

FINAL
FINDING OF NO SIGNIFICANT IMPACT

**Programmatic Environmental Assessment for the Nationwide Operation of
Counter Unmanned Aircraft Systems (C-UAS)**

Introduction

Pursuant to the National Environmental Policy Act (NEPA; 42 U.S. Code [U.S.C.] §§ 4321 et seq.), as amended, the Department of Homeland Security (DHS) has prepared a Programmatic Environmental Assessment (PEA) to programmatically evaluate reasonably foreseeable environmental impacts associated with DHS's ongoing and proposed use of counter unmanned aircraft systems (C-UAS) nationwide.

An unmanned aircraft system (UAS) is defined by the Federal Aviation Administration (FAA) as an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft, and which consists of the aircraft itself and the equipment necessary for its safe and efficient operation (14 Code of Federal Regulations [CFR] Part 107). UAS have become a security concern due to the ease with which they can aid in intelligence gathering against public, federal, and state entities; be used to conduct crimes or thwart law enforcement efforts; and/or act as a malicious platform for delivering harmful substances, contraband, or weapons. As UAS technology advances, so too will the threats that UAS pose when used by malicious actors.

C-UAS technologies employ a variety of sensors and processes that account for or exploit the physical components of a UAS and the communications between the unmanned aerial vehicle (UAV) and the ground-based control station (GCS). C-UAS systems are primarily ground-based but may be either stationary or mobile. Stationary systems may be mounted on a tripod or affixed to a stationary location (e.g., mounted on a building or the ground), while mobile systems may be handheld or vehicle-mounted for portability, depending on the overall size and configuration of the system being used.

When an unknown UAS is encountered, DHS implements a C-UAS processing chain to evaluate and respond to potential threats posed by the UAS. The processing chain generally includes five stages: Detect, Identify, Monitor, Track, and Mitigate (DIMIT-M). Only authorized personnel may operate C-UAS and undertake C-UAS actions in accordance with the DIMIT-M framework. C-UAS activities may be performed at any time of day or night to respond quickly and effectively to any credible threats. The first four steps in the C-UAS processing chain are performed by receiving and analyzing data from C-UAS sensors. C-UAS rely on one of four types of sensors to detect UAS: radar, passive radiofrequency (RF), electro-optical/infrared (EO/IR), or acoustic. Once a UAS has been detected and has been determined to pose a credible threat to assets or facilities, DHS would employ one of two broad types of mitigation techniques, electronic or kinetic (i.e., physical force or actions that result in direct physical impact or destruction), to complete the C-UAS processing chain. Though DHS is not currently approved to use kinetic mitigation techniques operationally, RDT&E of kinetic mitigation would be conducted to explore operational use cases.

Purpose and Need

The purpose of the Proposed Action is to support ongoing and proposed RDT&E of C-UAS technologies and to deploy C-UAS in operational and training settings to detect, identify, monitor, track, and mitigate (passively and actively) threats posed by UAS, including across the radiofrequency spectrum, using a streamlined approach to environmental analysis and documentation. UAS have become a security concern due to the ease with which they can aid in intelligence gathering and be used for malicious activities.

The Proposed Action is needed to enhance DHS' ability to use C-UAS technologies, monitor emerging threats, protect DHS' missions, and defend the Nation from UAS threats and malicious activity effectively and reliably. The use of C-UAS would support existing and emerging mission requirements of the various Components within DHS and facilitate their services and strategies essential to the Nation's security, safety, and emergency response.

Description of the Proposed Action

The Proposed Action evaluated in the Draft PEA is DHS's proposal to perform research, development, testing, and evaluation (RDT&E) of C-UAS, and conduct operational and training activities to support existing and emerging DHS mission requirements nationwide.

Within DHS, the use and application of C-UAS are actively being researched to better understand and test C-UAS capabilities to support DIRM activities. DHS conducts C-UAS activities nationwide, with some recurring in certain locations based on testing and demonstration needs. Additionally, authorized Components may use C-UAS technologies for operational use, trainings, and demonstrations nationwide, including along the southwest and northern borders.

Under the Proposed Action, DHS and its Components would continue ongoing RDT&E activities, but on a nationwide scale. The Proposed Action also includes the nationwide use and operation of C-UAS, outside of a testing environment, to conduct training, demonstrations, and operational activities, such as law enforcement and security. The Proposed Action includes all elements, including C-UAS technologies, related to the training, operation, maintenance, and use of C-UAS, including mitigation. This would allow DHS to continue its current testing of C-UAS while also enabling DHS and its Components to use C-UAS in an operational setting to support mission requirements.

