U.S. Department of Transportation
Federal Aviation Administration

Unmanned Aircraft System (UAS) Monthly Operational Flight Report

User Guide

Record of Updates

Date	Updated By	Update
1/29/21	Kim Merchant	Added instructions for new Part 107 waiver fields
3/12/21	Kim Merchant	Removed references to empty leg flights

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Introduction to the Unmanned Aircraft System (UAS) Monthly Operational Flight Report

The UAS Monthly Operational Flight Report is the means for the UAS Integration Office and other Federal Aviation Administration (FAA) offices with the responsibility of safely integrating UAS into the National Airspace System (NAS) to gather operational flight data with an emphasis on Detect and Avoid (DAA) technology. This data, when aggregated and correlated to accident/incident/ occurrence/anomaly data, will assist with expanding safety case approvals, setting performance standards, and informing future rulemaking.

Design of the UAS Monthly Operational Flight Report

The UAS Monthly Operational Flight Report is comprised of multiple format options based on consolidating reporting requirements of multiple FAA offices and providing flexibility for the respondents. The format options include the following:

Standard Report

The standard report is for respondents whose only reporting requirements are to the Partnership for Safety Program (PSP) or BEYOND program. Within the standard report, the respondent has two options:

1. Aggregate the data for all flights that occur during the month that do not utilize DAA technology in the Summary Flight Report form. Populate the Detailed Flight Report form and the DAA Details form at the individual flight level for all flights during the month that do utilize DAA technology.
2. Populate the Detailed Flight Report form for all flights during the month at the individual flight level and the DAA Details form for flights that utilize DAA technology.

Part 91 Waiver Reporting Requirements

The reporting requirements for respondents who are required to submit a monthly report to the Part 91 waiver team are much the same as the fields in the Standard Report with four additional fields. Populate the Standard Report form, including two additional fields (identified on the form) for all flights during the month. Populate the DAA Details form for flights that utilize DAA technology, including two additional fields (identified on the form). Upon submission of the form, the UAS Integration Office generates the output report required by the Part 91 waiver team.

Part 107 Waiver Report

The Part 107 Detailed Flight Report form is for respondents operating under a Part 107 waiver that includes a requirement to submit a monthly report to the Administrator at 9-afs-820-Part107Reports@faa.gov. Populate the Part 107 Detailed Flight Report form for all flights during the month and the DAA Details form for flights that utilize DAA technology. Upon submission of the form, the UAS Integration Office generates the output report required by the Flight Standards Office. Respondents may choose to use the Part 107 Detailed Flight Report form for all flights that occur during the month or use the Part 107 Detailed Flight Report form only for the flights with waiver reporting requirements and use the standard report for the other flights during the month.

40102(a) and 40125 Certificates of Authorization (COA) Report

The COA report is for respondents operating under a 40102(a) or 40125 COA. Participants operating under these COAs are required to submit a monthly report to the COA Application Processing System (CAPS) or via e-mail to the Safety Management and Future Systems Branch (AJV-P22). The respondent has two options:

1. Submit the COA Detailed Flight Report form for all flights that occur during the month and the DAA Details form for flights that utilize DAA technology. Upon submission of these forms, the UAS Integration Office generates the output report to submit to AJV-P22 via e-mail.

2. Use CAPS to complete the monthly COA reporting requirement. Complete and submit to the UAS Integration Office the COA Partial Flight Report form for all flights that occur during the month and the DAA Details form for flights that utilize DAA technology.

44807 Exemption Report

The 44807 Exemption report is for respondents who are required to submit a monthly report to the Emerging Technologies, UAS Tactical Operations Office (AJV-115). As with the standard report, the respondent has two options:
1. Aggregate the data for all flights that occur during the month that do not utilize DAA technology in the 44807 Summary Flight Report form. Populate the 44807 Detailed Flight Report form and the DAA Details form at the individual flight level for all flights during the month that do utilize DAA technology.
2. Populate the 44807 Detailed Flight Report form for all flights during the month at the individual flight level and the DAA Details form for flights that utilize DAA technology.
Upon submission of these forms, the UAS Integration Office generates the output report to submit to AJV-115 via e-mail.

Tour of the Report Workbook

There is an Excel workbook for each of the format options described in the previous section. Each workbook contains multiple tabs:
- Instructions: This tab contains a summary version of the instructions in this user guide.
- Definitions: The definitions in Appendix A of this guide are also provided in the workbook for ready reference.
- Multiple tabs for the forms described in the previous section.

The following sections provide detailed guidance for completing each of the monthly flight report forms.

Standard Report Workbook

Summary Flight Report

Use this form to provide a summary report of flights each month. Do not include flights utilizing Detect and Avoid (DAA) technology in this report. Report DAA flights in the Detailed Flight Report.

Section 1: Identifying Information
1. Month and Year. In the first box, select the month in which the flights occurred. In the second box, select the year in which the flights occurred.
2. Mission Type. Select the category that best represents the purpose of the mission/flight. If the mission type was not one of the types listed below, select "Other" in the drop-down box and then briefly describe the mission type in the line below.
   a. Aeronautical Research: The purpose of the flight is to research unmanned aircraft systems and/or their components.
   b. Agricultural Delivery/Application: The purpose of the flight is to apply fertilizer, pesticide, or other agricultural products to crops, to deliver bait to traps to capture animals that are destroying crops or preying on livestock, or to transport and/or apply other materials in support of agricultural programs.
   c. Agricultural Operation: The purpose of the flight is to monitor the health of crops or livestock, or conduct other flights in support of agricultural programs that do not involve transporting cargo.
   d. Environmental Survey: The purpose of the flight is to monitor the climate, soil, and/or living things by measuring atmospheric conditions, charting changes in soil conditions over time, counting wildlife, etc.

e. Infrastructure Inspection (Linear): The purpose of the flight is to inspect man-made constructions that extend in a nearly straight line. Examples include inspections of roads, power lines, railway lines, canals, pipelines, and fences.
f. Infrastructure Inspection (Non-Linear): The purpose of the flight is to inspect man-made constructions that do not extend in a nearly straight line. Examples include buildings and aircraft.
g. Package Delivery: The purpose of the flight is to transport packages from one location to another.
h. Public Safety: The purpose of the flight is for law enforcement, fire, or emergency medical services departments/agencies to protect the welfare of the general public.

3. Flight Type. If the flight type is the same for all flights completed during the month, select the purpose of the flight: operational, functional check, or training. If the flight type is not the same for all flights, leave this field blank. You will group the flights in Section 2 by the flight type instead.
a. Operational: The purpose of the flight is to complete a routine business function.
b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.
c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.

4. Launch Location. Enter the latitude and longitude in the two boxes. (Any format of geographical coordinates is accepted but decimal coordinates are preferred [example: 38.820450,-77.050552].)

5. Certificate of Waiver, Exemption, or Authorization Number(s). Enter the identifying number of the authorizing document under which the flights occurred.

