TO: Committee Members and Observers, Tort Law Relating to Drones Act Drafting Committee

FROM: Gregory S. McNeal, Reporter

REGARDING: Introductory Issues

DATE: November 9, 2017

This memo provides an overview of the materials circulated for our first drafting session, to be held on December 1-2. The memo provides the necessary background to prepare for our discussions at that meeting. Please bear in mind that this upcoming meeting will be the first of what is planned to be four in-person drafting sessions. The next meeting is tentatively scheduled for March 9-10, 2018, and the meeting place is TBD. At our first meetings, the primary goal will be to resolve major questions of policy and statutory structure.

To get us started, this memo will survey the current state of the law related to unmanned aircraft, also known as drones. For committee members familiar with drones, some of this may be familiar. However, the law – particularly the law related to commercial versus recreational operators – has changed substantially in the last 18 months, so the refresher is important (albeit a bit lengthy). Beyond the existing Federal laws governing drones, this will also provide an overview of three existing torts that may apply to the use of drones, and their limitations. Also provided are some hypothetical questions to begin the process of thinking about what conduct and harms we want to focus on.

Tort law related to drones is unsettled and in an emergent state. This drafting committee has an opportunity to harmonize the law before it evolves in a disjointed manner. This work will benefit the ULC's aim of uniformity, and will provide greater certainty for individuals seeking to use drones and people who may be affected both positively and negatively by drones.

I. OVERVIEW OF EXISTING REGULATIONS RELATED TO DRONES

The following sections will provide an overview of the predominant FAA regulatory categories for small UAS (drone) operations. This background material will help in understanding the privileges drone pilots enjoy, and the relatively few limitations that Federal regulations place on their conduct.

A. Part 107 Remote Pilot Category

Part 107 Remote Pilots are individuals, 16 years of age or older, who have passed an FAA knowledge test and have been issued a Part 107 Remote Pilot Certificate. These individuals may operate a drone for any purpose (whether commercial or recreational), so long as the operation is in conformity with Part 107 regulations. There are very few limitations on where the drone may be operated. Flights directly above people are prohibited, and there are a few regulatory limits on flights above private property. For example, amusement parks and critical infrastructure get special carve outs, but residential properties and business properties receive no such protection.

Many commentators have incorrectly labeled this category as the "commercial category" or "commercial rule" and have incorrectly labeled these operators "commercial operators."

> *"Part 107 is not the 'commercial rule'. It is the visual line of sight (VLOS) rule. Recreational operators may fly under Part 107, and they likely will because it gives them more privileges. Distinctions between recreational and commercial are vestiges of our old rules. Part 107 is the new normal and is the future." — Earl Lawrence, Director of the FAA's UAS Integration Office, July 14, 2016.*

Many state and local legislators have drafted laws focusing on "recreational operators" versus "commercial operators" a distinction that is difficult in practice to discern. For example, a Part 107 Remote Pilot may be flying in a location for fun (perhaps in a residential neighborhood) but in a jurisdiction with a commercial exemption, could merely cite his or her Part 107 certificate and claim the flight was for commercial purposes (real estate photography). The legislative intent may be to protect realtors, and other businesses deemed legitimate by legislators, but the reality is that defining and applying "commercial" or "recreational" may prove extremely problematic in practice.

Part 107 Remote Pilot privileges include the ability to fly:

- any size drone up to 55 pounds and up to 100mph.
- anywhere, so long as within line of sight and not otherwise in FAA prohibited or restricted areas and coordinating with air traffic control where required.
- up to 400 feet above ground level and higher if within 400 feet of a structure (think of a tower inspection or building inspection).

The last bullet point is an important privilege that will have implications for our drafting process. From an FAA regulatory perspective, drone flights within 400 feet laterally from a structure (such as a building) is a minimal risk to aviation safety as manned aircraft are not permitted to fly within 500 feet laterally from a building or other structure. But, areas closest to buildings (within 400 feet) and closest to the ground and persons and property on the ground (from the surface to 400 feet above ground level) are the areas where we will see increased FAA sanctioned drone use. Manned aircraft have traditionally operated much farther from people and property than drones presently operate and drone use in these close-in areas will continue to increase.

