



CITY OF ELIZABETH, NEW JERSEY
OFFICE OF THE CITY CLERK
CITY HALL

50 Winfield Scott Plaza, Elizabeth, NJ 07201-2462
Phone (908) 820-4130

Yolanda M. Roberts
City Clerk

J. Christian Bollwage
Mayor

March 13, 2023

Email: opra+request-40608-45fb26a2@requests.opramachine.com
NJcitizenmedia

RE: DRONES
OPRA # 349

To Whom It May Concern:

Pursuant to your OPRA request dated March 6, 2023, this office received an e-mail from you requesting certain records pursuant to the Open Public Records Act, N.J.S.A. 47:1A-1, et seq., ("OPRA"). Specifically, you requested the following records:

1. Any and all Certificate of Authorization (COA), whether approved denied, or in-progress, relating to the Elizabeth Police Department UAS (drone) unit, for the time period of January 1, 2020 to present.
2. List of all UAS owned or in-use by the Elizabeth Police Department
2. Any and all letters of agreement or memorandums with Newark Airport or the FAA relating to the Newark Airport airspace.
3. Any and all policies, training materials, directives, or guidelines, relating to the Elizabeth Police Department UAS (drone) unit..

With respect to number 1, attached please find three (3) Certificate of Waiver or Authorization which was provided to me from the Police Department.

With respect to number 2, attached please find a list of all UAS owned or in use by the Elizabeth Police Department.

With respect to your second no. 2. please be advised that according to the Police Department there are no agreement or memorandums with regards to Newark Airport.

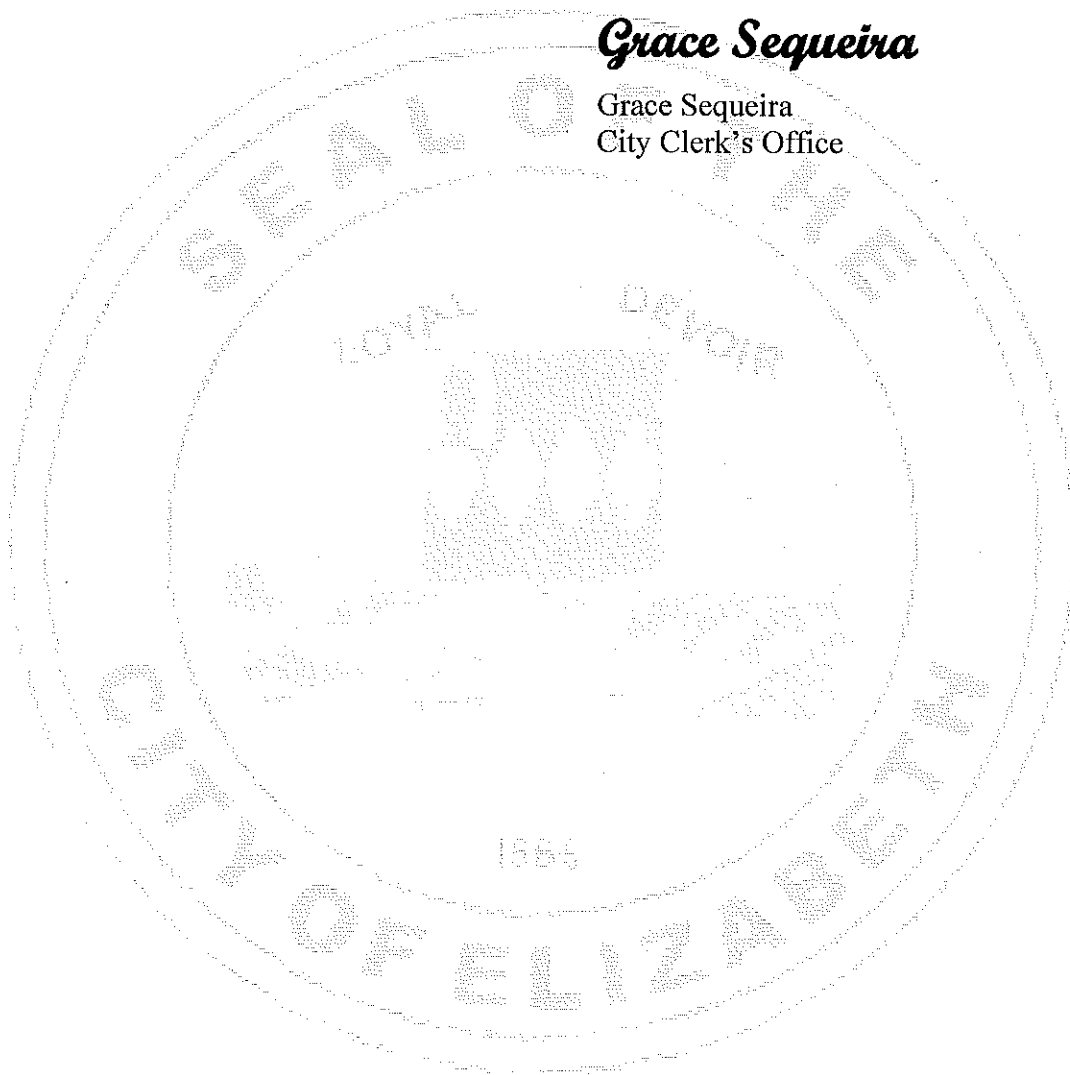
With respect to number 3, please find an Elizabeth Police Department General Orders regarding Unmanned Aerial Systems (UAS).

Should you have any questions with regards to this matter, please feel free to contact me at (908) 820-4130.

Very truly yours,

Grace Sequeira

Grace Sequeira
City Clerk's Office



3496

Delete Archive Report Reply Reply all Forward Read / Unread C

RECEIVED

OPRA request - Elizabeth Police Department - UAS Program

MAR - 6 2023

CITY CLERK'S OFFICE

N njcitizenmedia <opra+request-40608-45fb26a2@requests.opramachine.c>

To: Yolanda M. Roberts

Fri 3/3/2023 8:41 AM

*** CAUTION ***

This message came from an EXTERNAL address. DO NOT click on links or attachments unless you know the sender and the content is safe. Suspicious? Forward the message to spamreport@elizabethnj.org <mailto:spamreport@elizabethnj.org>

Dear Elizabeth City,

This is a request for public records made under OPRA and the common law right of access. I am not required to fill out an official form. Please acknowledge receipt of this message.

Records requested:

1. Any and all Certificate of Authorization (COA), whether approved, denied, or in-progress, relating to the Elizabeth Police Department UAS (drone) unit, for the time period of January 1, 2020 to present.
2. List of all UAS owned or in-use by the Elizabeth Police Department.
2. Any and all letters of agreement or memorandums with Newark Airport or the FAA relating to the Newark Airport airspace.
3. Any and all policies, training materials, directives, or guidelines, relating to the Elizabeth Police Department UAS (drone) unit.

Yours faithfully,

njcitizenmedia

Please deliver records electronically via email to the below UNIQUE address for all replies to this request:
opra+request-40608-45fb26a2@requests.opramachine.com

Is yroberts@elizabethnj.org the wrong address for OPRA requests to Elizabeth City? If so, please contact us using this form:

https://opramachine.com/change_request/new?body=elizabeth_city

Disclaimer: This message and any reply that you make will be published on the internet. Our privacy and copyright policies:

<https://opramachine.com/help/officers>

View this OPRA request & responses online:

about:blank

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION	
CERTIFICATE OF WAIVER OR AUTHORIZATION	
ISSUED TO	Public Agency – Elizabeth Police Department
Elizabeth Police Department 1 Police Plaza Elizabeth, NJ 07201	
This certificate is issued for the operations specifically described hereinafter. No person shall conduct any operation pursuant to the authority of this certificate except in accordance with the standard and special provisions contained in this certificate, and such other requirements of the Federal Aviation Regulations not specifically waived by this certificate.	
OPERATIONS AUTHORIZED	Operation of small Unmanned Aircraft System(s) weighing less than 55 lbs., in Class B and G airspace at or below 200 feet Above Ground Level (AGL) in the vicinity of Elizabeth, New Jersey under the jurisdiction of Newark Air Traffic Control Tower (EWR ATCT) and New York Terminal Radar Approach Control Facility (N90 TRACON). See Special Provisions and Attachments.
LIST OF WAIVED REGULATIONS BY SECTION AND TITLE	14 CFR §91.113(b) (TBVLOS)
STANDARD PROVISIONS	
1. A copy of the application made for this certificate shall be attached and become a part hereof. 2. This certificate shall be presented for inspection upon the request of any authorized representative of the Federal Aviation Administration, or of any State or municipal official charged with the duty of enforcing local laws or regulations. 3. The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein 4. This certificate is nontransferable.	
Note-This certificate constitutes a waiver of those Federal rules or regulations specifically referred to above. It does not constitute a waiver of any State law or local ordinance.	
SPECIAL PROVISIONS	
Special Provisions Nos. A thru H, inclusive, and Air Traffic Control Special Provisions are set forth on the reverse side hereof.	
The certificate is effective from December 4, 2020 to December 3, 2022, inclusive, and is subject to cancellation at any time upon notice by the Administrator or his/her authorized representative.	
BY DIRECTION OF THE ADMINISTRATOR	
<u>FAA Eastern Service Center</u> (Region)	EARL P NEWALU JR For Ryan Almasy (Signature) Digitally signed by EARL P NEWALU JR Date: 2020.12.03 14:53:43 -05'00' <u>Manager, Operations Support Group</u> (Title)

Purpose: To prescribe UAS operating requirements in the National Airspace System (NAS) for the purpose of Public Aircraft Operations. The holder of this COA will be referred herein as the "Proponent".