In order to conduct RDT&E activities and test C-UAS capabilities and mitigation techniques under the Proposed Action, DHS may need to operate small UAS (sUAS). DHS's use and operation of sUAS nationwide was previously assessed in the 2022 *Final Programmatic Environmental Assessment for the Nationwide Operation of Small Unmanned Aircraft Systems*. That PEA allowed DHS to conduct sUAS activities nationwide to meet a variety of existing mission requirements and allowed DHS to use sUAS to implement any future uses given evolving mission requirements. Elements of the 2022 sUAS PEA are incorporated by reference into the Draft PEA for this proposed action.

No Action Alternative

Under the No Action Alternative, DHS would continue to utilize C-UAS to counter threats as authorized under the *Preventing Emerging Threats Act of 2018* on a project-by-project basis. The No Action Alternative would limit the ability of DHS and its Components in carrying out critical mission objectives and responding to potential threats to support national security in a streamlined, efficient manner.

Public Involvement

DHS initiated scoping for the Proposed Action on March 7, 2025, with publication of a Notice of Intent (NOI) in the Federal Register. DHS also directly contacted federal agencies and Tribal Nations to notify them of the scoping period and request any comments or other input. During the scoping period, DHS received comments from three federal agencies, 11 Tribal Nations, and two interested parties from the public. Copies of these scoping comments and DHS's responses are provided in an Appendix to the Draft PEA.

DHS formally initiated consultation with Tribal Nations on May 5, 2025. DHS notified all Tribal Nations, Native Hawaiian Organizations, the Advisory Council on Historic Preservation (ACHP), the National Conference of State Historic Preservation Officers (NCSHPO), and the National Trust for Historic Preservation of the availability of the *Draft Nationwide Programmatic Agreement for Department of Homeland Security Counter Unmanned Aircraft Systems Undertakings*. DHS has received comments from one Tribal Nation and the Georgia and Virginia State Historic Preservation Offices (SHPO) to date. Tribal Nations were invited to consultation meetings held on May 20, 2025, and May 22, 2025, and a summary of those meetings is incorporated into the Final PEA.

The Notice of Availability (NOA) for the Draft PEA and Draft Finding of No Significant Impact (FONSI) was published in the Federal Register and on the DHS public-facing website to initiate the public comment period. The Draft PEA was also published in digital form (i.e., the "Digital Draft PEA") and was accessible at us.planengage.com/cuas. The Draft PEA and Draft FONSI were available during a 30-day comment period from August 4, 2025, to September 3, 2025, to solicit comments on the Proposed Action and alternatives. Three public comments were received during this period, which have been incorporated into the Final PEA, as applicable.

Environmental Consequences

The analysis of the Proposed Action in the PEA did not identify any significant adverse impacts to the environment in any resource category, in particular: health and safety, visual resources and aesthetics, airspace, biological resources, or cultural resources. Additionally, the following resources were dismissed from analysis as there would be no potential for impacts under the Proposed Action: air quality, water resources, infrastructure, solid and hazardous waste, land use, noise, and socioeconomics.

Impact Minimization Measures

To avoid or minimize adverse environmental impacts to the extent practicable, DHS and its Components have identified best management practices (BMPs) in the PEA, as summarized in

Table 1. These BMPs would be applied, as applicable, for project-specific activities to ensure the avoidance of significant impacts on resources and alleviate the need for subsequent review. DHS and its Components would adopt these BMPs as standard procedure for its C-UAS use, and would adhere to all applicable federal, state, and local regulatory requirements, including obtaining necessary permits. Should these BMPs not be feasible for future related DHS proposed actions, project-specific tiering of appropriate NEPA documentation would be required.

DHS has also prepared a C-UAS BMP Implementation Checklist that is attached as an Appendix to the PEA to assist DHS and Component operators with ensuring that they comply with these BMPs during C-UAS activities. This Checklist may be updated as needed to reflect new or changing regulatory requirements. C-UAS operators should confirm with DHS Energy and Environment Division that the most current version of the C-UAS BMP Implementation Checklist is utilized prior to initiating C-UAS activities. BMPs should be followed when possible; however, C-UAS are predominately utilized in response to potential threats to support national security. Under no circumstances should actions be delayed in order to implement the BMPs in response to threats to national security.

