considerations
- Best and emerging practices (e.g., Operations, policies and procedures, and additional pilot qualifications and training)
- Limitations of UAS (regulatory, operational, and technological)
- Safety analysis and considerations
- Geography and climate considerations
- Stakeholder and community relations (e.g., scope of use, privacy concerns, etc.)
- Cost-benefit analysis, including maintenance and other potential parallel uses (e.g., emergency response, wildlife, and facility/building inspections)
- Options for prevention, detection, and mitigation of unauthorized UAS
- Glossary of terms
- Summary of aviation-related research
- International aviation related policies, procedures, and research

The guidance should include applicable decision making tools such as checklists, flowcharts, or graphics that could be used when implementing a UAS program at an airport.