

#### Maine State Government Department of Administrative and Financial Services Office of Information Technology (OIT)

# **Drone (Unmanned Aerial Vehicle) Policy**

### 1.0. <u>Purpose</u>

This policy sets forth guidelines for appropriate Unmanned Aerial Vehicle (UAV) (also known as "drone") use by State of Maine Executive Branch personnel.

### 2.0. <u>Applicability</u>

This policy applies to all State of Maine Executive Branch personnel, excluding those conducting business in a law enforcement or public safety capacity. For public safety and law enforcement requirements please see the <u>Maine State Police UAV Policy</u> (internal only).<sup>1</sup>

### 3.0. <u>Compliance</u>

A State of Maine Executive Branch Employee that intentionally uses a UAV without proper authorization and/or in deviation of the standards set forth in this policy may be subject to disciplinary action, up to and including revocation of flight approval, or termination.

# 4.0. <u>Definitions</u>

- 4.1. Data Classification: The taxonomy of organizing data into categories, so that data may be used and protected efficiently. OIT has adopted the <u>Federal Homeland</u> <u>Security Traffic Light Protocol<sup>2</sup></u> for this purpose. For more information, see the <u>Data</u> <u>Classification Policy</u>.<sup>3</sup>
- 4.2. Declaration of Compliance: A Federal Aviation Administration process to provide an effective and cost-efficient way to establish which UAV meet the appropriate eligibility requirements for operations over people.
- 4.3. Civil Twilight: The period when enough natural light remains that artificial light is not needed. Morning civil twilight begins when the geometric center of the sun is 6°

<sup>&</sup>lt;sup>1</sup> http://www.ps.state.me.us/orders/mspgo/orders/code4/MSPGOE-135\_08082017.html

<sup>&</sup>lt;sup>2</sup> https://www.us-cert.gov/tlp

<sup>&</sup>lt;sup>3</sup> https://www.maine.gov/oit/sites/maine.gov.oit/files/inline-files/DataClassificationPolicy.pdf

below the horizon and ends at sunrise. Evening civil twilight begins at sunset and ends when the geometric center of the sun reaches 6° below the horizon.

- 4.4. Federal Aviation Administration (FAA): A governmental body of the United States Department of Transportation with powers to regulate all aspects of civil aviation in the nation as well as over its surrounding international waters.
- 4.5. Flight Visibility: The average slant distance from the control station at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night.
- 4.6. Hazardous material: A substance or material that has been determined as capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and is designated as hazardous under section 5103 of the Federal hazardous materials transportation law (<u>49 U.S.C. 5103</u><sup>4</sup>). The term includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (<u>49 CFR 172.101</u><sup>5</sup>), and materials that meet the defining criteria for hazards.
- 4.7. Remote Pilot: An agency personnel who is certified to operate an Unmanned Aerial Vehicle (UAV). Prior to operating a UAV, a Remote Pilot must hold a current FAA Remote Pilot Certification that evidences that the pilot meets minimum standards required for the operation of a UAV.
- 4.8. Remote Pilot Certification: In order to fly a Small Unmanned Aircraft System (sUAS) under the FAA's Small UAS rule (Part 107), the Remote Pilot must obtain a Remote Pilot Certification from the FAA. This certificate demonstrates that the Remote Pilot understand the regulations, operating requirements, and procedures for safely flying UAVs.
- 4.9. Small Unmanned Aircraft System (sUAS, or Small UAS): A small unmanned aircraft and its associated elements (including communication links and the components that control the small unmanned aircraft) that are required for the safe and efficient operation of the vehicle in the national airspace system.
- 4.10. Statute Mile: A unit of distance on land equal to 5,280 feet, or 1,760 yards.

<sup>&</sup>lt;sup>4</sup> https://www.govinfo.gov/content/pkg/USCODE-2018-title49/pdf/USCODE-2018-title49-subtitleIII-chap51-sec5103.pdf

<sup>&</sup>lt;sup>5</sup> https://ecfr.federalregister.gov/on/2021-03-02/title-49/subtitle-B/chapter-I/subchapter-C/part-172/subpart-B/section-172.101

- 4.11. Unmanned Aerial Vehicle (UAV): A remotely-controlled/-guided aircraft operated without a physical human presence within or on the aircraft and which, in the way it is used or the manner in which it is equipped, is capable of performing audio, visual, or other types of comprehensible surveillance.
  - 4.11.1. An sUAS is a type of UAV.
  - 4.11.2. For this policy, drones and small unmanned aerial vehicles will be collectively referred to as UAVs.
- 4.12. Visual Observer: a person who assists the Remote Pilot and the person manipulating the flight controls of the small UAV (if that person is not the remote pilot in command) to see and avoid other air traffic or objects aloft or on the ground.

