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**Unmanned Aircraft Systems (UAS) Policy**

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Directive No: 2137.0

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*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19, dated 07/07/2005*

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**1. PURPOSE**

The purpose of this directive is to provide EPA with policy on the use of Unmanned Aircraft Systems (UAS) and any data collected through the use of UAS at EPA's direction. The "Budget and Financial Considerations Related to UAS" section of this directive outlines the mechanisms for EPA to give direction to collect data through UAS. This policy enables the Agency to comply with the 2015 Presidential Memorandum: Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights and Civil Liberties in Domestic Use of Unmanned Aircraft Systems as well as FAA Order 8900.1, Volume 16, Unmanned Aircraft Systems (UAS).

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**2. SCOPE**

This directive covers use of UAS by EPA personnel as well as data collected through the use of UAS at EPA's direction. The directive also provides guidance to EPA personnel entering into Contracts, Interagency Agreements or Grants and Cooperative Agreements (hereafter "grants") that includes the use of UAS. As of the writing of this document, EPA does not have the statutory authority to own UAS due to appropriations limitations prohibiting the use of funds to buy, maintain, or operate aircraft except where authorized by law. In addition, leasing of UAS by EPA personnel is not permissible at this time due to unresolved training, tracking and liability concerns. Permissible access to UAS through different mechanisms is described in detail in this policy. This directive covers use requirements for UAS contracts, privacy, civil rights and civil liberty protections, security and data management at EPA. While balloons are not considered UAS, they are considered aircraft and fall under the same appropriation restrictions as well as other Agency restrictions, requirements and policies.

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**3. AUDIENCE**

The audience for this policy includes all EPA organizations, officials and employees as well as contractors and grantees, who direct data collection using UAS technology.

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**4. BACKGROUND**

The purpose of drafting a UAS Policy for EPA is to articulate a framework through which EPA Regions, Program offices and grant recipients can take advantage of UAS technology. UAS technology will allow EPA to meet its mission goals with additional data collection capabilities while increasing safety, reducing costs and increasing efficiency.

For example, safety will be increased by allowing EPA staff to monitor hazardous conditions from a safe distance, identify hazards before entering a hazardous zone, and

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allow access to difficult or dangerous areas with minimal risk. Costs will be reduced by enabling the Agency to use UAS to collect critical data for a fraction of the cost of human-centered data collection methods or traditional airplanes. Efficiency will be increased in the ability to quickly deploy UAS in hours, instead of the days that it can take to deploy personnel-intensive teams. UAS also allow multiple locations to be monitored simultaneously with fewer personnel.

The [2015 Presidential Memorandum: Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems](#) states that Federal Agencies are required to develop policies for UAS that take into account privacy, civil rights and civil liberties protections, accountability, and transparency. In addition, one of the primary drivers for this policy is the safety of EPA staff, contractors, and grantees tasked with capturing data in hazardous circumstances. Developing a framework under which UAS are used will enable EPA to increase safety for staff and contractors. Allowing EPA use of UAS will also increase EPA's ability to effectively collect data, including furthering research that is critical for protecting the public and the environment. Cutting costs and "leaning" the Agency's data collection business processes are additional drivers.

UAS offer data collection advantages by:

- Increasing safety:
  - Affording operators safe monitoring distances.
  - Affording operators an opportunity to identify the location of hazards before entering a hazardous zone.
  - Accessing difficult or dangerous to access locations with minimal risk.
- Reducing costs
  - Providing cost-effective data (\$1000s vs other methods which can be more costly).
  - Deploying fewer personnel.
- Increasing efficiency:
  - Can be quickly deployed (hours not days).
  - Monitoring multiple locations simultaneously with fewer personnel.
- Allowing the deployment of additional technologies for data collection and research purposes, such as:
  - Photo/Video: High resolution, infrared/thermal/FLIR, and multispectral cameras
  - Gas Sensors: H<sub>2</sub>S, SO<sub>2</sub>, NO, NO<sub>2</sub>, HCHO, VOCs, CO, Cl, HCl, HCN, NH<sub>3</sub>, CH<sub>3</sub>, dioxins, particulates, other air sampling capabilities
  - ERT VIPER integration possible for real-time data collection and transmission
  - Remote Sensing: Imaging spectroscopy, LiDAR, 3D models, volume measurement (landfill assessment/excavation areas), vegetation analysis, POV depiction, including for emergency situations

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**5. AUTHORITY**

- [2015 Presidential Memorandum: Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems](#)