6. Ground Population Density. Using general definitions, characterize the ground population density beneath the flight (or the majority of the flight) as rural, suburban, or urban. A high degree of accuracy is not required.
a. Rural: Rural areas comprise open country and towns with fewer than 2,500 residents. For those interested in a more specific density definition, a rural area contains up to 100 people per square mile.
b. Suburban: Suburban areas comprise the outlying district of a city. For those interested in a more specific density definition, a suburban area contains between 101 and 7,000 people per square mile.
c. Urban: Urban areas comprise the main city or metropolitan area. For those interested in a more specific density definition, an urban area contains more than 7,000 people per square mile.

7. ATC Communication Type. If the crew communicated with air traffic control (ATC), identify whether they used text or voice communication. If the crew did not communicate with ATC, leave this field blank.

8. ATC Communication Method. If the crew communicated with air traffic control (ATC), indicate the technology used to communicate. If the technology used was not one of the types listed, select "Other" in the drop-down box and then briefly describe the communication method in the line below. If the crew did not communicate with ATC, leave this field blank.

Section 2: Flight Summary

In this section, aggregate all flights not utilizing DAA technology by the aircraft and the flight type.

1. Aircraft Nickname or Registration Number. Provide the unique identifier of the aircraft that was flown. Depending on the weight of the aircraft and when the aircraft was registered, the unique identifier may be the nickname assigned to the aircraft when registering it in DroneZone or it may be the registration number assigned to the aircraft when registering it using AC Form 8050-1.

2. Flight Type. If the flight type is the same for all flights completed during the month, leave this field blank. You populated the flight type in Section 1 instead. If the flight type is not the same for all flights completed during the month, select one of the following flight types:
    a. Operational: The purpose of the flight is to complete a routine business function.
    b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.
    c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.
3. Total # of Flights. Enter the total number of flights flown during month by the aircraft identified in the first column and by the flight type selected in the second column.
4. Total # of Hours. Enter the total number of hours flown during the number of flights identified in the previous column.
5. # of Flights During Which Anomalies Occurred. Enter the number of flights in the month associated with the aircraft and flight type specified in the first two columns during which an event (e.g., equipment malfunction or loss of a safety-critical communication or navigation link) occurred that does not meet the reporting criteria of an accident, incident, or occurrence but adversely affects the operation of any public or civil unmanned aircraft system between the time that the system is activated with the purpose of flight and the time that the system is deactivated at the conclusion of its flight, in which (1) a mitigation strategy is executed (via application of technology and/or procedures); or (2) the aircraft exceeds its operational boundaries.
6. # of Flights Carrying Hazardous Materials. If the mission type is not agricultural delivery/application or package delivery, leave this field blank. If the mission type is agricultural delivery/application or package delivery, enter the number of flights in the month associated with the aircraft and flight type specified in the first two columns that carried hazardous materials.

Detailed Flight Report

Use this form to provide a detailed report at the individual flight level each month. Or if you use the Summary Flight Report, use this form to report flights utilizing DAA technology. Do not include flights reported on this form in the Summary Flight Report.

If you operate under a Part 91 authorization that includes a requirement to submit a monthly report to the Administrator at 9-UAS-91.113Waivers@faa.gov, populate the Detailed Flight Report form for all flights during the month, including the Airspace Class and Exceeded Operational Parameters in Waiver Application fields.

Section 1: Summary Information
1. Month and Year. In the first box, select the month in which the flights occurred. In the second box, select the year in which the flights occurred.
2. Time Zone Used to Record Flight Times. Indicate whether the time is local time or coordinated universal time (UTC) time.
3. Certificate of Waiver, Exemption, or Authorization Number(s). Enter the identifying number of the authorizing document under which the flights occurred.
4. Mission Type. Select the category that best represents the purpose of the mission/flight. If the mission type was not one of the types listed below, select "Other" in the drop-down box and then briefly describe the mission type in the line below.
    a. Aeronautical Research: The purpose of the flight is to research unmanned aircraft systems and/or their components.
    b. Agricultural Delivery/Application: The purpose of the flight is to apply fertilizer, pesticide, or other agricultural products to crops, to deliver bait to traps to capture animals that are destroying crops or preying on livestock, or to transport and/or apply other materials in support of agricultural programs.

     c.   Agricultural Operation: The purpose of the flight is to monitor the health of crops or livestock, or conduct other flights in support of agricultural programs that do not involve transporting cargo.

     d.   Environmental Survey: The purpose of the flight is to monitor the climate, soil, and/or living things by measuring atmospheric conditions, charting changes in soil conditions over time, counting wildlife, etc.

     e.   Infrastructure Inspection (Linear): The purpose of the flight is to inspect man-made constructions that extend in a nearly straight line. Examples include inspections of roads, power lines, railway lines, canals, pipelines, and fences.

     f.   Infrastructure Inspection (Non-Linear): The purpose of the flight is to inspect man-made constructions that do not extend in a nearly straight line. Examples include buildings and aircraft.

     g.   Package Delivery: The purpose of the flight is to transport packages from one location to another.

     h.   Public Safety: The purpose of the flight is for law enforcement, fire, or emergency medical services departments/agencies to protect the welfare of the general public.

5. Flight Type. If the flight type is the same for all flights completed during the month, select the purpose of the flight: operational, functional check, or training. If the flight type is not the same for all flights, leave this field blank. You will identify the flight type in Section 2 instead.

     a.   Operational: The purpose of the flight is to complete a routine business function.

     b.   Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.

     c.   Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.

6. Agricultural Deliveries/Applications and Package Deliveries. This question only applies to the Agricultural Delivery/Application and Package Delivery mission types.

     a.   Did ALL flights contain HAZMAT cargo? Select No or Yes.

     b.   Were all flights WITHOUT HAZMAT cargo? Select No or Yes.

If the answer to either of the previous questions is "Yes", then leave the "Cargo Contained HAZMAT?" question in Section 2 blank.

7. ATC Communication Type. If the crew communicated with air traffic control (ATC), identify whether they used text or voice communication. If the crew did not communicate with ATC, leave this field blank.

8. ATC Communication Method. If the crew communicated with air traffic control (ATC), indicate the technology used to communicate. If the technology used was not one of the types listed, select "Other" in the drop-down box and then briefly describe the communication method in the line below. If the crew did not communicate with ATC, leave this field blank.

Section 2: Flight Data

1. Flight #. Number the flights sequentially. The purpose of this number is to provide a link to the information on the DAA Details form.

2. Aircraft Nickname or Registration Number. Provide the unique identifier of the aircraft that was flown. Depending on the weight of the aircraft and when the aircraft was registered, the unique identifier may be the nickname assigned to the aircraft when registering it in DroneZone or it may be the registration number assigned to the aircraft when registering it using AC Form 8050-1.

