

Unmanned Aircraft Systems

Addressing Critical Infrastructure Security Challenges

What Is the Threat?

In addition to recreational use, unmanned aircraft systems (UAS)—also known as unmanned aerial vehicles (UAV) or drones—are used across our Nation to support firefighting and search and rescue operations, to monitor and assess critical infrastructure, to provide disaster relief by transporting emergency medical supplies to remote locations, and to aid efforts to secure our borders. However, UAS can also be used for malicious schemes by terrorists, criminal organizations (including transnational organizations), and lone actors with specific objectives.

UAS-related threats may include:

- Weaponized or Smuggling Payloads –
 Depending on power and payload size, UAS may be capable of transporting contraband, chemical, or other explosive/weaponized payloads.
- Prohibited Surveillance and Reconnaissance UAS are capable of silently monitoring a large area from the sky for nefarious purposes.
- Intellectual Property Theft UAS can be used to perform cyber crimes involving theft of trade secrets, technologies, or sensitive information.
- Intentional Disruption or Harassment UAS may be used to disrupt or invade the privacy of other individuals.

Why Is This Threat Important to Critical Infrastructure?

Since UAS use in the United States has increased as a cost-effective, versatile business and national security tool, as well as a popular recreational hobby, the Federal Aviation Administration (FAA) estimates combined hobbyist and commercial UAS sales will rise from 2.5 million in 2016 to 7 million by 2020. As a result, potential threats associated with UAS will continue to expand in nature and



UAS flying near a bridge in New York City (Source: DHS)

increase in volume in the coming years. Because of their physical and operational characteristics, UAS can often evade detection and create challenges for the critical infrastructure community.

What Actions Can You Take?

Recognizing and implementing security practices that meet Federal, State, and local regulatory requirements are key to successfully managing potential security incidents associated with UAS. Although no single solution will fully mitigate this risk, there are several measures that can be taken to address UAS-related security challenges:

- Research and implement legally approved counter-UAS technology.
- Know the air domain around the facility and who has authority to take action to enhance security.
- Contact the FAA to consider UAS restrictions in close proximity to fixed site facilities. More information can be found at www.faa.gov/uas/.
- Update Emergency/Incident Action Plans to include UAS security and response strategies.
- Build Federal, State, and local partnerships for adaptation of best practices and information sharing. More information can be found at www.dhs.gov/hometown-security.
- Report potential UAS threats to your local law enforcement agency.