TSA/FAA Waiver & Airspace Access Program

Instructions for Commercial (Part 107) UAS FRZ-Waiver Applicants

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A The following crew members must be listed on the manifest if present, and annotated as indicated:

- 1 <u>The On-Site Communicator or "OSC"</u>: A *unique* crewmember required for small-UAS waivered-operations in the DC FRZ.
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Instructions for Commercial (Part 107) UAS FRZ-Waiver Applicants

Background: Unmanned Aircraft System (UAS) operations inside the Washington, D.C. Metropolitan Flight Restricted Zone (DC FRZ as defined in 14 C.F.R. 93.335), are prohibited, unless the operator obtains a waiver through the FAA/TSA waiver process. See: FAA Notice to Air Missions (NOTAM) FDC 9/1811 and FDC 0/0053. FAA and TSA have developed a process to review requests for waivers on a case-by-case basis. Issuance of a UAS FRZ-waiver is subject to completion of: an air safety review, a security threat assessment, and a detailed review of the proposed UAS flight operations.

Requests for waivered UAS operation in the DC FRZ must meet the following guidelines to be considered:

- Must clearly state and support a compelling need for operations at singular location, project site or infrastructure (i.e. address, building, construction site, public utility), as described in the client/sponsor letter.
- Operations requesting diverse or wide-spread operating locations will only be considered for projects with significant public interest or in support of infrastructure.

Note: At this time, requests for Part 107 operations within seven nautical miles of the DCA VOR/DME (<7nm) and/or near sensitive locations—for commercial interests—will be conditional, and limited to minimum scope if authorized. Purely promotional requests—scenic vistas, sightlines or viewshed, virtual tours, etc.—are not routinely authorized.

Notices: The FAA Administrator has prescribed additional limitations for UAS operations inside the DC FRZ in accordance with 14 CFR Part 107, Subpart E § 107.200. Below are instructions for submitting the required material to TSA to support a request to conduct commercial UAS operations in the DC FRZ. All waivered UAS operations in the FRZ may be monitored.

Operational deviations, intentional or unintentional, not in accordance with the approved waiver, SGI/COA, or applicable federal, state, or local laws and regulations, may result in administrative, civil, and/or criminal actions against the pilot(s), crew member(s), and/or waiver applicant(s). Live broadcast, broadcast delay or telecast of any kind is specifically prohibited within seven nautical miles of the DCA VOR/DME (<7nm). Waivered operations in the DC FRZ are subject to additional security requirements including, the on-demand right to review all captured images, video, or audio prior to public release, broadcast, distribution or resale.

Application Process: To request a waiver to operate a UAS in the DC FRZ, the operator will undergo a two-part wavier vetting process that addresses safety (FAA SGI/COA) and security (TSA). The waiver process begins with the operator creating an application via the TSA/FAA Waiver and Airspace Access Program (AAP) at <u>WAIVERS.FAA.GOV</u>. A copy of the concurrently submitted FAA SGI/COA application must be included with the TSA waiver application. In order to be considered, the waiver application must contain all the information as described in this document. Please note that operations inside of seven nautical miles of the DCA VOR/DME—annotated in this document with: (<7nm)—must meet significant additional requirements as further annotated herein.

It is incumbent upon the operator to provide wavier application materials that clearly display and articulate their intent to conform with 14 CFR Part 107 (Small Unmanned Aircraft Systems), and acknowledges 14 CFR 93.331-335 (Washington, DC Metropolitan Area Special Flight Rules Area). If the material submitted in support of the application is found to be erroneous or in conflict with applicable rules and regulations, or if the request lacks sufficient detail to clearly articulate all required facets of the proposed operation, the application will be rejected.

Duration: UAS waivers are normally issued for a maximum of 30 days. Please request the minimum time required to complete your operation. We recommend adding an additional seven (7) work days to all requests for delays due to weather or security operations. All requests for repeat or periodic operations must be supported with work-orders and/or appropriate documentation.

