**Cornell University**

Guidelines for use of UAV at the University or for University-related business purposes

**Purpose**

The emergence of Unmanned Aerial Vehicles (UAV), also known as “drones”, have created many exciting opportunities for Cornell University. They also create risks to privacy, security, regulatory compliance, property damage and personal safety.  The Office of Risk Management and Insurance has established guidelines to address these risks and help the University community operate UAV safely, responsibly and legally.

**General Rules**

1. All operations at Cornell University must comply with FAA regulations, state and local laws / ordinances and University regulations
2. UAV shall not exceed an altitude of 400 feet above ground level.
3. UAV speeds shall not exceed 20 miles per hours (MPH)
4. The UAV must always be within the operator's line-of-sight.
5. UAV shall not interfere with manned aircraft.
6. UAV shall not fly over large crowds or people.
7. Operators shall take reasonable precautions to respect other people’s privacy.
8. Operators shall reasonably attempt to notify people in the area about the operation.
9. Operators shall not control the UAV from moving vehicles.
10. Operators shall not recklessly operate the UAV.
11. Operators shall not operate the UAV while under the influence of drugs or alcohol.
12. Operations shall only occur during daylight hours, unless the operator has received FAA authorization to operate at night and obtained approval from Risk Management.
13. Operations shall not occur if the FAA issues any Temporary Flight Restrictions for the airspace over the University.

**Procedures for Commercial Operations**

The Federal Aviation Administration (FAA) considers operations conducted for University-related business purpose as commercial use. The FAA and the Office of Risk Management and Insurance have implemented rules for commercial UAV operations, including the following:

The following will need to be submitted to the Office of Risk Management and Insurance prior to any UAV operations:

* UAV Flight Request Form
* UAV Pilot Certification
* FAA Registration number
* Evidence of Commercial General Liability Insurance
* Waivers and/or Airspace Authorization documents (if operating in controlled airspace)

**UAV pilot certification**: The FAA and Risk Management and Insurance require commercial operators to be certified UAV pilots.  You can obtain the certification by completing the process outlined below.

1. Part 61 pilot certificate holders with a current flight review must complete the FAA’s training course. There are two options for completing the training:
	1. ALC-451: Part 107 Small Unmanned Aircraft Systems (sUAS). <https://www.faasafety.gov/>, or
	2. The initial FAA Unmanned Aircraft General (UAG) Knowledge Test at a Knowledge Testing Center (KTC)
2. All other applicants must complete the ALC-451: Part 107 Small Unmanned Aircraft Systems (sUAS) training course (<https://www.faasafety.gov/> ) and pass the initial FAA Unmanned Aircraft General (UAG) Knowledge Test at a Knowledge Testing Center (KTC). Knowledge Testing Centers: [knowledge-testing-centers](https://blogs.cornell.edu/riskmanagement/files/2016/09/Knowledge-Testing-Centers-2igmqxq.pdf)
	1. **Important!**The UAG Knowledge Test’s content contains information from Part 107 **and** general aviation information, including items like weather conditions, aeronautical navigation, and aviation terminology. The Part 107 information is only about 40-50% of the exam; therefore, passing the exam requires knowledge of general aviation information.  Risk Management and Insurance can provide further guidance.
3. After satisfying the applicable initial training or testing requirements, apply for a part 107 remote pilot certificate with a sUAS rating through an online or paper process. Apply online through the Integrated Airman Certificate and/or Rating Application (IACRA) website or submit a paper FAA Form 8710-13, Remote Pilot Certificate and/or Rating Application. You may be required to meet with an FAA-authorized individual.
4. Please submit a copy of your Remote Pilot Certificate to the Office of Risk Management and Insurance.

**UAV Registration**

1. All UAVs must be registered with the FAA prior to operating at the University if the UAV weighs more than 0.55 lbs.
2. The registration number  must be a unique identifier number, legible, durable and visible or accessible without tools.

**Insurance**

1. UAV operators must have commercial general liability insurance with minimum coverage limits of $2,000,000 per occurrence. Cornell University will need to be named as the certificate holder and an additional insured on a Certificate of Insurance (COI).  A certificate of insurance demonstrating proof of the coverage must be submitted the Office of Risk Management and Insurance.

**Airspace Authorizations and waivers for operating in controlled airspace**

1. Operations that occur within five miles of an airport require FAA approval.  The University’s Ithaca campus is within five miles of the Tompkins County Regional Airport; therefore, all commercial operators flying UAVs at campus must obtain an FAA airspace authorization or waiver form
2. If the operation cannot be conducted within the regulatory structure of part 107, the Remote PIC is responsible for submitting an application for a Certificate of Waiver and proposing a safe alternative. Only certain provisions of part 107 are waivable. The FAA will determine if the proposed operation can be safely conducted under the terms of that Certificate of Waiver. The Office of Risk Management and Insurance must approve all operations occurring within the terms of a waiver.

**Maintaining Privacy**

1. Pilots operating UAV for purposes of recording or transmitting visual images must take all reasonable measures to avoid violations of areas normally considered private.

**Crew Resource Management**

1. UAV operations may involve one individual or a team of crew-members. The Remote Pilot in Command (“Remote PIC”) has the final authority and responsibility for the operation and safety of the UAV.  A person who is not a Remote PIC may operate an UAV only under the direct supervision of the Remote PIC.  A visual observer may be used as a flight crew-member to help see and avoid other objects in the sky or on the ground.

**Accident Reporting**

1. Accidents resulting in serious injury to any person or any loss of consciousness, or damage to property, other than the UAV, if the cost to repair or replace is greater than $500 must be reported to the FAA within 10 days of the operation.
2. Complete a University Injury Report in the event of injuries to any person or any loss of consciousness. [Injury Report Form](https://rmps-prod.hosting.cornell.edu/accinj/)

**Visit these resources for specific operating and pilot certification requirements**

Part 107: Full version

<http://www.faa.gov/uas/media/RIN_2120-AJ60_Clean_Signed.pdf>

Part 107: Summary

<http://www.faa.gov/uas/media/Part_107_Summary.pdf>

**Procedures for Recreational and Hobbyist Use**

Recreational and Hobbyist users are allowed to operate a UAV at the University once Risk Management has approved the operation.  The FAA considers students as recreational or hobbyist operators when operating a UAV for recreational purposes at educational institutions or when operating in furtherance of their education.  The FAA elaborated provided guidance in a [**memorandum**](https://www.faa.gov/uas/resources/uas_regulations_policy/media/Interpretation-Educational-Use-of-UAS.pdf)issued in May, 2016.  Students must operate within the parameters described in the memo and obtain Risk Management’s approval prior to operating UAV at the University.

**Students are required to submit the following forms prior to operating at the University:**

1. Please email the [**UAV Flight Request Form**](https://blogs.cornell.edu/riskmanagement/files/2016/09/UAV-Flight-Request-Form-10ng7c9.pdf)to the Office of Risk Management and Insurance (risk\_mgmt@cornell.edu).Our Office will contact you as soon as possible to provide guidance.
2. Please complete an [**Event Registration Form**](https://activities.cornell.edu/EventReg/) prior to operating the UAV at the University

**Accident Reporting:**

1. Accidents resulting in serious injury to any person or any loss of consciousness, or damage to property, other than the UAS, if the cost to repair or replace is greater than $500 must be reported to the FAA within 10 days of the operation.
2. Complete a University Injury Report in the event of injuries to any person or any loss of consciousness. [Injury Report Form](https://rmps-prod.hosting.cornell.edu/accinj/)