Public Aircraft

1. A public aircraft operation is determined by statutes, 49 USC §40102(a) (41) and §40125.
2. All public aircraft flights conducted under a COA must comply with the terms of the statute.
3. All flights must be conducted per the declarations submitted in the application, and as specified in the following Special Provisions.
4. This COA provides an alternate means of complying with 14 CFR §91.113(b) for unmanned aircraft operations.
5. All operations will be conducted in compliance with Title 14 CFR §91 and the conditions of the authorization issued herein. If the operator cannot adhere to any of these requirements, a separate FAA Form 7711-2 waiver application may be required.

SPECIAL PROVISIONS

A. General.

1. All personnel connected with the UAS operation must read and comply with the contents of this authorization and its provisions.
2. A copy of the COA including the special limitations must be immediately available to all operational personnel at each operating location whenever UAS operations are conducted.
3. This authorization may be canceled at any time by the Administrator, the person authorized to grant the authorization, or the representative designated to monitor a specific operation. As a general rule, this authorization may be canceled when it is no longer required, there is an abuse of its provisions, or when unforeseen safety factors develop. Failure to comply with the authorization is cause for cancellation. The proponent will receive a written notice of cancellation.
4. During the time this COA is approved and active, a site safety evaluation/visit may be accomplished to ensure COA compliance, assess any adverse impact on ATC or airspace, and ensure this COA is not burdensome or ineffective. Deviations, accidents/incidents/mishaps, complaints, etc., will prompt a COA review or site visit to address the issue. Refusal to allow a site safety evaluation/visit may result in cancellation of the COA.

Note: This section does not pertain to agencies that have other existing agreements in place with the FAA.

5. (If non-Federal entity) Radiofrequency spectrum authorization is independent of the COA process and requires the proponent to obtain Federal Communications Commission (FCC) equipment certification (47 CFR Part 2, Subpart J and 47 CFR Part 87, Subpart D) and frequency licenses (47 CFR Part 87) in the Aeronautical Radionavigation, Aeronautical Mobile (Route), or Aeronautical Mobile Services, as appropriate, for the control link, ATC radios, transponders, detect and avoid systems, and navigation systems used to support this COA. For systems operating exclusively below 400 feet, and within visual line of sight, the control link equipment may be licensed under 47 CFR Part 15 (Radio Frequency Devices). Equipment licensed under 47 CFR Part 5 (Experimental) does not provide the protection necessary for NAS operations.

OR

(If Federal Entity) Radiofrequency spectrum authorization is independent of the COA process and requires the proponent to obtain equipment certification and frequency assignments (licenses) in the Aeronautical Radionavigation, Aeronautical Mobile (Route), or Aeronautical Mobile Services, as appropriate, from the National Telecommunications and Information Administration (NTIA) for all radiofrequency devices, including the control link, ATC radios, transponders, detect and avoid systems, and navigation systems, used to support this COA (47 CFR Part 300).

B. Operations.

1. The UA must be operated within visual line of sight (VLOS) of the Pilot in Command (PIC) and the person manipulating the flight controls at all times except as specified in a Special

Provision C. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses. Although the remote PIC and person manipulating the controls must maintain the capability to see the UA, using one or more Visual Observers (VO) allows the remote PIC and person manipulating the controls to conduct other mission-critical duties (such as checking displays) while still ensuring situational awareness of the UA.

2. Must yield right of way to other aircraft, manned or unmanned.
3. First-person view camera cannot satisfy "see-and-avoid" requirement but can be used as long as the visual requirement is satisfied in other ways.
4. Small unmanned aircraft means an unmanned aircraft weighing less than 55 pounds on takeoff, including everything that is on board or otherwise attached to the aircraft.
5. The operator is responsible for reviewing the published UASFM at <http://udds-faa.opendata.arcgis.com/> prior to each flight to ensure that no changes have been made to the map, i.e., altitude changes, airspace modifications, etc. If the operator needs to operate at an altitude that is not in accordance with the published UASFM, the operator must apply for a new Certificate of Authorization requesting that altitude.
6. The groundspeed of the UAS may not exceed 87 knots (100 miles per hour).
7. The minimum flight visibility, as observed from the location of the control station must be no less than 3 statute miles. For purposes of this section, flight visibility means the average slant distance from the control station at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night.
8. The minimum distance of the small unmanned aircraft from clouds must be no less than:
 - a. 500 feet below the cloud.
 - b. 2,000 feet horizontally from the cloud.
9. No person may act as a remote pilot in command or VO for more than one unmanned aircraft at one time unless otherwise authorized as a separate provision.
10. No operations from a moving vehicle or watercraft unless the operation is over a sparsely populated area and the PIC and VO are co-located.
11. Lost link must remain within visual line of sight of the PIC and VO unless operating in accordance with Special Provision C (page 4).
12. The remote pilot in command may deviate from the requirements of this rule in response to an in-flight emergency.
13. Requests to operate in an area outside the approved operating area of this authorization should be limited to emergency/life threatening operations. Coordinate these flights through the Special Government Interest (SGI) process by calling the SOSOC at (202) 267-8276, or email: 9-ATOR-HQ-SOSOC@faa.gov.

C. Tactical Beyond Visual Line of Sight (TBVLOS)

1. In extreme emergency situations, and to safeguard human life The Proponent has been authorized a waiver from the requirements of 14 CFR 91.113(b) and 14 CFR 91.119 (b) under the following provisions:
 - a. The operator must not operate any higher than 50 feet above or greater than 400 feet laterally of the nearest obstacle. Combination of 50 feet above obstacle must not exceed

400 feet AGL or depicted UASFM value.

- b. The UAS must remain within 1500 feet from the PIC.
- c. PIC will return to VLOS operations as soon as practical or upon termination of the threat.

D. Notice to Airmen (NOTAM).

- 1. A Distant (D) NOTAM must be issued prior to conducting UAS operations not more than 72 hours in advance, but not less than 24 hours for UAS operations prior to the operation for routine operations. This requirement may be accomplished:
 - a. Through the operator's local base operations or (D) NOTAM issuing authority, or
 - b. By contacting the NOTAM Flight Service Station at 1-877-4-US-NTMS (1-877-487-6867). The issuing agency will require:
 - (1) Name and contact information of the pilot filing the (D) NOTAM request
 - (2) Location, altitude and operating area
 - (3) Time and nature of the activity.
- 2. The area of operation defined in the (D) NOTAM must only be for the actual area to be flown for each day defined by a point and the minimum radius required to conduct the operation.
- 3. Operator must cancel (D) NOTAMs when UAS operations are completed or will not be conducted.
- 4. For first responders only. Due to the immediacy of some emergency management operations, the (D) NOTAM notification requirement may be issued as soon as practical before flight and if the issuance of a (D) NOTAM may endanger the safety of persons on the ground, it may be excluded. If the (D) NOTAM is not issued, the proponent must be prepared to provide justification to the FAA upon request.

E. Reporting Requirements.

- 1. Documentation of all operations associated with UAS activities is required regardless of the airspace in which the UAS operates.
- 2. The Proponent must submit the number of flights on a monthly basis through the COA Application Processing System (CAPS).

