



Policy on the Use of Unmanned Aircraft Systems (UAS)

Purpose

The use of Unmanned Aircraft Systems (UAS), also referred to as “drones” can make significant contributions to Tufts research, education, service, and outreach in a variety of disciplines. Tufts University seeks to permit UAS to be utilized productively by members of Tufts community. The Federal Aviation Administration (FAA) regulates the operation of UAS, including drones and model aircraft.

This Policy and the attached Protocol establish certain procedures to ensure compliance with applicable federal, state, and local regulations and to reduce risks to persons, property, security and privacy and sets forth the requirements for the safe and appropriate use of UAS on, from or above University owned or controlled property. The attached Protocol is adopted on an interim basis and will be updated by the School of Engineering and the Office of University Counsel based upon changes in federal regulations and University policy.

Scope

This Policy applies to all employees, faculty, students, affiliates and invitees of Tufts University seeking to operate UAS on, from or above the University campuses of Medford/Somerville and Grafton or at University-sponsored events. This Policy also applies to all employees, faculty and students of Tufts University seeking to operate a UAS on, from or above third-party property for Tufts’ research, education and operational purposes.

Until further notice, no use of a UAS is permitted on, from or above University Property (indoors or outdoors), unless

- (a) a UAS is being used in connection with a research or an educational course or program that is being conducted by a Tufts PI (as defined below) or by a post-doc or a student supervised by a Tufts PI, but only in accordance with applicable law and the guidelines set forth in this Policy and the attached Protocol;
- (b) a UAS is being used by the registered members of an officially-recognized and faculty-supervised Tufts UAS/Drone Club (as defined below) in accordance with applicable law and the guidelines set forth in this Policy and the attached Protocol. Members of such UAS/Drone Club are required to follow the guidelines set forth in this Policy and the attached Protocol and any failure to comply may result in such club losing its authorization to fly UAS on, from or above University Property; or
- (c) a UAS is being used by a person or an entity, which (i) is fulfilling Tufts’ educational, research or operational needs, (ii) is pre-approved in writing by the Office of University Counsel and (iii) enters into an agreement with the University in the form approved by the Office of University Counsel, which shall include a clause agreeing to comply with the guidelines set forth in the Policy and the attached Protocol and clauses requiring adequate insurance and indemnification language.



No hobby or recreational use of UAS is permitted on, from or above or at any University-sponsored event.

Until further notice, no person or company that is not a Tufts faculty, employee, student shall be allowed to operate a UAS on, from or above University Property or at any University-sponsored event, unless such person or company has received written approval from the Office of University Counsel.

Policy Statement

Tufts University recognizes that members of the University community may desire to utilize the technology of UAS for a variety of different purposes including research and education, as well as for approved operational or other needs. At the same time, Tufts University must comply with Federal Aviation Administration requirements and state law regarding these UAS. This Policy and the attached Protocol establishes the requirements for the operation of a UAS on, from or above Tufts University campus and/or at a University-sponsored event and/or for a University educational, research or operational purposes.

1. Definitions

FAA: The Federal Aviation Administration, and agency of the U.S. Government having national authority and powers to regulate all aspects of civil aviation.

Principal Investigator (PI): A member of the Tufts faculty or administration, who must be an employee of Tufts, recognized as having the skills and training for flight operations and holds a current remote pilot certificate with valid airmen number as issued by the FAA.

Safe Fly Zone: An area of land on University property listed on the Protocol where UAS can be operated with proper approval from the University as set forth in this Policy and the Protocol. Tufts University Police Department (TUPD) reserves the right, at any time, to cease approved UAS operations if a Safe Fly Zone is deemed unfit for UAS flight or to modify the areas listed on the Protocol.

Temporary Safe Fly Zone: An area of land on University property listed on the Protocol where a UAS can be operated with proper approval from the University. Tufts University Police Department (TUPD) reserves the right, at any time, to cease approved UAS operations if a Temporary Safe Fly Zone is deemed unfit for UAS flight.

UAS/Drone Club: An organization associated with a research or academic activity, under the supervision of a PI, having a charter, and rules of conduct in compliance with this Policy and Protocol, that is officially recognized by the DPES, the School of Engineering and the Office of University Counsel.

University Property: Any land, grounds, buildings, or facilities owned, leased, or used by Tufts University, all job sites for university employees, all classrooms, all event sites for visitors and



all other venues in which the University controls the site. Also included are University owned streets, sidewalks, and bike paths. Additionally, the University Property shall include the airspace above all aforementioned areas from the surface to the altitude limit imposed upon the airspace by the FAA.