B. Model Aircraft and Recreational Operator Exemption Category

This is the category most operators mistakenly believe they fall into, though they are likely not satisfying the legal criteria to be exempt from FAA regulations. This category has been codified as Part 101 of the Federal Aviation Administration regulations. To qualify as a model aircraft operator, the operator must satisfy each one of the specific exemption requirements enumerated in the Regulations (which directly mirror the statutory exemption criteria set by Congress. The operator must:

- operate strictly for recreational or hobby purposes,
- provide notice to airports when operating within 5 miles of an airport and air traffic control (if there is a control tower located at that airport)
- be flying an aircraft weighing less than 55 pounds
- fly in a way that does not interfere with manned aircraft
- operate in accordance with a set of community based guidelines and within the programming of a nationwide community based safety organization. (Note, the majority of people today operating drones are not following this requirement.

An operation not satisfying all the above stated criteria, must comply with Part 107 regulations.

C. Section 333 Exemption Holders

This is a "grandfather" category of exemption that pre-dated the FAA's Part 107 regulations, and, thus, some operators continue to operate pursuant to their 333 exemption. Individuals operating under these exemptions were granted permission to operate their drones for non-recreational purposes under a specific set of written criteria. Existing 333 exemptions are very closely related to the types of operations permitted under Part 107, with the exception that some flights on closed movie sets (i.e. with access controls) are permitted over people. Existing 333 exemptions will continue in force until their renewal date, at which point it is expected that the FAA will not renew them.

D. Public Use

Public operators include public agencies and those operating drones for governmental purposes. Public operators must obtain a Certificate of Waiver or Authorization (COA) from the FAA defining how and where the drone can be used. Public agencies that wish to operate under the more permissive rules of Part 107 may obtain a Part 107 certificate.

E. Future Regulations and Operations

Today's operations are characterized by one operator, and one aircraft, operating in the daylight within visual line of sight. These aircraft are difficult to identify, a challenge that will likely be solved within the next 12 months through an FAA-mandated remote identification requirement. By the time the drafting committee completes its work, the FAA is expected to approve more advanced operations, including:

- One operator multiple drones
- Flights over people
- Flights at night
- Drones operated as fleets, oftentimes flying autonomously and beyond visual line of sight
- Drones that may be requested "on demand" to perform services, but the drone is likely to be not owned by the requester

II. STATE LAW DEVELOPMENTS AND PREEMPTION

Given the committee's focus on tort law, it is largely avoiding matters that may be federally preempted, however it is appropriate to highlight a few recent developments.

A. Two Recent Cases and the FAA's Statements

1) The Newton Case

In early 2017 a pro-se plaintiff filed a lawsuit in federal district court against the city of Newton, MA alleging that the city's drone regulation ordinances were preempted by federal law. The 1st Circuit is one of the most preemption-friendly federal circuits in the country, and the case is presently on appeal. The FAA did not weigh in at the district court level, and it is unclear if the agency will file a brief in the appeal.

The plaintiff received substantial support by a group of industry experts and an amicus brief filed by two major drone industry associations who claimed the FAA's regulations occupied the entire field of aviation safety (i.e. claimed field preemption, rather than conflict preemption). The court ruled that the FAA did not establish "field preemption" by taking the entire field, but rather that the local ordinance was preempted because parts of the ordinance were subject to "conflict preemption" because they "obstruct federal objectives and directly conflict with federal regulations."

The court ruled that requiring permission to operate a drone over private property up to 400 feet and over public land at any altitude conflicted with FAA regulations allowing operation of drones up to 400 feet. In essence the property owners were given a veto power over the exercise of rights granted by the federal government. The court did not reach the issue of whether an ordinance that created privacy rights at an altitude lower than 400 feet would be preempted.