F. Night small UAS Operations.

Small UAS operations may be conducted at night, as defined in 14 CFR § 1.1, provided:

- 1. All operations under the approved COA must use one or more VOs;
- 2. Prior to conducting operations that are the subject of the COA, the PIC and VO must be trained to recognize and overcome visual illusions caused by darkness, and understand physiological conditions which may degrade night vision. This training must be documented and must be presented for inspection upon request from the Administrator or an authorized representative;
- 3. The sUA must be equipped with lighted anti-collision lighting visible from a distance of no less than 3 statute miles. The intensity of the anti-collision lighting may be reduced if, because of operating conditions, it would be in the interest of safety to do so. Additionally, in order

to comply with § 91.209, the aircraft must have position lighting that enables determination of location altitude, attitude, and direction of flight.

G. Minimum Safe Altitude Operations.

A waiver from the requirements of 14 CFR 91.119(b) and (c) is approved as follows:

1. The ground speed of the small UAS must not exceed 100 mph/87 knots.
2. Except for those operations where it is necessary to safeguard human life, no person may operate a small unmanned aircraft over a human being unless that human being is:
 - a. Directly participating in the operation of the small unmanned aircraft; or
 - b. Located under a covered structure or inside a stationary vehicle that can provide reasonable protection from a falling small unmanned aircraft

Note: People "directly participating in the operation of the small unmanned aircraft" may include qualified non-crewmembers, as defined in § 49 USC 40125.

3. For those operations where it is necessary to operate over a human being in order to safeguard human life, the remote pilot in command must not operate any lower or in proximity to human beings necessary to accomplish the operation.

H. Special Use Airspace.

1. Coordination and de-confliction between Military Training Routes (MTR) and Special Use Airspace (SUA) is the operator's responsibility. When identifying an operational area the operator must evaluate whether an MTR or SUA will be affected. In the event the UAS operational area overlaps an MTR or SUA, the operator will contact the scheduling agency as soon as practicable in advance to coordinate and de-conflict. Approval from the scheduling agency is required for regulatory SUA, but not for MTR's and non-regulatory SUA. If no response to coordination efforts, the operator must exercise extreme caution and remain vigilant of all MTRs and/ or non-regulatory SUAs.
2. Scheduling agencies for MTRs are listed in the Area Planning AP/1B Military Planning Routes North and South America. If unable to gain access to AP/1B contact the FAA at email address mail to: 9-AJV-115-UASOrganization@faa.gov with the IR/VR routes affected and the FAA will provide the scheduling agency information. Scheduling agencies for SUAs are listed in the FAA JO 7400.10.

Air Traffic Control Special Provisions.

A. Coordination Requirements.

1. Unless otherwise directed by the ATC facility involved, the contact phone numbers are as follows:
 - a. EWR ATCT – (973) 643-3484
 - b. N90 TRACON – (516) 683-2984
2. Class B coordination requirements:
 - a. The defined incident perimeter area using a VOR Radial/DME fix and the maximum altitude (200'AGL) (including Lost Link). In lieu of VOR Radial/DME, this may be relayed as visual descriptions agreed upon with the ATC facilities involved.

- b. The NOTAM number and the time for commencing and terminating operations
 - c. Provide ATC with a reliable telephone number to facilitate coordination or immediate termination of UAS flight activities if deemed necessary for the safety of flight
 - d. The pilot/operator will contact EWR ATCT at (973) 643-3484, when feasible, 30- minutes prior to the planned start of every operation.
 - e. The pilot/operator will advise EWR ATCT at (973) 643-3484 immediately when the operation has ended.
- 3. For operations in Class G airspace the issuance of the (D) NOTAM will serve as notification to ATC. The Cancelling of the (D) NOTAM will serve as notification to ATC that operations are complete.
 - 4. Pilot/operator must be accessible for direct real-time coordination purposes for the duration of UA operations. Direct real-time coordination information, to include primary and backup methods, as well as the name of the POC must be provided in the (D) NOTAM when filed.
 - 5. ATC may delay, limit, prohibit or terminate UAS operations when the safety of manned aircraft operations is a concern.
 - 6. For operations within a 0.5 NM radius of non-controlled airports, heliports, or water landing areas notification must be made to the appropriate airport management.
 - 7. If a review of NOTAMs during preflight actions reveals another proponent operating in all, or part of, the intended operating area, the proponent must de-conflict the intended operating area from the active operating area by contacting that proponent.
- B. Communication Requirements.**
- 1. When operations are in Class B airspace, the PIC must monitor the appropriate ATC frequency as assigned for situational awareness. However, ATC may require two-way frequency communications on a case-by-case basis.
 - 2. For operations within 5 NM of any closed tower, non-towered airport, helipad or water landing area the PIC must monitor and coordinate as necessary on the appropriate UNICOM/CTAF frequency.
 - 3. If direct two-way communication is not required, Air Traffic Control Special provisions will be used in lieu of maintaining direct two-way Communications.
 - 4. The PIC will at all times have a telephone available as backup for communications with ATC.
- C. Procedural Requirements.**
- 1. This COA does not authorize flight within the NOTAM'ed military UAS flight restricted areas, authorized under CFR 14 Part 99.7 or in Temporary Flight Restriction (TFR) Airspace.
 - 2. The proponent must be familiar with and comply with 18 U.S. Code § 795 – "Photographing and sketching defense installations".
 - 3. Operations may be impacted, limited or denied in Class B airspace on a case-by-case basis. Requests to operate in these areas should be limited to life threatening emergencies, such as Lost/Stolen person, Amber and /or Silver Alerts, and Life Safety Events.
 - 4. For coordination of operations above the altitudes indicated in the UASFM, contact Special Government Interest (SGI) at (202) 267-8276, 9-ATOR-HQ-SOSC@faa.gov.

5. When notified by ATC, the PIC must be able to terminate the operation within 2 minutes of notification.
6. It is the responsibility of the proponent to comply with all Federal, State and Local requirements when operating over publicly owned or controlled land and waterways. (i.e. National Parks, National Seashore, etc...)

D. UAS Operational Anomalies.

1. Lost Link Procedures: ATC does not need to be notified provided the PIC complies with the following provisions:
 - a. In the event that the data link is lost for at least three (3) seconds: The aircraft will execute the flight controller fail safe mode and climb to an altitude not exceeding the upper limits of the approved COA to attempt to re-establish Link.
 - b. If link cannot be established for a period of 30 seconds:
 - (1) The PIC must notify any ground assets that could be affected.
 - (2) The VO must be instructed to note bearing and approximate distance to commence recovery operations.
 - (3) The aircraft will fly back to the home point and land.
 - c. The UA will remain within the defined incident perimeter.
 - d. The UA will not interfere with the traffic pattern nor arrival/departure procedure of airports within the defined incident perimeter.
 - e. The PIC will notify the appropriate ATC facility within 15 minutes of the end of the flight.
2. Loss of Sight: If a VO loses sight of the UA, unless operating in accordance with Special Provision C (page 4), the PIC must be notified immediately. If the UA is visually reacquired promptly, the mission may continue. If not, the PIC must immediately terminate the operation and notify the appropriate ATC facility within 15 minutes of the end of the flight.
3. Loss of Communication between the PIC and VO: The PIC will execute lost link procedures. If communications are reestablished, the mission may resume. If communication cannot be promptly re-established, the flight must be terminated and the appropriate ATC facility notified no more than 15 minutes of the end of the flight.
4. Fly Away/Loss of Control: In the event of a fly-away, the PIC will immediately notify the ATC facility with jurisdiction over the operations area. The PIC will provide the following information:
 - a. Altitude.
 - b. Last known location.
 - c. Direction of flight/heading.
 - d. Fuel on board/Battery Time.
 - e. PIC intentions.
 - f. Termination of flight or emergency condition.