# 5.0. <u>Responsibilities</u>

- 5.1. The Chief Information Officer (CIO) in collaboration with Agency Management is responsible for enforcing this policy.
- 5.2. Agency Management in the Department which uses an UAV is responsible for the following:
  - 5.2.1. In collaboration with the CIO, owning, executing and enforcing this policy.
  - 5.2.2. Complying with the <u>Data Classification Policy</u><sup>6</sup> for classification of all image data captured with the UAV.
  - 5.2.3. Securely storing all data captured by the UAV based on data classification and compliance.
  - 5.2.4. Maintaining a list of Remote Pilot(s).
  - 5.2.5. Maintaining a list of make/model of each department-owned UAV.
  - 5.2.6. Maintaining and storing all UAV equipment.
  - 5.2.7. Storing the UAV in a secure location when not in use.
  - 5.2.8. Developing internal policy on what data can be captured by the UAV.
  - 5.2.9. Ongoing knowledge of the operations of the UAV.
  - 5.2.10. Ongoing knowledge of safe operation of all UAVs within the agency.
  - 5.2.11. Ongoing knowledge of UAV incident management.
  - 5.2.12. Obtaining waiver and/or airspace authorization through the FAA.
  - 5.2.13. Confirming liability insurance requirements are achieved through State of Maine Risk Management annually for new and existing UAV's; see 6.1.5. for more information.
- 5.3. A Remote Pilot is responsible for:
  - 5.3.1. Complying with this policy.
  - 5.3.2. Maintaining current FAA Remote Pilot certification.

<sup>&</sup>lt;sup>6</sup> https://www.maine.gov/oit/sites/maine.gov.oit/files/inline-files/DataClassificationPolicy.pdf

- 5.3.3. Making available to the FAA, upon request, the UAV for inspection or testing, and any associated documents/records required to be kept under the rule.
- 5.3.4. The operation of the UAV.
- 5.3.5. Ensuring that the UAV will pose no undue hazard to other people, other aircraft, or other property in the event of a loss of control of the aircraft for any reason.
- 5.3.6. Ensuring that UAV operation complies with all applicable regulations of FAA Part 89, <u>Remote Identification of Unmanned Aircraft</u><sup>7</sup>.
- 5.3.7. Ensuring that UAV operation complies with all applicable regulations of FAA Part 107, <u>Small Unmanned Air Systems</u>.<sup>8</sup>
- 5.3.8. Reporting to the FAA within ten (10) days of any operation that results in at least serious injury, loss of consciousness, or property damage of at least \$500. For more information, contact the local <u>Flight Standards District Office</u>.<sup>9</sup>
  - 5.3.8.1. In the event of damage or injury arising from use of the UAV, the Remote Pilot will notify Agency Management to <u>report the incident</u> to the FAA<sup>10</sup> and ensure the incident is documented in an incident report.
  - 5.3.8.2. For damages to State of Maine property, this provision does not apply, and the FAA is not required to be notified. In the event of damage to State of Maine property, Agency Management must be notified.

# 6.0. <u>Directives</u>

- 6.1. A Remote Pilot conducting State of Maine business may use a UAV provided that all the requirements below are satisfied:
  - 6.1.1. Prior to the deployment of a UAV, a Remote Pilot must be adequately trained in its use and operation and must be knowledgeable of the standards set forth in this Policy.
  - 6.1.2. The Remote Pilot must hold a current FAA Remote Pilot Certification that includes evidence that the pilot meets the minimum standards required for the operation of a UAV (see <u>Become a Drone Pilot</u>).<sup>11</sup> To qualify for a Remote Pilot Certification, personnel must meet all FAA <u>eligibility requirements<sup>12</sup></u> and complete all of the following as it relates to current Remote Pilot status. 6.1.2.1. First-time pilots must:

<sup>&</sup>lt;sup>7</sup> https://ecfr.gov/current/title-14/chapter-I/subchapter-F/part-89

<sup>&</sup>lt;sup>8</sup> https://ecfr.federalregister.gov/current/title-14/chapter-I/subchapter-F/part-107

<sup>&</sup>lt;sup>9</sup> https://www.faa.gov/about/office\_org/field\_offices/fsdo/?state=ME

<sup>&</sup>lt;sup>10</sup> https://faadronezone.faa.gov/#/

<sup>&</sup>lt;sup>11</sup> https://www.faa.gov/uas/commercial\_operators/become\_a\_drone\_pilot/

<sup>&</sup>lt;sup>12</sup> https://www.faa.gov/uas/commercial\_operators/become\_a\_drone\_pilot/

- 6.1.2.1.1. Obtain an FAA Tracking Number (FTN) by creating an <u>Integrated Airman Certification and Rating Application</u><sup>13</sup> (IACRA) profile prior to registering for a knowledge test;
- 6.1.2.1.2. Schedule and pass an initial aeronautical knowledge test at an FAA approved <u>Knowledge Testing Center</u>;<sup>14</sup>
- 6.1.2.1.3. Complete and electronically submit <u>FAA Form 8710-13</u><sup>15</sup> for a remote pilot certificate using the electronic FAA Integrated Airman Certificate and/or IACRA.
- 6.1.2.2. Existing Part 61<sup>16</sup> Certificate Holders must (Part 61, and the provision below, apply only to those pilots who currently hold a private fixed wing or rotary wing pilot certification):
  - 6.1.2.2.1. Hold a pilot certificate issued under <u>14 CFR part 61</u>.<sup>17</sup>
  - 6.1.2.2.2. Have completed a flight review within the previous 24 months.
  - 6.1.2.2.3. Complete the <u>Part 107 Small Unmanned Aircraft Systems</u> <u>ALC-451<sup>18</sup> online training course.</u>
  - 6.1.2.2.4. Complete the <u>FAA Form 8710-13</u><sup>19</sup> for a remote pilot certificate.
  - 6.1.2.2.5. Make an appointment with one of the following entities to validate the Remote Pilot's identity. Remote Pilots must bring the completed Form 8710-13, proof of current flight review, photo ID, and online course completion certificate.
    - 6.1.2.2.5.1. <u>FAA Flight Standards District Office</u><sup>20</sup> (FSDO);
    - 6.1.2.2.5.2. <u>FAA-designated pilot examiner<sup>21</sup> (DPE);</u>
    - 6.1.2.2.5.3. <u>Airman certification representative<sup>22</sup></u> (ACR); or
    - 6.1.2.2.5.4. <u>FAA-certificated flight instructor<sup>23</sup> (CFI)</u>.

<sup>&</sup>lt;sup>13</sup> https://iacra.faa.gov/IACRA/Default.aspx

<sup>&</sup>lt;sup>14</sup> https://faa.psiexams.com/faa/login

<sup>&</sup>lt;sup>15</sup> https://www.faa.gov/documentLibrary/media/Form/FAA\_Form\_8710-13..pdf

<sup>&</sup>lt;sup>16</sup> https://www.ecfr.gov/cgi-bin/text-

idx?SID=95d4d05b07bd4272c3b4692d296c11cb&mc=true&node=pt14.2.61&rgn=div5 <sup>17</sup> https://www.ecfr.gov/cgi-bin/text-

idx?SID=95d4d05b07bd4272c3b4692d296c11cb&mc=true&node=pt14.2.61&rgn=div5

<sup>&</sup>lt;sup>18</sup> https://www.faasafety.gov/gslac/ALC/course\_content.aspx?pf=1&preview=true&cID=451

<sup>&</sup>lt;sup>19</sup> https://www.faa.gov/documentLibrary/media/Form/FAA\_Form\_8710-13..pdf

<sup>&</sup>lt;sup>20</sup> https://www.faa.gov/about/office\_org/field\_offices/fsdo/

<sup>&</sup>lt;sup>21</sup> https://www.faa.gov/other\_visit/aviation\_industry/designees\_delegations/individual\_designees/dpe/

<sup>&</sup>lt;sup>22</sup> https://www.faa.gov/licenses\_certificates/airmen\_certification/contact\_airmen\_certification/

