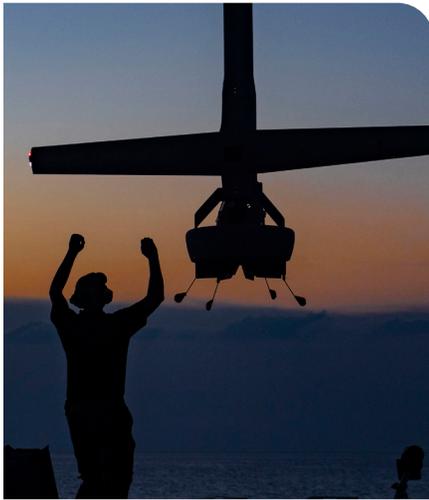




# OUR LEADERSHIP ON UNCREWED AIRCRAFT SYSTEMS (UAS) AND FEATURED PROJECTS



## CYBERSECURITY

CNA has been a leader in conducting research, designing frameworks, and developing methodologies to build Cybersecurity measures for UAS. We support the development of the Federal Aviation Administration's (FAA) [UAS Traffic Management \(UTM\)](#) requirements, which represents a new paradigm in aviation traffic management. We apply forward-thinking strategies, such as [zero trust architecture](#), in our recommendations. Our recommendations have been tested and demonstrated in forums such as the congressionally-mandated [UTM Pilot Program](#). In addition, the agency is also leveraging the concepts and approaches from our analysis beyond UAS as it modernizes its systems across the enterprise to meet growing threats in the cybersecurity landscape.

Other examples of our work in support and partnership with the FAA, National Institute of Standards and Technology (NIST), and other federal, state, and local agencies include developing frameworks that help evaluate the vital cybersecurity needed for the expected growth in UAS traffic in the United

States and designing an innovative cybersecurity protection for [public safety drones](#).

## AIR TRAFFIC MANAGEMENT

Our data-driven analysis has spanned the spectrum from legacy crewed aviation to new entrants such as UAS. We provide innovative data analytics and data science to the FAA Command Center and create data analytics visualizations to support [air traffic management operations](#) decisions by FAA leadership.

## PUBLIC SAFETY

Partnering with academia and the Alliance for System Safety of UAS through Research Excellence (ASSURE), CNA supports government agencies such as FAA, NIST, and Federal Emergency Management Agency (FEMA) to evaluate a framework on [training, evaluation, and credentialing](#) to assess first responder proficiency in UAS operations. This certification program will ensure that first responders safely integrate UAS into operations at the federal, state, and local level. We also have extensive experience supporting technology integration to meet the needs of public safety organizations, such as research and analysis of body-worn camera data for Las Vegas and other police departments.

## NATIONAL SECURITY

CNA brings eight decades of analytical expertise to assess the use of UAS to meet mission-critical National Security objectives. In one study, we performed comprehensive research outlining the current use of UAS by public safety industry to inform the [potential use of UAS for safety and security](#) on U.S. Navy installations. We helped the Navy make informed decisions about using UAS by highlighting the challenges and benefits of UAS in safety and security. Partnering with Virginia's UAS stakeholders, our team collaborated on use cases and requirements for unmanned technologies to enhance safety and security in the Hampton Roads maritime environment.

## ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (AI/ML)

We bring subject matter expertise in developing procedures for the approval or acceptance of AI/ML technology in aviation. CNA is developing a [certification framework](#) to help the FAA evaluate AI/ML technologies to ensure adaptive technologies are implemented safely and consistently across aviation and other government sectors. We research and analyze the functional aspects and requirements (e.g., non-deterministic AI models with autonomous control behaviors) of AI technologies in realistic aviation use cases and assess use cases for the FAA to employ novel AI/ML model to support [UAS Traffic Management](#).

### To learn more contact:

Halleh Seyson, Vice President | [hallehs@cna.org](mailto:hallehs@cna.org)

Addam Jordan, Chief Scientist | [jordana@cna.org](mailto:jordana@cna.org)

Dedicated to the Safety and Security of the Nation