



## UNIVERSITY OPERATING PROCEDURE

### **Title:** Unmanned Aircraft (Drones and Model Aircraft)

#### Overview

Regardless of purpose, no person may operate an Unmanned Aircraft System (UAS) or Model Aircraft on University premises, at University sponsored activities, or otherwise on behalf of The University without advance approval of the University's UAS Working Group (UASWG). Securing advance approval to fly UAS and/or Model Aircraft involves filing an Application with the UASWG, as detailed herein.

Approval may only be granted for one of the following three purposes, consistent with the rules and regulations of the Federal Aviation Administration (FAA), local authorities, and the University:

1. "Public Use" in support of UVM research;
2. "Commercial Use" in support of UVM's general administrative needs; or
3. "Educational Instruction" sponsored by the University, and for students of, or participants in, University programs in furtherance of its educational mission<sup>1</sup>.

Approval by the UASWG may be either a "blanket approval" for a specific period of time, or for a "single flight".

The use of UAS and Model Aircraft on University property, at University sponsored activities, or otherwise on behalf of The University, and not fitting within one of the three categories identified above is not permitted.

Securing the approval of the UASWG, and applicable authorities, is the sole responsibility of the Operator of a given flight in accordance with these procedures.

Any person operating a UAS or Model Aircraft is personally responsible for complying with FAA regulations, state and federal laws and University policies. UAS and Model Aircraft operators who violate FAA rules risk legal action under all applicable federal, state and local laws. UVM students and employees may also be subject to disciplinary action outlined in UVM's Code of Student Conduct and applicable University practices, policies, and collective bargaining agreements, including applicable grievance procedures, respectively, for violation of this University Operating Procedure (UOP).

#### Applicability of the Procedure

This UOP applies to all UVM employees, students, commercial contractors, affiliated organizations, and campus visitors who want to fly a UAS and/or Model Aircraft on UVM property, at University-sponsored

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<sup>1</sup> "Educational Instruction" may occur without express FAA approval, provided the students / participants do not receive compensation for the flights (apart from financial aid, work study, etc.). Faculty and Staff may assist in these educational flights. However, student / participant involvement in faculty research, or other activities of faculty and staff pursuant to that faculty or staff member's professional responsibilities, transitions the use to "public" or "commercial", and requires FAA approval.

events, or otherwise on behalf of the University, whether on or off-campus. However, operation of UAS and Model Aircraft by members of the University community outside of these parameters is still regulated by the FAA and by federal, state, and local laws.

## Definitions

333 Exemption: An FAA exemption based on Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA) which grants an individual or entity the ability to operate a UAS for civil and non-governmental purposes and activities, other than recreational or hobbyist activity.

Certificate of Authorization (COA): A certificate granted by the FAA under Section 333 of FRMA, which allows an entity to legally operate a specific UAS in a certain location for a specific purpose. A "Public Use" COA is granted to a public agency or organization to operate a specific aircraft (weighing more than 55 pounds) for a specific purpose in a specific location. A Public Use COA for a UAS is only issued by the FAA after the process of determining public status, government use, and an operational and technical review.

Educational Instruction: Credit or non-credit bearing coursework pertaining to the principles of flight, aerodynamics, and/or airplane design and construction.

Model Aircraft: A type of unmanned aircraft that is (1) flown for hobby or recreational purposes, per section 336(c) of the FAA Modernization and Reform Act of 2012; (2) capable of sustained flight in the atmosphere; and (3) flown within visual line of sight of the aircraft operator. Model Aircraft flown on UVM property, at University-sponsored events, or otherwise on behalf of the University may not exceed a weight of 55 pounds, and must be [registered with the FAA](#).

Operator: The individual responsible for flight operation of the UAS or Model Aircraft. The FAA may refer to this person as the Remote Pilot in Command (PIC) when flying UAS.

