

DRONE THREATS IN THE UNITED STATES AND THE PACIFIC



*Roll
Tide*



THE RISE OF DRONE TECHNOLOGY

- **DRONES (UAVS) HAVE RAPIDLY EXPANDED FROM MILITARY TO COMMERCIAL AND RECREATIONAL USE.**
- **OVER 1,000,000 DRONES REGISTERED IN THE U.S. IN 2025.**
- **AFFORDABLE CONSUMER DRONES HAVE MADE OWNING A DRONE ACCESSIBLE TO EVERYONE.**
- **CONCERNS HAVE GROWN AROUND PRIVACY, SAFETY, AND SECURITY.**
- **UNIVERSITIES ARE PARTICULARLY VULNERABLE DUE TO OPEN CAMPUSES AND SENSITIVE RESEARCH.**



DRONES AKA UAVS AKA UAS
UNMANNED AERIAL VEHICLES -OR -
UNMANNED AIRCRAFT VEHICLES -OR-
UNMANNED AERIAL SYSTEMS

COME IN ALL SHAPES AND SIZES FOR MANY
DIFFERENT ROLES



KEY DRONE-RELATED THREATS TO COLLEGES AND UNIVERSITIES

- **SURVEILLANCE AND PRIVACY INVASION**
- **AIRSPACE SAFETY AND EVENT DISRUPTIONS**
- **WEAPONIZATION AND TERRORISM**
- **SMUGGLING AND ILLEGAL ACTIVITIES**
- **REGULATORY AND LEGAL LIABILITIES**



SURVEILLANCE AND PRIVACY INVASION

- **DRONES CAN CAPTURE HIGH-RESOLUTION AND INFRARED FOOTAGE FROM AFAR.**
- **RISK OF UNAUTHORIZED SURVEILLANCE, PHOTOGRAPHY OVER DORMS, SORORITIES, FRATERNITIES, CLASSROOMS, AND LABS.**
- **EXAMPLE: DRONE SCOUTING BEFORE A TRUMP EVENT AT THE BUTLER FARM SHOW.**
- **THREAT TO INTELLECTUAL PROPERTY AND CONFIDENTIAL RESEARCH.**
- **ETHICAL AND LEGAL CONCERNS OVER PRIVACY VIOLATIONS.**



Cause for Concern?

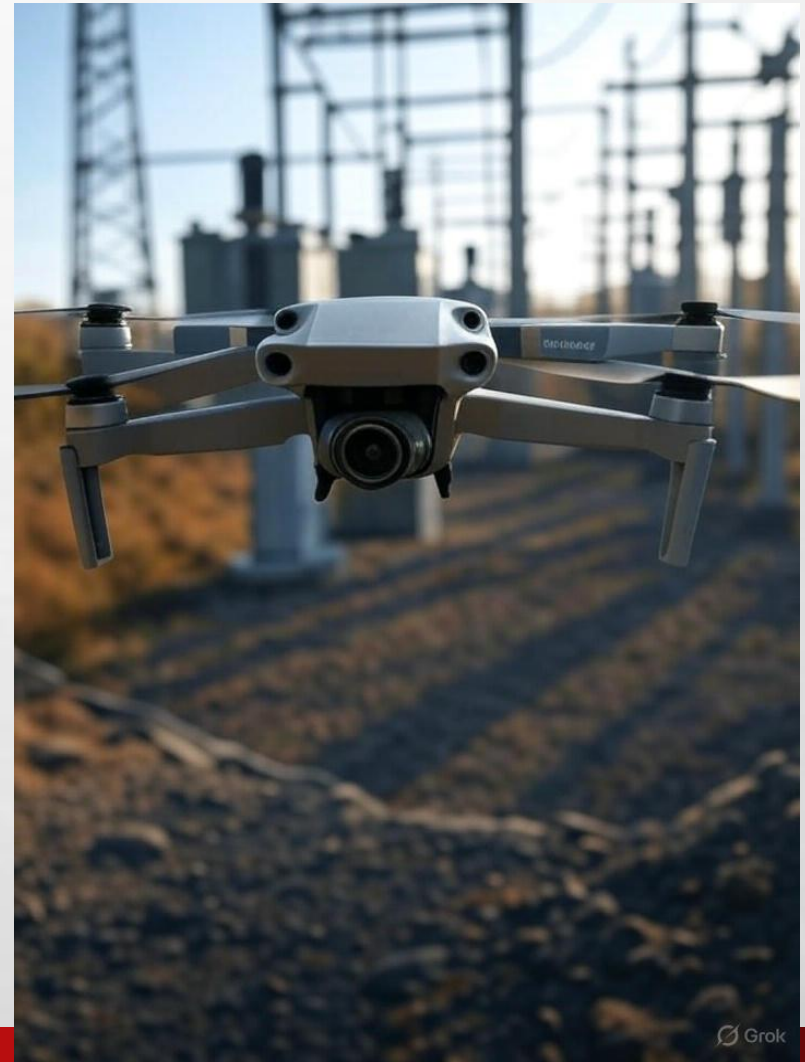


AIRSPACE SAFETY AND EVENT DISRUPTIONS

- **DRONES HAVE DISRUPTED MAJOR EVENTS (E.G., BASEBALL AND FOOTBALL GAMES, CONCERTS).**
- **RISKS INCLUDE PANIC, INJURIES, AND REPUTATIONAL DAMAGE.**
- **INTERFERENCE WITH RESEARCH OR ATHLETIC EVENTS CAN CAUSE DELAYS AND FINANCIAL LOSS.**
- **NEAR-MISS INCIDENTS WITH AIRCRAFT ARE INCREASING.**
- **ACCIDENTAL COLLISIONS WITH PEOPLE, BUILDINGS, OR VEHICLES.**
- **DRONES FALLING FROM THE SKY DUE TO MALFUNCTION OR OPERATOR ERROR.**