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- [Federal Aviation Administration \(FAA\) 14 CFR Part 91—GENERAL OPERATING AND FLIGHT RULES](#)
  - [FAA 14 CFR Part 107 - SMALL UNMANNED AIRCRAFT SYSTEMS](#)
  - [FAA Order 8900.1, Volume 16, Unmanned Aircraft Systems \(UAS\)](#)
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**6. POLICY**

- FAA regulation at 14 CFR 1.1 defines “aircraft” as a device that is used or intended to be used for flight in the air. UAS are considered aircraft and must comply with applicable regulations, policies and procedures required by FAA and EPA and its offices. While balloons are not considered UAS, they are considered aircraft and fall under the same appropriation restrictions as well as the other Agency restrictions, requirements and regulations. All data collected for EPA projects via UAS must adhere to all relevant laws and regulations, EPA policies and procedures regarding data management, security, records retention and schedules, audits, reports, and other agency directives.
- **Budget and Financial Considerations Related to UAS** 31 U.S.C. 1343(d) provides that agencies may not buy, maintain, or operate aircraft unless an appropriation account is made specifically available for that purpose. Currently EPA may not purchase any aircraft or UAS aircraft (i.e. own or take title to an aircraft) and may “maintain” and/or “operate” a UAS using only funds specifically appropriated by law for that purpose. In addition, as a policy matter, EPA does not currently allow for the leasing of UAS due to the fact that EPA programs are not in place for training pilots as well as tracking and maintaining leased UAS. EPA may “maintain” and/or “operate” a UAS using only funds specifically appropriated by law for that purpose through the following mechanisms:<sup>1</sup>
  - **Contract:** EPA may use funds specifically appropriated for the “maintenance” or “operation” of aircraft or UAS for contracts or task orders that include explicit terms and conditions regarding the maintenance and operation of UAS as applicable. The contractor may own, lease, rent, maintain, and operate a UAS as necessary to provide the requested work. However, as a legal matter, the contract may not contain terms that transfer ownership of the UAS to EPA at any time. And, as a policy matter, the contract may not lease the UAS to EPA or allow EPA staff to directly operate the UAS.
  - **Interagency Agreement (IA):** EPA may use funds specifically appropriated for the “maintenance” or “operation” of aircraft or UAS to pay another federal agency to maintain and operate a UAS on EPA’s behalf, whether or not the other agency has an independent interest in the flight. The other agency may own, lease, rent, maintain, and operate a UAS as necessary to provide the requested work. However, as a legal matter, the IA may not contain terms that transfer ownership of the UAS to EPA. And, as a policy matter, the IA may not lease the UAS to EPA or allow EPA staff to directly operate the UAS.
  - **Grant (including Cooperative Agreement):** EPA grantees are not restricted by 31 U.S.C. 1343(d) from using grant funds from any appropriation account for UAS-related costs so long as doing so would be within the scope of the

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<sup>1</sup> Please refer to the UAS Handbook for further details on which appropriation accounts are available to maintain and operate aircraft.

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grant and otherwise allowable under the grant regulations. Therefore, EPA grant and cooperative agreement recipients may use EPA awarded funds for UAS-related costs where the costs are reasonable and necessary for the performance of the Federal award. However, programs must not direct, encourage or suggest that financial assistance recipients transfer title or possession of UAS to EPA.

- Programs that are **not currently supported by appropriations made specifically available by law for “maintenance” or “operation” of aircraft or UAS** may **not** “maintain” and/or “operate” UAS directly or indirectly. Nevertheless, there are several permissible mechanisms these programs may use to access UAS-generated data without necessarily “maintaining” or “operating” a UAS.
  - **Contract:** Programs may acquire preexisting data by contract that may have been previously gathered by UAS. Such contracts are not service contracts for the “operation” of an aircraft, because the aircraft is not being operated at the request of EPA.
  - **Interagency Agreement:** If another agency has an independent interest in conducting a joint project in cooperation with EPA, and would like to contribute funds for and/or the use of its own aircraft in furtherance of that project, EPA may enter into an interagency agreement to provide funds and other resources for that same project from any appropriation available for that purpose, provided the other agency covers 100% of the costs of purchasing, maintaining, and/or operating the aircraft using their own authority. EPA may not use any funds that have not been specifically appropriated for the “maintenance” or “operation” aircraft or UAS to pay for flight-related costs.
  - **Grant (including Cooperative Agreement):** EPA grantees are not restricted by 31 U.S.C. 1343(d) from using grant funds for UAS-related costs so long as doing so would be within the scope of the grant and otherwise allowable under the grant regulations. Therefore, any grant or cooperative agreement may contemplate the use of a UAS as appropriate, regardless of the source of EPA funding for the grant or cooperative agreement. However, programs must not direct, encourage or suggest that financial assistance recipients transfer title or possession of UAS to EPA.
  