Part 107: Part 107 refers to the Small Unmanned Aircraft Rule implemented by the FAA, applying to commercial operations of UAS less than 55 pounds. This regulation regulates operational limitations, RPIC certification and responsibilities, and aircraft requirements for all UAS flown for work, business, and commercial purposes. ([https://www.faa.gov/uas/commercial\\_operators/](https://www.faa.gov/uas/commercial_operators/)).

Unmanned Aircraft System (UAS): UAS are also known as or may be characterized as drones. According to the FAA, a UAS is the unmanned aircraft and all of the associated support equipment, control station, data links, telemetry, communications and navigation equipment, etc., necessary to operate the unmanned aircraft. UAS may have a variety of names including quadcopter, quadrotor, etc. FAA regulation applies to UAS regardless of size or weight. Model Aircraft are not considered by the FAA as UAS and have different regulations.

UAS Working Group (UASWG): The group designated by the Vice President for Operations and Public Safety with the authority to oversee all UAS and Model Aircraft activities on University property, at University sponsored events and activities, and otherwise on behalf of the University.

## Procedures

### Securing Approval for Use of UAS or Model Aircraft

The Operator is ultimately responsible for the safe operation of their UAS and/or Model Aircraft, and as such is responsible for securing advance approval of the UASWG. In the case of Educational Instruction, the UVM faculty or staff member serving as the Course Instructor is responsible for securing advance approval of the UASWG.

Anyone who seeks permission from the University to operate a UAS or Model Aircraft under the terms of this UOP must seek and receive approval from all appropriate agencies, to include the FAA and state and local authorities, in advance of requesting University approval.

For planned flight activities constituting Public or Commercial Use, or alternatively Educational Instruction, the Operator or Course Instructor must submit the following to the UASWG a minimum of 15 business days in advance of the first planned flight or course start date, as appropriate. The UASWG shall expedite the review of UAS operating plans intended to address short-notice phenomena (e.g., flooding) and/or emergency requests from state and/or local officials.

In addition, the operation of a UAS or Model Aircraft owned by a third party over University property, at University sponsored activities, or otherwise on behalf of the University, must be under a contract which holds the University harmless from any resulting claims or harm to individuals and damage to University property. The third party operator must adhere to all FAA requirements, and provide the University with proper proof of Aircraft Liability insurance equal to or greater than \$1 million per occurrence and \$2 million annual aggregate for bodily injury and property damage liability; and commercial general liability insurance in an amount not less than \$1,000,000 per occurrence; \$2,000,000 annual aggregate. Each policy shall name "The University of Vermont, its officers, employees and agents" as an additional insured on that policy.

A complete Application to fly UAS/Model Aircraft necessarily includes the following information and supporting documentation:

- (1) UAS / Model Aircraft Manufacturer, Model, Weight, and FAA Registration Number;
- (2) Dates of planned operation;
- (3) Locale(s) of planned operation, including the resident or temporary populations therein;
- (4) Purpose(s) of the operation;
- (5) The identity of pilot(s) or other remote operator(s)<sup>2</sup>;
- (6) All forms of data (including imagery) to be collected;
- (7) Current status of any required licenses or permissions<sup>3</sup>; and

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<sup>2</sup> Prior to acting as Operator for a UAS, referred to by the FAA as a Remote Pilot in Command (PIC) the PIC must obtain a Remote Pilot Certificate with a UAS rating using FAA Form 8710-13. PICs must also successfully complete an FAA approved aeronautical knowledge test, with recurrent training requirements.

<sup>3</sup> All University employees or students wishing to operate UAS as part of their University employment or as part of a University program must operate either under FAA Part 107 regulations or under the University's Public Use Section 333 Grant of Exemption from the FAA (December 15, 2015), and Blanket Certificate of Authorization (COA) that stipulates which UAS may be flown

<sup>4</sup> For all flights planned on University property, given the University's main campus is located within the FAA Controlled Airspace of Burlington International Airport (BTV), all operators must receive airspace approval in advance of securing UASWG approval to obtain written clearance. If approved by the UASWG, the Operator must follow the regulations and guidance in accordance with this authorization which may include

- (8) Provisions for security of the equipment, both during and outside of operation, and of any sensitive data collected.