3. Ground Population Density. Using general definitions, characterize the ground population density beneath the flight (or the majority of the flight) as rural, suburban, or urban. A high degree of accuracy is not required.

a. Rural: Rural areas comprise open country and towns with fewer than 2,500 residents. For those interested in a more specific density definition, a rural area contains up to 100 people per square mile.
   b. Suburban: Suburban areas comprise the outlying district of a city. For those interested in a more specific density definition, a suburban area contains between 101 and 7,000 people per square mile.
   c. Urban: Urban areas comprise the main city or metropolitan area. For those interested in a more specific density definition, an urban area contains more than 7,000 people per square mile.
4. Cargo Contained HAZMAT? Leave this field blank if the answer to one of the HAZMAT questions in Section 1 is "Yes." Otherwise, indicate whether the aircraft transported HAZMAT cargo during the flight by selecting No or Yes.
5. Flight Type. Leave this field blank if the flight type is the same for all flights completed during the month. If there are multiple flight types during the month, select the purpose of the flight: operational, functional check, or training.
   a. Operational: The purpose of the flight is to complete a routine business function.
   b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.
   c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.
6. Launch Date. Enter the date that the flight departed from the launch location.
7. Launch Time. Enter the time that the flight departed from the launch location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.
8. Launch Location Latitude. Enter the latitude where the flight began. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: 38.820450).
9. Launch Location Longitude. Enter the longitude where the flight began. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: -77.050552).
10. Recovery Time. Enter the time that the flight terminated at the recovery location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.

DAA Details

This form is an addendum to the Detailed Flight Report. The purpose of this form is to capture details about each encounter **within 3 nautical miles horizontally and 2,000 feet vertically** during each flight (to the extent feasible).

If you operate under a Part 91 authorization that includes a requirement to submit a monthly report to the Administrator at 9-UAS-91.113Waivers@faa.gov, populate the DAA Details form for flights that utilize DAA technology and report tracks, including the Number of Requested Course Deviations While Receiving ATC Services and the Number of Course Deviations Conducted While Not Receiving ATC Services fields.

1. Flight #. In order to link the flight and DAA data, enter the corresponding flight number from the Detailed Flight Report of the flight for which you are providing encounter data. This also enables the calculation of the total DAA flight hours during the month.
2. Track #. Number the tracks of each flight sequentially. Restart the track numbering for each flight. For example, if three tracks were reported during Flight 01 and two tracks were reported during Flight 03, the numbering should look like this:

Flight #	Track #
01	01
01	02
01	03
03	01
03	02

3. Cooperative or Non-Cooperative Sensor? Identify whether the DAA sensor that reported the track was a cooperative or a non-cooperative sensor.
4. What was UAS response to alert: monitor or maneuver? Select Monitor (the alert was cautionary and required monitoring only) or Maneuver (the alert initiated an avoidance response).
5. Range at Closest Point of Approach for each Encounter. Provide the closest distance reached between your UAS and the other aircraft/object during the encounter. Either provide the horizontal and vertical distances or the slant range. Identify the unit of measurement used to record the distance(s).

Part 107 Waiver Report Workbook

These instructions apply to all variations of the Part 107 Waiver Report Workbook. The instructions specific to the DAA or Parameter versions will be noted.

Part 107 Detailed Flight Report

Complete this form if you are required to submit a monthly report to the Administrator at 9-afs-820-Part107Reports@faa.gov. The fields shaded in yellow on the form are not required of all participants in the PSP or BEYOND program.

Section 1: Summary Information

1. Month and Year. In the first box, select the month in which the flights occurred. In the second box, select the year in which the flights occurred.
2. Time Zone Used to Record Flight Times. Indicate whether the time is local time or coordinated universal time (UTC) time.
3. Certificate of Waiver, Exemption, or Authorization Number(s). Enter the identifying number of the authorizing document under which the flights occurred.
4. Mission Type. Select the category that best represents the purpose of the mission/flight. If the mission type was not one of the types listed below, select "Other" in the drop-down box and then briefly describe the mission type in the line below.
   a. Aeronautical Research: The purpose of the flight is to research unmanned aircraft systems and/or their components.
   b. Agricultural Delivery/Application: The purpose of the flight is to apply fertilizer, pesticide, or other agricultural products to crops, to deliver bait to traps to capture animals that are destroying crops or preying on livestock, or to transport and/or apply other materials in support of agricultural programs.
   c. Agricultural Operation: The purpose of the flight is to monitor the health of crops or livestock, or conduct other flights in support of agricultural programs that do not involve transporting cargo.
   d. Environmental Survey: The purpose of the flight is to monitor the climate, soil, and/or living things by measuring atmospheric conditions, charting changes in soil conditions over time, counting wildlife, etc.
   e. Infrastructure Inspection (Linear): The purpose of the flight is to inspect man-made constructions that extend in a nearly straight line. Examples include inspections of roads, power lines, railway lines, canals, pipelines, and fences.

   f. Infrastructure Inspection (Non-Linear): The purpose of the flight is to inspect man-made constructions that do not extend in a nearly straight line. Examples include buildings and aircraft.

   g. Package Delivery: The purpose of the flight is to transport packages from one location to another.

   h. Public Safety: The purpose of the flight is for law enforcement, fire, or emergency medical services departments/agencies to protect the welfare of the general public.

5. Flight Type. If the flight type is the same for all flights completed during the month, select the purpose of the flight: operational, functional check, or training. If the flight type is not the same for all flights, leave this field blank. You will identify the flight type in Section 2 instead.

   a. Operational: The purpose of the flight is to complete a routine business function.

   b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.

   c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.

6. Agricultural Deliveries/Applications and Package Deliveries. This question only applies to the Agricultural Delivery/Application and Package Delivery mission types.

   a. Did ALL flights contain HAZMAT cargo? Select No or Yes.

   b. Were all flights WITHOUT HAZMAT cargo? Select No or Yes.

  If the answer to either of the previous questions is "Yes", then leave the "Cargo Contained HAZMAT?" question in Section 2 blank.

7. ATC Communication Type. If the crew communicated with air traffic control (ATC), identify whether they used text or voice communication. If the crew did not communicate with ATC, leave this field blank.

8. ATC Communication Method. If the crew communicated with air traffic control (ATC), indicate the technology used to communicate. If the technology used was not one of the types listed, select "Other" in the drop-down box and then briefly describe the communication method in the line below. If the crew did not communicate with ATC, leave this field blank.

Section 2: Flight Data

1. Flight #. Number the flights sequentially. The purpose of this number is to provide a link to the information on the DAA Details form.

2. Aircraft Nickname or Registration Number. Provide the unique identifier of the aircraft that was flown. Depending on the weight of the aircraft and when the aircraft was registered, the unique identifier may be the nickname assigned to the aircraft when registering it in DroneZone or it may be the registration number assigned to the aircraft when registering it using AC Form 8050-1.

Items 3-10 are fields required in the monthly report for certain Part 107 waivers and are not BEYOND or PSP reporting requirements.

3. RPIC Name. Provide the name of the Remote Pilot in Command (RPIC) of the flight.

4. RPIC Certificate Number. Provide the certificate number of the RPIC of the flight.

5. RPIC Location. State where the RPIC was stationed during the flight.

6. Visual Observer Name. Provide the name of the visual observer for the flight.

7. Visual Observer Certificate Number. This field is required for some, but not all, Part 107 monthly waiver reports. Provide the certificate number of the certificated airman who acted as a visual observer for a portion of the sUAS operation.

