



Department of Environmental Quality Unmanned Aircraft System Policy

Business Category: Secretary's Office		Business Area: Unmanned aviation support for environmental quality missions.	
Approval Date: 1/21/2019	Last Revision Date: 1/21/2019	Next Review Date: 1/21/2020	
Authorities: N.C.G.S. §§ 15A-300.1 (Restrictions on use of UAS), 15A-300.2 (Regulation of launch and recovery sites), 15A-300.3 (Use of UAS near a confinement or correctional facility prohibited), 14-7.45 (Crimes committed by use of UAS), 14-280.3 (Interference with manned aircraft by UAS), 14-401.24 (Unlawful possession and use of UAS (weapon attached)), 14-402.25 (Unlawful distribution of images), 113-295 (Unlawful harassment of persons taking wildlife resources), 63-94 (Applicability of Article), 63-95 (Training required for operation of UAS), 63-96 (License required for commercial operations). Session Laws 2014-100, 2015-232, 2016-90, 2017-160, 2017-179. 14 C.F.R. Part 107 (Federal Aviation Administration (FAA) Small UAS Rule).		Policy Owner: North Carolina Department of Environmental Quality (NCDEQ) GeoTeam - A standing group of NCDEQ staff members representing agency business units and Information Technology who are technically knowledgeable regarding the needs and capabilities of their respective programs.	
Policy The use of Unmanned Aircraft Systems (UAS), also known as Drones, have the potential to substantially refine certain NCDEQ data collection and business processes. Exploiting this technology has significant fiscal and labor benefits to NCDEQ's diverse agency missions and is in the interest of the State of North Carolina. This policy outlines specific guidelines to facilitate the safe and legal operation of such UAS technology. Compliance with all relevant federal, state, and local regulations and laws is required. The GeoTeam shall develop operational, data collection, processing and storage procedures to implement this policy. The GeoTeam shall report to NCDEQ leadership concerning efficiencies gained by incorporating UAS technology. UAS purchases must be from the approved list, determined by DEQ's GeoTeam.			
Definitions An "Unmanned Aircraft" means an aircraft, as defined in N.C.G.S. 63-1, that is operated without the possibility of human intervention from within or on the aircraft. An "Unmanned Aircraft System" means an unmanned aircraft and associated elements, including communication links and components that control the unmanned aircraft that are required for the pilot in command to operate safely and efficiently in the national airspace system.			
Purposes of UAS Use UAS platforms should only be employed in connection with properly authorized NCDEQ inquiries and activities. Discretionary use may also be made for natural disasters, terrorism, and "hot pursuit" crimes. Data collected by drones shall be subject to existing state and federal laws and regulations regarding the privacy of personal information. The use of private UAS equipment by a NCDEQ employee for NCDEQ business is prohibited. It is the responsibility of each UAS operator to check with local governments to insure compliance with local laws, regulations or ordinances pertaining to the UAS study area. All UAS must be			

registered with the FAA, the North Carolina liability insurance plan, and NCDEQ's GeoTeam.

Data Collection & Handling

Data collected from a UAS platform shall be stored on a Secure Digital (SD) card or other secure portable storage device. Cloud based solutions are not permitted in the field. Once collected, data may be transferred from the SD card to a secure, local Personal Computer for analysis. Following analysis, data may be shared over a secure state approved medium such as SharePoint or OneDrive. Raw and intermediate processing data should not be stored on NCDEQ servers.

Avoidance of Private Property

In planning UAS flight activity, every effort should be made to completely avoid private property, unless the State is granted private property easements. Retention of data should be minimized. If private property is accidentally captured during data collection, the data should be deleted from the raw imagery by masking the raw data with a private property raster mask. Current parcel data should be used to identify private property and to generate masking files. Once the mask has been performed and a new raster image has been generated, the original raw data, which included the private property, shall be permanently deleted or destroyed. Video images and other data derived from data collection applications should be minimized in terms of review and retention, consistent with state records retention requirements. Only data pertaining to the original purpose of the UAS flight should be retained. NCDEQ should set retention schedules consistent with the fulfillment of the original purpose of the UAS flight.

Protection of Individual Privacy and Personal Information

NCDEQ UAS flight operation shall respect civil rights. NCDEQ employees and service providers shall limit operations to the specific approved purpose of the data collection project and employ reasonable precautions to avoid capturing images of the public except those that are incidental to the project. UAS platforms should not be used to monitor activities protected by the First Amendment or lawful exercise of other Constitutional rights. NCDEQ personnel should balance use of UAS platforms against other means of gathering data for a particular agency need, assessing whether such alternative means are less intrusive than the deployment of a UAS.

Operational and Training Requirements

NCDEQ UAS operators must attain an FAA airmen certificate under 14 C.F.R. Part 107 and hold a valid State of North Carolina UAS Operator Permit in order to operate a UAS for NCDEQ. NCDEQ UAS operators must demonstrate proficiency with the UAS platform they wish to operate and must do so on an annual basis. All flights must be logged in order to track pilot flight time and to keep current with UAS maintenance requirements.

Reporting

The GeoTeam shall report to NCDEQ leadership concerning efficiencies gained by incorporating UAS technology. New UAS projects within NCDEQ are required to submit quarterly metrics to the GeoTeam. Metrics include achievements, time saved, resources saved etc. Compilation of such metrics facilitate the continued development, sustainment, and future growth of the NCDEQ UAS program.

Policy Management

UAS policy guidelines and agency implementation should be reviewed annually to keep abreast of technology and respond to citizen concerns. NCDEQ, in coordination with the North Carolina Department of

Transportation (NCDOT) UAS program, should strive to conduct public education and outreach regarding NCDEQ UAS policies and operations. NCDEQ may share UAS data with federal and state agencies, as appropriate.

Scope

This Policy applies to all NCDEQ employees and contracted service providers involved in the operation of a UAS platform within the State of North Carolina, including inland and coastal jurisdictional waters.

Web-based References

A summary of Federal Aviation Administration (FAA) part 107 rules regarding Unmanned Aircraft can be found here:

https://www.faa.gov/uas/media/Part_107_Summary.pdf

The North Carolina summary of regulations can be found here:

https://connect.ncdot.gov/resources/Aviation%20Resources%20Documents/UAS_Memo.pdf

Each government employee who wishes to utilize drones, must first attain the following credentials:

FAA Part 107 Remote Pilot Airman Certificate

https://www.faa.gov/uas/getting_started/part_107/remote_pilot_cert/

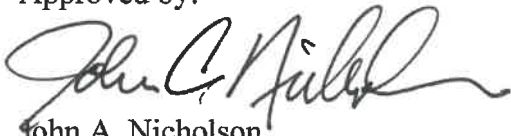
NC UAS Operator Permit for Government Use:

<https://www.ncdot.gov/aviation/uas/>

North Carolina DEQ Standard Operating Procedures

[Add link when documents are finalized and hosted](#)

Approved by:



John A. Nicholson
Chief Deputy Secretary
January 21, 2019