



Connecticut DOT

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Office of Engineering

Date: August 21, 2019

ENGINEERING & CONSTRUCTION DIRECTIVE

Chief Engineer

UNMANNED AIRCRAFT SYSTEMS

PURPOSE

This Directive establishes the procedure for authorizing usage of small Unmanned Aircraft Systems (UAS), or "drones", by Connecticut Department of Transportation personnel, including consultants and contractors retained by CTDOT.

CTDOT personnel, or contractors and consultants who will providing UAS services on behalf of the Department, will be required to coordinate with the UAS Program Coordinator. All necessary forms, including [UAS Mission Request Form](#) must be submitted in order to be approved for a flight. Refer the [CTDOT UAS Standard Operating Procedures](#) that outline guidelines for procedures to obtain permission for UAS missions.

BACKGROUND

It is the Department's mission to improve the quality of life, and promote economic vitality for the residents and businesses of the State and the region. Part of identifying and improving engineering and construction efficiency includes embracing new technology and integrating its capabilities in day-to-day operations. This Directive is designed to minimize risk to the public, public and private property, and Department personnel during the operation of small UAS, while continuing to safeguard the rights and privacy of the public.

UAS use is expanding across transportation agencies and the number of UAS applications is increasing steadily. The benefits of UAS are wide ranging and impact nearly all aspects of transportation. The benefits include replacing the need for workers to engage in high-risk activities thereby increasing the safety of our employee work environment, improving accuracy of collected data, speeding up data collection, and providing access to hard-to-reach locations.

APPROVED USES

All UAS deployment requests shall be authorized by the Bureau Chief (or designee) and Program Coordinator (or designee) within the Bureau of Engineering and Construction. All missions shall be flown in accordance with [Title 14, CFR Part 107](#) or [Certificates of Waiver or Authorization](#) issued by the Federal Aviation Administration.

The Department has approved the use of UAS for several purposes, including but not limited to:

- a) **Situational Awareness:** To assist Department personnel in understanding the nature, scale, and scope of work and for planning and coordinating cost effective solutions.
- b) **Data:** To assist Department personnel in collecting traffic related data (e.g. traffic volumes, speeds, queues, and traffic maneuvers), inspection related data, survey related data and utilizing that information for planning, design, construction, maintenance, and inspection purposes.
- c) **Visual Perspective:** To provide an aerial visual perspective of the project site for any of the following: communication purposes; evaluation of emergency conditions; to provide the public with aerial photography and videography; for inspection of roads, bridges, and other structures; to help identify required temporary and permanent repairs; or to help solve traffic related concerns.
- d) **Scene Documentation:** To document traffic conditions, public transit operations, storm damages to transportation infrastructure, and repairs to roads, bridges, and other Department owned structures and railroad networks.

REQUESTING A UAS FLIGHT MISSION FOR A CTDOT PROJECT OR TASK

All UAS requests shall be directed to the UAS Program Coordinator utilizing the [UAS Mission Request Form](#) (save form, fill out and use "Submit by Email" button).

The UAS Program Coordinator will determine whether the request meets the approved criteria and will coordinate with the in-house UAS pilots to fulfill the assignment. If there are not sufficient in-house UAS pilots, a UAS task may be assigned to a consultant. Once a request is approved by the UAS coordinator, the request will be forwarded to the Bureau Chief for final approval.

This directive is effective immediately.