8. Visual Observer Location. State where the visual observer was stationed during the flight.

9. Name(s) of Additional Visual Observer(s). If there was more than one visual observer during the flight, list the names of the other visual observer(s).

10. Location(s) of Additional Visual Observer(s). For all visual observers listed in the previous column, state where they were stationed during the flight.

11. Ground Population Density. Using general definitions, characterize the ground population density beneath the flight (or the majority of the flight) as rural, suburban, or urban. A high degree of accuracy is not required.
    a. Rural: Rural areas comprise open country and towns with fewer than 2,500 residents. For those interested in a more specific density definition, a rural area contains up to 100 people per square mile.
    b. Suburban: Suburban areas comprise the outlying district of a city. For those interested in a more specific density definition, a suburban area contains between 101 and 7,000 people per square mile.
    c. Urban: Urban areas comprise the main city or metropolitan area. For those interested in a more specific density definition, an urban area contains more than 7,000 people per square mile.
12. Cargo Contained HAZMAT? Leave this field blank if the answer to one of the HAZMAT questions in Section 1 is "Yes." Otherwise, indicate whether the aircraft transported HAZMAT cargo during the flight by selecting No or Yes.
13. Flight Type. Leave this field blank if the flight type is the same for all flights completed during the month. If there are multiple flight types during the month, select the purpose of the flight: operational, functional check, or training.
    a. Operational: The purpose of the flight is to complete a routine business function.
    b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.
    c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.
14. Launch Date. Enter the date that the flight departed from the launch location.
15. Launch Time. Enter the time that the flight departed from the launch location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.
16. Launch Location Latitude. Enter the latitude where the flight began. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: 38.820450).
17. Launch Location Longitude. Enter the longitude where the flight began. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: -77.050552).
18. Recovery Time. Enter the time that the flight terminated at the recovery location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.

Items 19-24 are fields required in the monthly report for certain Part 107 waivers and are not BEYOND or PSP reporting requirements.
19. [Only required for waivers with requirements to report if the UAS exceeded the operational parameters described in the waiver application] Exceeded Operational Parameters in Waiver Application. Indicate whether the UAS exceeded the operational parameters described in the waiver application by selecting No or Yes. (A blank field is assumed to be No.)
20. [Only required for waivers with requirements to report route of UAS] Recovery Location Latitude. Enter the latitude where the flight terminated. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: 38.820450).
21. [Only required for waivers with requirements to report route of UAS] Recovery Location Longitude. Enter the longitude where the flight terminated. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: -77.050552).
22. [Only required for waivers with requirements to report number of launch time changes made to remain well clear of other aircraft] Number of Launch Time Changes Made to Remain Well Clear. Enter the number of times that the pilot changed the scheduled launch time in order to remain well clear of other aircraft in the vicinity. (A blank field is assumed to be 0.)

23. [Only required for waivers with requirements to report the maximum altitude of the flight] Maximum Altitude of Flight. Enter the maximum altitude reached by the aircraft during the flight. Identify the unit of measurement used to record the altitude.
24. [Only required for waivers with requirements to report the maximum distance of the flight] Maximum Distance of Flight. Enter the maximum distance that the aircraft traveled during the flight. Identify the unit of measurement used to record the distance.

DAA Details

This form is an addendum to the Detailed Flight Report. The purpose of this form is to capture details about each encounter **within 3 nautical miles horizontally and 2,000 feet vertically** during each flight (to the extent feasible).

1. Flight #. In order to link the flight and DAA data, enter the corresponding flight number from the Detailed Flight Report of the flight for which you are providing encounter data. This also enables the calculation of the total DAA flight hours during the month.
2. Track #. Number the tracks of each flight sequentially. Restart the track numbering for each flight. For example, if three tracks were reported during Flight 01 and two tracks were reported during Flight 03, the numbering should look like this:

Flight #	Track #
01	01
01	02
01	03
03	01
03	02

3. Cooperative or Non-Cooperative Sensor? Identify whether the DAA sensor that reported the track was a cooperative or a non-cooperative sensor.
4. What was UAS response to alert: monitor or maneuver? Select Monitor (the alert was cautionary and required monitoring only) or Maneuver (the alert initiated an avoidance response).
5. Range at Closest Point of Approach for each Encounter. Provide the closest distance reached between your UAS and the other aircraft/object during the encounter. Either provide the horizontal and vertical distances or the slant range. Identify the unit of measurement used to record the distance(s).

40102(a) and 40125 Certificates of Authorization Report Workbook

40102(a)/40125 Detailed Flight Report

Complete this form if you are required to submit a monthly report to the FAA via the UAS COA Application Processing System (CAPS) or the AJV-P22 email and you choose the latter. The fields shaded in yellow on the form are not required of all participants in the PSP or BEYOND program.

Section 1: Summary Information

1. Proponent. This field is required for the COA monthly report. Provide the name of the person responsible for the operation.
2. Contact Information. This field is required for the COA monthly report. Provide the telephone number and the e-mail address of the proponent.
3. Month and Year. In the first box, select the month in which the flights occurred. In the second box, select the year in which the flights occurred.
4. Time Zone Used to Record Flight Times. Indicate whether the time is local time or coordinated universal time (UTC) time.
5. Certificate of Waiver, Exemption, or Authorization Number(s). Enter the identifying number of the authorizing document under which the flights occurred.

6. Mission Type. Select the category that best represents the purpose of the mission/flight. If the mission type was not one of the types listed below, select "Other" in the drop-down box and then briefly describe the mission type in the line below.
    a. Aeronautical Research: The purpose of the flight is to research unmanned aircraft systems and/or their components.
    b. Agricultural Delivery/Application: The purpose of the flight is to apply fertilizer, pesticide, or other agricultural products to crops, to deliver bait to traps to capture animals that are destroying crops or preying on livestock, or to transport and/or apply other materials in support of agricultural programs.
    c. Agricultural Operation: The purpose of the flight is to monitor the health of crops or livestock, or conduct other flights in support of agricultural programs that do not involve transporting cargo.
    d. Environmental Survey: The purpose of the flight is to monitor the climate, soil, and/or living things by measuring atmospheric conditions, charting changes in soil conditions over time, counting wildlife, etc.
    e. Infrastructure Inspection (Linear): The purpose of the flight is to inspect man-made constructions that extend in a nearly straight line. Examples include inspections of roads, power lines, railway lines, canals, pipelines, and fences.
    f. Infrastructure Inspection (Non-Linear): The purpose of the flight is to inspect man-made constructions that do not extend in a nearly straight line. Examples include buildings and aircraft.
    g. Package Delivery: The purpose of the flight is to transport packages from one location to another.
    h. Public Safety: The purpose of the flight is for law enforcement, fire, or emergency medical services departments/agencies to protect the welfare of the general public.
7. Flight Type. If the flight type is the same for all flights completed during the month, select the purpose of the flight: operational, functional check, or training. If the flight type is not the same for all flights, leave this field blank. You will identify the flight type in Section 2 instead.
    a. Operational: The purpose of the flight is to complete a routine business function.
    b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.
    c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.
8. Total Operational Hours. This field is required for the COA monthly report. Provide the total number of hours that the UAS flew during the month.
9. Total Control Station Operational Hours. This field is required for the COA monthly report. Provide the total number of hours that the control station was used during the month.
10. ATC Communication Type. If the crew communicated with air traffic control (ATC), identify whether they used text or voice communication. If the crew did not communicate with ATC, leave this field blank.
11. ATC Communication Method. If the crew communicated with air traffic control (ATC), indicate the technology used to communicate. If the technology used was not one of the types listed, select "Other" in the drop-down box and then briefly describe the communication method in the line below. If the crew did not communicate with ATC, leave this field blank.
12. Agricultural Deliveries/Applications and Package Deliveries. This question only applies to the Agricultural Delivery/Application and Package Delivery mission types.
    a. Did ALL flights contain HAZMAT cargo? Select No or Yes.
    b. Were all flights WITHOUT HAZMAT cargo? Select No or Yes.
If the answer to either of the previous questions is "Yes", then leave the "Cargo Contained HAZMAT?" question in Section 2 blank.