<sup>&</sup>lt;sup>23</sup> https://av-info.faa.gov/PilotSchool.asp

- 6.1.2.3. Recurrent training requirements must be completed every 24 months to keep a <u>Remote Pilot certification current</u>.<sup>24</sup>
- 6.1.3. All Remote Pilots must have their Remote Pilot Certificate available on their persons whenever their UAV is in flight.
- 6.1.4. Any operation of a UAV must fully comply with all <u>FAA Small Unmanned</u> <u>Aircraft Rule, Part 107<sup>25</sup></u> requirements and guidelines as well as with any other applicable law, including, but not limited to, <u>25 M.R.S. section 4501</u>, <u>Regulation of Unmanned Aerial Vehicles.<sup>26</sup></u>
- 6.1.5. Any purchased, contracted, or volunteered UAV device used for state business should confirm the liability insurance requirements are being satisfied with the State of Maine Risk Management Division. Contact State of Maine Risk Management at (207) 287-3351 for consultation and assistance.
- 6.2. Prior to UAV flight, all Remote Pilots must:
  - 6.2.1. Ensure that the UAV complies with the existing registration requirements specified in <u>14 C.F.R. sec. 91.203(a)(2), Civil Aircraft: Certifications</u> <u>Required</u>,<sup>27</sup> including but not limited to:
    - 6.2.1.1. UAV must be registered on the FAA's UAS registry.<sup>28</sup>
    - 6.2.1.2. UAV must be marked with FAA registration number (see, <u>How to</u> <u>Label your Drone</u>).<sup>29</sup>
  - 6.2.2. Perform a <u>pre-flight inspection<sup>30</sup></u> in accordance with the UAV manufacturer's recommendations and FAA guidelines to ensure the UAV is in a condition for safe operation. This inspection must confirm that:
    - 6.2.2.1. No part of the UAV is loose or missing and batteries are charged and in working condition.
      - 6.2.2.1.1. The UAV must not be operated unless it is in a condition for safe operation.
      - 6.2.2.1.2. The UAV must not continue flight if the Remote Pilot has reason to know that the UAV is no longer in a condition for safe operation.
    - 6.2.2.2. All control links between the ground control station and the UAV are working properly.

<sup>&</sup>lt;sup>24</sup> https://www.faa.gov/uas/commercial\_operators/become\_a\_drone\_pilot/#keepCurrent

<sup>&</sup>lt;sup>25</sup> https://www.faa.gov/uas/media/Part\_107\_Summary.pdf

<sup>&</sup>lt;sup>26</sup> http://legislature.maine.gov/statutes/25/title25sec4501.html

<sup>&</sup>lt;sup>27</sup> https://www.law.cornell.edu/cfr/text/14/91.203

<sup>&</sup>lt;sup>28</sup> https://faadronezone.faa.gov/#/

<sup>&</sup>lt;sup>29</sup> https://www.faa.gov/uas/getting\_started/register\_drone/media/UAS\_how\_to\_label\_Infographic.pdf

<sup>&</sup>lt;sup>30</sup> https://www.faasafety.gov/files/gslac/courses/content/451/1458/PreflightInspectionChecklist.pdf

- 6.2.2.3. Any object attached to or carried by the UAV is secure and does not adversely affect the flight characteristics or controllability of the aircraft.
- 6.2.3. Assess the operating environment, considering risks to persons and property in the immediate vicinity both on the surface and in the air. This assessment must include:
  - 6.2.3.1. Local weather conditions;
  - 6.2.3.2. Local airspace and any flight restrictions;
  - 6.2.3.3. The location of persons and property on the surface; and
  - 6.2.3.4. Other ground hazards.
- 6.2.4. Ensure that all persons directly participating in the UAV operation are informed about the operating conditions, emergency procedures, contingency procedures, roles, responsibilities, and potential hazards.
- 6.2.5. Report any safety related issues immediately to Agency Management.
- 6.3. During flight operations, Remote Pilots must have in their physical possession, documentation that includes, but may not be limited to, the following:
  - 6.3.1. Remote Pilot certificate with UAV rating and identification.
  - 6.3.2. Proper identifications that contain the Remote Pilot's:
    - 6.3.2.1. Photograph;
    - 6.3.2.2. Signature;
    - 6.3.2.3. Date of birth; and
    - 6.3.2.4. Permanent mailing address.
  - 6.3.3. Proof of access to public or private property associated with flight operations.
  - 6.3.4. Proof of Part 107 waiver approval authorization from the FAA associated with flight operations.
- 6.4. For operations conducted over people, the UAV must meet one of the following requirements:
  - 6.4.1. That person is directly participating in the operation of the UAV;
  - 6.4.2. That person is located under a covered structure or inside a stationary vehicle that can provide reasonable protection from a falling UAV; or