- **Privacy, Civil Rights and Civil Liberties Protections**
  - In accordance with the 2015 Presidential Memorandum: Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems, EPA requires that UAS directed to collect data by EPA adheres to the Constitution and all Federal and Agency privacy, civil rights and civil liberties laws, as well as, applicable policies and procedures.
    - **Privacy Protections:**
      - All EPA employees will comply with the Privacy Act as applicable, [EPA’s Privacy Policy](#) and procedures, any other [EPA privacy guidance](#) as well as all applicable laws, regulations and privacy requirements. This means that any EPA directed data collection efforts using UAS that may collect any Personal Identifiable Information (PII) are required to submit a Privacy Impact Assessment. Data collection efforts that do not collect any PII do not require a Privacy Impact Assessment.

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- Information collected by EPA using UAS that may contain PII shall not be retained for more than 180 days unless retention of the information is determined to be necessary to an authorized mission of the retaining agency, the information is maintained in a system of records covered by the Privacy Act, or the information is required to be retained for a longer period by any other applicable law or regulation.
- Even if there may not be any constitutional or civil rights law concerns raised by the proposed use of an UAS, EPA directed UAS operations that occur in an airspace that is within private property, (i.e., outside of publicly navigable airspace), may first need to obtain a property access agreement unless EPA already has the authority to enter the property. For questions about any of the potential legal issues discussed in this section, please contact OGC's Civil Rights and Finance Law Office.
- **Civil Rights and Civil Liberty Protections:** In order to protect civil rights and civil liberties, all EPA directed UAS data collection activities will adhere to the Constitution and all applicable laws, Executive Orders, and Presidential directives. Data will not be used, retained, or disseminated in any manner that will violate the First Amendment, EPA's Privacy Policy, or in any manner discriminate against persons based upon their race, sex, national origin, religion, sexual orientation, or gender identity. EPA is in the process of developing civil rights and civil liberties complaint procedures to receive, investigate and address, as appropriate, civil rights and civil liberty complaints regarding the EPA's use of UAS.
- **Accountability:** EPA will ensure that:
  - Oversight procedures for agencies' UAS use including audits or assessments comply with existing agency policies and regulations;
  - The Agency will verify that rules of conduct and training for all Federal personnel and contractors directed by EPA comply with requirements, rules of behavior and procedures for reporting suspected cases of misuse or abuse of UAS technologies as is required for other data collection technologies. This includes policies and procedures set forth by the EPA's [Quality Program](#).
  - Policies and procedures are established, or confirm that policies and procedures are in place, that provide meaningful oversight of individuals who have access to sensitive information (including any PII) collected using UAS
  - Any data-sharing agreements or policies, data use policies, and records management policies applicable to EPA directed data collection efforts using UAS conform to applicable laws, regulations, and policies.
  - State, local, tribal, and territorial government recipients of Federal grant funding, or any party participating in a project funded via Federal grants for the purchase or use of UAS for their own operations have in place policies and procedures to safeguard

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individuals' privacy, civil rights, and civil liberties prior to expending such funds.

- Every three years there is an examination of existing UAS policies and procedures relating to the collection, use, retention and dissemination of UAS collected information to ensure the privacy, civil rights, and civil liberties are protected.
  - **Transparency:** EPA will promote transparency about EPA directed UAS activities while not revealing information that could reasonably be expected to compromise privacy, law enforcement or national security. EPA will provide notice to the public regarding the status of the Agency UAS Program, where they are authorized to operate and descriptions of categories of UAS missions as well as changes that would significantly affect privacy, civil rights, or civil liberties. Data from UAS missions will be made publicly available in accordance with [EPA's Enterprise Information Management Policy](#) and Title 2 Open Government Data Act of the 2018 Foundations for Evidence-Based Policymaking Act - 2018 Open Government Data Act.
- **IT Security**
    - Current regulatory guidance informs the acquisition and management of IT assets and the governance of data collected through [EPA's Information Security Policy](#)
    - As EPA's technical infrastructure grows to support full integration of UAS, revisions and additional protocols will be introduced. This includes new or revised policies, regulations, processes, and procedures. Special consideration is being given to address privacy concerns and the practical management of personal and sensitive information gathered through UAS operations.
    - EPA Offices conducting data collection efforts using UAS must have a plan in place for how they are going to collect, process, analyze and disseminate data gathered by a UAS.
    - Coordination with the Chief Information Officer (CIO) and the Chief Information Security Officer (CISO) should occur to ensure appropriate data security and data regulations are met through the Agency's FITARA and IT Portfolio Review process.
  - **Conditions on use for compliance monitoring and enforcement:**
    - EPA enforcement personnel may not use, or cause to be used, UAS over a person's private property for the purpose of investigating that person's noncompliance with federal environmental law or failure to meet obligations under an enforcement instrument, unless:
      - The person has granted consent to the use of UAS, including consent granted in a settlement agreement or consent decree for the purpose of monitoring compliance with such agreement or decree;
      - EPA has obtained a search warrant or an access order from a judge allowing such use;
      - There is a situation that may present an imminent and substantial endangerment to health or the environment; or