Unmanned Aircraft Systems (UAS): A remotely operated or controlled aircraft that consists of the unmanned aircraft (UA) payload and all of the associated support control and navigational equipment used to operate the aircraft. UAS include devices commonly referred to as drones or unmanned aircraft vehicles (UAVs).

2. Requirements for all UAS Operations on Tufts Campus

2.1 All members of the Tufts community are personally responsible for complying with FAA regulations, federal and state laws, this Policy and the attached Protocol.

2.2 No use of a UAS on, from or above University Property (indoors or outdoors) is permitted, unless such UAS flight is fulfilling Tufts' educational, research or operational needs.

2.3 All members of the Tufts community desiring to fly a UAS (indoors or outside) on, from or above University Property must register with Tufts and receive approval as set forth in this Policy and the Protocol. All flights on, from or above Tufts' Grafton campus must obtain approval from Cummings' Executive Associate Dean. The approval process and the required qualifications are as set forth in this Policy and the attached Protocol.

2.4 All members of the Tufts community desiring to fly a UAS (indoors or outside) on, from or above non-University Property for Tufts educational, research or operational purposes must register with Tufts and receive approval as set forth in this Policy and the Protocol, as well as obtain any necessary permission from applicable land owners. The approval process and the required qualifications are as set forth in this Policy and the attached Protocol.

2.5. All UAS systems must be registered with the FAA, as detailed in the Protocol, to be eligible to conduct flight operations and fly on University property.

2.6 All UAS approved for flight under this Policy and the Protocol must be (a) capable of sustained flight in the atmosphere; and (b) flown within visual line of sight of the aircraft operator.

2.7 A UAS must not exceed a weight of 55 pounds and requires appropriate marking prior to any flight operation.

2.8 Prior to any outdoor UAS flight on, from or above University Property, an operator must either hold a remote pilot airman certificate or pilot certificate or be under the direct in-person supervision of a person who does hold a remote pilot airman certificate or pilot certificate.



2.9 All outside flights of UAS on, from or above Somerville/Medford campus are subject to notification and authorization from the FAA as set forth in the Protocol, using an FAA approved app.

2.10 No UAS usage is allowed on, from or above Boston campus.

2.11. All accidents, property damage and injuries resulting from a UAS usage must be reported to Tufts University Police Department and appropriate state and federal law, rules, and regulations.

2.10 Verification of the UAS registration and the remote pilot certificate are required in order to conduct flight operations and to fly outdoors a UAS for research or academic purposes on any of Tufts University campuses.

2.11 Members of an officially recognized UAS/Drone Club must each register with Tufts University Department of Public and Environmental Safety (DPES).

2.12 UAS operators must only conduct approved flights under favorable conditions. If unforeseen circumstances develop (e.g., adverse weather or a previously approved location becomes congested) under which operations cannot be conducted in a safe manner, the operator must postpone the flight and request an extension from DPES.

3. Procedure for Obtaining Approval

3.1 Tufts community members must obtain approval before operating UAS on University Property or at a University-sponsored activity by submitting a completed UAS Flight Operations Notification Form in accordance with the Protocol.

3.2 Except as otherwise set forth in this Policy, no person outside of Tufts community shall be granted an approval to fly or operate a UAS on, from or above University Property or at a University-sponsored activity or event.

4. Procedures for Outdoor Use

Outdoor flights of UAS are governed by FAA regulations. Operators are also responsible for abiding by the guidance below.

4.1 UAS may not be used for any illegal purposes.

4.2 Any Tufts faculty, employee or student wishing to operate UAS for Tufts programs for any Tufts-related purposes (including research or educational purposes) must operate in accordance with the Protocol and applicable laws.

4.3 Flight operations on, from or above Tufts-owned property shall only occur at locations identified as Safe Location Zone or Temporary Location Zone, unless prior written approval is obtained from the DPES and the Office of University Counsel.



4.4 If a Tufts University unit or individual arranges for a contractor or third party to use UAS for purposes associated with a University facility or event, such unit or individual must first receive written approval from DPES, the Office of University Counsel and Purchasing. Such third parties planning to use UAS must provide proof of FAA notification and authorization and remote pilot's certificate. In addition, the operation of UAS by such third party over Tufts property or a Tufts event must be under a written contract which holds the University harmless from any resulting claims or harm to individuals or damages to University property and provides evidence of adequate insurance (naming Tufts as an additional insured). A flight plans and other documentation associated with third-party flight operations must be filed with DPES as set forth in the Protocol.