E. Operations Area (See Attachments)

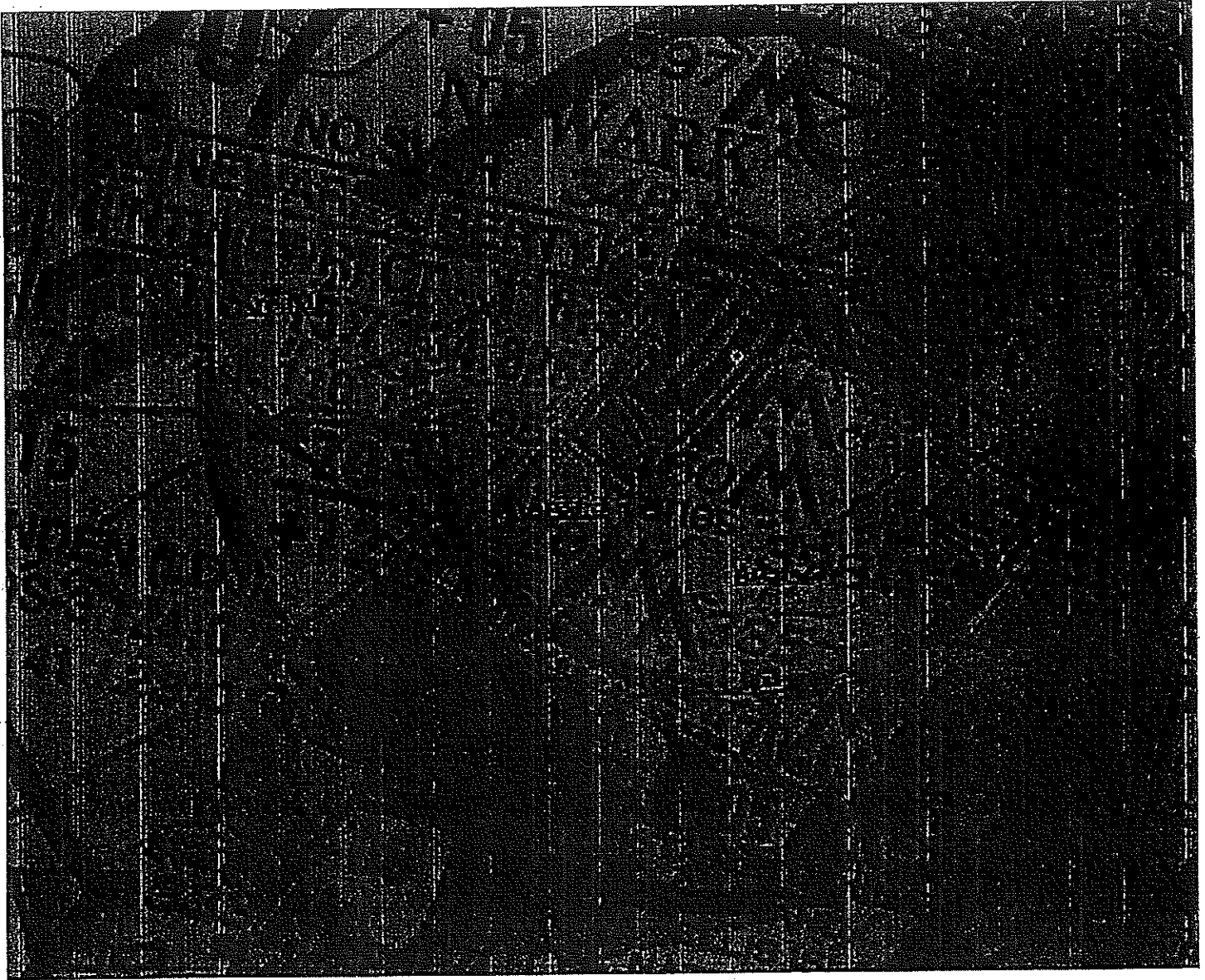
AUTHORIZATION

This Certificate of Waiver or Authorization does not, in itself, waive any Title 14 Code of Federal Regulations not specifically stated, nor any state law or local ordinance. Should the proposed operation conflict with any state law or local ordinance, or require permission of local authorities or property owners, it is the responsibility of the proponent to resolve the matter. This COA does not authorize flight within Temporary Flight Restrictions, Special Flight Rule Areas, regulatory Special Use Airspace or the Washington DC Federal Restricted Zone (FRZ) without pre-approval. The proponent is hereby authorized to operate the small Unmanned Aircraft System in the NAS within the areas defined in the Operations Authorized section of the cover page.

Attachment

Operations Area

Class B and G Airspace
At or below 200 feet AGL in Area 1 and 2 and 100 feet AGL in Area 3



Attachment

Operations Area
Class B and G Airspace
At or below 200 feet AGL in Area 1 and 2 and 100 feet AGL in Area 3



DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION	
CERTIFICATE OF WAIVER OR AUTHORIZATION	
ISSUED TO Public Agency – City of Elizabeth, New Jersey	Part 91
City of Elizabeth, New Jersey One Police Plaza Elizabeth, New Jersey 07201	
This certificate is issued for the operations specifically described hereinafter. No person shall conduct any operation pursuant to the authority of this certificate except in accordance with the standard and special provisions contained in this certificate, and such other requirements of the Federal Aviation Regulations not specifically waived by this certificate.	
OPERATIONS AUTHORIZED Operation of small Unmanned Aircraft System(s) (sUAS) weighing less than 55 pounds and operating at speeds of less than 87 kts. (100 mph) in Class G airspace at or below 400 feet Above Ground Level (AGL) and in Class B airspace in accordance with UAS Facility Map (UASFM) altitudes within the confines of the City of Elizabeth, New Jersey under the jurisdiction of Newark Liberty International Airport Traffic Control Tower (EWR ATCT) and New York Terminal Radar Approach Control (N90 TRACON). See Special Provisions and Attachments.	
LIST OF WAIVED REGULATIONS BY SECTION AND TITLE N/A	
STANDARD PROVISIONS	
1. A copy of the application made for this certificate shall be attached and become a part hereof. 2. This certificate shall be presented for inspection upon the request of any authorized representative of the Federal Aviation Administration, or of any State or municipal official charged with the duty of enforcing local laws or regulations. 3. The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein 4. This certificate is nontransferable.	
Note-This certificate constitutes a waiver of those Federal rules or regulations specifically referred to above. It does not constitute a waiver of any State law or local ordinance.	
SPECIAL PROVISIONS	
Special Provisions Nos. A thru G, inclusive, and Air Traffic Control Special Provisions are set forth on the reverse side hereof.	
The certificate is effective from April 21, 2022 to April 20, 2024, inclusive, and is subject to cancellation at any time upon notice by the Administrator or his/her authorized representative.	
BY DIRECTION OF THE ADMINISTRATOR	
FAA Eastern Service Center (Region)	JUSTIN T RHODES Digitally signed by JUSTIN T RHODES Date: 2022.04.20 09:14:13 -04'00'
	For Matthew Cathcart (Signature)
	Manager, Operations Support Group (Title)

Purpose: To prescribe UAS operating requirements in the National Airspace System (NAS) for the purpose of Public Aircraft Operations. The holder of this COA will be referred herein as the "Proponent".

Public Aircraft

1. A public aircraft operation is determined by statutes, 49 USC §40102(a) (41) and §40125.
2. All public aircraft flights conducted under a COA must comply with the terms of the statute.
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4. This COA provides an alternate means of complying with 14 CFR §91.113(b) for unmanned aircraft operations.
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B. Operations.

1. The UA must be operated within visual line of sight (VLOS) of the Pilot in Command (PIC) and the person manipulating the flight controls at all times unless otherwise specified in a

Special Provision. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses. Although the remote PIC and person manipulating the controls must maintain the capability to see the UA, using one or more Visual Observers (VO) allows the remote PIC and person manipulating the controls to conduct other mission-critical duties (such as checking displays) while still ensuring situational awareness of the UA.

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11. Lost link must remain within visual line of sight of the PIC and VO.
12. The remote pilot in command may deviate from the requirements of this rule in response to an in-flight emergency.
13. Requests to operate in an area outside the approved operating area of this authorization should be limited to emergency/life threatening operations. Coordinate these flights through the Special Government Interest (SGI) process by calling the SOSC at (202) 267-8276, or email: 9-ATOR-HQ-SOSC@faa.gov.

C. Notice to Air Missions (NOTAM).

1. A Distant (D) NOTAM must be issued prior to conducting UAS operations not more than 72 hours in advance, but not less than 24 hours for UAS operations prior to the operation for routine operations. This requirement may be accomplished:
 - a. Through the operator’s local base operations or (D) NOTAM issuing authority, or
 - b. By contacting the NOTAM Flight Service Station at 1-877-4-US-NTMS (1-877-487-6867). The issuing agency will require:

- (1) Name and contact information of the pilot filing the (D) NOTAM request
- (2) Location, altitude and operating area
- (3) Time and nature of the activity.
2. The area of operation defined in the (D) NOTAM must only be for the actual area to be flown for each day defined by a point and the minimum radius required to conduct the operation.
3. Operator must cancel (D) NOTAMs when UAS operations are completed or will not be conducted.
4. For first responders only. Due to the immediacy of some emergency management operations, the (D) NOTAM notification requirement may be issued as soon as practical before flight and if the issuance of a (D) NOTAM may endanger the safety of persons on the ground, it may be excluded. If the (D) NOTAM is not issued, the proponent must be prepared to provide justification to the FAA upon request.