**What's wrong
with this
Picture**





WEAPONIZATION AND TERRORISM

- **DRONES CURRENTLY USED IN CONFLICT ZONES TO DELIVER EXPLOSIVES, CHEMICAL AGENTS, OR PLAIN FLOUR OVER A CROWD.**
- **POTENTIAL FOR ATTACKS DURING LARGE CAMPUS EVENTS (GRADUATIONS, GAMES).**
- **CRITICAL INFRASTRUCTURE ATTACKS (ELECTRICAL, WATER)**
- **CYBER ATTACKS USING DRONES EQUIPPED WITH PAYLOADS, SIGNAL JAMMERS.**

SMUGGLING AND ILLEGAL ACTIVITIES

- **DRONES USED TO SMUGGLE DRUGS, WEAPONS, AND CHEMICALS.**
- **EXAMPLE: DRONE RELEASED CHEMICALS INTO POOLS IN 2023.**
- **OPEN CAMPUS LAYOUTS MAKE MONITORING DIFFICULT.**
- **TRADITIONAL SECURITY MEASURES ARE INSUFFICIENT.**

REGULATORY AND LEGAL LIABILITIES

- Unauthorized drone flights can **violate FAA regulations**, putting the university at legal risk.
- The university may face **litigation** from individuals whose rights or safety were violated.
- ALLOWING COMMERCIAL DRONE FLIGHTS WITHOUT INSURANCE. (CONSTRUCTION, PHOTOGRAPHY)

UNIQUE CHALLENGES FOR COLLEGES AND UNIVERSITIES

- **OPEN, ACCESSIBLE ENVIRONMENTS COMPLICATE DRONE DETECTION.**
- **FREQUENT LARGE GATHERINGS INCREASE VULNERABILITY.**
- **HIGH-LEVEL RESEARCH IN SENSITIVE FIELDS IS AT RISK.**
- **NEED FOR TAILORED SECURITY STRATEGIES.**

MITIGATING DRONE THREATS: A COMPREHENSIVE APPROACH

- **INVEST IN DETECTION AND MITIGATION TECHNOLOGIES.**
- **ADVOCATE FOR REGULATORY REFORMS.**
- **PROMOTE PUBLIC EDUCATION AND AWARENESS.**
- **CREATE A COMPREHENSIVE POLICY GOVERNING DRONE FLIGHTS.**
- **CLOSE GAPS IN FAA AND CAMPUS POLICIES.**
- **COLLABORATE WITH LAW ENFORCEMENT AND THE FAA ON ENFORCEMENT AND RESPONSE. (UAS LAW ENFORCEMENT ASSISTANCE PROGRAM)**

This form is intended for use by individuals who request to purchase an unmanned aircraft systems (UAS) with funding through University of Alabama or who request to operate a UAS on University of Alabama owned property or on behalf of the University in another location.

Pilot _____ Email: _____ Phone: _____

Name: _____ Affiliation of Pilot: _____

Mailing Address: _____

Attach required documentation:

Please attach any documentation that should be considered along with your application. Attachments could include a FAA registration certificate, pilot license, 333 Exemption, COA, proof of insurance, flight safety plan, etc. Multiple files may be attached.

Aircraft

Type of UAS: _____ Total Weight of Aircraft (including payload): _____
Total weight includes the aircraft, and any cameras or attached equipment.

Model Number: _____ Serial Number: _____ ECQN: _____
Export Control Classification Number

Ownership: _____ Camera Type: _____

Sponsoring Department or Organization _____ Remote ID/Broadcast ID Equipped: Yes No

UA Dept./Organization: _____

UA Contact: _____
Email: _____ Phone: _____

Flight Plan

Date(s): _____ Time(s): _____ Altitude: _____
For multiple dates, use the description field below.

Site: _____ Location: _____

Event Description: _____
If more space is needed for the description or justification, please use the attachment section above to provide a separate document.

Justification: _____

Acknowledgement

I understand that all operation and use of UAS must comply with FAA regulations and local, state, and federal laws regarding use of UAS, and that it is the responsibility of the operator of the UAS to ensure that all applicable UA policies and all relevant laws and regulations are adhered to during operation of the UAS.

Pilot Signature _____ Date _____

UA Contact Signature _____ Date _____

Internal Review

Category:

Environmental Health & Safety	Attachment	Risk Management	Attachment
Research Compliance	Attachment	Grounds Use	Attachment
UAPD	Attachment	Strategic Communications	Attachment
Environmental Health & Safety	Attachment	Public Safety	Attachment

Final Decision

Approval Status:

Notes:z

DRONE SIGHTING REPORT



QUESTIONS

THANK YOU!

MICHAEL KELLEY

SECURITY TECHNOLOGIES

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