



Choctaw Nation

The Evolving Regulatory Environment for UAS
14 November 2019

Overview

- Current state of UAS regulations
- Historical aspects of aviation law
- Property rights perspective vs privacy perspective

Current Regulatory State for Small UAS

- Small UAS covered by 14 CFR 107
- Still mostly in a “rule-making by exemption/waiver” status
- Still in a “visual line of sight” (VLOS) regulatory situation

Electronic Code of Federal Regulations

e-CFR data is current as of September 24, 2018

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Title 14: Aeronautics and Space

PART 107—SMALL UNMANNED AIRCRAFT SYSTEMS

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The background features a dark grey field with three overlapping circles of varying shades of blue. A white horizontal band cuts across the middle of the circles, containing the title text.

Historical Aspects of Aviation Law

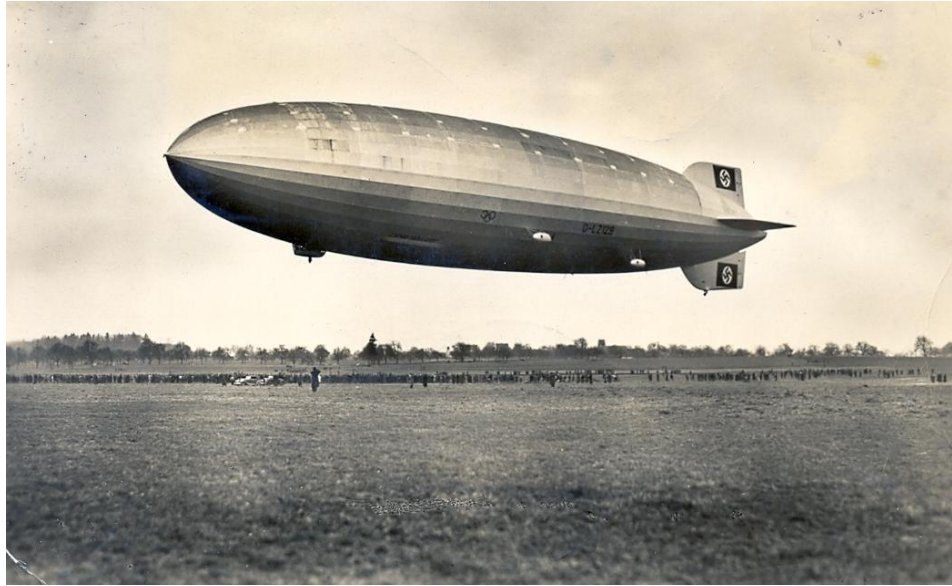


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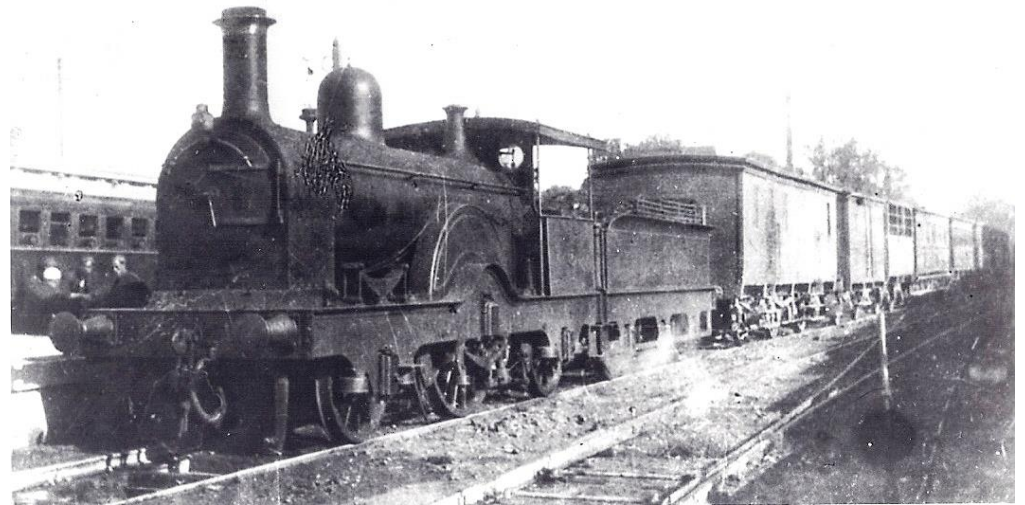
Ad Coelum Doctrine

*"whoever's is the soil, it is theirs
all the way to Heaven and all
the way to hell"*

In the 1920's...



