

DRAFT
FOR DISCUSSION ONLY

TORT LAW RELATING TO DRONES ACT

NATIONAL CONFERENCE OF COMMISSIONERS
ON UNIFORM STATE LAWS

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October 19, 2018

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1 **TORT LAW RELATING TO DRONES ACT**

2 **PREFATORY NOTE**

3 **I. Background regarding why a change from existing law is needed**

4
5 In *U.S. v. Causby* the Supreme Court stated:

6
7 We have said that the airspace is a public highway. Yet it is obvious that if
8 the landowner is to have full enjoyment of the land, he must have
9 exclusive control of the immediate reaches of the enveloping atmosphere.
10 Otherwise buildings could not be erected, trees could not be planted, and
11 even fences could not be run. The principle is recognized when the law
12 gives a remedy in case overhanging structures are erected on adjoining
13 land. The landowner owns at least as much of the space above the ground
14 as the can occupy or use in connection with the land (*U.S. v. Causby*, 328
15 U.S. 256, 264 (1946).
16

17 The Supreme Court established the principle that landowners must have control of the
18 “immediate reaches” of the land, stating that “the flight of airplanes, which skim the surface but
19 do not touch it, is as much an appropriation of the use of the land as a more conventional entry
20 upon it.” (*Id.*)
21

22 The Court further noted

23 “[w]hile the owner does not in any physical manner occupy that stratum of
24 airspace or make use of it in the conventional sense, he does use it in
25 somewhat the same sense that space left between buildings for the purpose
26 of light and air is used. The superadjacent airspace at this low altitude is so
27 close to the land that continuous invasions of it affect the use of the
28 surface of the land itself. We think that the landowner, as an incident to his
29 ownership, has a claim to it and that invasions of it are in the same
30 category as invasions of the surface.” (*Id.* at 265)
31

32 What the Court left largely unresolved was what constitutes the “immediate reaches” or
33 “superadjacent airspace” where property rights exist, the opinion acknowledged as much, stating
34 “The airspace, apart from the immediate reaches above the land, is part of the public domain. We
35 need not determine at this time what those precise limits are.” (*Id.* at, 266). Subsequent courts
36 have failed to set a clear line, which has historically not proven problematic in an era of manned
37 aircraft operating at higher altitudes and in lower numbers than unmanned aircraft. However, the
38 emergence of unmanned aircraft, which operate in greater numbers and much closer to the
39 ground than manned aircraft, necessitates a reevaluation of these concepts.
40

41 To understand the limits existing doctrine imposes, it is necessary to understand
42 traditional trespass to land doctrine, and how special categories of devices in the air have been
43 treated in tort. The evaluation demonstrates that existing law will fail to protect landowners and
44 will fail to clearly define what conduct by drone operators is and is not acceptable.

1 **II. Traditional Trespass to Land Doctrine**

2
3 According to the Restatement (Second) of Torts:

4
5 “One is subject to liability to another for trespass, irrespective of whether
6 he thereby causes harm to any legally protected interest of the other, if he
7 intentionally

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

10 (b) remains on the land, or

11 (c) fails to remove from the land a thing which he is under a duty to
12 remove.” (Restatement (Second) of Torts § 158 (1965).
13

14 Thus, trespass to land is actionable based upon entry, without regard to harm, and the
15 plaintiff need not prove damages because the law infers some damage from the act of intrusion
16 itself. (AMERICAN LAW OF TORTS § 23:34, “There is substantial authority for the proposition that
17 from every direct invasion of the person or property of another, the law infers some damage
18 without proof of actual injury.” citing *Longenecker v. Zimmerman*, 267 P.2d 543 (Kan. 1954);
19 *Pearl v. Pic Walsh Freight Co.*, 168 N.E.2d 571 (1st Dist. Hamilton County 1960); *Hawkins v.*
20 *Schroeter*, 212 S.W.2d 843 (Tex. Civ. App. San Antonio 1948) and further noting, “[i]n a trespass
21 case, a jury verdict finding that there was a trespass but finding no damages, either nominal or
22 compensatory, is invalid and incomplete so that the judgment based thereon must be considered a
23 nullity. *Costerisan v. Tejon Ranch Co.*, 255 Cal. App. 2d 57 (5th Dist. 1967).
24

25 Thus, in a trespass to land case, a plaintiff must only prove the intentional entry into land in
26 another’s possession, or the intentional causing of a thing to so enter or remain. This is so
27 because the right protected under a trespass cause of action is the plaintiff’s interest in the land
28 itself and “the airspace above it.” (RESTATEMENT (SECOND) OF TORTS § 157 et seq. (1965) and
29 RESTATEMENT (SECOND) § 158 cmt. i. *See also*, John L. Diamond, Lawrence C. Levine and
30 Anita Bernstein, UNDERSTANDING TORTS 5th edition, Ch. 18.). While trespass to land is
31 actionable without proof of damages, common experience reveals very few lawsuits for minimal
32 intrusions like an accidental step upon a lawn, or the brief running of a child through a backyard.
33