Table 1. Summary of Best Management Practices

Resource Area	Best Management Practices
Health and Safety	<p>General:</p> <ul style="list-style-type: none"> • C-UAS RF levels would be below the following maximum permissible exposure limits: <ul style="list-style-type: none"> ○ Occupational/controlled exposures described by the Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.97. ○ Public exposure described by the Federal Communication Commission (FCC) under 47 CFR 1.1307(b). • Radar frequencies would be below the following recommended maximum exposures: <ul style="list-style-type: none"> ○ Institute of Electrical and Electronics Engineers Standards Associates C95.7-214, Recommended Practice for Radio Frequency Safety Programs, 3 Kilohertz to 300 Gigahertz. ○ International Commission of Non-Ionizing Radiation Protection RF Electromagnetic Field Guidelines 2020. • Prior to undertaking any operational activities using active radar in a public setting, cordon off sites and post signage to limit public proximity to the active radar. • The radiation hazard from the radar and RF systems would not exceed the following permissible exposure limit guidelines (defined in Army Regulation 385-10): <ul style="list-style-type: none"> ○ Hazards of Electromagnetic Radiation to Personnel (HERP) ○ Hazards of Electromagnetic Radiation to Ordnance (HERO) ○ Hazards of Electromagnetic Radiation to Fuel (HERF) • No active radar will be powered and emitted while personnel are standing nearby. Test and operational personnel must be familiar with the radar specifications and advised of minimum safe distance. If radar specifications are not available, a safe distance of 1 meter from the radar will be enforced. • All test participants who remain outdoors during testing will wear laser-rated protective eyewear and long-sleeved clothing, pants, close-toed shoes, and other

Resource Area	Best Management Practices
Health and Safety	<p>coverings that protect exposed skin and will be positioned to the rear of any laser equipment prior to activation.</p> <ul style="list-style-type: none"> Proposed C-UAS activities would not require the use of hazardous materials and would not generate hazardous or toxic waste. <p>Radar-Specific:</p> <ul style="list-style-type: none"> No active radar will be powered and emitting while personnel are standing nearby. Radar signal strength varies depending on equipment make and model. Test personnel shall be familiar with the radar specification and advised of minimum safe distance. If radar specifications are not available, a safe distance of 3.3 feet (1 meter) from the radar will be enforced. Additional guidelines below will be referenced. The following is general safety information for active RF equipment as it pertains to Radiation Hazards (RADHAZ): <ul style="list-style-type: none"> HERO safe ordnance with a minimum Surface Shaded Display of 10 feet (3 meters). HERF minimum safe distance is 5.6 inches (14.2 centimeters). HERP minimum safe distance is 1.6 feet (0.5 meter). <p>Laser-Specific: For RDT&E, all test participants who remain outdoors during testing are required to wear laser-rated protective eyewear and long-sleeved clothing, pants, close-toed shoes, and other coverings that protect exposed skin as well as be positioned to the rear of any laser equipment prior to activation.</p>
Visual Resources and Aesthetics	<ul style="list-style-type: none"> sUAS flights conducted for C-UAS RDT&E purposes would not exceed 400 feet (121.9 meters) in altitude, unless prior approval is given by the FAA. DHS would adhere to applicable regulations regarding visual quality near historic sites or other protected land uses.
Airspace	<ul style="list-style-type: none"> DHS requests Temporary Flight Restrictions (TFRs), Notice to Airman (NOTAMs), files Certificates of Authorization (COAs), and Low Altitude Authorization and Notification Capability (LAANC) notifications for all RDT&E activity and, as applicable, to all operational missions. DHS files FAA Form 7140-1 prior to conducting any outdoor RDT&E of directed energy mitigation technologies.
Biological Resources	<ul style="list-style-type: none"> Generate a list of species and critical habitat within the project area no earlier than 90 days before the planned operation. Coordinate with appropriate land managers to identify potential wildlife concerns and avoidance or minimization measures if C-UAS activities will occur on or over a unit of the National Wildlife Refuge System (NWRS), National Fish Hatchery, National Park Service (NPS) lands, or other federal lands. Locate C-UAS RDT&E activities at DHS facilities on roads, trails, paved surfaces, or developed areas where no direct impacts on critical habitat, listed species, or migratory birds are anticipated. For species under the National Marine Fisheries Service (NMFS) jurisdiction, this includes avoiding activities that may result in debris or recovery efforts occurring in riparian, estuarine, or coastal nearshore locations within species' habitats. Locate C-UAS ground-based equipment on roads, trails, paved surfaces, and/or otherwise previously disturbed or developed areas if they are within terrestrial critical habitat or the range of a listed plant or lichen species.