VS





But this happened...

500ft Minimum Safe Altitude

Minimum Safe Altitude



Aircraft vs. Chickens



VS



Then this
happened...

U.S. Supreme Court

United States v. Causby, 328 U.S. 256 (1946)

United States v. Causby

No. 630

Argued May 1, 1946

Decided May 27, 1946

328 U.S. 256

CERTIORARI TO THE COURT OF CLAIMS

Syllabus

500ft Minimum safe altitude

Causby (upper limit of 365 ft)

Causby (lower limit of 83 ft)



500ft Minimum safe altitude

Causby (upper limit of 365 ft)

Griggs (upper limit of 300 ft)

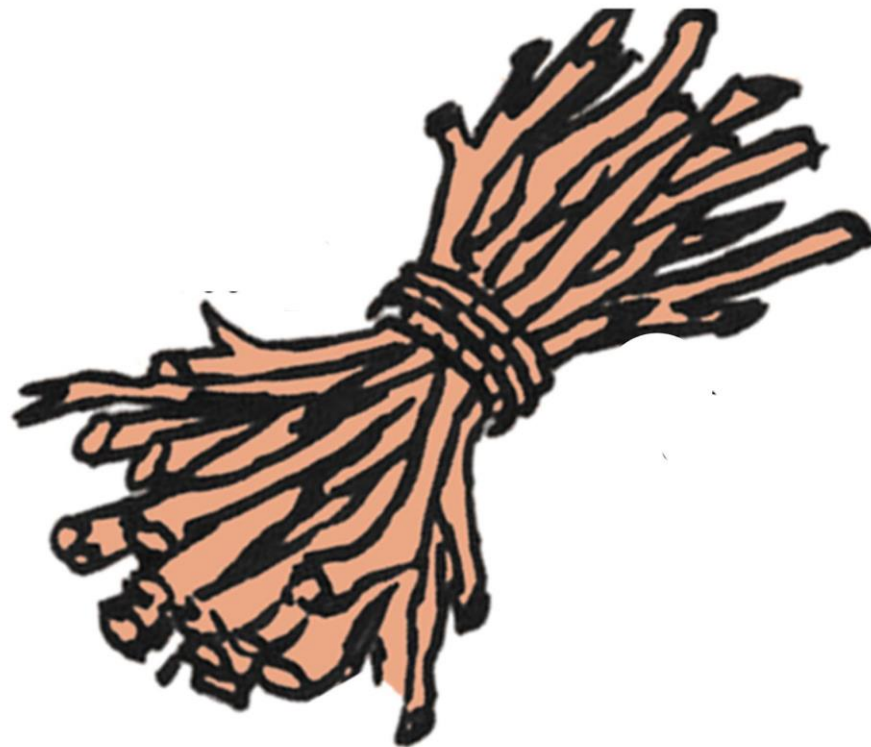
Causby (lower limit of 83 ft)

Griggs (lower limit of 30 ft)



“Bundle of Rights”

- Can include:
 - Right of possession
 - Right of control
 - **Right of exclusion**
 - Right of enjoyment
 - Right of disposition
 - ... among others



*Restatement
of Torts,
Second*
(American Law
Institute)

*“(2) Flight by aircraft in the air space above the land of another is a trespass if, but only if,
(a) it enters into the immediate reaches of the air space next to the land, and
(b) it interferes substantially with the other’s use and enjoyment of his land.”*

*Restatement
of Torts,
Second
(American Law
Institute)*

(1) Flight above 500 feet or more is not within the “immediate reaches” of the surface;

(2) Flight within 50 feet, which interferes with actual use, clearly is within the immediate reaches of the surface;

(3) Flight within 150 feet, which also so interferes, may present a question of fact.