34 This Act creates a similar rule for aerial trespass (set forth in Section 301), referred to here as
35 a *per se* rule. (*See* BLACK'S LAW DICTIONARY (10th ed. 2014), (Defining *per se* as “1. Of, in, or
36 by itself; standing alone, without reference to additional facts. This phrase denotes that
37 something is being considered alone, not with other collected things.”)). This Act follows as
38 closely as possible the existing precedents which have traditionally governed trespass to land.
39

40 **III. Kites, balloons, and projectiles**

41
42 Trespass to land is not the only *per se* trespass rule in trespass torts, some devices that
43 operate in the low altitude airspace are also subject to a *per se* rule like that advanced in Section
44 301.
45

1 Specifically, the Restatement (Second) of Torts notes in a comment that it is a trespass to
2 “fire projectiles or to fly an advertising kite or balloon through the air above [another’s land],
3 even though no harm is done to the land or the possessor’s enjoyment of it.” (RESTATEMENT
4 (SECOND) § 158 cmt. i.). While logic would suggest that unmanned aircraft could fit into this *per*
5 *se* rule for projectiles, kites, and balloons, a special rule for aircraft exists, specifically the aerial
6 trespass doctrine.

7 8 **IV. Aerial Trespass** 9

10 The aerial trespass doctrine was crafted before the advent of unmanned aircraft. The
11 doctrine was created against the backdrop of laws and regulations that have traditionally ensured
12 that most manned aircraft would fly at set distances from people and property. Given its legacy
13 and historical development, the aerial trespass doctrine will likely prove inadequate to address
14 trespass concerns especially as unmanned aircraft grow in popularity.

15
16 Importantly, the backdrop of regulations designed to keep manned aircraft away from
17 people and property does not exist for unmanned aircraft as FAA regulations specifically confine
18 unmanned aircraft to airspace within 400 feet of the ground and structures.

19
20 “Operating limitations for small unmanned aircraft... The altitude of the
21 small unmanned aircraft cannot be higher than 400 feet above ground
22 level, unless the small unmanned aircraft: (1) Is flown within a 400-foot
23 radius of a structure; and (2) Does not fly higher than 400 feet above the
24 structure's immediate uppermost limit.”. (14 CFR 107.519(b)

25
26 The Restatement (Second) of Torts defines an aerial trespass as follows:
27

28 “Flight by an aircraft in the air space above the land of another is a
29 trespass if, but only if,
30 (a) it enters into the immediate reaches of the air space next to the land,
31 and
32 (b) it interferes substantially with the other’s use and enjoyment of his
33 land.” (RESTATEMENT (SECOND) OF TORTS § 159(2)).
34

35 Notably, unlike the *per se* right of action in trespass to land and the rule for kites,
36 balloons, and projectiles, aerial trespass as presently understood does not afford such an
37 automatic exclusionary right against non-consensual entries. “This rule superimposes a
38 requirement of actual harm, thus conflating the normal strict-liability rule of trespass with the
39 rule of nuisance.” (A. Michael Fromkin & P. Zak Colangelo, *Self-Defense Against Robots and*
40 *Drones*, 48 CONN. L. REV. 1, 28 (2015)).
41

42 The existing aerial trespass doctrine, by conflating the rule of trespass with the rule of
43 nuisance will likely lead to many low altitude drone flights that are not excludable and not
44 actionable. As Professor A. Michael Fromkin and P. Zak Colangelo note:
45

1 By importing requirements from a nuisance claim, this departure from the
2 trespass rule effectively swallows the aerial trespass action. The courts'
3 detour into aerial nuisance may be based on a misreading of the U.S.
4 Supreme Court's decision in *United States v. Causby*, 328 U.S. 256, 258,
5 264, 266-67 (1946) (holding that “frequent and regular flights of army and
6 navy aircraft over respondents' land at low altitudes” below those “within
7 the navigable airspace which Congress placed within the public domain”
8 sufficiently diminished value of property to allow Takings claim under the
9 Fifth Amendment).