Resource Area	Best Management Practices
Biological Resources	<ul style="list-style-type: none"> • Avoid operating C-UAS within 200 feet (vertically and horizontally) of a known breeding or roosting colony, or other known high density nesting area, of federally listed or proposed birds, or migratory birds. • Maintain a 330-foot buffer around any known bald eagle nests during the breeding season. Extend the buffer distance to 660 feet in open areas where the nest may have increased visibility and exposure to C-UAS operations. • When possible, conduct C-UAS activities and RDT&E during seasons when federally listed, proposed, or migratory birds are not present or nesting in the operational area. • Conduct a visual check for migratory birds and federally listed species immediately prior to operating C-UAS. • If personnel observe federally listed animals or migratory birds including federally listed bird nests during the visual check, delay activities until either the animal has moved away from the area of operation, or the C-UAS RDT&E or operation area will be relocated to an area where the animal or nests will not be disturbed (at least 200 feet away both horizontally and vertically). • If personnel encounter wildlife during C-UAS RDT&E, training, demonstrations, or operations, operators will maintain a safe distance (at least 200 feet is recommended) and will avoid buzzing, animal-directed movements, hovering, landing, taking off, lingering, or taxiing near the observed wildlife. • If, despite the measures above, wildlife, including migratory birds, listed animal species, and bald and golden eagles exhibit signs of distress (e.g. wing flapping, crouching, fleeing, or flushing), the C-UAS activity will be immediately moved beyond the 200-foot recommended distance from the animal. • To minimize impacts to federally listed or proposed insect species, sUAS deployed during RDT&E of C-UAS activities will maintain a minimum altitude of 65 feet above the ground. • If U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) results include federally listed or proposed bat species, operate C-UAS during daylight hours (one hour after sunrise to one hour before sunset), whenever practicable. In addition, for nighttime use of C-UAS involving use of a sUAS, maintain a minimum altitude of 98 feet above vegetation, tree canopy, or open water (including rivers, streams, lakes, reservoirs, etc.). • Document and report to the USFWS and/or NMFS, in a timely manner, any C-UAS RDT&E or operation involving a collision with or harassment of a federally listed species (if species is clearly identifiable). • Avoid operating C-UAS from/on beaches that support nesting sea turtles during their breeding season. • Avoid flying UAVs within 500 feet of known haul-out locations, sea turtles, and marine mammals at the water's surface (unless prior authorization was received from NOAA or USFWS). • To the maximum extent feasible, recover any debris resulting from C-UAS mitigation operations. Make effort to minimize disturbance if recovery activities must take place in riverine, estuarine, or coastal nearshore habitats.

Resource Area	Best Management Practices
Cultural Resources	<ul style="list-style-type: none"> • Provide letters of Notification to SHPOs, Tribal Historic Preservation Offices (THPO), and/or Federal Preservation Officers at least 30 days prior to applicable C-UAS undertakings. • Coordinate with Tribal Nations to the maximum extent feasible when proposed operations would include flying over or deploying from tribal sensitive areas, above-ground historic properties, or culturally significant areas. Reference the Bureau of Indian Affairs Sacred Sites Best Practice Guide for additional information if sacred sites or traditional cultural properties are present at a C-UAS undertaking. • Avoid operations within 100 feet vertically and/or horizontally from Tribal sensitive areas or historically or culturally significant areas, unless: <ul style="list-style-type: none"> ○ Necessitated by an emergency facility inspection or condition assessment, or ○ Prior notification to the NPS for National Historic Landmarks and appropriate SHPO or THPO has been completed. • Apply and adhere to the conditions of the National Programmatic Agreement Among the DHS, NCHPO, and ACHP Regarding DHS C-UAS Systems Undertakings for Section 106 compliance if the criteria for C-UAS undertakings are met.

Finding of No Significant Impact and Conclusion

The PEA for this Proposed Action was prepared according to the National Environmental Policy Act of 1969 (42 United States Code [U.S.C.] 4321 et seq.), as amended; DHS Directive 023-01 Revision 01, Implementation of the NEPA; and other pertinent environmental statutes, regulations, and compliance requirements. The analyses described in the PEA demonstrate that the Proposed Action would result in no significant impact on the environment. As a result, no additional analysis or documentation (i.e., Environmental Impact Statement) is required under NEPA. DHS would continue to utilize all practical means to minimize or avoid the potential for adverse impacts to the human and natural environment.

Date

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