- 6.4.3. The operation meets the requirements of at least one of the following operational categories: Category 1, Category 2, Category 3, or Category 4 as outlined below.
- 6.4.4. Category 1 operations:
  - 6.4.4.1. To conduct Category 1 operations, a Remote Pilot must use a UAV that:
    - 6.4.4.1.1. Weighs 0.55 pounds or less on takeoff and throughout the duration of each operation, including everything that is on board or otherwise attached to the UAV; and
    - 6.4.4.1.2. Does not contain any exposed rotating parts that would lacerate human skin upon impact with a person.
- 6.4.5. Category 2 operations:
  - 6.4.5.1. To conduct Category 2 operations, a Remote Pilot must use a UAV designed, produced, or modified to meet the following requirements:
    - 6.4.5.1.1. Will not cause injury to a person that is equivalent to or greater than the severity of injury caused by a transfer of 11 foot-pounds of kinetic energy upon impact from a rigid object;
    - 6.4.5.1.2. Does not contain any exposed rotating parts that would lacerate human skin upon impact with a person; and
    - 6.4.5.1.3. Does not contain any safety defects.
  - 6.4.5.2. The Category 2 UAV must be listed on an FAA-accepted declaration of compliance<sup>31</sup> as eligible for Category 2 operations and meet all the following requirements:
    - 6.4.5.2.1. Display a label indicating eligibility to conduct Category 2 operations. The label must be in English and be legible, prominent, and permanently affixed to the UAV. If a Category 2 label affixed to a UAV is damaged, destroyed, or missing, the Remote Pilot must label the aircraft in English such that the label is legible, prominent, and will remain on the UAV for the duration of the operation. The label must correctly identify the category or categories of

<sup>&</sup>lt;sup>31</sup> For all UAV manufactured after the operations over people rule change, effective March 16, 2021, the burden of submitting a declaration of compliance for Category 2 or Category 3 operations to the FAA falls on the person(s) who designs, produces, or modifies the UAV for such operations. For all existing UAV manufactured prior to the rule change, an applicant with a previously manufactured UAV may establish eligibility to operate over people by listing the applicable aircraft serial numbers for the identified UAV on the declaration of compliance submitted to the FAA. Any applicant requesting acceptance would be responsible for developing remote pilot operating instructions for the existing UAV and making those instructions available to remote pilots or owners of the UAV.

operation over people that the UAV is qualified to conduct.

- 6.4.5.2.2. Have readily available Remote Pilot operating instructions that apply to the operation of the UAV. The instructions must address, at a minimum:
  - 6.4.5.2.2.1. A system description that includes the required UAV system components, any system limitations, and the declared category or categories of operation;
  - 6.4.5.2.2.2. Modifications that have been made to the UAV (modifications must not change the ability of the UAV to meet the requirements for the category or categories of operation the UAV is eligible to conduct); and
  - 6.4.5.2.2.3. Instructions for how to verify and change the mode or configuration of the UAV, if they are variable.
- 6.4.5.2.3. Maintain product support and notification procedures to notify the public and the FAA of:
  - 6.4.5.2.3.1. Any defect or condition that causes the UAV to no longer meet these requirements; and
  - 6.4.5.2.3.2. Any identified safety defect that causes the UAV to exceed a low probability of casualty.
- 6.4.6. Category 3 operations:
  - 6.4.6.1. To conduct Category 3 operations, a Remote Pilot must use a UAV designed, produced, or modified to meet the following requirements:
    - 6.4.6.1.1. Will not cause injury to a person that is equivalent to or greater than the severity of the injury caused by a transfer of 25 foot-pounds of kinetic energy upon impact from a rigid object;
    - 6.4.6.1.2. Does not contain any exposed rotating parts that would lacerate human skin upon impact with a person; and
    - 6.4.6.1.3. Does not contain any safety defects.
  - 6.4.6.2. The Category 3 UAV must be listed on an FAA-accepted declaration of compliance as eligible for Category 3 operations and meet all the following requirements:
    - 6.4.6.2.1. The UAV must display a label indicating eligibility to conduct Category 3 operations. The label must be in English and be legible, prominent, and permanently

affixed to the UAV. If a Category 3 label affixed to a UAV is damaged, destroyed, or missing, the Remote Pilot must label the aircraft in English such that the label is legible, prominent, and will remain on the UAV for the duration of the operation before conducting operations over people. The label must correctly identify the category or categories of operation over people that the UAV is qualified to conduct.

- 6.4.6.2.2. Have readily available Remote Pilot operating instructions that apply to the operation of the UAV. The instructions must address, at a minimum:
  - 6.4.6.2.2.1. A system description that includes the required UAV system components, any system limitations, and the declared category or categories of operation;
  - 6.4.6.2.2.2. Modifications that have been made to the UAV (modifications must not change the ability of the UAV to meet the requirements for the category or categories of operation the UAV is eligible to conduct); and
  - 6.4.6.2.2.3. Instructions for how to verify and change the mode or configuration of the UAV, if they are variable.
- 6.4.6.2.3. Maintain product support and notification procedures to notify the public and the FAA of:
  - 6.4.6.2.3.1. Any defect or condition that causes the UAV to no longer meet these requirements; and
  - 6.4.6.2.3.2. Any identified safety defect that causes the UAV to exceed a low probability of casualty.
- 6.4.6.3. Category 3 UAV:
  - 6.4.6.3.1. Must not be operated over open-air assemblies of people; and
  - 6.4.6.3.2. May only operate above people if the operation meets one of the following conditions:
    - 6.4.6.3.2.1. The operation is within or over a closed- or restricted-access site and all people located within the closed- or restricted-access site are on notice that a UAV may fly over them; or
    - 6.4.6.3.2.2. The UAV does not maintain sustained flight over any person unless that person is:

- 6.4.6.3.2.2.1. Directly participating in the operation of the UAV; or
- 6.4.6.3.2.2.2. Located under a covered structure or inside a stationary vehicle that can provide reasonable protection from a falling UAV.
- 6.4.7. Category 4 operations:
  - 6.4.7.1. To conduct Category 4 operations over people, the Remote Pilot of a Category 4 aircraft must:
    - 6.4.7.1.1. Have an FAA issued <u>airworthiness certificate</u><sup>32</sup> for the UAV.
    - 6.4.7.1.2. Operate the UAV in accordance with the operating limitations specified in the approved Flight Manual and the operating limitations must not prohibit operations over people.
    - 6.4.7.1.3. Have maintenance, preventive maintenance, alterations, or inspections performed by an individual in accordance with the following requirements:
      - 6.4.7.1.3.1. Uses the methods, techniques, and practices prescribed in the manufacturer's current maintenance manual or Instructions for Continued Airworthiness;
      - 6.4.7.1.3.2. Has the knowledge, skill, and appropriate equipment to perform the work;
      - 6.4.7.1.3.3. Performs the maintenance, preventive maintenance, or alterations on the UAV in accordance with the methods, techniques, and practices prescribed in the manufacturer's current maintenance manual or Instructions for Continued Airworthiness;
      - 6.4.7.1.3.4. Inspects the UAV in accordance with the manufacturer's instructions; and
      - 6.4.7.1.3.5. Performs the maintenance, preventive maintenance, or alterations using parts of such a quality that the condition of the aircraft will be at least equal to its original or properly altered condition.

<sup>&</sup>lt;sup>32</sup> https://www.faa.gov/aircraft/air\_cert/airworthiness\_certification/aw\_overview/

- 6.4.7.1.4. Maintain, and have readily available upon request by the FAA, all documented records of maintenance, preventive maintenance, and alterations performed on the aircraft according to the following directives:
  - 6.4.7.1.4.1. The records must contain the description of the work performed, the date the work was completed, and the name of the person who performed the work.
  - 6.4.7.1.4.2. All records documenting maintenance, preventive maintenance, or alterations performed must be retained for one (1) year from when the work was completed or until the maintenance is repeated or superseded by other work.
  - 6.4.7.1.4.3. All records documenting the status of lifelimited parts, compliance with airworthiness directives, and inspection status of the UAV must be retained and transferred with the aircraft upon change in ownership.
- 6.4.7.1.5. Maintain all records containing:
  - 6.4.7.1.5.1. The status of life-limited parts that are installed on, or part of, the UAV;
  - 6.4.7.1.5.2. The inspection status of the aircraft; and
  - 6.4.7.1.5.3. The status of applicable airworthiness directives including the method of compliance, the airworthiness directive number, and revision date. If the airworthiness directive involves recurring action, the record must contain the time and date of the next required action.
- 6.4.7.2. Category 4 UAV must not be operated in sustained flight over openair assemblies of people.
  - 6.4.7.2.1. Sustained flight over an open-air assembly includes hovering above the heads of people gathered in an openair assembly, flying back and forth over an open-air assembly, or circling above the assembly in such a way that the UAV remains above some part of the assembly.
- 6.5. Operations over moving vehicles:
  - 6.5.1. A UAV must not be operated over a person located inside a moving vehicle unless the following conditions are met:

- 6.5.1.1. The operation occurs in accordance with all FAA requirements for Category 1 operations; Category 2 operations; Category 3 operations; or Category 4 operations. See 6.4, above.
- 6.5.2. For all operations performed under Category 1, Category 2, or Category 3, the UAV, throughout the operation must:
  - 6.5.2.1. Remain within or over a closed- or restricted-access site, and all people located inside a moving vehicle within the closed- or restricted-access site must be on notice that a UAV may fly over them.
  - 6.5.2.2. Not maintain sustained flight over moving vehicles.
- 6.5.3. For operations performed under Category 4, the UAV must:
  - 6.5.3.1. Have an FAA issued <u>airworthiness certificate</u>.<sup>33</sup>
  - 6.5.3.2. Be operated in accordance with the operating limitations specified in the approved Flight Manual and the operating limitations must not prohibit operations over people located inside moving vehicles.
- 6.6. Operations at night:
  - 6.6.1. A UAV may be operated at night and during periods of civil twilight if the following criteria are satisfied:
    - 6.6.1.1. The Remote Pilot has completed an initial knowledge test or training, after March 1, 2021; and
    - 6.6.1.2. The UAV has lighted anti-collision lighting visible for at least three
      (3) statute miles that has a flash rate sufficient to avoid a collision. The Remote Pilot may reduce the intensity of, but may not extinguish, the anti-collision lighting if the Remote Pilot determines that, because of operating conditions, it would be in the interest of safety to do so.
  - 6.6.2. As of May 17, 2021, no UAV may be operated in accordance with a certificate of waiver issued prior to March 16, 2021. All operations at night waivers issued prior to March 16, 2021 that authorize deviation from operations at night terminated on May 17, 2021.
- 6.7. Visual line of sight aircraft operation:
  - 6.7.1. With vision that is unaided by any device other than corrective lenses, the Remote Pilot, visual observer (if used), and the person manipulating the flight control of the UAV must be able to see the UAV throughout the entire flight in order to:

<sup>&</sup>lt;sup>33</sup> https://www.faa.gov/aircraft/air\_cert/airworthiness\_certification/aw\_overview/

- 6.7.1.1. Always know the location of the UAV;
- 6.7.1.2. Determine the UAV's attitude, altitude, and direction of flight;
- 6.7.1.3. Observe the airspace for other air traffic or hazards; and
- 6.7.1.4. Ensure the UAV does not endanger the life or property of another.
- 6.8. Visual observer:
  - 6.8.1. If a visual observer is used during UAV operation, all the following requirements must be met:
    - 6.8.1.1. The Remote Pilot, the person manipulating the flight controls of the UAV, and the visual observer must always maintain effective communication with each other.
    - 6.8.1.2. The Remote Pilot must ensure that the visual observer is able to see the UAV in the manner specified in 6.7 above.
    - 6.8.1.3. The Remote Pilot, the person manipulating the flight controls of the UAV, and the visual observer coordinate to do the following:
      - 6.8.1.3.1. Scan the airspace where the UAV is operating for any potential collision hazard; and
      - 6.8.1.3.2. Maintain awareness of the position of the UAV through direct visual observation.
- 6.9. Operation of multiple UAVs:
  - 6.9.1. A person may not manipulate flight controls or act as a Remote Pilot or visual observer in the operation of more than one UAV at the same time.
- 6.10. Carriage of hazardous material:6.10.1. A UAV must not carry hazardous material.
- 6.11. Operation near aircraft:
  - 6.11.1. All UAVs must yield the right of way to all aircraft, airborne vehicles, and launch and reentry vehicles. Yielding the right of way means that the UAV must give way to the aircraft or vehicle and may not pass over, under, or ahead of it unless well clear.
  - 6.11.2. The UAV must not operate so close to another aircraft as to create a collision hazard.
- 6.12. Operation in certain airspace:
  - 6.12.1. A UAV must not be operated in a <u>Class B, Class C, or Class D airspace</u><sup>34</sup> or within the lateral boundaries of the surface area of Class E airspace