10
11 Courts have read *Causby* to require actual interference with the owner's
12 use or enjoyment of her land for the overflight to be an actionable trespass.
13 See, e.g., *Pueblo of Sandia ex rel. Chaves v. Smith*, 497 F.2d 1043, 1045-
14 46 (10th Cir. 1974) (affirming grant of summary judgment in favor of
15 defendant where plaintiff in trespass action failed to allege interference
16 with actual use); see also RESTATEMENT (SECOND) OF TORTS § 159 cmt. k
17 (1965) (noting that federal cases have read *Causby* this way in the trespass
18 context).

19
20 This reading seems anomalous: in *Causby*, the Supreme Court held that
21 for there to be a taking under the Fifth Amendment—that is, for the
22 government to have appropriated private property under circumstances
23 which require payment of just compensation—there must be substantial
24 interference with the owner's use or enjoyment of their property. See
25 *Causby*, 328 U.S. at 266 (“Flights over private land are not a taking,
26 unless they are so low and so frequent as to be a direct and immediate
27 interference with the enjoyment and use of the land.”).

28
29 There is no obvious reason why the interference requirement should be as
30 strict in a trespass claim. If aerial trespass genuinely is to be treated like
31 terrestrial trespass, then all that should be required is entrance into that
32 part of the airspace that remains fully private. *Causby* expressly holds that
33 a landowner's nonuse of airspace does not affect ownership... Properly
34 understood, then, *Causby* makes actual interference with use relevant only
35 as a matter of substantive constitutional Takings law, not as a matter of
36 property law on ownership of airspace. (A. Michael Froomkin & P. Zak
37 Colangelo, *Self-Defense Against Robots and Drones*, 48 CONN. L. REV. 1,
38 69 (2015)(emphasis added)).

39
40 In an era of drones, maintaining the existing aerial trespass doctrine will likely result in a
41 substantial increase in litigation as “[c]ourts applying this rule cannot simply focus on
42 determining whether the defendant truly and intentionally flew an aircraft within some well-
43 defined column of airspace. Instead, they must engage in costly, *ad hoc*, fact-specific inquiries
44 into what constitutes the ‘immediate reaches’ of the airspace above the plaintiff's parcel and
45 whether the defendant's flight ‘interfere[d]’ substantially with the plaintiff's ‘use and enjoyment’
46 of its land.” (Troy A. Rule, *Airspace in an Age of Drones*, 95 B.U. L. REV. 155, 184 (2015)).

1 **A. Immediate reaches**
2

3 Landowners and lessees likely do not physically occupy the airspace 200 feet above their
4 land or structures, and it is presently unclear whether an intrusion into this area would be found
5 to be an entry into the immediate reaches of the land owner’s airspace.
6

7 “The Causby decision left several principal issues unresolved. One
8 possible rule for the extent of airspace ownership over private property,
9 directly stemming from the federal legislation, allocates to the landowner
10 all airspace up to the lower limit of navigable airspace. However, while
11 Douglas [writing in Causby] appears to rely on the federal statute, his
12 definition of airspace ownership, encompassing the immediate reaches
13 above the land, has no direct relationship with the federal navigable
14 airspace defined by Congress. Under certain circumstances, navigable
15 airspace and privately owned airspace could overlap... Causby never
16 squarely identified the genesis of the plaintiffs' right to compensation. It
17 was not clear whether the Court ordered compensation based on a trespass
18 theory—because the overflights penetrated the Causbys' airspace—or
19 based on a nuisance theory—because the flights substantially interfered
20 with the Causbys' use and enjoyment of their land. (James Charles Smith,
21 NEIGHBORING PROPERTY OWNERS § 5:3).
22

23 Under existing aerial trespass doctrine, determining whether an aerial intrusion is an
24 entry into the immediate reaches requires a fact-specific inquiry which has historically caused
25 uncertainty and a lack of uniformity.
26

27 For example, in Nevada, a court adopted a trespass approach awarding compensation
28 merely because overflights penetrated the owner's airspace. (*Id.* citing, *McCarran Intern.*
29 *Airport v. Sisolak*, 137 P.3d 1110 (Nev. 2006) (owner did not have to prove low and frequent
30 overflights, or nuisance characteristics, because the airport ordinances authorized the permanent
31 physical invasion of the landowner's airspace, below the elevation of 500 feet)). A Wisconsin
32 case followed this interpretation of *Causby*, but added a requirement (for government actors) that
33 flights be of “sufficient frequency to have a direct and immediate effect on the use and
34 enjoyment of the property.” (*Id.*, Citing *Brenner v. New Richmond Regional Airport Com'n*, 816
35 N.W.2d 291, 294 (Wisc.2012)).
36