Review Process: Due to a number of safety and security concerns associated with UAS flights in this sensitive airspace, your application will be reviewed by multiple government and law enforcement agencies. Please allow a minimum of 15 working days for review once you have submitted your application with the information requested below. During the review process, TSA may need to request additional information, which may extend the time required for review.

Note: When completing your application in AAP, briefly summarize the operation's:

- Compelling need or purpose as clearly stated in the client letter
- Scope (number and size) of all requested or supporting operations
- Duration and/or frequency of all requested operations
- Operations requesting: live video or broadcast delay or telecast etc.

Place this operational summary in the "**Purpose/Comments**" section, located under the "**Itinerary**" tab in your AAP application. Failure to identify this information as directed may delay the processing of your application.

Documentation:

A Completed FAA SGI/COA Application

1 All waiver applications must include a copy of the concurrently submitted FAA SGI/COA application in addition to the other requirements outlined in this instruction. Please ensure that the start/stop dates of the SGI/COA match those submitted on your waiver application. You can find the application here: <u>UAS-SGI/COA Waiver Request Form</u>

B Waiver Application and Client/Sponsor Letters

1 Letter of Application from the UAS operator or general contractor

The entity operating the UAS or subcontracting the UAS operations must provide, a letter to TSA that documents the purpose for the requested UAS waiver. All requests for UAS operation in the FRZ must address alternatives to using UAS, including why it is not feasible to conduct the operation using a crewed aircraft—reduced operational

cost does not suffice for justification. UAS waivers for operation in the FRZ are only considered when a compelling need is documented. At this time, for security reasons, recreational requests will not be approved.

The application letter must be on official letterhead from the agency, company or general contractor conducting the UAS operations, and signed by an authorized office-holder, owner, or employee. The letter must be dated and signed with either a certificated digital or wet signature. The signature must include the signatory's title, phone number, and e-mail address. Address the letter to:

Airspace Authorizations/Waivers Supervisor TSA Federal Air Marshal Service – Mailstop 6018 6595 Springfield Center Drive Springfield, VA 20598

2 <u>Client Letter</u> from the requesting agency, company or entity—normally the owner, tenant or steward of the operating location.

The UAS operator must include a client letter explicitly requesting the services of the waiver applicant, typically referred to as a "statement of work." This client letter must be on official letterhead from the agency, company, or entity (Client), and must be dated and signed by a company employee/entity with the appropriate authority to authorize the requested service(s). This letter must specifically identify the compelling need, scope, and duration/frequency of the requested work.

Note: In cases of subcontracting, the client letter must identify each UAS company/operator providing services in support of the primary UAS contractor/operator's statement of work. For example: an aerial photography company/contractor that subcontracts work to a UAS pictometry operator, would require the agency, company or entity (Client) to write a client letter outlining **both** primary contractor and subcontractor(s) roles/services in support of the statement of work, **or** provide additional client letters for *all* subcontracted operators.

If the operation is within seven nautical miles of the DCA VOR/DME (<7nm), and the client letter (above) is <u>not</u> from a local, state or federal governmental agency, the following is required:

3 <u>Government Sponsor Letter</u> that serves as a written endorsement from a government agency with jurisdiction for the proposed area of operations. See additional requirements below (<7nm).

Note: The Client Letter and Government Sponsor Letter identified above are valid for six months from the date of signature. Do not mail letters. Upload all letters as a PDF with the online application.

C Law Enforcement Officer (LEO) Coordination: Waivered UAS Operations within a seven nautical mile radius of the DCA VOR/DME (<7nm) are strictly controlled, and are subject to additional security requirements. For these operations, wavier applicants must coordinate with the NCRCC Law Enforcement Desk (LE Desk), in order to identify

the responsible agency with jurisdictional authorities for your proposed operating area. The NCRCC LE Desk can be reached at (866) 598-9528. *After* coordinating with the responsible agency/LEO, please copy the LEO contact information (name and phone number) provided to you by the LE Desk into the "**Purpose/Comments**" section of your AAP waiver application. *Applicants must also clearly identify the observing LEO in the "Day Prior Notification" email*—see the "Notifications to Execute Your Waiver" section below.