13. Total Number of Deviations from ATC Instructions and/or Letters of Agreement/Procedures. This field is required for the COA monthly report. State the number of deviations from Air Traffic Control (ATC) instructions and/or procedures during the month.
14. Describe Other Operational/Coordination Issues Which Occurred During the Month. This field is required for the COA monthly report. Briefly describe other issues related to air traffic operations or coordination during the month.

Section 2: Flight Data

1. Flight #. Number the flights sequentially. The purpose of this number is to provide a link to the information on the DAA Details form.
2. Aircraft Nickname or Registration Number. Provide the unique identifier of the aircraft that was flown. Depending on the weight of the aircraft and when the aircraft was registered, the unique identifier may be the nickname assigned to the aircraft when registering it in DroneZone or it may be the registration number assigned to the aircraft when registering it using AC Form 8050-1.
3. Ground Population Density. Using general definitions, characterize the ground population density beneath the flight (or the majority of the flight) as rural, suburban, or urban. A high degree of accuracy is not required.
   a. Rural: Rural areas comprise open country and towns with fewer than 2,500 residents. For those interested in a more specific density definition, a rural area contains up to 100 people per square mile.
   b. Suburban: Suburban areas comprise the outlying district of a city. For those interested in a more specific density definition, a suburban area contains between 101 and 7,000 people per square mile.
   c. Urban: Urban areas comprise the main city or metropolitan area. For those interested in a more specific density definition, an urban area contains more than 7,000 people per square mile.
4. Cargo Contained HAZMAT? Leave this field blank if the answer to one of the HAZMAT questions in Section 1 is "Yes." Otherwise, indicate whether the aircraft transported HAZMAT cargo during the flight by selecting No or Yes.
5. Flight Type. Leave this field blank if the flight type is the same for all flights completed during the month. If there are multiple flight types during the month, select the purpose of the flight: operational, functional check, or training.
   a. Operational: The purpose of the flight is to complete a routine business function.
   b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.
   c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.
6. Launch Date. Enter the date that the flight departed from the launch location.
7. Launch Time. Enter the time that the flight departed from the launch location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.
8. Launch Location Latitude. Enter the latitude where the flight began. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: 38.820450).
9. Launch Location Longitude. Enter the longitude where the flight began. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: -77.050552).
10. Recovery Time. Enter the time that the flight terminated at the recovery location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.
11. Pilot Duty Time per PIC. This field is required for the COA monthly report. Leave the field blank if there was only one Pilot in Command (PIC) for the flight. If there were multiple PICs for the flight, enter the number of minutes that they each were in command separated by a comma (e.g., 34, 11).

40102(a)/40125 Partial Flight Report

Complete this form if you are required to submit a monthly report to the FAA via the UAS Certificate of Authorization (COA) Application Processing System (CAPS) or the AJV-P22 email and you choose the former. This form includes fields required of participants in the PSP or BEYOND program that are not required in CAPS.

Section 1: Summary Information

1. Time Zone Used to Record Flight Times. Indicate whether the time is local time or coordinated universal time (UTC) time.
2. Certificate of Waiver, Exemption, or Authorization Number(s). Enter the identifying number of the authorizing document under which the flights occurred.
3. Mission Type. Select the category that best represents the purpose of the mission/flight. If the mission type was not one of the types listed below, select "Other" in the drop-down box and then briefly describe the mission type in the line below.
   a. Aeronautical Research: The purpose of the flight is to research unmanned aircraft systems and/or their components.
   b. Agricultural Delivery/Application: The purpose of the flight is to apply fertilizer, pesticide, or other agricultural products to crops, to deliver bait to traps to capture animals that are destroying crops or preying on livestock, or to transport and/or apply other materials in support of agricultural programs.
   c. Agricultural Operation: The purpose of the flight is to monitor the health of crops or livestock, or conduct other flights in support of agricultural programs that do not involve transporting cargo.
   d. Environmental Survey: The purpose of the flight is to monitor the climate, soil, and/or living things by measuring atmospheric conditions, charting changes in soil conditions over time, counting wildlife, etc.
   e. Infrastructure Inspection (Linear): The purpose of the flight is to inspect man-made constructions that extend in a nearly straight line. Examples include inspections of roads, power lines, railway lines, canals, pipelines, and fences.
   f. Infrastructure Inspection (Non-Linear): The purpose of the flight is to inspect man-made constructions that do not extend in a nearly straight line. Examples include buildings and aircraft.
   g. Package Delivery: The purpose of the flight is to transport packages from one location to another.
   h. Public Safety: The purpose of the flight is for law enforcement, fire, or emergency medical services departments/agencies to protect the welfare of the general public.
4. Flight Type. If the flight type is the same for all flights completed during the month, select the purpose of the flight: operational, functional check, or training. If the flight type is not the same for all flights, leave this field blank. You will identify the flight type in Section 2 instead.
   a. Operational: The purpose of the flight is to complete a routine business function.
   b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.
   c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.
5. Agricultural Deliveries/Applications and Package Deliveries. This question only applies to the Agricultural Delivery/Application and Package Delivery mission types.
   a. Did ALL flights contain HAZMAT cargo? Select No or Yes.
   b. Were all flights WITHOUT HAZMAT cargo? Select No or Yes.
   If the answer to either of the previous questions is "Yes", then leave the "Cargo Contained HAZMAT?" question in Section 2 blank.

6. ATC Communication Type. If the crew communicated with air traffic control (ATC), identify whether they used text or voice communication. If the crew did not communicate with ATC, leave this field blank.
7. ATC Communication Method. If the crew communicated with air traffic control (ATC), indicate the technology used to communicate. If the technology used was not one of the types listed, select "Other" in the drop-down box and then briefly describe the communication method in the line below. If the crew did not communicate with ATC, leave this field blank.