500ft Minimum safe altitude

50 ft (ALI) – “Immediate Reaches”

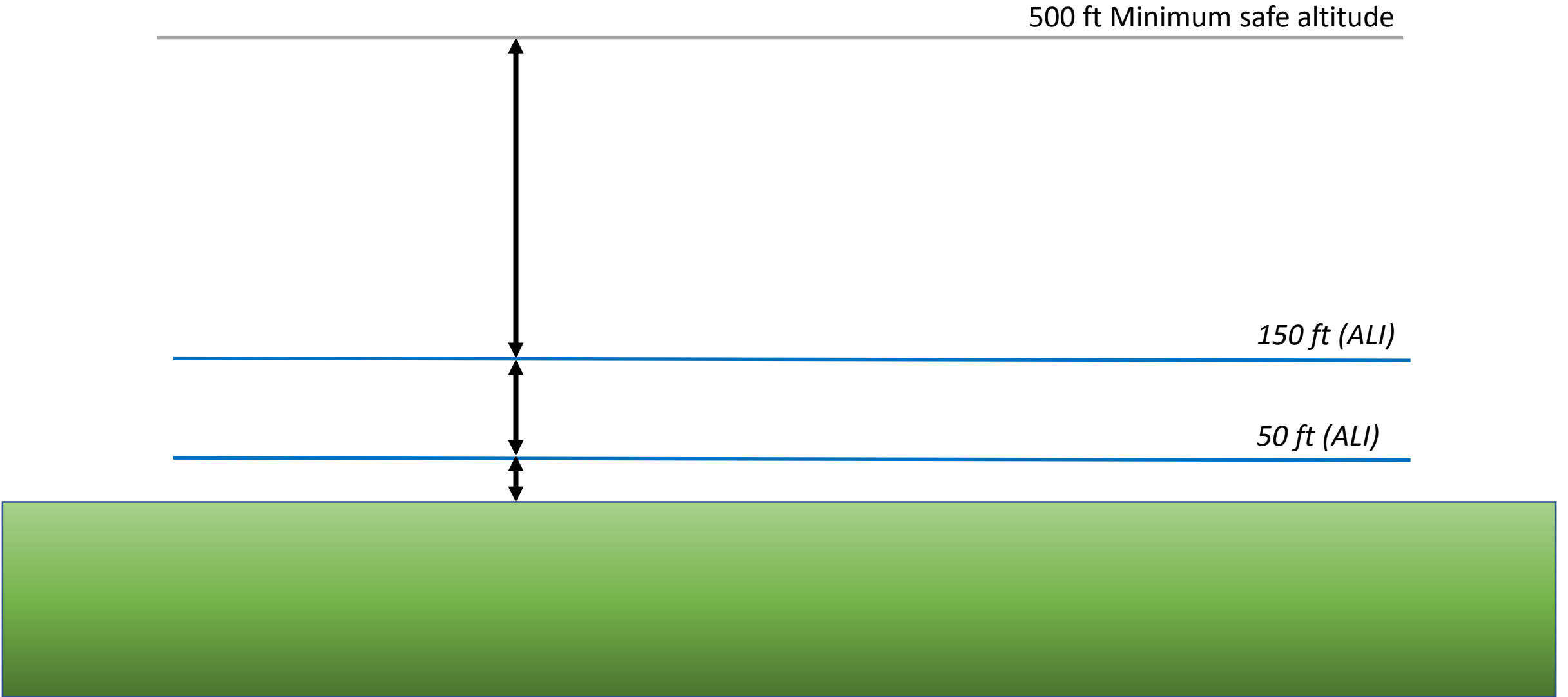


500ft Minimum safe altitude

150 ft (ALI)

50 ft (ALI)





500 ft Minimum safe altitude

150 ft (ALI)

50 ft (ALI)



Aircraft in the 1960's

*Restatement
of Torts,
Second
(American Law
Institute)*

“[comment]i. Causing entry of a thing. The actor, without himself entering the land, may invade another’s interest in its exclusive possession by throwing, propelling, or placing a thing either on or beneath the surface of the land or in the air space above it. Thus, in the absence of the possessor’s consent or other privilege to do so, it is an actionable trespass to ... fire projectiles or to fly an advertising kite or balloon through the air above it, even though no harm is done to the land or to the possessor’s enjoyment of it. In order that there may be a trespass under the rule stated in this Section, it is not necessary that the foreign matter should be thrown directly and immediately upon the other’s land...”