4.5 UAS must only be operated in a manner, which does not interfere with the flight path, or operation of other manned aircraft or any other University activity.

4.6 Tufts University Police Department (TUPD) reserves the right to terminate approved UAS operation if an officer determines that conditions are not conducive to safe flying or the flight violates applicable law, this Policy, the Protocol or the privacy policy of the University or the privacy rights of third parties.

4.7 UAS must be flown well clear of all surrounding obstacles such as utility lines, buildings, and other structures.

4.8 UAS must not be flown over or above groups of people. No flight is allowed above an athletic event or above or in connection with other activities such as, as examples only, Commencement, Matriculations or Community Day. If a Safe Fly Zone was open and later becomes congested with people, operation of the UAS must cease.

4.9 UAS must not be flown over or above animals being kept at Grafton campus or to annoy or harass such animals.

4.10 UAS must not be flown close to buildings or above buildings (even above Tufts buildings) unless special permission has been given by DPES.

4.11 UAS operators must not recklessly attempt to perform maneuvers that could result in injury or damage.

4.12 UAS must remain within the visual line of sight of the remote pilot and flight crewmembers designated as visual observers in the flight plan at all times. No flights may be operated during low light or nighttime conditions. Flights will only be permitted between full sunrise and one hour before sunset. No flight operations may be conducted below FAA defined weather and visibility minimums for UAS.

4.13 UAS must not contain or carry hazardous materials, infectious agents, pesticides, herbicides or weapons, or live biological organisms.



4.14 UAS must not be used to identify or disseminate information regarding the Cummings School's laboratory animal facilities and the Regional Biosafety Laboratory at Cummings.

4.15 For any flights on, from or above Tufts' campus, DPES for such campus retains the right to limit or cease any UAS activity if an operator does not cooperate with Tufts in its effort to manage UAS activity on such campus. In addition, an operator of a UAS on Tufts' Grafton campus must cooperate with Cummings School's efforts to manage UAS activity.

4.16 Operators must conduct a pre-flight safety risk assessment.

4.17 UAS must be operated in accordance with any other applicable University policies.

4.18. If a UAS is being flown on, from or above a third-party property for University educational, research or operational purposes, approval must be obtained in accordance with the Protocol. Operator may be ***personally*** liable if such operator fails to obtain appropriate approval from such third party.

5. Procedure for Indoor or Outdoor Use Contained by Netting

Indoor flights, as well as outdoor flights under netting, are not covered by FAA regulations. However, operators of UAS in those locations must abide by the following guidance for safety purposes:

5.1 Tufts community members must obtain approval before operating UAS on, from or above University Property or at a University-sponsored activity by submitting a completed UAS Flight Operations Notification Form and UAS Flight Operations Flight Plan as specified in the Protocol.

5.2 On Tufts campus, flight operations shall occur only at approved indoor, netted, or temporary structure locations designated for UAS flights, with prior permission from the DPES and Athletics (See Protocol for those who can grant approval for Athletics.)

5.3 Individuals who wish to operate UAS at other locations inside Tufts buildings will need written approval in advance from DPES. DPES will review the planned flight operations and, if approved, work with the operator to mitigate any potential risk to persons or property in the area (e.g., through risk assessment, installation of cages over sprinkler heads, etc.).

5.4 Operators must conduct a pre-flight safety risk assessment.

5.5 Operators must follow the Guidelines for Indoor Use of Unmanned Aircraft Systems (UAS), based on the Academy of Model Aeronautics (AMA) National Model Aircraft Safety Code (see attached to the Protocol).

6. Appropriate and Prohibited Uses; Video



6.1 In operating UAS including drones for purposes of recording or transmitting visual images, operators must not record images in areas where one would have a reasonable expectation of privacy. Absolutely no images may be taken of non-Tufts buildings unless the aerial image is of a general landscape in panoramic view.

6.2 UAS shall not be used to monitor or record areas where there is a reasonable expectation of privacy. These areas include but are not limited to third party houses, buildings or premises, restrooms, locker rooms, individual residential rooms, changing or dressing rooms, and health treatment rooms, residential facility hallways connected to living spaces, residential facility lounges and offices.