2) The Haughwout Case

In 2016, a federal district court questioned the FAA's jurisdiction over low altitude drone operations. The U.S. District Court of Connecticut, in *Huerta v. Haughwout* raised questions about the scope of the FAA's authority to regulate drones and the FAA's claim that it had *"regulatory sovereignty over every cubic inch of outdoor air in the United States."* The case

itself pertained to the FAA's ability to subpoena two individuals associated with two YouTube videos that showcased drones, presumably flying in a backyard, with weapons attached. The Court granted the FAA's petition compelling compliance with the subpoenas, but in dicta pointed out that the FAA's belief that it regulates every cubic inch of outdoor airspace was not the intent of Congress or contemplated by the Constitution. The Court further hinted that landowners, which own the space above their ground, and States and local government might own outdoor airspace in the United States.

3) FAA Statements

Further complicating matters (beyond what is included above) in official agency comments accompanying Part 107, the FAA made a series of comments related to torts (trespass for example), property rights, and preemption. Some illustrative examples follow:

- "Laws traditionally related to State and local police power, including land use, zoning, privacy, trespass, and law enforcement operations — generally are not subject to Federal regulation."
- "State law and other legal protections may already provide recourse for a person whose individual privacy, data privacy, private property rights, or intellectual property rights may be implicated by a remote pilot's civil or public use of a UAS."
- "Property rights are beyond the scope of this rule. However, the FAA notes that, depending on the specific nature of the small UAS operation, the remote pilot in command may need to comply with State and local trespassing rules."
- "[Drone operators] who do not have the facility owner's permission to operate a UAS near or over the perimeter or interior of amusement parks and attractions may be violating State or local trespassing laws."

B. State Law Developments and Executive Branch Actions

According to the National Conference of State Legislators, 49 states have considered laws related to drones and 31 states have passed them. At the National Conference of State Legislators Annual Conference, Marke Gibson, the FAA's Senior Advisor to the Administrator on Unmanned Aircraft stated: "Many states have passed laws over the years, we haven't weighed in and challenged any of them in court. You shouldn't expect us to do so."

As part of its analysis of state laws, the FAA asked the Drone Advisory Committee to make recommendations for how to address the concerns of state and local stakeholders. That advisory committee has not yet published its work product which undoubtedly will prove helpful to our work. Our Reporter is a member of the FAA committee.

III. TORT OF TRESPASS

According to the Restatement (Second) of Torts, trespass focuses on protecting possessory interests in land. The Restatement focuses on and requires a substantial interference with land, but the commentary regarding what substantial interference means is a bit unclear. For example, it states that waving one's arm over a fence and into a neighbor's property constitutes a trespass, and cases have held that firing projectiles over another's property substantially interfere with land by disturbing the quiet, peaceful enjoyment of that land. But, in cases involving aerial

trespass low altitude flights more offensive than the mere waving of a hand over a property line no trespass was found. The reason for the distinction likely lies in the fact that the Restatement has drawn lines between trespasses to real property (a physical trespass to land) and trespasses that take place in the airspace above land with an aircraft. This will lead to absurd results in the context of drones, where a hand or a branch over a fence line will be a trespass, but a drone in the same location will not be.

A. Trespass To Land

According to the Restatement (Second) of Torts § 158 (1965):

"One is subject to liability to another for trespass, irrespective of whether he thereby causes harm to any legally protected interest of the other, if he intentionally

(a) enters land in the possession of the other, or causes a thing or a third person to do so, or

(b) remains on the land, or

(c) fails to remove from the land a thing which he is under a duty to remove."

The absence of a requirement to show any harm is an important distinction from nuisance and aerial trespass. Trespass to land has a long history along these lines, with case law finding that intentional unauthorized entries are trespasses, and merely walking upon land is actionable as damage in all instances can be inferred.

B. Aerial Trespass

Aerial trespass is distinguishable from trespass to land, and for our purposes the distinctions are meaningful. Aerial trespass has its roots in a desire to balance the promotion of manned aviation (which was principally interstate) and protecting the landowner's interests. However, the cases and the Restatement which drew from those cases, are entirely focused on the capabilities (and limits) of manned aircraft.

As Professor Hillary Farber has noted:

> Toward the early part of the twentieth century, modern aviation and the ad coelum doctrine [(the common law regarding ownership of a column of space above and below land)] began to conflict. As airplanes populated our skies, it became clear that granting landowners rights to airspace would make it virtually impossible for an aircraft to fly without first seeking authority from every landowner whose property it traveled over. Congress enacted the Air Commerce Act in 1926, and later the Civil Aeronautics Act in 1938. This federal legislation authorized aircraft to fly at or above safe minimum altitudes, which became known as "navigable airspace." By 1958, the FAA defined navigable airspace as airspace above 500 feet, along with any lower "airspace needed to insure safety for take-off and landing[s]." The net result of these laws limited the scope of the *ad coelum* doctrine to airspace below 500 feet. (*Keep Out! The Efficacy of Trespass, Nuisance and Privacy Torts as Applied to Drones* 33 GA. ST. U. L. REV. 359 (2017)

Courts have not automatically granted airspace rights below the minimum safe altitudes. The Restatement notes that cases have limited trespass liability to instances where there is interference with actual use of land, mere flight below prescribed altitudes, and flights that might interfere with potential uses are not actionable. Cases show manned aircraft flights well below the minimum safe altitude in which the land owner was unable to recover or exclude aircraft from flying over property. On the other hand, there are cases below the minimum safe altitude that did constitute a trespass, but those cases hinged on actual interference. Examples include helicopter flights hovering 50 feet above a defendant's property (and adjacent to the plaintiff's), flight 45 feet above a residence, and flights from 30 to 300 feet above a residence.

The facts which prompted the law to evolve in the manner that it has --- a desire to ensure that airplanes, traversing long distances at higher altitudes can fly over property without a need for permission --- made sense for manned aviation. This group will need to question whether those factual assumptions are equally applicable to drones.

> According to the Restatement (Second) of Torts § 159(2):
> Flight by an aircraft in the air space above the land of another is trespass if
> (1) "[the aircraft] enters into the immediate reaches of the air space next to the land, and
> (2) [it] interferes substantially with the other's use and enjoyment of the land."

The second element, regarding use and enjoyment of land, is drawn from nuisance law and has a harm element associated with it, which distinguishes it from the trespass to land jurisprudence. Stated simply, unlike the automatic right that exists in trespass to land --- the ability to exclude a person from walking upon one's land --- there is no right to exclude aircraft from flying above one's land without showing interference with use and enjoyment of the land. For drones, this will likely prove problematic as it will require a fact-specific showing of an overflight before the drone could be excluded. Moreover, precedents from manned aviation require substantial interferences of a type that when applied to drones will likely not allow for a right of exclusion.

Courts analyzing what constitutes airspace rights have considered factors that include the proximity of the aircraft to land (or structures on the land), the concept of possessory interest in airspace, and an analysis of (and difficulty describing) the term "immediate reaches."

For example, Comment 1 to the Restatement (Second) of Torts § 159(2) notes that courts have struggled to define "immediate reaches":

> "Immediate reaches" of the land has not been defined as yet, except to mean that "the aircraft flights were at such altitudes as to interfere substantially with the landowner's possession and use of the airspace above the surface." No more definite line can be drawn than is suggested by the word "immediate." In the ordinary case, flight at 500 feet or more above the surface is not within the "immediate reaches," while flight within 50 feet, which interferes with actual use, clearly is, and flight within 150 feet, which also so interferes, may present a question of fact."

Courts have found that noise alone is not an interference with use of land, overflight of uninhabited land is not an interference, and overflights when the land was not being used at the time of the overflight was not interference. Applying this to drones will raise questions about whether drones are permitted to fly at low altitudes in close proximity to homes, so long as the

residents are not home, or raise questions about whether a drone package delivery facility may be built adjacent to uninhabited land, using the airspace above that land until such time as the landowner chooses to make use of the land.

Consider a drone hovering at 55 feet above a landowner's property (note that the average two story home is 35 feet tall). It would be visible to the landowner, perhaps audible to the land owner, and likely troubling to the land owner, but based on existing precedents would not necessarily constitute interference with the use of land, and therefore would likely not be actionable (or excludable from that airspace). The Restatement notes that the applicability of the aerial trespass doctrine is less clear when an object is flying at an altitude greater than fifty feet, and above that altitude it is more difficult for a plaintiff to prove that the aircraft was within the "immediate reaches" of land. The case law is not well developed to address drone usage because manned aircraft are ordinarily not operating at low altitudes (except for take-off and landing).

IV. NUISANCE

A nuisance is a substantial and unreasonable interference with the use and enjoyment of land. This is distinct from trespass, which involves interference with the right of possession and occupancy of land. Because almost any use of land may have an impact on another's use of land, the law generally requires that a nuisance be both substantial and unreasonable to be actionable. Nuisance actions do not require an intrusion of one's possessory interest, they merely require an interference with the use and enjoyment of the land.

There are two types of nuisance, public and private. Public nuisances are those which affect the public in common (blocking a highway, preventing the use of park, etc.). Public nuisance actions are akin to abatement actions, and in that respect, serve a quasi-criminal purpose. While according to the Restatement a private nuisance requires unreasonable interference with the use and enjoyment of one's land, a public nuisance requires the harm be greater than to one individual. Rather it must constitute a "public harm," an activity that is harmful to public health or safety.

Private nuisance actions do not require ownership of property, so long as the plaintiff is a user or lawful occupant of property. The plaintiff, to succeed, will need to prove an intentional or negligent interference with his or her use and enjoyment of property. Nuisance claims typically involve matters related to noise, odors, light, vibration, dust or other activities that interfere with use and enjoyment of land. In some cases, disturbing one's "peace of mind" or raising fears in one's mind are also actionable.

Importantly, nuisance and trespass are distinguishable based on the available remedies. Trespass actions typically lead to damages only (even if the damages are merely nominal), whereas nuisance actions can lead to an injunction along with damages. The equitable remedy of an injunction is thus an important advantage of a nuisance action, but a nuisance action is harder to prove than a trespass.

The Restatement notes that interference with property must be of the type that a normal person would find offensive. Courts typically focus their analysis on the diminution of the property's usability, measured in market value terms or with reference to facts showing discomfort to occupants. The interference/harm must be substantial and unreasonable, and a key factor in making such a determination is whether the conduct at issue was out of character for the neighborhood. This may become increasingly important in our drafting, as areas or

neighborhoods where aircraft may have previously never flown may now become areas where aircraft (drones) may be frequently flying.

Other factors courts will strongly weigh are the frequency, magnitude, and duration of the allegedly actionable conduct. Specifically, occasional acts are less likely to be actionable as compared to continuous, frequent and repeated acts. This is extremely important as drone flights may increase in frequency (consider package delivery drones), but they may not appear continuous (because they may take different routes from different providers) and the magnitude of the alleged nuisance may be low (as compared to manned aircraft) but the volume may be high. The result may be hundreds of seemingly random low noise drone overflights as compared to regular loud noise airliners. The latter is actionable, the former is an open question.

Finally, in weighing harm, a cost benefit analysis is part of most courts' analysis. Thus, if nuisance law were applied to drones, the value of a recreational flight to society may be low, but a commercial flight may be higher, thus meaning that the commercial flight may be permitted while the recreational flight may be prohibited --- despite the fact that the conduct may be identical. Thus we should consider whether this analysis of social value should be a part of any proposed statute related to nuisance.