49 U.S. Code § 40103 - Sovereignty and use of airspace

- (a) Sovereignty and Public Right of Transit.—
 - (1) The United States Government has exclusive sovereignty of airspace of the United States.
 - (2) A citizen of the United States has a public right of transit through the navigable airspace. To further that right, the Secretary of Transportation shall consult with the Architectural and Transportation Barriers Compliance Board established under section 502 of the Rehabilitation Act of 1973 ([29 U.S.C. 792](#)) before prescribing a regulation or issuing an order or procedure that will have a significant impact on the accessibility of commercial airports or commercial air transportation for handicapped individuals.
- (b) Use of Airspace.—
 - (1) The Administrator of the Federal Aviation Administration shall develop plans and policy for the use of the navigable airspace and assign by regulation or order the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace. The Administrator may modify or revoke an assignment when required in the public interest.
 - (2) The Administrator shall prescribe air traffic regulations on the flight of aircraft (including regulations on safe altitudes) for—
 - (A) navigating, protecting, and identifying aircraft;
 - (B) protecting individuals and property on the ground;
 - (C) using the navigable airspace efficiently; and
 - (D) preventing collision between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects.
 - (3) To establish security provisions that will encourage and allow maximum use of the navigable airspace by civil aircraft consistent with national security, the Administrator, in consultation with the Secretary of Defense, shall—
 - (A) establish areas in the airspace the Administrator decides are necessary in the interest of national defense; and
 - (B) by regulation or order, restrict or prohibit flight of civil aircraft that the Administrator cannot identify, locate, and control with available facilities in those areas.



49 U.S. Code §
40103 -
Sovereignty
and use of
airspace

- *(b) Use of Airspace. —*
 - *(1) The Administrator of the Federal Aviation Administration shall develop plans and policy for the use of the navigable airspace and assign by regulation or order the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace. The Administrator may modify or revoke an assignment when required in the public interest.*

49 U.S. Code § 40102 - Definitions

- *(32) “navigable airspace” means airspace above the minimum altitudes of flight prescribed by regulations under this subpart and subpart III of this part, including airspace needed to ensure safety in the takeoff and landing of aircraft.*

14 CFR 91.119

§ 91.119 Minimum safe altitudes: General.

Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(a) Anywhere. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.

