CNA

Uncrewed Aircraft Systems

Operational Assistance

Uncrewed aircraft system (UAS) technology has evolved significantly over the past decade, becoming increasingly affordable and accessible for state and local public safety agencies. The operational value of these systems is most striking in the field—whether using thermal imaging to locate a missing person in dense terrain or providing real-time situational awareness during critical incidents.

Despite these benefits, significant obstacles often hinder broader adoption. Many agencies struggle with limited resources for program sustainability, a complex regulatory environment, and critical cybersecurity vulnerabilities. To address these vulnerabilities, CNA developed the Brute Force Default Identification–Automated Prevention (BFDI-AP) countermeasure system to secure UAS before launch. Using a push-button approach, BFDI-AP automatically identifies insecure default settings and applies reconfiguration scripts to harden the system against potential attacks. The solution creates an automated feedback loop that scans for vulnerabilities, implements corrections, and notifies operators of changes, enabling public safety organizations to deploy UAS more securely and reliably.

Although UAS offer significant operational value for public safety agencies, those agencies must also recognize and address the evolving threats posed by unauthorized or hostile UAS activity. CNA provides comprehensive counter-UAS (C-UAS) support, equipping agencies to detect, assess, and mitigate risks from adversarial drones. Through our integrated Port Security & Emergency Response Using Autonomous Systems solution, CNA delivers fully managed C-UAS services and hosts workshops to enhance operational planning, disaster preparedness, and incident response.

By combining innovative technical solutions such as BFDI-AP with our long-standing history of operational support, CNA helps state and local public safety agencies navigate the complex UAS ecosystem. We ensure that technology is adopted safely and efficiently and in a manner that fosters community trust, operational longevity, and strict regulatory compliance.

Services

Onsite and Remote Subject Expert Assistance

Focused assessments or assistance sessions provided either virtually or on site at the request of public safety agencies

Comprehensive Policy Review and Development

A collaborative process with agencies to assess the comprehensiveness of UAS policy and understand local issues that influence policy (e.g., specific state regulations)

Training and Learning Sessions

Development and delivery of UAS training and knowledge sessions, including immersive scenario-based workshops, interactive exercises, and educational and experiential games

Peer Connects

Public safety agencies connected to one another share best practices and lessons learned on specific UAS implementation issues; exchanges take place on site, remotely, or at workshops, conferences, or other meeting venues

Regional Sessions

Sessions that address a topic of regional significance for which public safety agencies would most benefit from coordinating with entities within their geographical areas of responsibility

CNA provides support to public safety agencies in the following topic areas.

Policy & Programming	• Developing comprehensive policy: video capture, data transfer and download, public release, C-UAS responses • Monitoring UAS policy trends • Implementing UAS strategic plans and programs • Ensuring compliance with federal and state regulations on C-UAS technology use
Training	• Delivering guidance on curriculum content, modalities, and formats • Performing comprehensive curriculum review • Educating practitioners about C-UAS detection, identification, and mitigation
Privacy	• Understanding community members' rights and considerations • Establishing and maintaining accountability mechanisms • Addressing data and security risks and requirements related to C-UAS
Acquisition & Budgeting	• Planning for acquisition and down-selection • Establishing budget • Understanding storage requirement and costs • Informing selection of trusted C-UAS systems
Stakeholder Engagement	• Engaging with city and federal representatives • Educating the community on UAS capabilities and limitations • Implementing media engagement • Addressing public safety employee concerns about UAS and garnering buy-in
Technology	• Understanding the technical features and complexities of UAS equipment • Maintaining awareness of new features and capabilities • Assisting with the integration of various digital evidence technology systems • Assessing technology analytics and redaction software
Legal & Regulatory Complexities	• Understanding and complying with federal aviation regulations • Maintaining awareness of legislation updates and legal rights • Understanding the evidentiary value of UAS data • Conducting security risk assessments
Specialization & Research	• Implementing UAS in specialized units and settings • Establishing research partnerships • Understanding emerging C-UAS threats and countermeasures

CNA'S UAS TRAINING FOR LAW ENFORCEMENT

CNA is helping the Alliance for System Safety of UAS through Research Excellence (ASSURE) build first-responder UAS training protocols and infrastructure services as well as systems to standardize, vet, and certify courses and training. This training, ASSUREd Safe, is intended to serve as the definitive source for all first-responder UAS training.

CNA'S UAS CYBERSECURITY SOLUTION

CNA led the development of a solution that earned first place in the National Institute of Standards and Technology First Responder UAS Triple Challenge. Through a series of live UAS flights, the team demonstrated the real-world cyber risks posed by loss of command and control. This work highlighted the prevalence of simple security misconfigurations across multiple UAS platforms.

About CNA

CNA is a not-for-profit analytical organization dedicated to the safety and security of the nation. With nearly 700 scientists, analysts, and professional staff across the world, CNA's mission is to provide data-driven, innovative solutions to our nation's toughest problems. It operates the Center for Naval Analyses—the Department of the Navy's federally funded research and development center (FFRDC)—as well as the Institute for Public Research. The Center for Naval Analyses provides objective analytics to inform the decision-making by military leaders and ultimately improve the lethality and effectiveness of the joint force. The Institute for Public Research leverages data analytics and innovative methods to support federal, state, and local government officials as they work to advance national and homeland security.

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