Section 2: Flight Data
1. Flight #. Number the flights sequentially. The purpose of this number is to provide a link to the information on the DAA Details form.
2. Aircraft Nickname or Registration Number. Provide the unique identifier of the aircraft that was flown. Depending on the weight of the aircraft and when the aircraft was registered, the unique identifier may be the nickname assigned to the aircraft when registering it in DroneZone or it may be the registration number assigned to the aircraft when registering it using AC Form 8050-1.
3. Ground Population Density. Using general definitions, characterize the ground population density beneath the flight (or the majority of the flight) as rural, suburban, or urban. A high degree of accuracy is not required.
    a. Rural: Rural areas comprise open country and towns with fewer than 2,500 residents. For those interested in a more specific density definition, a rural area contains up to 100 people per square mile.
    b. Suburban: Suburban areas comprise the outlying district of a city. For those interested in a more specific density definition, a suburban area contains between 101 and 7,000 people per square mile.
    c. Urban: Urban areas comprise the main city or metropolitan area. For those interested in a more specific density definition, an urban area contains more than 7,000 people per square mile.
4. Cargo Contained HAZMAT? Leave this field blank if the answer to one of the HAZMAT questions in Section 1 is "Yes." Otherwise, indicate whether the aircraft transported HAZMAT cargo during the flight by selecting No or Yes.
5. Flight Type. Leave this field blank if the flight type is the same for all flights completed during the month. If there are multiple flight types during the month, select the purpose of the flight: operational, functional check, or training.
    a. Operational: The purpose of the flight is to complete a routine business function.
    b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.
    c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.
6. Launch Date. Enter the date that the flight departed from the launch location.
7. Launch Time. Enter the time that the flight departed from the launch location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.
8. Recovery Time. Enter the time that the flight terminated at the recovery location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.

DAA Details

This form is an addendum to the Detailed Flight Report. The purpose of this form is to capture details about each encounter **within 3 nautical miles horizontally and 2,000 feet vertically** during each flight (to the extent feasible).
1. Flight #. In order to link the flight and DAA data, enter the corresponding flight number from the Detailed Flight Report of the flight for which you are providing encounter data. This also enables the calculation of the total DAA flight hours during the month.

2. Track #. Number the tracks of each flight sequentially. Restart the track numbering for each flight. For example, if three tracks were reported during Flight 01 and two tracks were reported during Flight 03, the numbering should look like this:

Flight #	Track #
01	01
01	02
01	03
03	01
03	02

3. Cooperative or Non-Cooperative Sensor? Identify whether the DAA sensor that reported the track was a cooperative or a non-cooperative sensor.
4. What was UAS response to alert: monitor or maneuver? Select Monitor (the alert was cautionary and required monitoring only) or Maneuver (the alert initiated an avoidance response).
5. Range at Closest Point of Approach for each Encounter. Provide the closest distance reached between your UAS and the other aircraft/object during the encounter. Either provide the horizontal and vertical distances or the slant range. Identify the unit of measurement used to record the distance(s).

44807 Exemption Report

44807 Summary Flight Report

Complete this form or the 44807 Detailed Flight Report if you are required to submit a monthly report to the FAA at 9-AJV-115-UASOrganization@faa.gov. Use this form to provide a summary report of flights each month. Do not include flights utilizing Detect and Avoid (DAA) technology in this report. Report DAA flights in the Detailed Flight Report. This form includes fields (shaded in yellow) not required of all participants in the PSP or BEYOND program.

Section 1: Identifying Information

1. Month and Year. In the first box, select the month in which the flights occurred. In the second box, select the year in which the flights occurred.
2. Mission Type. Select the category that best represents the purpose of the mission/flight. If the mission type was not one of the types listed below, select "Other" in the drop-down box and then briefly describe the mission type in the line below.
   a. Aeronautical Research: The purpose of the flight is to research unmanned aircraft systems and/or their components.
   b. Agricultural Delivery/Application: The purpose of the flight is to apply fertilizer, pesticide, or other agricultural products to crops, to deliver bait to traps to capture animals that are destroying crops or preying on livestock, or to transport and/or apply other materials in support of agricultural programs.
   c. Agricultural Operation: The purpose of the flight is to monitor the health of crops or livestock, or conduct other flights in support of agricultural programs that do not involve transporting cargo.
   d. Environmental Survey: The purpose of the flight is to monitor the climate, soil, and/or living things by measuring atmospheric conditions, charting changes in soil conditions over time, counting wildlife, etc.
   e. Infrastructure Inspection (Linear): The purpose of the flight is to inspect man-made constructions that extend in a nearly straight line. Examples include inspections of roads, power lines, railway lines, canals, pipelines, and fences.
   f. Infrastructure Inspection (Non-Linear): The purpose of the flight is to inspect man-made constructions that do not extend in a nearly straight line. Examples include buildings and aircraft.

g. Package Delivery: The purpose of the flight is to transport packages from one location to another.

h. Public Safety: The purpose of the flight is for law enforcement, fire, or emergency medical services departments/agencies to protect the welfare of the general public.

3. Flight Type. If the flight type is the same for all flights completed during the month, select the purpose of the flight: operational, functional check, or training. If the flight type is not the same for all flights, leave this field blank. You will group the flights in Section 2 by the flight type instead.

    a. Operational: The purpose of the flight is to complete a routine business function.

    b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.

    c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.

4. Launch Location. Enter the latitude and longitude in the two boxes. (Any format of geographical coordinates is accepted but decimal coordinates are preferred [example: 38.820450,-77.050552].)

5. Certificate of Waiver, Exemption, or Authorization Number(s). Enter the identifying number of the authorizing document under which the flights occurred.

6. Ground Population Density. Using general definitions, characterize the ground population density beneath the flight (or the majority of the flight) as rural, suburban, or urban. A high degree of accuracy is not required.

    a. Rural: Rural areas comprise open country and towns with fewer than 2,500 residents. For those interested in a more specific density definition, a rural area contains up to 100 people per square mile.

    b. Suburban: Suburban areas comprise the outlying district of a city. For those interested in a more specific density definition, a suburban area contains between 101 and 7,000 people per square mile.

    c. Urban: Urban areas comprise the main city or metropolitan area. For those interested in a more specific density definition, an urban area contains more than 7,000 people per square mile.

7. Total Aircraft Operational Hours. This field is required for the 44807 Exemption monthly report. Provide the total number of hours that the UAS flew during the month.

8. ATC Communication Type. If the crew communicated with air traffic control (ATC), identify whether they used text or voice communication. If the crew did not communicate with ATC, leave this field blank.

9. ATC Communication Method. If the crew communicated with air traffic control (ATC), indicate the technology used to communicate. If the technology used was not one of the types listed, select "Other" in the drop-down box and then briefly describe the communication method in the line below. If the crew did not communicate with ATC, leave this field blank.