As part of the Application, the applicant must also:

- (1) Attach proof that the Operator is certified or licensed to operate the UAS or Model Aircraft in accordance with Federal regulations.
- (2) Attach proof of FAA UAS registration.
- (3) Attach proof of insurance (usually a certificate from your insurer) clearly indicating the minimum liability insurance coverage as noted in paragraph 4 above.
- (4) Attach a risk assessment or pre-flight checklist for the flight(s) (may be embedded in the application or attached as a separate document)
- (5) Attach a map showing the planned flight in Keyhole Markup Language (KML) or Geographic Information System (GIS) layer.
- (6) Attach a signed UVM risk acknowledgment (indemnification) of UAS operations for each participant.
- (7) Verify Burlington International Airport (BTV) has been notified and acknowledges the planned flight (if within 5 miles of BTV).<sup>4</sup> Attach proof of airspace authorization when flying within BTV Class C airspace, either authorized through BTV's Low Altitude Authorization and Notification Capability (LAANC) or by FAA approval of an airspace authorization request submitted via FAA DroneZone.
- (8) Attach any relevant and FAA-approved operational waivers, if planning to operate outside the limitations of a regulation.

### **Review of Use Applications by the UASWG**

Upon receipt of an Application for Public or Commercial Use, or Educational Instruction, the UASWG Chair will convene the UASWG no later than five (5) working days after receipt to review the submission.

For approval of an Application by the UASWG:

- (1) The Application and supporting documentation must be forthcoming and complete in its content;
- (2) The envisioned operation(s) must comply with applicable laws, government regulations, and other University policies;
- (3) The envisioned operation(s) must not pose an unacceptable threat to health, safety, privacy, or the environment, either in an absolute sense or compared to other methods of obtaining the desired information; and
- (4) The envisioned operation(s) must be judged by the UASWG to be in the best interest of the public and The University.

If an Application is found to meet the four above criteria, the UASWG will recommend its approval to the Vice President for Operations and Public Safety. The decision, which is final, will be promptly communicated to the requestor.

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complying with and contacting the BTV ATCT immediately preceding flight operations for final clearance, as well as after the flight has concluded.

If an Application is found to be incomplete, the UASWG will return it to the requestor with recommendations for next steps.

If the proposed operation(s) cannot be conducted within the restrictions of this UOP and current federal, state, and local laws, the UASWG will deny approval in consult with the VPOPS.

### **Safety and Privacy Guidelines**

Operators of UAS and Model Aircraft should always keep safety in mind, particularly the risk of injury to people and property. The following procedures must be followed at all times:

- Operators should be aware of potential failure modes for their system and plan to conduct operations to minimize the risk to persons and property with these events in mind (battery failure, wind/weather conditions, control signal loss). Operators should test, to the extent reasonably possible, the function of built-in safety features (such as lost-signal return and kill switches).
- Operators should establish and keep detailed and thorough checklists for all necessary pre-flight, flight, and post-flight procedures, and highlight important safety events (such as arming motors).
- When planning a flight, Operators must consider the risks to persons or property in the flight path and surrounding areas. These risks, and mitigation strategies to reduce them, such as placing safety barriers around, or visual indicators of, any areas of danger when systems are being tested or are in use, must be addressed in the Operators' application to the UASWG.
- UAS and Model Aircraft must have an FAA Registration Number affixed to it, as well as an identification plate with the name, address, and phone number of the owner.
- Operators must ensure pre-flight detailed and thorough training of all Operators and flight crew specific to the UAS or Model Aircraft being used.
- UAS and Model Aircraft should only be flown during daylight hours and in good weather. Nighttime flying is not permitted unless otherwise requested via appropriate application to the UASWG and approved in writing thereby, in addition to the provision of a successful Operational Waiver from the FAA allowing such operations.
- UAS and Model Aircraft must remain within visual range of the Operator(s), unless otherwise requested via appropriate application to the UASWG and approved in writing thereby, in addition to the provision of a successful Operational Waiver from the FAA allowing such operations.
- UAS and Model Aircraft may not be flown more than 400 feet above ground level, unless otherwise requested via appropriate application to the UASWG and approved in writing thereby, in addition to the provision of a successful Operational Waiver from the FAA allowing such operations.
- UAS and Model Aircraft must not be used to take photos or videos of identifiable persons or property without express written permission of the landowner and the persons involved, in addition to the University. Further, UAS and Model Aircraft may not be used to monitor or record in sensitive areas, or areas where there is a reasonable expectation of privacy. These areas can include restrooms, locker or changing rooms, residence hall rooms or apartments without permission, child care centers, and medical treatment facilities. Requests to video or photograph University property should be directed to University Communications in accordance with the University's [Filming on Campus Operating Procedure](#).
- UAS and Model Aircraft must not be intentionally flown over people not directly involved in flight operations (e.g. the Operator or Member of the Flight Crew) or within a 30-foot radius of moving vehicles or persons who are not under safe cover, such as a protective structure, unless otherwise requested via