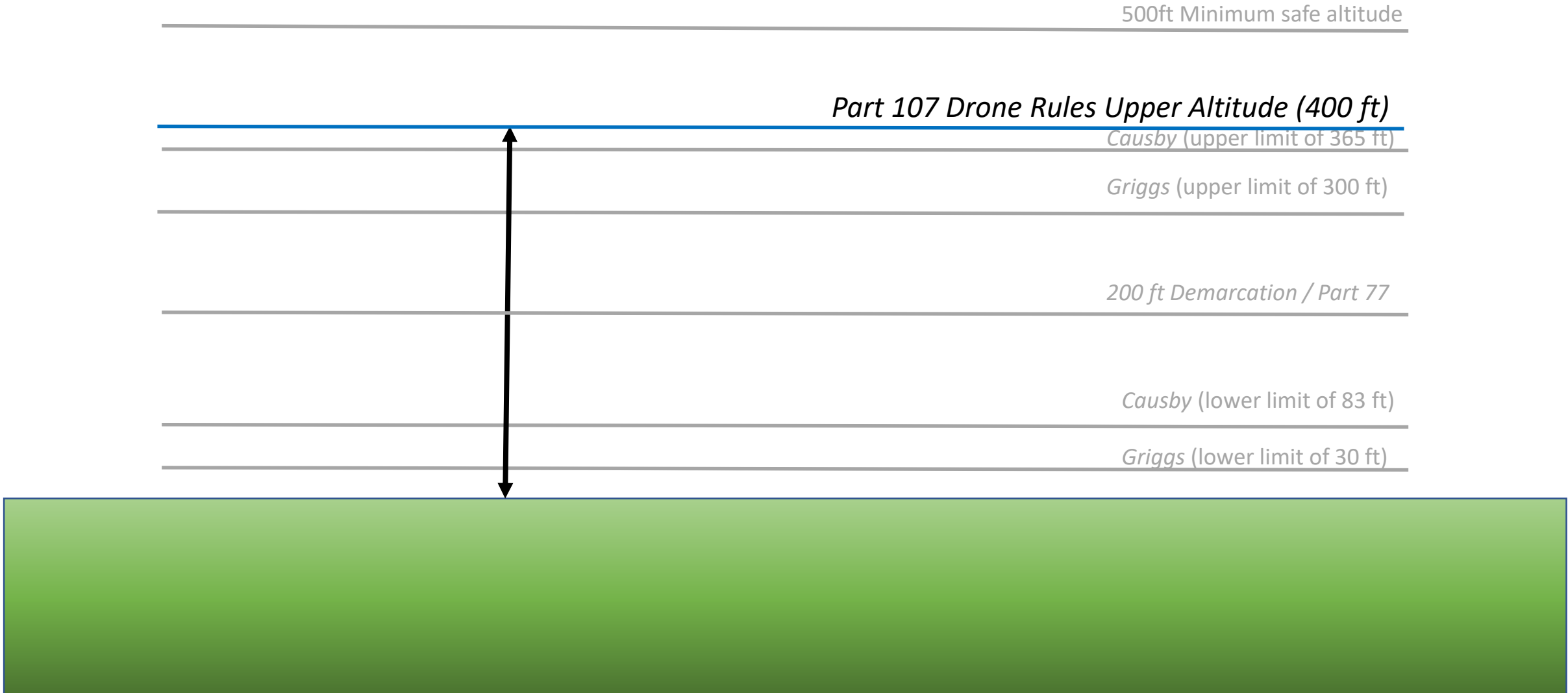
(b) Over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

(c) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

(d) Helicopters, powered parachutes, and weight-shift-control aircraft. If the operation is conducted without hazard to persons or property on the surface -

(1) A helicopter may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section, provided each person operating the helicopter complies with any routes or altitudes specifically prescribed for helicopters by the FAA; and

(2) A powered parachute or weight-shift-control aircraft may be operated at less than the minimums prescribed in paragraph (c) of this section.



14 CFR 107
Part 107,
III.C.3.a.ii

“Adjudicating private property rights is beyond the scope of this rule. However, the provisions of this rule are not the only set of laws that may apply to the operation of a small UAS. With regard to property rights, trespassing on property (as opposed to flying in the airspace above a piece of property) without the owner’s permission may be addressed by State and local trespassing law. As noted in section III.K.6 of this preamble, the FAA will address preemption issues on a case-by-case basis rather than doing so in a rule of general applicability.”



Privacy From the Air



- INTRO
- 1
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Taking photographs of things that are plainly visible from public spaces is a constitutional right – and that includes federal buildings, transportation facilities, and police and other government officials carrying out their duties. Unfortunately, there is a widespread, continuing pattern of law enforcement officers ordering people to stop taking photographs from public places, and harassing, detaining and arresting those who fail to comply. [LEARN MORE](#) →

KNOW★YOUR★RIGHTS / Protesters & Photographers



New York Tribune - 1892

“Amateur photography has the reputation of possessing in its various forms all those seductive charms in the enjoyment of which the weary, earthbound mortal is released from the durance vile and translated, for the time being, into some seventh heaven of bliss. Opium, hasheesh[sic], even the fascinations of Monte Carlo are supposed to pall before its many attractions.”

Fourth Amendment

“The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.”

Riley v. Florida – Justice Brennan

“Imagine a helicopter capable of hovering just above an enclosed courtyard or patio without generating any noise, wind, or dust at all -- and, for good measure, without posing any threat of injury. Suppose the police employed this miraculous tool to discover not only what crops people were growing in their greenhouses, but also what books they were reading and who their dinner guests were. Suppose, finally, that the FAA regulations remained unchanged, so that the police were undeniably “where they had a right to be.” Would today's plurality continue to assert that “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures” was not infringed by such surveillance?”