<sup>&</sup>lt;sup>34</sup> https://www.faa.gov/regulations\_policies/handbooks\_manuals/aviation/phak/media/17\_phak\_ch15.pdf

designated for an airport unless prior authorization has been received from Air Traffic Control.

- 6.13. Operation in the vicinity of airports:
  - 6.13.1. A UAV must not be operated in any manner that interferes with operations and traffic patterns at any airport, heliport, or seaplane base.
- 6.14. Operation in prohibited or restricted areas:
  - 6.14.1. A UAV must not be operated in prohibited or restricted areas unless prior authorization has been received from the using or controlling agency, as appropriate.
- 6.15. The Remote Pilot must comply with all the following operating limitations when operating a UAV:

6.15.1. The groundspeed of the UAV must not exceed 100 miles per hour.

- 6.15.2. The altitude of the UAV must not exceed 400 feet above ground level, unless the UAV:
  - 6.15.2.1. Is flown within a 400-foot radius of a structure; and
  - 6.15.2.2. Does not fly higher than 400 feet above the structure's immediate uppermost limit.
- 6.15.3. The minimum flight visibility, as observed from the location of the control station must be no less than three (3) statute miles.
- 6.15.4. The minimum distance of the UAV from clouds must be no less than:6.15.4.1. 500 feet below the cloud; and6.15.4.2. 2,000 feet horizontally from the cloud.
- 6.16. The Remote Pilot must request a <u>waiver<sup>35</sup></u> through the FAA for any operations not approved under Part 107 rules including, but not limited to:
  - 6.16.1. Operating a UAV from a moving vehicle or aircraft.
  - 6.16.2. Operating multiple UAVs simultaneously.
  - 6.16.3. Operating a UAV without yielding the right of way.
  - 6.16.4. Operating a UAV in a <u>Class B, Class C, or Class D airspace</u>.<sup>36</sup>
  - 6.16.5. Operating a UAV over people outside of the FAA approved conditions.
  - 6.16.6. Operating a UAV at night without proper anti-collision lighting.
  - 6.16.7. Operating a UAV beyond the visual line of site.
  - 6.16.8. Operating a UAV outside of standard operating limits.

 <sup>&</sup>lt;sup>35</sup> https://www.faa.gov/uas/commercial\_operators/part\_107\_waivers/media/waiver\_application\_instructions.pdf
 <sup>36</sup> https://www.faa.gov/regulations\_policies/handbooks\_manuals/aviation/phak/media/17\_phak\_ch15.pdf

# 7.0. Document Information

- 7.1. Initial Issue Date: April 3, 2020
- 7.2. Latest Revision Date: August 21, 2024
- 7.3. Point of Contact: Enterprise.Architect@maine.gov
- 7.4. Approved By: Chief Information Officer, OIT
- 7.5. Legal Citation: <u>Title 5, Chapter 163: Office of Information Technology</u><sup>37</sup>
- 7.6. Waiver: <u>Waiver Policy</u><sup>38</sup>
- 7.7. Distribution: <u>Internet</u><sup>39</sup>

<sup>&</sup>lt;sup>37</sup> https://legislature.maine.gov/statutes/5/title5ch163sec0.html

<sup>&</sup>lt;sup>38</sup> https://www.maine.gov/oit/sites/maine.gov.oit/files/inline-files/waiver.pdf

<sup>&</sup>lt;sup>39</sup> https://www.maine.gov/oit/policies-standards