appropriate application to the UASWG and approved in writing thereby, in addition to the provision of a successful Operational Waiver from the FAA allowing such operations.

- UAS and Model Aircraft may not be operated in populated areas or near large groups of people, such as sporting events, concerts, and festivals unless otherwise requested via appropriate application to the UASWG and approved in writing thereby, in addition to the provision of a successful Operational Waiver from the FAA allowing such operations.

### Required Reporting

For UAS flight operations taking place on the UVM Campus, operators must Inform UVM Police Services of their flight location and timing within 24 hours prior to beginning the operation.

Operators must report all accidents involving their UAS that result in damage to the UAS, damage to property, and/or a serious injury or death of a participant or non-participant to the UASWG within 24 hours after an accident has occurred. Operators should use UVM's incident/accident report form when reporting an incident/accident to the UASWG. Operators must also follow current federal regulations for incident reporting to the FAA.

### Contacts

Questions concerning the daily operational interpretation of this UOP should be directed to the following:	
Title(s)/Department(s):	Contact Information:
Emergency Manager	(802) 656-4363 <a href="mailto:emergency@uvm.edu">emergency@uvm.edu</a>
Director of Operations, Office of the Vice President for Research	(802) 656-4566 <a href="mailto:dan.harvey@uvm.edu">dan.harvey@uvm.edu</a>

### Forms/Flowcharts/Diagrams

- Application to Fly UAS / Model Aircraft
- Risk Acknowledgement (indemnification)
- Risk Assessment Template / Preflight checklist
- Incident / Accident Report

### Related Documents/Policies

- [Code of Student Conduct](#)
- [Export Controls Policy](#)
- [Facilities and Grounds Use Policy](#)
- [Filming on Campus Procedure](#)
- [Privacy Policy](#)
- [Video Surveillance Procedure](#)

### Training/Education

Training will be provided on an as-needed basis as determined by the Approval Authority or the Responsible Official.

## Testing/Licensure/Certification

Testing/Licensure/Certification related to this policy is as follows:

<b>Audience:</b>	Anyone operating a Model Aircraft or UAS under this UOP	<b>Type of Testing, License or Certification Required:</b>	Part 107 Pilot's License
<b>Delivered/ Administered by:</b>	FAA	<b>Frequency:</b>	Renewal every two years

## About This Procedure

<b>Responsible Official:</b>	Vice President for Operations and Public Safety	<b>Approval Authority:</b>	Vice President for Operations and Public Safety
<b>Affiliated Policy Number(s):</b>		<b>Effective Date:</b>	August 30, 2016
<b>Revision History:</b>	<ul style="list-style-type: none"><li>• Approved by the Vice President for University Relations and Administration August 30, 2016</li><li>• Responsible official officially changed from the Vice President for University Relations and Administration to the Vice President for Operations and Public Safety on October 1, 2019</li><li>• March 3, 2021</li></ul>		