D Application Maps: It is highly suggested that the FAA's website <u>Visualize it: See FAA UAS Data on a Map</u> be utilized to assist in generating your mapping products. Range (distance) and Bearing (direction) lines must be displayed using nautical miles (NM) and degrees true (T). All map location coordinates should be expressed in Decimal Degrees (DD) or Degrees, Minutes and Seconds (DMS) formatted to <100 meter precision. Coordinates/bearings submitted with incorrect/ambiguous formatting will be rejected—see the correctly formatted example coordinates for the DCA VOR/DME below. Maps should be clearly legible, but they do not need to be in high resolution. Upload the documents in PDF format, and limit file size—below 2 MB if possible. See page 13 for example maps.</p>

Note: Waivered UAS operations in the DC FRZ require **both** the Remote Pilot in Command (RPIC) and Visual Observer (if one is used) to maintain visual line of sight (VLOS) at all times. Additionally, please review Part §107.39 and §107.145–regulations for operating small unmanned aircraft over human beings and moving vehicles. Please plan your operations accordingly and design all maps in strict compliance with 14 CFR Part 107.

UAS Waiver Applications require the following Maps:

<u>Detailed Map</u> showing precise operating location(s), clearly marked with launch/recovery and flight path area(s).
Otherwise known as a *Large Scale Map*: limited coverage with lots of detail.

This highly detailed project map covers a limited area, and should clearly indicate the exact location(s) of the planned UAS flights. The map should include each UAS launch/recovery site you plan to use, the maximum flight altitude (AGL) at each site, and a visual depiction of the proposed flight area boundaries.

Flight area boundaries must be confined to the minimum airspace that is absolutely necessary to complete the specified operation. Submissions outlining broad-area boundaries that extend outside obvious limits required for the stated scope of work will be rejected. Clearly label operating locations and launch sites so you can easily identify them—verbally or in writing—when executing your waiver or making notifications to the NCRCC. All depicted flight operations must support the mandatory VLOS requirement.

2 <u>Overview Map</u> showing the Washington DC area with the Flight Restricted Zone (FRZ) airspace, Prohibited Airspace P-56A/B, Ronald Reagan Washington National Airport (DCA), and the requested operating location(s) <u>all</u> clearly visible on the map. Otherwise known as a *Small Scale Map*: area-wide coverage with minimal detail. This map covers a wide, comprehensive area with less detail, and should depict DCA and your operating site(s) on the same image, with a "ruler" line drawn **FROM** the Washington (DCA) VOR/DME **TO** the center of your subject property/operations area(s)—annotated with the bearing and range in degrees (T) and nautical miles (nm). If any part of your operations area falls within seven nautical miles of the DCA VOR/DME (coordinates below), you are required to meet the additional requirements in this document which are annotated: "(<7nm)."

Note: The DCA VORW/DME is located at: (DD) 38.8595, -77.0365 or (DMS) 38°51'34.2"N 77°02'11.4"W

E UAS Characteristics and Identification

- 1 UAS Amplifying Data
 - a. Provide a brief statement of the UAS make/model and performance specifications. Please describe any UAS or controller modifications which: enhance performance (speed, endurance, battery life, etc.), alter or remove any portion of the FAA registration data, significantly alter the (standard) visual appearance of the device, or information that may assist in identifying the device if lost, stolen or recovered.
 - b. State the maximum flight endurance (in time and range) for each UAS under normal operating conditions
 - c. Describe the "lost link" behavior for each UAS
- 2 <u>FAA issued UAS registration number</u>: Applications must include the FAA issued registration numbers for each and every UAS used or available for use by the operator during the execution of the waivered operations.
- 3 <u>UAS Serial Numbers (Aircraft and Controller)</u>: Provide UAS serial numbers for both the controller and aircraft for every UAS/controller used or available for use by the operator during the execution of the waivered operations.
- 4 <u>Photographs of UAS—with registration marks clearly visible</u>: A color photograph of each vehicle intending to be used, with registration number and aircraft payload (camera, sensor, etc.) clearly displayed. Additionally, any visible modifications to the UAS, beyond the manufacture's specifications, must also be clearly displayed in the photo(s). The photograph(s) do not need to be in high resolution. Upload the photos in PDF format, and limit file size—below 2 MB if possible.