6.3 UAS must not be used for the unapproved recording of individuals, animals, performances, or campus events. Those who record images or take visual images using UAS in violation of this Policy are ***personally*** liable for any invasion of privacy claims, regardless of whether the flying of UAS on, from or above University Property was approved by DPES or other offices at Tufts.

6.4 Except as otherwise set forth in Section 6.6, UAS shall not be used to monitor or record sensitive institutional or personal information including any information found or stored on electronic devices. Those who monitor or record such sensitive institutional or personal information, including any information found or stored on electronic devices using UAS, in violation of this Policy are ***personally*** liable for any invasion of privacy claims, regardless of whether the flying of UAS on, from or over University Property was approved by DPES or other offices at Tufts or the flight is being conducted for University purposes.

6.5. TUPD will not use drones for law enforcement purposes, except in emergency situations and only after the express approval of the Executive Vice President of the University.

6.6 Images and other monitors or recordings of sensitive institutional or personal information by TUPD by using a UAS must be in compliance with the University Video Security Policy and privacy guidelines or be subject to subpoenas or other court or government orders.

7. UAS Operators

7.1 All UAS operators must satisfy the following requirements:

- Make the drone available to the FAA or University representative for inspection or testing at any time on request
- Must provide any associated records required to be kept per the FAA or this Policy and the Protocol.
- Attend required knowledge and flight operations training.
- Must obtain remote pilot certificate.
- Read and operate in accordance with this Policy and the Protocol, 14 CFR Part 107, Operation and Certification of Small Unmanned Aircraft Systems and FAA Advisory Circular 107-2, and compile with any other applicable FAA documentation.
- Prior to flight operations (even for non-research or non-educational



flights), notify and obtain approval from the University in accordance with the Protocol.

- Register all UAS with the FAA (<http://www.faa.gov/uas/registration/>).
- Report all accidents or near misses to DPES, FAA, or NTSB authorities as required.



- Notify and obtain authorization from the FAA for any outdoor flights within 5 nautical miles of an airport (or a greater distance as noted by the FAA depending on the class of the airport), which covers the entire Tufts Medford/Somerville campus, using an app approved by the FAA.
- Conduct a pre-flight safety check and risk assessment.
- For indoor flights, follow the Guidelines for Indoor Use of Unmanned Aircraft Systems (UAS), based on the Academy of Model Aeronautics (AMA) National Model Aircraft Safety Code (attached to the Protocol).

7.2 All UAS operators must individually register with DPES.

8. Flight Notification, Operations and Crew

8.1 A flight crew must consist of a remote pilot who must hold a 14 Part 107 certificate and other appropriate crewmembers to meet the operational requirements, risk assessment, and safety considerations for the planned flight. Such remote pilot must be present for 100% of the time that an UAS is in flight.

8.2 Other provisions in the Protocol regarding flight notification, operations, emergency and safety coordination must be followed.

9. Sanctions

Any violations of law (trespassing, illegal surveillance, reckless endangerment) or violations of University policies may subject the individual(s) to both criminal and/or disciplinary action. Students of the Tufts University community who violate this Policy or the Protocol will be subject to disciplinary measures as stated under the Code of Conduct located in the Student Handbook. Damages/injuries occurring to University property or individuals will be the *personal* responsibility of the UAS operator. Any use of UAS on, from or above University Property in violation of law or University policies may result in such UAS being seized by TUPD.

10. Questions

Individuals with questions, comments or concerns about this Policy or the Protocol or any of the related procedures should inquire of the Department of Public and Environmental Safety at: Boston campus: 617-636-3030; Grafton campus: 508-839-5303; and Medford/Somerville campus: 617-627-3030.

Approval Entity(ies)
Office of University Counsel
Academic Council



Approval Date

May 7, 2019

Effective Date

May 7, 2019

Executive Sponsor(s)

Jianmin Qu, Dean of School of Engineering

Mary R. Jeka, Senior Vice President and General Counsel

Responsible Office(s)

School of Engineering

Office of University Counsel

Tufts University Department of Public and Environmental Safety (DPES)

Risk Management Office

Government and Community Relations Department

Revision

The University reserves the right to change this Policy from time to time. Proposed changes will normally be developed by those responsible for this Policy with appropriate stakeholders. The approval entities have sole authority to approve changes to this Policy.