D. Reporting Requirements.

1. Documentation of all operations associated with UAS activities is required regardless of the airspace in which the UAS operates.
2. The Proponent must submit the number of flights on a monthly basis through the COA Application Processing System (CAPS).

E. Night small UAS Operations.

Small UAS operations may be conducted at night, as defined in 14 CFR § 1.1, provided:

1. All operations under the approved COA must use one or more VOs;
2. Prior to conducting operations that are the subject of the COA, the PIC and VO must be trained to recognize and overcome visual illusions caused by darkness, and understand physiological conditions which may degrade night vision. This training must be documented and must be presented for inspection upon request from the Administrator or an authorized representative;
3. The sUA must be equipped with lighted anti-collision lighting visible from a distance of no less than 3 statute miles. The intensity of the anti-collision lighting may be reduced if, because of operating conditions, it would be in the interest of safety to do so. Additionally, in order to comply with § 91.209, the aircraft must have position lighting that enables determination of location altitude, attitude, and direction of flight.

F. Minimum Safe Altitude Operations.

A waiver from the requirements of 14 CFR 91.119(b) and (c) is approved as follows:

1. The ground speed of the small UAS must not exceed 100 mph/87 knots.
2. Except for those operations where it is necessary to safeguard human life, no person may operate a small unmanned aircraft over a human being unless that human being is:
 - a. Directly participating in the operation of the small unmanned aircraft; or
 - b. Located under a covered structure or inside a stationary vehicle that can provide reasonable protection from a falling small unmanned aircraft

Note: People “directly participating in the operation of the small unmanned aircraft” may include qualified non-crewmembers, as defined in § 49 USC 40125.

3. For those operations where it is necessary to operate over a human being in order to safeguard human life, the remote pilot in command must not operate any lower or in proximity to human beings necessary to accomplish the operation.

G. Special Use Airspace.

1. Coordination and de-confliction between Military Training Routes (MTR) and Special Use Airspace (SUA) is the operator’s responsibility. When identifying an operational area the operator must evaluate whether an MTR or SUA will be affected. In the event the UAS operational area overlaps an MTR or SUA, the operator will contact the scheduling agency as soon as practicable in advance to coordinate and de-conflict. Approval from the scheduling agency is required for regulatory SUA, but not for MTR’s and non-regulatory SUA. If no response to coordination efforts, the operator must exercise extreme caution and remain vigilant of all MTRs and/ or non-regulatory SUAs.
2. Scheduling agencies for MTRs are listed in the Area Planning AP/1B Military Planning Routes North and South America. If unable to gain access to AP/1B contact the FAA at email address mail to: 9-AJV-115-UASOrganization@faa.gov with the IR/VR routes affected and the FAA will provide the scheduling agency information. Scheduling agencies for SUAs are listed in the FAA JO 7400.10.

Air Traffic Control Special Provisions.

A. Coordination Requirements.

1. Unless otherwise directed the ATC contact phone number is as follows:
EWR ATCT – 973-639-7560
N90 TRACON – 516-683-2984
2. For operations in Class G airspace, or in accordance with UAS Facility Map (UASFM) altitudes within Class B airspace, the issuance of the (D) NOTAM will serve as notification to ATC. The Cancelling of the (D) NOTAM will serve as notification to ATC that operations are complete.
3. For emergency response operations in Class B airspace above UASFM altitudes, request a Special Government Interest (SGI) at (202) 267-8276, 9-ATOR-HQ-SOSC@faa.gov.
4. Pilot/operator must be accessible for direct real-time coordination purposes for the duration of UA operations. Direct real-time coordination information, to include primary and backup methods, as well as the name of the POC must be provided in the (D) NOTAM when filed.
5. ATC may delay, limit, prohibit or terminate UAS operations when the safety of manned aircraft operations is a concern.
6. Operations within 5 NM of airports with Class E Surface Areas with no UAS Facility Map (UASFM) must be coordinated with the ATC facility with jurisdiction over the operations area.
7. For operations within a 0.5 NM radius of non-controlled airports, heliports, or water landing areas notification must be made to the appropriate airport management.

8. If a review of NOTAMs during preflight actions reveals another proponent operating in all, or part of, the intended operating area, the proponent must de-conflict the intended operating area from the active operating area by contacting that proponent.

B. Communication Requirements.

1. When operations are in Class B airspace, the PIC must monitor the appropriate ATC frequency as assigned for situational awareness. However, ATC may require two-way frequency communications on a case-by-case basis.
2. For operations within 5 NM of any closed tower, non-towered airport, helipad or water landing area the PIC must monitor and coordinate as necessary on the appropriate UNICOM/CTAF frequency.
3. If direct two-way communication is not required, Air Traffic Control Special provisions will be used in lieu of maintaining direct two-way Communications.
4. The PIC will at all times have a telephone available as backup for communications with ATC.

C. Procedural Requirements.

1. This COA does not authorize flight within the NOTAM'ed military UAS flight restricted areas, authorized under CFR 14 Part 99.7 or in Temporary Flight Restriction (TFR) Airspace.
2. The proponent must be familiar with and comply with 18 U.S. Code § 795 – “Photographing and sketching defense installations”.
3. Operations may be impacted, limited or denied in Class B airspace on a case-by-case basis.
4. For operations within Class B airspace, the maximum altitude of operations will be as indicated on the UASFM.
5. The UASFM may change over the life of this COA and it is the responsibility of the UAS Operator to maintain the most up to date version of those maps. The UASFM maps can be found at “<https://udds-faa.opendata.arcgis.com/>”.
6. For coordination of operations above the altitudes indicated in the UASFM, contact Special Government Interest (SGI) at (202) 267-8276, 9-ATOR-HQ-SOSC@faa.gov.
7. When notified by ATC, the PIC must be able to terminate the operation within 2 minutes of notification.
8. It is the responsibility of the proponent to comply with all Federal, State and Local requirements when operating over publicly owned or controlled land and waterways (i.e. National Parks, National Seashore, etc...).

D. UAS Operational Anomalies.

1. Lost Link Procedures: ATC does not need to be notified provided the PIC complies with the following provisions:
 - a. In the event that the data link is lost for at least three (3) seconds: The aircraft will execute the flight controller fail safe mode and climb to an altitude not exceeding the upper limits of the approved COA to attempt to re-establish Link.
 - b. If link cannot be established for a period of 30 seconds:
 - (1) The PIC must notify any ground assets that could be affected.

- (2) The VO must be instructed to note bearing and approximate distance to commence recovery operations.
- (3) The aircraft will fly back to the home point and land.
- c. The UA will remain within the defined incident perimeter.
- d. The UA will not interfere with the traffic pattern nor arrival/departure procedure of airports within the defined incident perimeter.
- e. The PIC will notify the appropriate ATC facility within 15 minutes of the end of the flight.
- 2. Loss of Sight: If a VO loses sight of the UA, the PIC must be notified immediately. If the UA is visually reacquired promptly, the mission may continue. If not, the PIC must immediately terminate the operation and notify the appropriate ATC facility within 15 minutes of the end of the flight.
- 3. Loss of Communication between the PIC and VO: The PIC will execute lost link procedures. If communications are reestablished, the mission may resume. If communication cannot be promptly re-established, the flight must be terminated and the appropriate ATC facility notified no more than 15 minutes of the end of the flight.
- 4. Fly Away/Loss of Control: In the event of a fly-away, the PIC will immediately notify the ATC facility with jurisdiction over the operations area. The PIC will provide the following information:
 - a. Altitude.
 - b. Last known location.
 - c. Direction of flight/heading.
 - d. Fuel on board/Battery Time.
 - e. PIC intentions.
 - f. Termination of flight or emergency condition.

E. Operations Area (See Attachments)

AUTHORIZATION

This Certificate of Waiver or Authorization does not, in itself, waive any Title 14 Code of Federal Regulations not specifically stated, nor any state law or local ordinance. Should the proposed operation conflict with any state law or local ordinance, or require permission of local authorities or property owners, it is the responsibility of the proponent to resolve the matter. This COA does not authorize flight within Temporary Flight Restrictions, Special Flight Rule Areas, regulatory Special Use Airspace or the Washington DC Federal Restricted Zone (FRZ) without pre-approval. The proponent is hereby authorized to operate the small Unmanned Aircraft System in the NAS within the areas defined in the Operations Authorized section of the cover page.