Minimum Crewmember Requirements: All persons actively participating or manifested for waivered FRZ UAS

<u>operations must be at least 18 years of age</u>. The waiver application manifest must contain, at minimum, one current, FAA-certified remote pilot with a small UAS rating, and one crewmember that will serve as the On-Site Communicator (OSC), as defined below.

A The following crew members must be listed on the manifest if present, and annotated as indicated:

1 <u>The On-Site Communicator or "OSC"</u>: A unique crewmember required for small-UAS waivered-operations in the FRZ. The OSC should **not** be simultaneously assigned or engaged in additional roles or tasks (RPIC or pilot) that might delay or prevent them from performing required duties. Additionally, the OSC cannot serve as visual observer to satisfy 14 CFR §107 VLOS requirements. If not otherwise manifested as a pilot, list the OFC as "Crewmember" when submitting your application in AAP.

The OSC is a **direct participant** in the operation of the small unmanned aircraft, and must be on-site and performing duties as described below anytime the UAS waiver is activated and authorized to operate or operating—until the TSA/FAA has been notified that flight operations are terminated. The OSC should contact the TSA-NCRCC at the beginning and end of waivered UAS flight operations, and anytime the identified OSC and/or contact telephone number changes. When conducting waivered UAS operations in the FRZ, an on-site communicator (OSC) must be employed, and the following requirements must be met:

- a. The remote pilot in command (RPIC), the person manipulating the flight controls of the small unmanned aircraft system (If the RPIC is not the person manipulating the flight controls of the small unmanned aircraft system), and the on-site communicator (OSC) must coordinate to ensure the following:
 - The remote pilot in command, the person manipulating the flight controls of the small unmanned aircraft system and the on-site communicator must maintain effective communication with each other at all times.
 - The on-site communicator must be able to maintain awareness of the operating status and position of the small unmanned aircraft through direct visual observation.
 - The on-site communicator must be able to immediately answer telephone calls from or place calls to the TSA/FAA for control, coordination, and information exchange.
 - The on-site communicator must be able to immediately communicate TSA/FAA instructions—in real time to the remote pilot in command and the person manipulating the flight controls of the small unmanned aircraft system.
 - The on-site communicator must immediately report to TSA/FAA: any incidents, accidents, loss of control, loss of UAS or significant deviation/interference related to the waivered UAS operations.
- 2 <u>Remote Pilot in Command (RPIC)</u>: The manifest submitted with your waiver application must include the certificate number of at least one current, FAA-certified remote pilot with a small UAS rating, who will act as the RPIC during waivered UAS operations in the FRZ.
- 3 <u>Remote Pilot manipulating the UAS flight controls</u>: The manifest submitted with your waiver application must include the names and certificate numbers of all remote pilots who will be manipulating the UAS flight controls during waivered UAS operations in the FRZ.

4 <u>Additional Crewmembers:</u> You may list multiple RPIC's, Pilot's and/or Crewmember's as desired. Two persons, one remote pilot in command (RPIC) and one on-site communicator (OSC), must be present for each and every UAS performing flight operations. Use of a visual observer is encouraged and permitted for operations in the DC FRZ. However, use of a visual observer does not relieve the RPIC of the visual line of sight requirements as noted and further restricted below.

Operations

A Concurrent Operation of Multiple UAS:

1 <u>For simultaneous flights of more than one UAS:</u> Note how many UAS will fly for each operation, and whether more than one UAS will fly concurrently at the same operating site. Remote Pilot in Command (RPIC) to On-site Flight Coordinator (OSC) ratio of 1:1 must be maintained at all times.