V. INTRUSION UPON SECLUSION

Intrusion upon seclusion focuses on physical or electronic invasion of a place or space from which the plaintiff has a right to exclude others.

The Restatement (Second) of Torts, 652B states:

> *"One who intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his private affairs or concerns, is subject to liability to the other for invasion of his privacy, if the intrusion would be highly offensive to a reasonable person."*

The law requires that the invasion be sufficiently offensive to justify a cause of action. The intrusion must also have been intentional, meaning the defendant must have desired or known with a substantial certainty that an intrusion would result from his conduct. According to this approach, an innocent or accidental intrusion is not actionable. For drone operators, proving intent may be difficult, and it will become more difficult in autonomous or programmed operations.

Perhaps more challenging is the fact that the Restatement makes clear that there is no tortious conduct if the defendant did not intrude into a legally-cognizable private place or sphere belonging to the plaintiff. In this respect, the most challenging aspect of the tort as applied to drones may be the public vantage point problem. Specifically, courts have treated "navigable airspace" as public thoroughfares just the same as roads and highways --- because Part 107 and Part 101 place few limits on where individuals may fly, there is a claim that most low altitude drone flights take place in "navigable airspace" (i.e. from the equivalent of a road, highway, or sidewalk in the sky).

A series of cases make clear that observing a person from a public vantage point is not an invasion of privacy. For example, courts have found no tortious conduct when a defendant observed or took a photograph of an individual when his "appearance is public and open to the public eye." Courts have also found that plaintiffs who were surveilled while on their property have been unsuccessful under an intrusion theory if they could be viewed from a public or

adjacent vantage point. This is because the law often refers to a "reasonable expectation of privacy" and a central limit of this concept is the fact that what one "exposes to the public" is not private.

Courts have found that intrusion upon seclusion claims are not valid or objectively reasonable if plaintiff was not in a place of seclusion or solitude. On the other hand, courts have also held that individuals have a reasonable expectation of privacy in areas where they have ownership or control over the property, such as the curtilage. The Restatement also makes clear that when one uses a sense-enhancing device, such as binoculars, to look into open windows, such observations violate an individual's expectation of privacy. We will need to resolve whether a flight in compliance with either Part 107 or Part 101 is "from a public vantage point."

Another limitation relates to substantiality. Specifically, under present law, there is no liability unless the interference with the plaintiff's seclusion is substantial enough to offend a person of "ordinary sensibilities." The Restatement notes that what this usually means is that the intrusions must be "repeated with such persistence and frequency as to amount to a course of hounding of the plaintiff, that becomes a substantial burden to his existence."

APPENDIX A- QUESTIONS FOR DISCUSSION

Should the altitude of a drone flight matter? If so, at what altitude does it cease to matter?

Should it matter if the drone is above plaintiff's property, defendant's property, public property?

Should it matter if the flight is transitory, or hovers?

Should it matter if there are multiple flights?

Should it matter if the drone has a camera?

Should it matter if the drone can be seen, but not heard?

Should it matter if the plaintiff's property is fenced?

Should it matter if the plaintiff's property is otherwise observable from the air?

Should it matter if the plaintiff's property is observable from the second story of an adjoining home?

Should consent matter? How should consent with multi person properties be handled?

Should the purpose (recreational, commercial, governmental) matter?

APPENDIX B- STATUTE OUTLINE

Below is an outline of what a possible statute might look like, although what we place in scope will largely determine the content of the final statute.

- Article 1 – General Provisions and Definitions
- Article 2 – Private Nuisance With An Unmanned Aircraft
- Article 3 – Public Nuisance With An Unmanned Aircraft
- Article 4 – Aerial Trespass With An Unmanned Aircraft
- Article 5 – Intrusion Upon Seclusion With An Unmanned Aircraft
- Article 6 – Defenses
- Article 7 – Miscellaneous Provisions