Attachment 1

Operations Area

Class B and G Airspace

At or below 400 feet AGL in Class G airspace and
In Accordance with UASFM altitudes in Class B airspace.



DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION	
CERTIFICATE OF WAIVER OR AUTHORIZATION	
ISSUED TO Public Agency – Elizabeth Police Department	Part 91
ADDRESS Elizabeth Police Department 1 Police Plaza Elizabeth, NJ 07201	
This certificate is issued for the operations specifically described hereinafter. No person shall conduct any operation pursuant to the authority of this certificate except in accordance with the standard and special provisions contained in this certificate, and such other requirements of the Federal Aviation Regulations not specifically waived by this certificate.	
OPERATIONS AUTHORIZED Operation of small Unmanned Aircraft System (sUAS) weighing less than 55 pounds and operating at speeds of less than 87 kts (100 mph) in Class G airspace at or below 400 feet Above Ground Level (AGL) for the purpose of public aircraft operations.	
LIST OF WAIVED REGULATIONS BY SECTION AND TITLE N/A	
STANDARD PROVISIONS	
1. A copy of the application made for this certificate shall be attached and become a part hereof. 2. This certificate shall be presented for inspection upon the request of any authorized representative of the Federal Aviation Administration, or of any State or municipal official charged with the duty of enforcing local laws or regulations. 3. The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein 4. This certificate is nontransferable.	
Note-This certificate constitutes a waiver of those Federal rules or regulations specifically referred to above. It does not constitute a waiver of any State law or local ordinance.	
SPECIAL PROVISIONS	
Special Provisions Nos. A thru I, inclusive, are set forth on the reverse side hereof.	
The certificate is effective from February 9, 2023 to February 8, 2025, inclusive, and is subject to cancellation at any time upon notice by the Administrator or his/her authorized representative.	
BY DIRECTION OF THE ADMINISTRATOR	
FAA Eastern Service Center (Region)	JUSTIN T RHODES Digitally signed by JUSTIN T RHODES Date: 2023.02.08 08:24:50 -05'00'
	For Gregory R. Garmon (Signature)
	Tactical Operations Team Manager, AJV-E23 (Title)

Purpose: To prescribe UAS operating requirements in the National Airspace System (NAS) for the purpose of Public Aircraft Operations. The holder of this COA will be referred herein as the "Proponent

Public Aircraft

1. A public aircraft operation is determined by statutes, 49 USC §40102(a)(41) and §40125.
2. All public aircraft flights conducted under a COA must comply with the terms of the statute.
3. All flights must be conducted per the declarations submitted in the application, and as specified in the following Standard/Special Provisions.
4. This COA provides an alternate means of complying with 14 CFR §91.113(b) for unmanned aircraft operations
5. All operations will be conducted in compliance with Title 14 CFR §91 and the conditions of the authorization issued herein. If the operator cannot adhere to any of these requirements a separate FAA Form 7711-2 Waiver application may be required.

SPECIAL PROVISIONS

A. General

1. All personnel connected with the UAS operation must read and comply with the contents of this authorization and its provisions.
2. A copy of the COA including the special limitations must be immediately available to all operational personnel at each operating location whenever UAS operations are conducted.
3. This authorization may be canceled at any time by the Administrator, the person authorized to grant the authorization, or the representative designated to monitor a specific operation. As a general rule, this authorization may be canceled when it is no longer required, there is an abuse of its provisions, or when unforeseen safety factors develop. Failure to comply with the authorization is cause for cancellation. The proponent will receive a written notice of cancellation.
4. During the time this COA is approved and active, a site safety evaluation/visit may be accomplished to ensure COA compliance, assess any adverse impact on ATC or airspace, and ensure this COA is not burdensome or ineffective. Deviations, accidents/incidents/mishaps, complaints, etc., will prompt a COA review or site visit to address the issue. Refusal to allow a site safety evaluation/visit may result in cancellation of the COA.

Note: This section does not pertain to agencies that have other existing agreements in place with the FAA.

5. Frequency spectrum approval is independent of the COA process and requires the proponent to obtain certification and frequency assignments (licenses) from the National Telecommunications and Information Administration (NTIA) (47 CFR Part 300) or Federal Communications Commission (47 CFR Part 2, Subpart J and 47 CFR Part 87, Subpart D) and frequency licenses (47 CFR Part 87) when applicable for the control link, ATC radios, transponders, detect and avoid systems, and navigation systems used to support this COA. Equipment licensed under 47 CFR Part 5 (Experimental) or 47 CFR Part 15 (Radio Frequency Devices) does not provide the protection necessary for NAS operations.

B. Operations.

1. The UA must be operated within visual line of sight (VLOS) of the Pilot in Command (PIC) and the person manipulating the flight controls at all times. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses. Although the remote PIC and person manipulating the controls must maintain the capability to see the UA, using one or more visual observers (VO)'s allows the remote PIC and person manipulating the controls to conduct other mission-critical duties (such as checking displays) while still ensuring situational awareness of the UA.
2. Must yield right of way to other aircraft, manned or unmanned.
3. First-person view camera cannot satisfy "see-and-avoid" requirement but can be used as long as the visual requirement is satisfied in other ways.
4. Maximum altitude of 400 feet above ground level (AGL) or, if higher than 400 feet AGL, remain within 400 foot radius of a structures upper most limit. In all cases, the UAS must remain within Class G airspace.

5. Minimum visibility of 3 statute miles from control station.
6. No person may act as a remote pilot in command or VO for more than one unmanned aircraft at one time.
7. No operations from a moving vehicle or watercraft unless the operation is over a sparsely populated area and the PIC and VO are co-located.
8. Lost link must remain within visual line of sight of the PIC and VO.
9. The remote pilot in command may deviate from the requirements of this rule in response to an in-flight emergency.
10. Requests to operate in an area outside the approved operating area of this authorization should be limited to emergency/life threatening operations. Coordinate these flights through the Special Government Interest (SGI) process by calling the SOSC at (202) 267-8276, or email: 9-ATOR-HQ-SOSC@faa.gov.

C. Notice to Air Missions (NOTAM).

1. A Distant (D) NOTAM must be issued prior to conducting UAS operations not more than 72 hours in advance, but not less than 24 hours for UAS operations prior to the operation for routine operations. This requirement may be accomplished:
 - a. Through the operator's local base operations or (D) NOTAM issuing authority, or
 - b. By contacting the NOTAM Flight Service Station at 1-877-4-US-NTMS (1-877-487-6867). The issuing agency will require:
 - (1) Name and contact information of the pilot filing the (D) NOTAM request
 - (2) Location, altitude and operating area
 - (3) Time and nature of the activity.
2. The area of operation defined in the (D) NOTAM must only be for the actual area to be flown for each day defined by a point and the minimum radius required to conduct the operation.
3. Operator must cancel (D) NOTAMs when UAS operations are completed or will not be conducted.
4. For first responders only. Due to the immediacy of some emergency management operations, the (D) NOTAM notification requirement may be issued as soon as practical before flight and if the issuance of a (D) NOTAM may endanger the safety of persons on the ground, it may be excluded. If the (D) NOTAM is not issued, the proponent must be prepared to provide justification to the FAA upon request.

D. Reporting Requirements.

1. Documentation of all operations associated with UAS activities is required regardless of the airspace in which the UAS operates.
2. The Proponent must submit the number of flights on a monthly basis through the COA Application Processing System (CAPS).

E. Night small UAS Operations.

Small UAS operations may be conducted at night, as defined in 14 CFR § 1.1, provided:

1. All operations under the approved COA must use one or more VOs;

2. Prior to conducting operations that are the subject of the COA, the remote PIC and VO must be trained to recognize and overcome visual illusions caused by darkness, and understand physiological conditions which may degrade night vision. This training must be documented and must be presented for inspection upon request from the Administrator or an authorized representative;
3. The sUA must be equipped with lighted anti-collision lighting visible from a distance of no less than 3 statute miles. The intensity of the anti-collision lighting may be reduced if, because of operating conditions, it would be in the interest of safety to do so. Additionally, in order to comply with § 91.209, the aircraft must have position lighting that enables determination of location altitude, attitude, and direction of flight.

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A waiver from the requirements of 14 CFR 91.119(b) and (c) is approved as follows:

1. The ground speed of the small UAS must not exceed 100 mph/87 knots.
2. Except for those operations where it is necessary to safeguard human life, no person may operate a small unmanned aircraft over a human being unless that human being is:
 - a. Directly participating in the operation of the small unmanned aircraft; or
 - b. Located under a covered structure or inside a stationary vehicle that can provide reasonable protection from a falling small unmanned aircraft

Note: People “directly participating in the operation of the small unmanned aircraft” may include qualified non-crewmembers, as defined in 49 USC 40125.

3. For those operations where it is necessary to operate over a human being in order to safeguard human life, the remote pilot in command must not operate any lower or in proximity to human beings necessary to accomplish the operation.

G. Special Use Airspace.

1. Coordination and de-confliction between Military Training Routes (MTR) and Special Use Airspace (SUA) is the operator’s responsibility. When identifying an operational area the operator must evaluate whether an MTR or SUA will be affected. In the event the UAS operational area overlaps an MTR or SUA, the operator will contact the scheduling agency as soon as practicable in advance to coordinate and de-conflict. Approval from the scheduling agency is required for regulatory SUA, but not for MTR’s and non-regulatory SUA. If no response to coordination efforts, the operator must exercise extreme caution and remain vigilant of all MTRs and/ or non-regulatory SUAs.
2. Scheduling agencies for MTRs are listed in the Area Planning AP/1B Military Planning Routes North and South America. If unable to gain access to AP/1B contact the FAA at email address mail to: 9-AJV-115-UASOrganization@faa.gov with the IR/VR routes affected and the FAA will provide the scheduling agency information. Scheduling agencies for SUAs are listed in the FAA JO 7400.10.

H. Flight Planning Requirements.

Operations must only be conducted beyond the following distances from the airport reference point (ARP) of a public use airport, heliport, gliderport, or water landing port listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications:

1. 5 nautical miles (NM) from an airport having an operational control tower, or
2. 3 NM from an airport having a published instrument flight procedure, but not having an operational control tower, or
3. 2 NM from an airport not having a published instrument flight procedure or an operational control tower, or
4. 2 NM from a heliport.

I. UAS Operational Anomalies.

1. Lost Link: In the event of a lost link, the UAS pilot will comply with the following provisions:
 - a. The UA lost link will be programmed to ensure that lost link flight does not fly over persons and the landing location is within the view of the PIC.
 - b. Rally and home locations will be programmed to remain within the area defined in the NOTAM where flight operations are being conducted.
 - c. Lost link procedures will not transit or orbit over populated areas, Victor airways, or busy roadways/interstate highways.
 - d. Lost link procedures will be programmed to remain within the operations area and altitude, avoid unexpected turn-around and/or altitude changes, and will provide sufficient time to communicate with ATC if necessary.
2. Emergency/Fly-Away Procedures:
 - a. In the event of an emergency, the PIC will immediately contact the ATC facility having jurisdiction for the airspace, state the nature of emergency and pilot intentions.
 - b. In the event of a UA fly-away, advise ATC of the following:
 - (1) Direction of flight
 - (2) Last know altitude
 - (3) Maximum remaining flight time

AUTHORIZATION

This Certificate of Waiver or Authorization does not, in itself, waive any Title 14 Code of Federal Regulations not specifically stated, nor any state law or local ordinance. Should the proposed operation conflict with any state law or local ordinance, or require permission of local authorities or property owners, it is the responsibility of the proponent to resolve the matter. This COA does not authorize flight within Temporary Flight Restrictions, Special Flight Rule Areas, regulatory Special Use Airspace or the Washington DC Flight Restricted Zone (FRZ) without pre-approval. The proponent is hereby authorized to operate the small Unmanned Aircraft System in the NAS within the areas defined in the Operations Authorized section of the cover page.

Drone Inventory

Model #

Spark

Spark	MM1A
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Mavic Mini

Mini-1	MT1SS5
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Mavic Platinum

MP-1	M1X
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MP-2	M1X
------	-----

Mavic 2 Zoom

ME-1	L1ZE
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ME-2	L1ZE
------	------

ME-3	L1ZE
------	------

ME-4	L1ZE
------	------

ME-5	L1ZE
------	------

Mavic 2 Advanced

MA-1	L1TE
------	------

Matrice

M-210	M210
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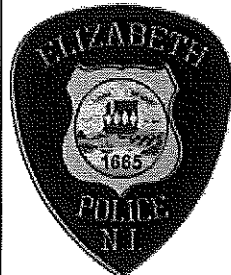
M-210 Camera	Zenmuse Z30
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M-210 Thermal Camera	Zenmuse XT
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M-300	M300
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M-300 Camera	Zenmuse H20T
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M-30T	M30
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ELIZABETH POLICE DEPARTMENT GENERAL ORDERS			
VOLUME: 3	CHAPTER: 18	# OF PAGES: 8	
SUBJECT: UNMANNED AERIAL SYSTEMS (UAS)			
EFFECTIVE DATE: April 1, 2020		ACCREDITATION STANDARDS: N/A	
BY THE ORDER OF: Deputy Chief Giacomo Sacca			
BY AUTHORITY OF: Police Director Earl J. Graves			

PURPOSE The deployment of Unmanned Aerial Systems (UAS), commonly referred to as "drones," have become more commonplace in law enforcement. These systems offer strategic and tactical insight into ongoing critical events that may assist in reducing injuries or death to those involved and more efficient handling of a variety of situations. The purpose of this policy is to guide the agency and set parameters for the proper use of UAS equipment.

POLICY It is the policy of the Elizabeth Police Department to establish a UAS unit utilizing trained UAS pilots to assist in police operations and general public safety missions. Safety above all else, is the primary concern in each activity, regardless of the nature of the task. Only trained and authorized personnel may deploy an Elizabeth Police Department UAS in the performance of official duties.

PROCEDURE

I. DEFINITIONS

- A. Unmanned Aerial Vehicle (UAV) - any powered aerial vehicle that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can be programmed to fly autonomously or can be piloted remotely, may be expendable or recoverable and can serve as a platform for devices or systems which are capable of:
1. Photographing persons, objects or mapping surface or geological formations and storing or transmitting captured images;
 2. Tracking or detecting persons or objects using infrared, thermal or any similar storing or transmitted the captured information;
 3. Engaging in a real-time video recording of the movements of persons or objects and storing or transmitting the captured information; and
 4. Detecting and capturing aural, digital and other forms of communication and storing or transmitting the captured communications
- B. Unmanned Aircraft System (UAS) – An all-encompassing description that encapsulates the aircraft or UAV, the ground-based controller, the system of communications connecting the two and the personnel who operate the UAV itself, maintain the UAV and who supervise the staff involved in the operation of the UAV.
- C. Small Unmanned Aircraft Systems (sUAS)- UAS systems that utilize UAVs weighing less than 55 pounds and are consistent with the Federal Aviation Administration (FAA) regulations.
- D. Digital Media Evidence (DME)- Digital recordings or images taken with a camera affixed to the UAS.
- E. UAS Flight Crewmember- A pilot, visual observer, payload operator, or other person assigned duties for a UAS for the purpose of a flight or training exercise.
- F. Pilot in Command (PIC)- An individual who is solely responsible for all aspects of the UAS operations, including but not limited to safety, flight operation, flight planning, and reporting. The Pilot-In-Command is the final authority to determine if a specific mission can/will be flown.
- G. Unmanned Aircraft Pilot- An adequately trained individual who operates the UAS under the general supervision of the Pilot-In Command.
- H. Visual Observer (VO)- Individuals assigned to maintain constant observation of the UAS during flight operations and report any safety issues or concerns that may affect the flight of the UAS. Concerns can include birds, aircraft, utility poles, towers, or any unforeseen circumstances.
- I. Routine Law Enforcement Purpose- Any law enforcement activity that does not require judicial approval under the statutory or decisional law of the jurisdiction or the State of New Jersey.

- J. Public Safety Agency- Any local, state, or regional agency or entity that must enforce the law, respond to or plan response to emergencies.
- K. Certificates of Waiver or Authorization (COA)- An authorization issued by the Air Traffic Organization to a public operator for a specific unmanned aerial activity.
- L. Federal Aviation Administration- More commonly known as the FAA, a National Authority with powers to regulate all aspects of civil aviation.