B Visual line of sight (VLOS)

Note: When conducting waivered UAS operations in the DC FRZ, as referenced in 14 CFR §107:

1 Visual line of sight aircraft operation.

(a) With vision that is unaided by any device other than corrective lenses, the remote pilot in command, the visual observer (if one is used), and the person manipulating the flight control of the small unmanned aircraft system must be able to see the unmanned aircraft throughout the entire flight in order to:

- (1) Know the unmanned aircraft's location;
- (2) Determine the unmanned aircraft's attitude, altitude, and direction of flight;
- (3) Observe the airspace for other air traffic or hazards; and
- (4) Determine that the unmanned aircraft does not endanger the life or property of another.

2 For waivered UAS operations in the DC FRZ, this visual line of sight requirement is further restricted:

(a) <u>Throughout the entire flight of the small unmanned aircraft, the ability described above must be exercised by</u> <u>the remote pilot in command (RPIC) at all times.</u> Use of a visual observer does not relieve the RPIC of this requirement or the see-and-avoid responsibilities set out in 14 CFR §107.

Execution: Actions Required to Operate Under an Approved Wavier (Execution): Once your waiver request is approved, you will receive an Airspace Authorization-Waiver letter (via email) from the FAA, which stipulates the waiver conditions, limitations, and step-by-step instructions to notify and execute the waiver. This letter will also provide the telephone and email contacts to provide mandatory notifications to the National Capital Region Coordination Center (NCRCC). **Strict adherence to the wavier execution process is required.**

Note: You must also have a valid SGI/COA issued by the FAA System Operations Security Center (SOSC-202-267-8276) to utilize the DC FRZ UAS Airspace Authorization-Waiver that is the principal subject of these guidelines. This FAA requirement is a separate and concurrent process; please review your FAA SGI/COA prior to executing your waiver.

A The following notifications are required to execute your waiver:

- 1 On the day prior to your expected operations, the UAS operator (waiver holder) must send an email-notification to the NCRCC no later than 1600 (4pm eastern time). To facilitate this, you will receive an email-template from the UAS Coordination Unit (NCRCC-UCU) once your waiver is approved. Please format your "Day Prior Notification" email as shown in the template, and further outlined in the NCRCC-UCU email-correspondence. If this operation will be conducted within seven nautical miles (<7nm) of the DCA VOR/DME, the assigned Law Enforcement Officer's (LEO) name, badge number, and phone number (if available 24 hours prior) must be attached to this email. Otherwise, document your LE coordination, indicating "LEO assignment pending."</p>
- 2 <u>Cancellation of Planned Operations</u>: If unforeseen factors cause the planned operations to be canceled, please notify the NCRCC of the cancelation via email as soon as possible. If the OSC has already contacted the NCRCC to activate the waiver, please contact the NCRCC at (844) 243-2648, and advise that your operations have been cancelled.
- 3 <u>On the day of your waivered operations,</u> the On-Site Communicator (OSC) must contact the NCRCC at (844) 243-2648, "15 minutes prior" to operating any UAS device(s). All participating crewmembers (OSC, RPIC, pilots, visual observers) must be present during this call. Be prepared to provide your waiver number and operational data (flight time and total duration). Designated RPIC(s) and OSC with contact information must be provided to the Watch Officer. Your initial flight operation will be approved for two hours; extensions can be granted by contacting the NCRCC (see extended operations below).

Note: If this operation will be conducted within seven nautical miles **(<7nm)** of the DCA VOR/DME, the required Law Enforcement Officer(s) must also be present during the "15-minute prior" call, and must remain on-site until all operations **(<7nm)** are complete. The observing LEO may contact the NCRCC Watch Officer at any time to discuss or clarify issues or questions regarding the UAS operation. All law enforcement matters will be directed to the NCRCC LE Desk.

4 Extended operations after initial activation: UAS operators will be authorized to conduct UAS flights in two-hour flight blocks. The On-Site Communicator (OSC) may contact the UCU watch to request waiver extensions in two-hour increments, as their mission dictates. Designated RPIC(s) and OSC with contact information must be identified and/or updated. Operations/extensions will not be granted prior to sunrise or after sunset. Upon final completion of flight operations, the OSC must contact the UCU Watch Officer to report that operations are complete, and close the waiver.