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- EPA enforcement personnel have obtained the written approval of the Administrator for use in a particular situation and location and such use has not been denied by a judge.
- EPA enforcement personnel may not use data collected from a UAS unless:
  - The use of the UAS is authorized above
  - The use of the UAS was authorized by another National Program Manager under section 7 or by another federal or state agency, and:
    - The use of the data by EPA enforcement personnel is to support initiating an investigation or a request for a search warrant or access order, or
    - The use of such data by EPA enforcement personnel to support an allegation of noncompliance is only to corroborate information not collected by UAS.
- **Data Management**
  - All EPA data collection efforts that use UAS shall adhere to requirements set forth in [EPA's Enterprise Information Management Policy \(EIMP\)](#), [H.R.4174 - Foundations for Evidence-Based Policymaking Act of 2017](#) and [H.R. 302 Subtitle F Geospatial Data Act of 2018](#). Data shall also be managed according to the appropriate records management schedule and adhere to requirements outlined in [EPA's Records Management directives and memoranda](#).
  - Specifically, EPA organizations, officials, employees and individuals or non-EPA organizations, if applicable, shall ensure information is:
    - Planned and managed according to a defined information life cycle process (appropriate for the information type) and in accordance with enterprise systems and solutions.
    - Catalogued and/or labeled with metadata, including geographic references, as appropriate, in EPA and Federal-wide registries, repositories, or other information systems.
    - Developed, maintained, and preserved in open and machine-readable formats using established standards that make information discoverable and accessible, where appropriate and feasible.
    - Made and maintained to be open and publicly accessible, unless there is a documented National Security Information (NSI) or Controlled Unclassified Information (CUI) requirement outlined within a statute/law, regulation, and/or government-wide policy, or unless otherwise protected from disclosure under federal law or EPA regulation. In these cases, internal, external, and associated safeguards must be instituted.
  - EPA shall only collect information using UAS, or use UAS-collected information, to the extent that such collection or use is consistent with and relevant to an authorized purpose.
  - UAS-collected information that is not maintained in a system of records covered by the Privacy Act shall not be disseminated outside of the agency unless dissemination is required by law, or fulfills an authorized purpose and complies with agency requirements.

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**7. ROLES AND RESPONSIBILITIES**

- **Deputy Administrator is responsible for:**
  - Authorizing delegation of UAS activity approval within the National Program.
- **National Program Managers/Assistant Administrators (AA) are responsible for:**
  - Establishing categories and conditions under which the use of UAS will and will not be allowed within their respective programs (hereafter “NPM Established Categories and Conditions of UAS Uses. This determination can be delegated but delegation must be approved by the Deputy Administrator.
    - NPMs are required to review determinations annually.
  - Complying with Agency UAS policies, procedures and guidelines and ensuring adequate oversight and program audit/assessment.
  - Developing and instituting organization specific training in accordance with the Agency-wide UAS directives issues by the EPA CIO.
  - Reporting to the EPA CIO on an annual basis a summary of all UAS operations conducted by the NPM or Regions during the previous fiscal year related to those activities in the NPM’s Established Categories and Conditions of UAS Uses. Include a brief description of the types of categories of missions flown, summaries of sensors employed, types of information acquired and whether any information was retained or disseminated as well as the number of times assistance was provided to other Federal departments and agencies, or to State, local, tribal or territorial governments, and under what authority such assistance was provided.
  - Participating in the EPA UAS Community of Practice in order to share UAS experiences, technical information, NPM Established Categories and Conditions of UAS Uses, standard operating procedures and best practices across the Agency.
- **Regional Administrators (RA) and Other Key Officials, (e.g., Deputy Regional Administrators, Mission Support Division Directors and Office Directors, Senior Information Officials, Information Management Officers, Senior IT Leaders) are responsible for:**
  - Complying with Agency UAS policies, procedures and guidelines, including NPM Established Categories and Conditions of UAS Uses and ensuring adequate oversight and program audit/assessment.
  - Except in exigent circumstances, provide written notification at least three working days in advance of any use (single use/event) of UAS to the NPM and the Office of Public Affairs. During exigent circumstances, use of UAS must still comply with UAS policies, procedures and guidelines, including NPM Established Categories and Conditions of UAS Uses, and advance notice should be provided to the NPM and Office of Public Affairs as soon as possible.
  - Developing and instituting organization specific training and implementation plans in accordance with the Agency-wide UAS directives issues by the EPA CIO.
  - Participating in the EPA UAS Community of Practice in order to share UAS experiences, technical information, implementation plans, standard operating procedures and best practices across the Agency.