II. Organization

- A. The Chief of Police designates the person to serve as the UAS Unit supervising officer. The UAS Unit supervisor shall be responsible for the overall management and supervision of all unmanned aircraft operations.
- B. Police Captains and Chiefs may authorize UAS flights along with the UAS Unit Supervisor. In the absence of a Captain, Chief, or UAS Unit Supervisor, the highest-ranking officer on duty may authorize a UAS flight.
- C. The Chief of Police shall also name a Chief Pilot who shall report to the UAS Supervisor. The Chief Pilot responsibilities include UAV registrations, updates, and the general upkeep of all UAVs. All UAV pilots are required to cooperate with the Chief Pilot to maintain UAS efficiency, effectiveness, and safety. The Chief Pilot shall run monthly training for all UAV pilots and verify to the Chief of Police individual pilot capabilities.
- D. The Chief of Police shall name all agency authorized UAV pilots, the UAS Unit Supervisor, and the Chief Pilot in a Personnel Order, posted on the agency document management system. Captains and Chiefs shall verify a UAV pilot's name on the most current order posted, before granting flight authorization.

III. UAV Minimum Specifications

- A. All UAS acquired by the Police Department shall meet specifications required by the Federal Aviation Administration.
- B. All UAVs acquired by the agency must have an application that allows the UAV to autonomously fly back to a pre-determined takeoff point upon losing controller contact.
- C. UAV pilots shall not operate equipment in an unsafe manner or in violation of FAA rules.

IV. Certification

- A. The Elizabeth Police Department shall obtain all necessary Certificate(s) of Authorization(s) and/or Waivers (COA) from the Federal Aviation Administration before the use of a UAS. The Chief Pilot and Unit Supervisor are responsible for maintaining all records and verifying agency compliance to the Chief of Police and Police Director.
- B. The Elizabeth Police may also operate a UAS under the provisions of 14 CFR Part 107 of the Federal Aviation Regulations.
- C. Before operating an agency UAS, pilots must be certified through the Elizabeth Police UAV training program and demonstrate a working knowledge of the agency policy, procedures, and provisions of the FAA COA issued to the agency.
- D. During operations, UAS pilots may only fly the specific UAV model in which they are trained and received Police Department certifications.

V. Pilots

- A. The Chief of Police will select the appropriate number of agency pilots necessary.
- B. The pilot's primary duty is the safe and effective operation of the agency's UAS. Pilots must always operate following manufacturer's recommendations, FAA regulations, COA conditions, New Jersey State Law, and agency policy.
- C. For independent operations, pilot certifications require the logged completion of a minimum of three (3) currency events within the previous 90 days. Currency events include but are not limited to landings, takeoffs, and emergency procedures.
- D. Pilots can be temporarily or permanently removed from active flight status at any time by the Chief of Police. The UAS Unit supervisor shall document the removal of the pilot's operational status, and the Chief shall update the agency document system to reflect the change.
- E. All agency Pilots are responsible for ensuring that UAS operations abide by the provisions of the Certificate of Waiver of Authorization issued to the agency. If a COA is invalid, the pilot is responsible for ensuring that the UAS operation abides by the provisions of 14 CFR Part 107 of Federal Aviation Regulations.

VI. Visual Observers

- A. All Pilots shall designate a visual observer responsible for assisting the pilot in scanning the airspace surrounding the UAS operational area.
- B. The visual observer can be any sworn police officer. The visual observer role is always to keep the UAV within line-of-site and scan the area for potential hazards.

- C. No UAS outdoor operations will be conducted without a designated visual observer. Generally, visual observers and pilots will remain within vocal communication distance. However, a pilot and visual observer may communicate via cellular phone or police radio if necessary. If communications between pilot and observer are not established, the pilot shall terminate the flight immediately.
- D. The visual observer will immediately notify the pilot of any obstructions, objects, and other aircraft in the airspace surrounding the UAS operations.
- E. A visual observer is not required on flights that are conducted indoors, such as when the UAS is used to clear the inside of a structure or when operating under 14 CFR Part 107 of Federal Aviation Regulations.

VII. Chief Pilot

- A. Documents and stores all records for agency UAS.
- B. Provides training to all agency UAS pilots, ensuring all personnel involved with flight operations understand applicable regulatory requirements along with safety precautions, policies, and procedures.
- C. Ensures all flight logs, pilot currency records, UAS maintenance records, and other related records are up to date and kept in a central file with the UAS Unit Supervisor.
- D. Ensures firmware on all agency UAS and ground control units are up to date.
- E. Ensures the manufacturer's recommended maintenance is performed on each agency UAS.

VIII. Training

- A. All UAS pilots will receive the following training before serving in an operational capacity:
 - 1. Agency UAS policy / COA contents and provisions
 - 2. UAS ground training
 - 3. UAS hands-on flight training to include flying at night. Pilots must complete a minimum of 4 hours of training with an agency instructor before qualifying as a solo practitioner.
- B. Before operational capacity, pilots must satisfactorily complete a practical UAV flight test given by the Chief Pilot or the UAS Unit Supervisor. Testing requires the pilot to demonstrate flight safety, proficiency, and emergency operations.

- C. Annual certification is required for pilots to maintain operational status. The Chief Pilot is responsible for organizing and documenting annual recertification sessions.
- D. The Chief Pilot shall organize monthly training sessions for all agency pilots to cover safety, FAA rules and regulations, and any relevant case law about UAV use by law enforcement personnel.
- E. Pilots must complete at least three (3) currency events every 90 days utilizing the make and model of the UAS to be deployed. Currency events include takeoffs, landings, and emergency procedures. Lapsed currency flights will prohibit the pilot from flying in any public safety mission. Pilots who experience a lapse of currency must perform their currency events under the supervision of the UAS Supervisor. A pilot shall record proficiency flights in their UAS logbook with an endorsement from the UAS Unit Supervisor.
- F. A Part 107 Remote Pilot certification issued by the FAA is not required, provided that the pilot is operating under a valid COA issued to the agency in an official law enforcement capacity.

IX. Missions

- A. Requests for the use of the UAS must follow the guidelines outlined within this order. Acceptable UAS missions include:
 - 1. Search and Rescue- To assist in missing person investigations, Amber Alerts, Silver Alerts, missing swimmers, suicidal persons, lost persons, and other search and rescue missions.
 - 2. Situational Awareness- To assist officials in understanding the nature, scale, and scope of the incident, and for the planning and coordinating of an effective response.
 - 3. Tactical Deployment- To support the tactical deployment of law enforcement personnel and equipment in emergencies (e.g., incidents involving hostages and barricades, support for large scale tactical operations, and perimeter situations)
 - 4. Visual Perspective- To provide an aerial visual perspective to assist law enforcement personnel in traffic incident management, crowd control, temporary perimeter security, assessing suspicious packages or other unusual circumstances
 - 5. Fleeing/Hiding Suspects- To assist with locating fleeing or hiding suspects in wooded areas or other public areas.

6. Scene Documentation- To document a crime scene, a crash scene, fire scene, natural disaster scene, or other incidents.
 7. Aerial Photography- To obtain still photography or video when appropriate to be used for agency press releases or social media posts or other purposes as directed by the Chief of Police or his/her designee.
 8. Routine Safety Deployment- To assist with an aerial visual perspective of densely populated pedestrian areas (e.g., river trail, waterfront, marina, and parks) or to make public safety announcements.
 9. Medical Calls - To assist medical personnel with situational awareness.
 10. Other Incidents - Any other incident approved by the Chief of Police or his/her designee that would benefit the law enforcement objective by providing an aerial visual perspective.
- B. Before approving the use of a UAS, Commanders must consider the practical application and likely successful benefit of a deployment.
 - C. Ultimately, the UAS pilot has the final authority to determine whether conditions and circumstances are safe to conduct the flight.
 - D. When there are reasonable articulable grounds to believe that a Police UAS will collect evidence of criminal activity and the UAS may intrude upon a reasonable expectation of privacy, police personnel must obtain a search warrant before conducting the flight. Exceptions to the warrant requirement shall mirror that of case law or where missions are taking place, which the exigency to protect the safety of the public negates the practicality of obtaining a search warrant.
 - E. All deployments of the UAS and flights will be documented on the appropriate log, including but not limited to: the name of the deploying officer, who authorized the deployment, date, time and location and reason for implementation.

X. Minimum Flight Crew Requirements

- A. The minimum crew on all UAS operations will be a pilot and a visual observer unless the pilot is conducting the activity under 14 CFR Part 107 of Federal Aviation Regulations.
- B. The pilot and the visual observer will work together to accomplish the objectives of the mission safely.

XI. Digital Media Evidence Retention and Management

- A. Pilots shall process all evidence obtained through a UAS in the same manner as all digital evidence prepared by the Elizabeth Police Department.

- B. All images recorded by agency UAS are the sole property of the Elizabeth Police Department. The sharing of pictures, videos, and collected data shall be per agency orders, rules, and regulations.
- C. All digital media evidence shall be handled per the provisions of the New Jersey Division of Archives and Records Management