5 <u>Terminate operations</u>: Please be aware, airspace-security requirements can result in operational delays or scheduling adjustments. The on-site communicator must be on-site and able to: immediately answer telephone calls from the TSA/FAA for control, coordination and information exchange, and to immediately communicate TSA/FAA instructions—in real time—to the remote pilot in command and the person manipulating the flight controls of the small unmanned aircraft system. If directed by TSA/FAA to terminate operations, the RPIC must terminate all flight operations, power-down the UAS, and the OSC must report the termination/recovery/power-off to the TSA/FAA.

Note: The Remote Pilot in Command (RPIC) is accountable, and must ensure that the on-site communicator (OSC) maintains communications with the TSA/FAA during all UAS operations. If the TSA, FAA or any other external agency needs to speak with the RPIC, the OSC will immediately communicate this to the RPIC. The RPIC will safely terminate all operations *and then* communicate with the caller.

Annex 1: Application Checklists

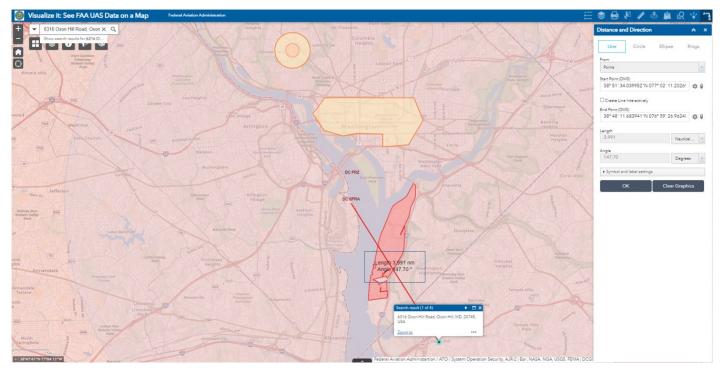
Requirements for UAS FRZ Waiver Applicants Checklist	
FAA SGI/COA Application (obtained concurrently/separately from FAA-SOSC)	
UAS-SGI/COA Waiver Request Form for DC-FRZ	
Waiver Application Letter	
Client Letter(s)	
Note: When completing your application in AAP, briefly summarize the operation's: compelling need or purpose as clearly stated in the client letter; scope (number and size) of all requested or supporting operations; duration and/or frequency of all requested operations. Place this operational summary in the "Purpose/Comments" section, located under the "Itinerary" tab in your AAP application.	
Large Scale Map (detailed)	
Small Scale Map (overview)	
UAS Characteristics/ID	
Photos of UAS	
Remote Pilot in Command (RPIC):	
On-site Communicator (OSC)	

Requirements for UAS FRZ Waiver Applicants Checklist (within <7nm of DCA VOR/DME)	
FAA SGI/COA Application (obtained concurrently/separately from FAA-SOSC)	
UAS-SGI/COA Waiver Request Form for DC-FRZ	
Waiver Application Letter	
Client Letter(s)	
Note: When completing your application in AAP, briefly summarize the operation's: compelling need or purpose as clearly stated in the client letter; scope (number and size) of all requested or supporting operations; duration and/or frequency of all requested operations. Place this operational summary in the " Purpose/Comments " section, located under the " Itinerary " tab in your AAP application.	
Government Sponsor Letter	
LEO Coordination Information (obtained concurrently/separately) The NCRCC Law Enforcement Desk can be reached at (866) 598-9528 Note: Copy the LEO contact information (name and phone number) provided to you by the LE Desk into the "Purpose/Comments" section of your AAP waiver application.	
Large Scale Map (detailed)	
Small Scale Map (overview)	
UAS Characteristics/ID	
Photos of UAS Device(s)	
Remote Pilot in Command (RPIC):	
On-site Communicator (OSC)	

Annex 2: Example Maps

These maps were produced on the following website: <u>https://faa.maps.arcgis.com/apps/webappviewer/index.html?id=9c2e4406710048e19806ebf6a06754ad</u>

Overview Map Example:



Detailed Map Example:

