Heathrow plane in near miss with drone 
Drone over White highlights concerns
Drone buzzes Panthers-Chiefs game and police pounce

Fox News Guest Crashes Drone While Talking About Drone Safety

All this legal stuff...

Federal Aviation Administration
- FAA Reauthorization Act of 2012, as amended in 2018
- 4 Main Categories of Users
  - Commercial, Government, Educational, Hobby

North Carolina Department of Transportation
- All operators must pass knowledge based test
- Commercial operators must obtain a permit

Privacy & Other Considerations
Commercial: Part 107

Step 1: Learn the Rules
- Under 55 pounds
- Visual line-of-sight only
- Not over people or under covered structures
- Daylight only
- Under 100 mph
- Under 400 feet from ground (or structure)
- Airspace restrictions
- Only fly in the United States

Step 2: Remote Pilot Certificate
- Eligibility
- Knowledge Test

Step 3: Register Drone with FAA

Commercial: Part 107 Waiver

How to get a waiver:
1. Call us
2. Determine needs
3. Complete application
4. Submit in FAA’s Drone Zone
5. Wait... 90 days

Commercial: Part 107 (Non-Waiver)

Not all of the Part 107 Regulations can be waived...
- Operations from a moving aircraft, vehicle, or boat while carrying property of another on the drone.
- Beyond visual-line-of-sight while carrying property of another.
- 55 pounds of heavier
- Carrying hazardous materials

But... for advanced operations, outside of the Part 107 Waiver, you can apply for Special Authority or Blanket COA or a Public Certificate of Authorization (COA)
Special Authority under § 44807
(formerly Section 333 Exemption)

- Initial skill test - must have airman’s certificate (i.e. a pilot’s license).
- Medical Certificate - fitness test for drone pilots.
- 2:1 person-to-drone ratio to fly
- Daytime operations.
- Visual Line of Sight
- Processing Time - up to 6 months
- Drones weighing more than 55 pounds must receive Special Authority or COA.

Public Safety & Governmental Use (COA)

49 U.S.C. 41025(a)(2): "Governmental Function"
- non-commercial/no compensation
- national defense
- intelligence missions
- firefighting, search and rescue
- law enforcement
- aeronautical research
- biological or geological resource management
- "closely related activities"
  - note the FAA has rejected educational and agricultural research and extension activities by public universities as not falling within the COA-eligible "governmental functions"

Educational Use

Informal Guidance from FAA Memo (2016)
- Limitation for faculty and research

The Reauthorization Act of 2016
- Expanded use for drones in classroom or drone training programs

Current:
- [1] Fly under the Part 107 uAS Rules (or with a waiver):
  - Learn Rules, Pass Drone Test, Register
- [2] Fly as a "recreation or hobby" user
Hobby or Recreational Use

Step 1: Register and Mark Drone

Step 2: Know the Rules
- Only for fun
- Follow safety guidelines
- No more than 400 feet
- Visual Line of Sight
- Avoid: Aircrafts, people, public events, stadiums, emergency response efforts
- BUFLY App

Step 3: (future) Safety Test
- Reauthorization Act of 2018 requires drone operators to pass an online knowledge and safety test and carry proof of test passage

Privacy & Other Considerations (North Carolina)

Knowledge Test (all) and Permit (commercial)

Surveillance -- It is illegal to use UAS to take or distribute images of a person or their home without their consent (NCGS 18A-300.3; NCGS 14-401.2G)

Weapons -- Attaching a weapon to a UAS is a Class E felony (NCGS 14-401.24)

Hunting and Fishing -- Operators may not use a UAS to disrupt wildlife resources or the lawful taking of wildlife. (Illegal to use a UAS in the process of taking wildlife resources (N.C. G.S. 113.185)

Interference with Manned Flights -- Operators may not damage, disrupt the operation of or otherwise interfere with manned flights (N.C. G.S. 14-286.3)

Launch & Recovery Sites -- It is illegal to launch or recover a UAS from either private or state property without the consent of the property's owner (N.C. G.S. 15A-300.3). Local and Federal property have their own laws and regulations governing the launch and recovery of UAS.

Prisons -- It is illegal to fly over any prison - state or federal - in North Carolina (N.C. G.S. 15A-300.3)

University Policy 717: Unmanned Aircraft Systems (currently being updated)

UNIVERSITY POLICY: 717

EXECUTIVE SUMMARY:
U.S. Charlie proposes the potential value of unmanned aircraft systems (UAS) for educational, community, and recreational purposes. In consideration of the personal safety and wellbeing of the UNC Charlotte campus community, and in accordance with applicable state and federal laws, the Policy prohibits the unauthorized operation of UAS on or above the main campus of UNC Charlotte.

Four main categories:
1. University Activities
2. Non-University (Recreational)
3. Prohibited Uses
4. Standards
University Activities

- UAS Flight Notification
- Safety Risk Assessment
- Reporting Incidents & Accidents
- Non-University Property
- Insurance

UAV/Drone Flight Information Form

https://webforms.uncc.edu/risk-management-insurance/hobby-and-recreational-use-uavdrone-flight-information-form

Non-University (Hobby/Recreational)

- Three Days Notice
  - Name of pilot
  - Type of UAS
  - Flight information
  - Participants involved
  - Other information as requested
- Recommended Locations
  - Rec Fields
  - Athletic Field 5
- Pictures and Videos
  - University Communications
Prohibited Uses & Exceptions

- Jerry Richardson Stadium during events
- In or near residence halls
- Sensitive or personal space
- Events with minors

Note: Policy currently does not contemplate joint party commercial drone operations on campus, however, that is managed through OIT and University Communications upon consultation with UGS and the UGS Advisory Committee.

Standards (new Policy draft)

- No flying over people
- No flying above 400 feet
- No flying at night
- No flying in unsafe manner
- No flying outside visual line of sight
- No flying under the influence of alcohol or drugs
- No flying in a manner that interferes with air traffic
- No flying close to other aircraft
- No photography of spaces where an individual has an expectation of privacy
Examples

You want to fly as a hobbyist on campus...

You (U Comm employee) want to fly over a night football game at Jerry Richardson Stadium...
Third Party Commercial Flights on Campus...

Third Party Commercial Flights on Campus...

Come Fly With Me, Let's Fly, Let's Fly Away

Drones at UNC Charlotte