Review Cycle

Annually

Related Policies

Not applicable



PROTOCOL

For a Tufts flight (by a Tufts faculty, staff or student per the policy), the request for approval must be completed no later than twenty-four (24) hours prior to flight.¹

For non-government agency third party flights (even if requested by Tufts), the request for approval must be completed no later than five (5) business days prior to flight.² This approval is in addition to any approval that may need to be obtained from purchasing, TSS, the Office of University Counsel or Risk Management.

Approval request in the UAS Flight Operations Notification Form shall include the following:

- (a) Acknowledgement that the applicant has reviewed the Policy
- (b) Intended purpose of flight
- (c) Authorization context: examples: (i) approved student group, (ii) educational or research program, or (iii) 3rd Party vendor/invitee
- (d) Equipment declaration and use — video, audio, sensors, etc
- (e) Description of location
A list of the “Safe Fly Zone,” if any, is maintained by TUPD
- (f) Date and time of flight (Note: request must be cancelled if weather or other reasons do not permit)
- (g) Coordinates of location of flight — use latitude and longitude to define center point of flight operations, define altitude limit, define lateral distances from latitude/longitude center point to completely define volume of flight airspace
- (h) Flight Crew and responsible supervision
 - a. Name of Tufts responsible faculty or staff person and contact information (mobile phone and Tufts domain email)

¹ Any request made after regular work hours or on a weekend day or a holiday may not be reviewed until the next business day. There is no guarantee that a full approval will be given within any time period.

² Any request made after regular work hours or on a weekend day or a holiday may not be reviewed until the next business day. There is no guarantee that a full approval will be given within any time period. Approvals of these flights may be subject to in-person supervision by TUPD or by another department at the University.



- b. Name of others involved in drone flight and contact information; define remote pilot, safety liaison, and flight crew with TUPD (mobile phone and Tufts domain email)
 - c. Name of person with remote pilot license (must be a Tufts' person and be present), FAA remote pilot license number, and contact information (mobile phone and Tufts domain email)
- (i) Department/Program within Tufts [school/department/course/central office]
 - (j) Disclose any use of resulting video, photo or sensor
There are limits on using Tufts' name or logo or using third party facial image/voice
 - (k) **IF OUTDOORS (MEDFORD/SOMERVILLE and elsewhere required by law)**, FAA authorization of flight – must receive evidence of authorization from the FAA using an industry supported smartphone app approved for this use by the FAA (for example: LAANC- the Low Altitude Authorization and Notification Capability)
 - (l) **IF INDOORS OR ON AN ATHLETIC FIELD AT TUFTS**, electronic approval of the Athletic Dept (or other method promulgated by the Athletic Dept for the location, such as the sign-up sheet for the squash courts)
 - (m) **IF ON, FROM OR OVER GRAFTON CAMPUS**, electronic approval from Cummings Executive Associate Dean
 - (n) **ALL FLIGHTS ON, FROM OR OVER UNIVERSITY PROPERTY OR FOR TUFTS' PURPOSE**, electronic approval of EHS
 - (o) **ALL FLIGHTS ON, FROM OR OVER UNIVERSITY PROPERTY OR FOR TUFTS' PURPOSE**, electronic approval of TUPD
 - (p) **Unless otherwise in compliance with applicable law, ANY OUTDOOR OR INDOOR FLIGHT FOR TUFTS PURPOSE IN, ON, FROM OR OVER A THIRD-PARTY PROPERTY** must receive the landlord's and tenants' approval
 - (q) Approval requests must copy the Government and Community Relations Department and the Office of University Counsel
 - (r) Flight request, flight operation plan, and any other electronic supporting documents will be saved with TUPD
 - (s) All approvals may be withdrawn in the discretion of TUPD



- (t) Approval of certain flights may require in-person supervision by TUPD or by another department at the University

Questions

Individuals with questions, comments or concerns about this Policy or the Protocol or any of the related procedures should inquire of the Department of Public and Environmental Safety at: Boston campus: 617-636-3030; Grafton campus: 508-839-5303; and Medford/Somerville campus: 617-627-3030.

Effective Date

May 7, 2019

Responsible Office(s)

School of Engineering

Office of University Counsel

Tufts University Department of Public and Environmental Safety (DPES)

Revision

The University reserves the right to change this Protocol from time to time. Proposed changes will normally be developed by those responsible for this Protocol with appropriate stakeholders. The approval entities have sole authority to approve changes to this Protocol.