Section 2: Flight Summary

In this section, aggregate all flights not utilizing DAA technology by the aircraft and the flight type.

1. Aircraft Nickname or Registration Number. Provide the unique identifier of the aircraft that was flown. Depending on the weight of the aircraft and when the aircraft was registered, the unique identifier may be the nickname assigned to the aircraft when registering it in DroneZone or it may be the registration number assigned to the aircraft when registering it using AC Form 8050-1.

2. Name of Operator. This field is required for the 44807 Exemption monthly report. Provide the name of the UAS operator.

3. Flight Type. If the flight type is the same for all flights completed during the month, leave this field blank. You populated the flight type in Section 1 instead. If the flight type is not

the same for all flights completed during the month, select one of the following flight types:

    a. Operational: The purpose of the flight is to complete a routine business function.

    b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.

    c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.

4. Total # of Flights. Enter the total number of flights flown during month by the aircraft identified in the first column and by the flight type selected in the second column.

5. Total # of Hours. Enter the total number of hours flown during the number of flights identified in the previous column.

6. # of Flights During Which Anomalies Occurred. Enter the number of flights in the month associated with the aircraft and flight type specified in the first two columns during which an event (e.g., equipment malfunction or loss of a safety-critical communication or navigation link) occurred that does not meet the reporting criteria of an accident, incident, or occurrence but adversely affects the operation of any public or civil unmanned aircraft system between the time that the system is activated with the purpose of flight and the time that the system is deactivated at the conclusion of its flight, in which (1) a mitigation strategy is executed (via application of technology and/or procedures); or (2) the aircraft exceeds its operational boundaries.

7. # of Flights Carrying Hazardous Materials. If the mission type is not agricultural delivery/application or package delivery, leave this field blank. If the mission type is agricultural delivery/application or package delivery, enter the number of flights in the month associated with the aircraft and flight type specified in the first two columns that carried hazardous materials.

44807 Detailed Flight Report

Complete this form if you are required to submit a monthly report to the FAA at 9-AJV-115-UASOrganization@faa.gov. Use this form to provide a detailed report at the individual flight level each month. Or if you use the 44807 Summary Flight Report, use this form to report flights utilizing DAA technology. Do not include flights reported on this form in the 44807 Summary Flight Report.

Section 1: Summary Information

1. Month and Year. In the first box, select the month in which the flights occurred. In the second box, select the year in which the flights occurred.

2. Time Zone Used to Record Flight Times. Indicate whether the time is local time or coordinated universal time (UTC) time.

3. Certificate of Waiver, Exemption, or Authorization Number(s). Enter the identifying number of the authorizing document under which the flights occurred.

4. Mission Type. Select the category that best represents the purpose of the mission/flight. If the mission type was not one of the types listed below, select "Other" in the drop-down box and then briefly describe the mission type in the line below.

    a. Aeronautical Research: The purpose of the flight is to research unmanned aircraft systems and/or their components.

    b. Agricultural Delivery/Application: The purpose of the flight is to apply fertilizer, pesticide, or other agricultural products to crops, to deliver bait to traps to capture animals that are destroying crops or preying on livestock, or to transport and/or apply other materials in support of agricultural programs.

    c. Agricultural Operation: The purpose of the flight is to monitor the health of crops or livestock, or conduct other flights in support of agricultural programs that do not involve transporting cargo.

d.   Environmental Survey: The purpose of the flight is to monitor the climate, soil, and/or living things by measuring atmospheric conditions, charting changes in soil conditions over time, counting wildlife, etc.

e.   Infrastructure Inspection (Linear): The purpose of the flight is to inspect man-made constructions that extend in a nearly straight line. Examples include inspections of roads, power lines, railway lines, canals, pipelines, and fences.

f.   Infrastructure Inspection (Non-Linear): The purpose of the flight is to inspect man-made constructions that do not extend in a nearly straight line. Examples include buildings and aircraft.

g.   Package Delivery: The purpose of the flight is to transport packages from one location to another.

h.   Public Safety: The purpose of the flight is for law enforcement, fire, or emergency medical services departments/agencies to protect the welfare of the general public.

5.   Flight Type. If the flight type is the same for all flights completed during the month, select the purpose of the flight: operational, functional check, or training. If the flight type is not the same for all flights, leave this field blank. You will identify the flight type in Section 2 instead.

   a.   Operational: The purpose of the flight is to complete a routine business function.

   b.   Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.

   c.   Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.

6.   Agricultural Deliveries/Applications and Package Deliveries. This question only applies to the Agricultural Delivery/Application and Package Delivery mission types.

   a.   Did ALL flights contain HAZMAT cargo? Select No or Yes.

   b.   Were all flights WITHOUT HAZMAT cargo? Select No or Yes.

   If the answer to either of the previous questions is "Yes", then leave the "Cargo Contained HAZMAT?" question in Section 2 blank.

7.   Total Aircraft Operational Hours. This field is required for the 44807 Exemption monthly report. Provide the total number of hours that the UAS flew during the month.

8.   ATC Communication Type. If the crew communicated with air traffic control (ATC), identify whether they used text or voice communication. If the crew did not communicate with ATC, leave this field blank.

9.   ATC Communication Method. If the crew communicated with air traffic control (ATC), indicate the technology used to communicate. If the technology used was not one of the types listed, select "Other" in the drop-down box and then briefly describe the communication method in the line below. If the crew did not communicate with ATC, leave this field blank.

Section 2: Flight Data

1.   Flight #. Number the flights sequentially. The purpose of this number is to provide a link to the information on the DAA Details form.

2.   Aircraft Nickname or Registration Number. Provide the unique identifier of the aircraft that was flown. Depending on the weight of the aircraft and when the aircraft was registered, the unique identifier may be the nickname assigned to the aircraft when registering it in DroneZone or it may be the registration number assigned to the aircraft when registering it using AC Form 8050-1.

3.   Name of Operator. This field is required for the 44807 Exemption monthly report. Provide the name of the UAS operator.

4.   Ground Population Density. Using general definitions, characterize the ground population density beneath the flight (or the majority of the flight) as rural, suburban, or urban. A high degree of accuracy is not required.

a. Rural: Rural areas comprise open country and towns with fewer than 2,500 residents. For those interested in a more specific density definition, a rural area contains up to 100 people per square mile.
   b. Suburban: Suburban areas comprise the outlying district of a city. For those interested in a more specific density definition, a suburban area contains between 101 and 7,000 people per square mile.
   c. Urban: Urban areas comprise the main city or metropolitan area. For those interested in a more specific density definition, an urban area contains more than 7,000 people per square mile.
5. Cargo Contained HAZMAT? Leave this field blank if the answer to one of the HAZMAT questions in Section 1 is "Yes." Otherwise, indicate whether the aircraft transported HAZMAT cargo during the flight by selecting No or Yes.
6. Flight Type. Leave this field blank if the flight type is the same for all flights completed during the month. If there are multiple flight types during the month, select the purpose of the flight: operational, functional check, or training.
   a. Operational: The purpose of the flight is to complete a routine business function.
   b. Functional Check: The purpose of the flight is to check the performance of the UAS as part of an inspection process.
   c. Training: The purpose of the flight is to increase the proficiency of the pilot and/or other crewmembers in flying the UAS.
7. Launch Date. Enter the date that the flight departed from the launch location.
8. Launch Time. Enter the time that the flight departed from the launch location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.
9. Launch Location Latitude. Enter the latitude where the flight began. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: 38.820450).
10. Launch Location Longitude. Enter the longitude where the flight began. The form allows the geographical coordinates to be provided in any format but decimal degrees are preferred (example: -77.050552).
11. Recovery Time. Enter the time that the flight terminated at the recovery location. If using a 12-hour clock, include am or pm to designate a morning or afternoon flight.

DAA Details

This form is an addendum to the Detailed Flight Report. The purpose of this form is to capture details about each encounter **within 3 nautical miles horizontally and 2,000 feet vertically** during each flight (to the extent feasible).
1. Flight #. In order to link the flight and DAA data, enter the corresponding flight number from the Detailed Flight Report of the flight for which you are providing encounter data. This also enables the calculation of the total DAA flight hours during the month.
2. Track #. Number the tracks of each flight sequentially. Restart the track numbering for each flight. For example, if three tracks were reported during Flight 01 and two tracks were reported during Flight 03, the numbering should look like this:

Flight #	Track #
01	01
01	02
01	03
03	01
03	02

3. Cooperative or Non-Cooperative Sensor? Identify whether the DAA sensor that reported the track was a cooperative or a non-cooperative sensor.

4. What was UAS response to alert: monitor or maneuver? Select Monitor (the alert was cautionary and required monitoring only) or Maneuver (the alert initiated an avoidance response).
5. Range at Closest Point of Approach for each Encounter. Provide the closest distance reached between your UAS and the other aircraft/object during the encounter. Either provide the horizontal and vertical distances or the slant range. Identify the unit of measurement used to record the distance(s).

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User Guide

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UAS Integration Office

Appendix A: Definitions and Acronyms

Term	Definition	Source
Accident [UAS]	An occurrence associated with the operation of any public or civil unmanned aircraft system that takes place between the time that the system is activated with the purpose of flight and the time that the system is deactivated at the conclusion of its mission, in which: (1) Any person suffers death or serious injury; or (2) The aircraft has a maximum gross takeoff weight of 300 pounds or greater and sustains substantial damage.	49 CFR 830.2
Anomaly [UAS]	An event (e.g., equipment malfunction or loss of a safety-critical communication or navigation link) that does not meet the reporting criteria of an accident, incident, or occurrence but adversely affects the operation of any public or civil unmanned aircraft system between the time that the system is activated with the purpose of flight and the time that the system is deactivated at the conclusion of its flight, in which (1) a mitigation strategy is executed (via application of technology and/or procedures); or (2) the aircraft exceeds its operational boundaries.	IPP Data Team 8/12/20
Cargo	Any property carried on an aircraft other than mail and accompanied or mishandled baggage.	UAS FY19 Implementation Plan
Cooperative aircraft	Aircraft that have an electronic means of identification (i.e., a transponder or ADS-B transceiver) aboard in operation.	N 8900.227 (cancelled)
Dangerous goods	See Hazardous material.	
Detect and Avoid (DAA)	A system/technology that enables the UA to avoid other aircraft or obstacles.	UAS FY19 Implementation Plan
False track	An illusionary type of non-aircraft track.	ASTM F3442/F3442M-20
Flight time	Pilot time that commences when an aircraft moves under its own power for the purpose of flight and ends when the aircraft comes to rest after landing	14 CFR 1.1

Term	Definition	Source
Hazardous material	A substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has designated as hazardous under section 5103 of Federal hazardous materials transportation law (49 U.S.C. 5103).	49 CFR 171.8
Incident	An occurrence, other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations. Examples of serious incidents from [NTSB Advisory to Operators of Civil Unmanned Aircraft Systems in the United States](#): True "fly-away", inability of required flight crewmember to perform normal duties as result of injury or illness, inflight fire, aircraft collision in flight, >$25K damage to objects other than the aircraft, aircraft is overdue and is believed to have been involved in an accident.	49 CFR 830.2
Non-cooperative aircraft	Aircraft that do not have an electronic means of identification (i.e., a transponder) aboard or that have inoperative equipment because of malfunction or deliberate action.	N 8900.227 (cancelled)
Occurrence	An abnormal event, other than an accident or incident. Examples include: low speed aborts or air turnbacks.	FAA Order 8900.1
Pilot in Command (PIC)	The person who (1) has final authority and responsibility for the operation and safety of the flight; (2) has been designated as pilot in command before or during the flight; and (3) holds the appropriate category, class, and type rating, if appropriate, for the conduct of the flight.	14 CFR 1.1
Remote Pilot in Command (RPIC)	Person who is directly responsible for and is the final authority as to the operation of the UAS; has been designated as remote pilot in command before or during the flight of a UAS; and holds the appropriate CAA certificate for the conduct of the flight.	ASTM F3266-18

Term	Definition	Source
Rural	A geographic area comprising open country and towns with fewer than 2,500 residents. For those interested in a more specific density definition, a rural area contains up to 100 people per square mile. (Definition specific to reporting requirement of PSP and BEYOND program.)	PSP/BEYOND
Suburban	A geographic area comprising the outlying district of a city. For those interested in a more specific density definition, a suburban area contains between 101 and 7,000 people per square mile. (Definition specific to reporting requirement of PSP and BEYOND program.)	PSP/BEYOND
Track	The specific collection of data that a particular DAA system accumulates and is used in determining whether an intruder aircraft is a collision risk or loss of well-clear risk, or both.	ASTM F3442/F3442M-20
Unmanned Aircraft (UA)	An aircraft operated without the possibility of direct human intervention from within or on the aircraft.	JO 7200.23A
Unmanned Aircraft System (UAS)	An unmanned aircraft and associated elements (including communication links and the components that control the unmanned aircraft) that are required for the pilot in command to operate safely and efficiently in the national airspace system.	JO 7200.23A
Urban	A geographic area comprising the main city or metropolitan area. For those interested in a more specific density definition, an urban area contains more than 7,000 people per square mile. (Definition specific to reporting requirement of PSP and BEYOND program.)	PSP/BEYOND

Acronym	Term
ATC	Air Traffic Control
CAPS	COA Application Processing System
COA	Certificate of Authorization
DAA	Detect and Avoid
FAA	Federal Aviation Administration
HAZMAT	Hazardous Material
NAS	National Airspace System
NTSB	National Transportation Safety Board
PIC	Pilot in Command
PSP	Partnership for Safety Program
RPIC	Remote Pilot In Command
sUAS	Small Unmanned Aircraft System
UA	Unmanned Aircraft
UAS	Unmanned Aircraft System
UTC	Coordinated Universal Time