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- **Office of Mission Support Deputy Assistant Administrator for Administration and Resources Management is responsible for:**
  - Providing oversight and support for contracts, grants and Interagency Agreements used to collect data through UAS.
- **Chief Information Officer (CIO) is responsible for:**
  - Approving, issuing and managing EPA policies, standards, procedures and guidance on Unmanned Aircraft Systems (UAS). UAS directives issues by the CIO are applicable to the entire Agency.
  - Publishing privacy policy, providing guidance, and collaborating with Programs and Regions to evaluate program activities to ensure privacy considerations are addressed for the collection, use, retention and dissemination of Personally Identifiable Information and appropriate safeguards are implemented to protect individual privacy, civil rights, and civil liberties.
  - Coordinating the UAS Community of Practice in order to facilitate discussion and standardization of UAS experiences, technical information, implementation plans, standard operating procedures and best practices across the Agency.
  - Collecting and sharing with the public an annual report summarizing UAS operations in the Agency during the previous fiscal year, including a brief description of the types of categories of missions flown, summaries of sensors employed, types of information acquired and whether any information was retained or disseminated as well as the number of times assistance was provided to other Federal departments and agencies, or to State, local, tribal or territorial governments, and under what authority such assistance was provided.
- **Chief Financial Officer (CFO) is responsible for:**
  - Providing guidance on UAS budget and financial issues, particularly regarding which sources of funding may be used to fund maintenance and operation of UAS.
  - Issuing guidance regarding how UAS resources should be coded.
- **General Counsel is responsible for:**
  - Providing legal guidance and advise on legal matters.
  - Providing civil rights policy and program guidance on claims of race, sex, and national origin discrimination.

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**8. RELATED INFORMATION**

EPA is developing an Unmanned Aircraft Systems (UAS) Handbook that provides information regarding EPA use of UAS technology. It will aid project leads and managers in topics such as UAS contracts considerations, data delivery specifications and information management.

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**9. DEFINITIONS**

- Aircraft – a device that is used or intended to be used for flight in the air.
- Balloon – a [lighter-than-air aircraft](#) that is not engine driven, and that sustains flight through the use of either gas buoyancy or an airborne heater.

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- Controlled Unclassified Information (CUI) – information that requires safeguarding or dissemination controls pursuant to and consistent with applicable law, regulations and government-wide policies, but is not classified under Executive Order 13526 or the Atomic Energy Act, as amended. The [CUI Program](#) across the Executive Branch is led National Archives and Records Administration. PII is a category of CUI.
- Interagency Agreement (IA) – Written agreement that specifies the (a) rights and obligations of each agency under the agreement; (b) deliverables; (c) period of performance; (d) a budget and other funding information; and (e) terms and conditions that address payment and other applicable requirements.
- National Security Information (NSI) – Information designated for protection against unauthorized disclosure pursuant to [EO 12356](#).
- Personally Identifiable Information (PII) – Covers data that could be used to identify a specific individual (see CUI and [EPA's Privacy Program](#) for more details).
- Small Unmanned Aircraft System (sUAS) – A small UA less than 55 pounds and its associated elements (including communication links and the components that control the small UA that are required for the safe and efficient operation of the small UA in the NAS.
- Unmanned Aircraft System (UAS) – An unmanned aircraft and associated elements (including communication links and the components that control the unmanned aircraft) that are required for the pilot in command to operate safely and efficiently in the national airspace system.

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**10. WAIVERS**

None.

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**11. MATERIAL SUPERSEDED**

None.

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**12. CONTACTS**

Office of Mission Support – Environmental Information; Office of Information Management

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