Federalism

Powers Delegated to the National Government

- declare war
- create and maintain armed forces
- establish foreign policy
- regulate interstate and foreign trade
 - make copyright and patent laws
 - establish postal offices
- coin money

Powers Reserved to States

- establish local governments
 - establish and maintain schools
 - regulate trade within states
 - conduct elections
 - provide for public safety
- raise taxes
 - provide for the public welfare
 - criminal justice
 - borrow money
 - charter banks
 - build roads

500ft Minimum safe altitude

Causby (upper limit of 365 ft)

Griggs (upper limit of 300 ft)

200 ft Demarcation / Part 77

Causby (lower limit of 83 ft)

Griggs (lower limit of 30 ft)



GAO Study / Roles and Responsibilities

Congress mandated that the Government Accountability Office (GAO) perform a study and delivery a report to Congress that addresses the current state of the law and regulations regarding federal, tribal, state and local rules and responsibilities with small UAS operations.

The report is expected to be released to the public any day now.

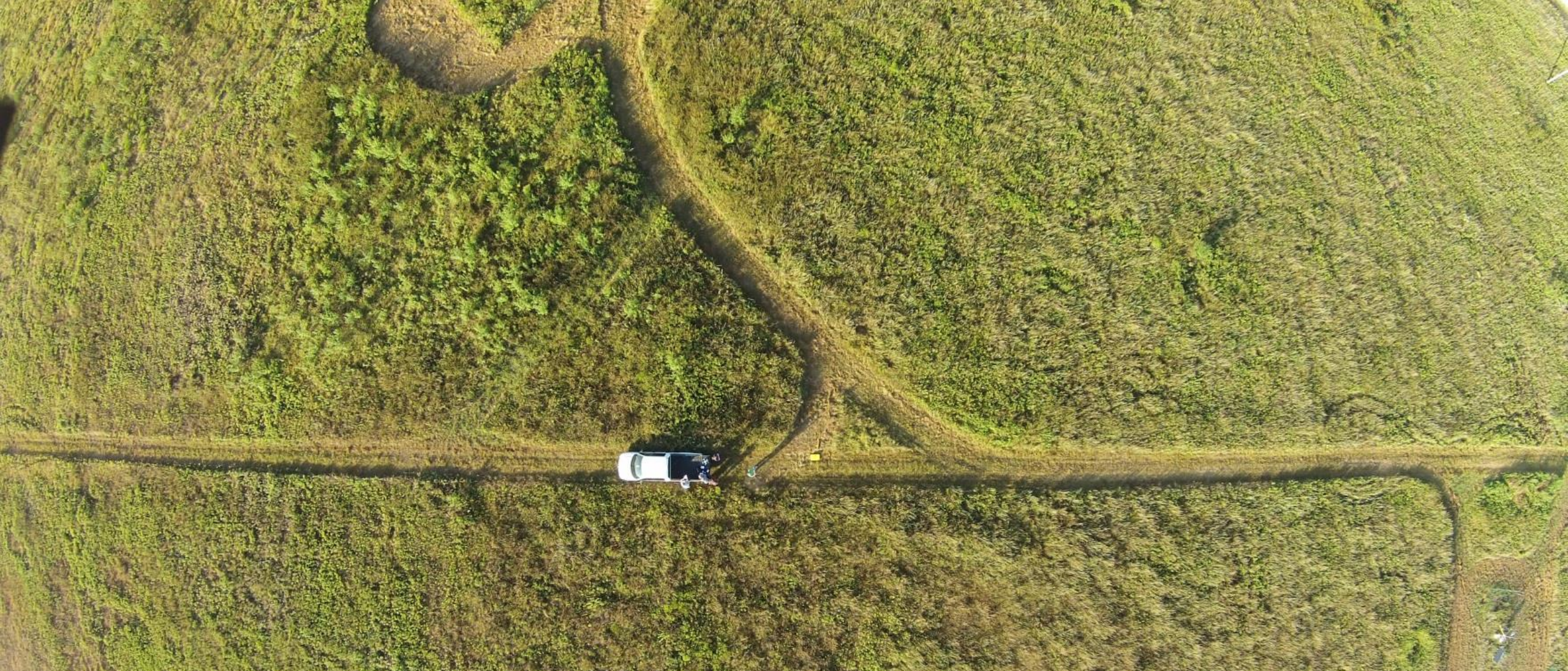




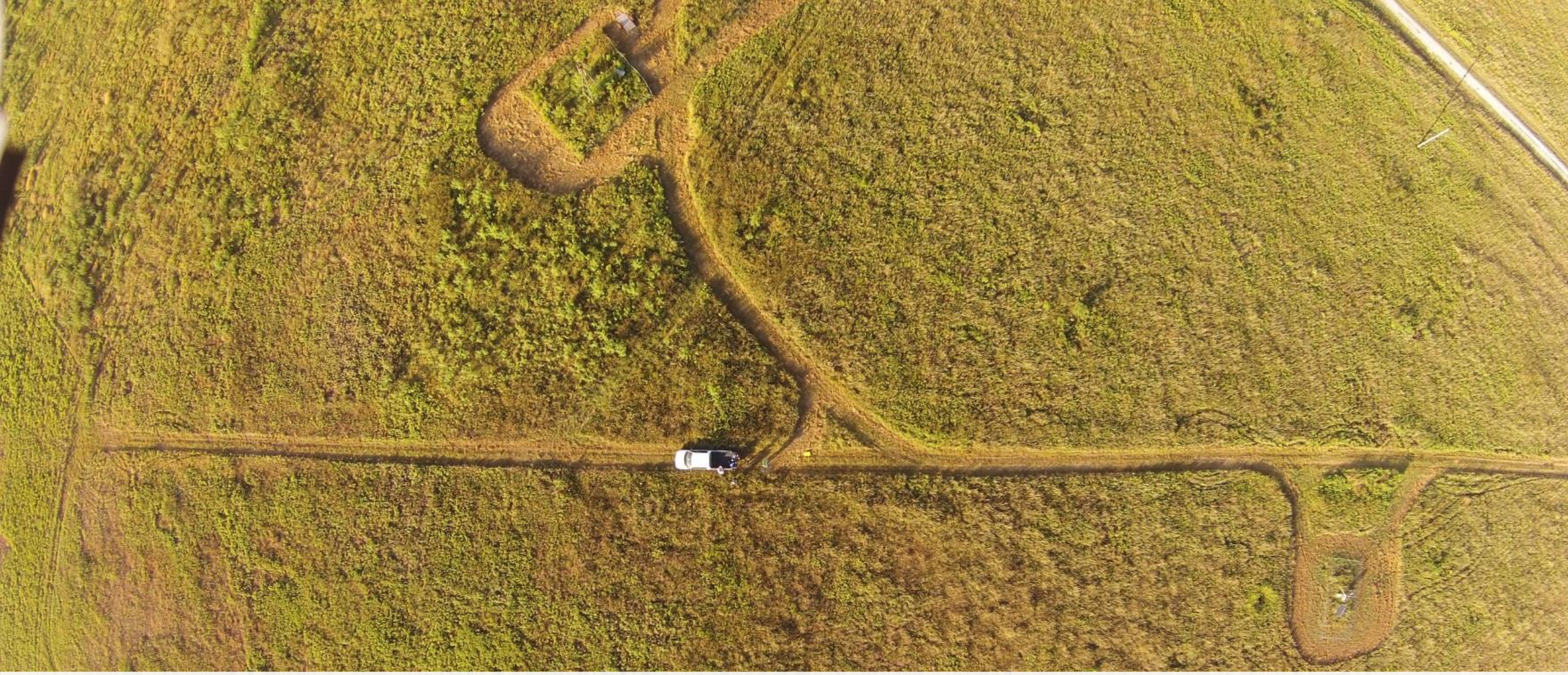
BACKUP SLIDES



100 Feet AGL



200 Feet AGL



300 Feet AGL