37 Even *Causby* itself is not clear. The Court on the facts of that case (adjudicating a takings
38 claim) found that the flight of a government operated aircraft at an altitude of 83 feet interfered
39 with the landowner’s property rights and the landowner was entitled to compensation. On those
40 facts the court explained the importance of the immediate reaches concept and the property
41 interest in the superadjacent airspace. The Court noted that intrusions into this area are “in the
42 same category as invasions of the surface.” (*Causby*, at 265), citing Bouve, *Private Ownership*
43 *of Navigable Airspace Under the Commerce Clause*, 21 A.B.A.J. 416, 421—422; Hise,
44 *Ownership and Sovereignty of the Air*, 16 I.A.L.REV. 169; Eubank, *The Doctrine of the Airspace*
45 *Zone of Effective Possession*, 12 B.U.L.REV. 414.). The court went on to state:
46

1 “We would not doubt that, if the United States erected an elevated railway
2 over respondents' land at the precise altitude where its planes now fly,
3 there would be a partial taking, even though none of the supports of the
4 structure rested on the land. The reason is that there would be an intrusion
5 so immediate and direct as to subtract from the owner's full enjoyment of
6 the property and to limit his exploitation of it. While the owner does not in
7 any physical manner occupy that stratum of airspace or make use of it in
8 the conventional sense, he does use it in somewhat the same sense that
9 space left between buildings for the purpose of light and air is used. The
10 superadjacent airspace at this low altitude is so close to the land that
11 continuous invasions of it affect the use of the surface of the land itself.
12 We think that the landowner, as an incident to his ownership, has a claim
13 to it, and that invasions of it are in the same category as invasions of the
14 surface.” (*Causby* at 264).
15

16 The “low altitude” that was seen as akin to the surface by the *Causby* Court was an
17 altitude of 83 feet. However, the *Causby* case did not end there because the Supreme Court
18 remanded for further fact finding. Setting up the procedural history, the Court of Federal Claims
19 wrote:
20

21 “[w]e held that the United States had taken an easement of flight over plaintiffs'
22 property, resulting in the destruction of some of plaintiffs' property and damage to
23 the rest. We awarded judgment. The Supreme Court agreed there had been a
24 taking but remanded the case for findings describing the precise nature of the
25 easement taken...” (*Causby v. U.S.*, 75 F. Supp. 262, 263 (Ct. Cl. 1948) (internal
26 citations omitted).
27

28 The Court of Federal Claims found “the United States took an easement over plaintiffs'
29 property...for the flight of its airplanes ... at an altitude varying from 83 feet above the surface of
30 the land to an altitude of 365 feet.” (*Causby v. U.S.*, 75 F. Supp. 262, 263 (Ct. Cl. 1948) and the
31 court decreed that the landowners were entitled to compensation for their loss of property and the
32 decrease in rental value of their property.
33

34 Thus, in *Causby*, the immediate reaches ranged from 83 feet to 365 feet. Other cases have
35 come out differently, but most subsequent aerial trespass cases involving manned aircraft have
36 relied on *Causby*.
37

38 **B. Substantial interference.** 39

40 The aerial trespass doctrine does not end with a mere analysis of where the immediate
41 reaches are. Another complication is that existing precedents from manned aviation, because, as
42 Froomkin explains, states have incorrectly imported concepts from takings law and nuisance law,
43 sometimes requiring substantial interference with one’s use and enjoyment of land.
44

45 As noted above, the habit of state courts to conflate takings law with aerial trespass law
46 has made aerial trespass claims more difficult to prove, and it has done so in a way that was

1 likely not intended by *Causby*. Specifically, the *Causby* Court noted with regard to invasions of
2 airspace that substantiality was a factor for determining the question of whether there was a
3 taking. (*Causby*, at 266 (1946). “It is the character of the invasion, not the amount of damage
4 resulting from it, so long as the damage is substantial, that determines the question whether it is a
5 taking.” citing *United States v. Cress*, 243 U.S. 316, 328).

6
7 Irrespective of the origins of the possible misapplication of the *Causby* rule in instances
8 of aerial trespass, continuing to apply it to unmanned aircraft makes little sense, is impractical,
9 and will have unintended consequences. The doctrine as it presently exists looks for interference
10 of a type that when applied to unmanned aircraft will likely not allow for a right of exclusion of
11 unmanned aircraft at nearly any altitude.

12
13 For example, Courts have found that noise alone is not an interference with use of land,
14 overflight of uninhabited land is not an interference, and overflights of inhabited land when the
15 land was not being used at the time of the overflight was not interference. (See, Hillary B.
16 Farber, *Keep Out! The Efficacy of Trespass, Nuisance and Privacy Torts As Applied to Drones*,
17 33 GA. ST. U. L. REV. 359, 409 (2017) citing *Smart v. City of Los Angeles*, 112 Cal. App. 3d 232,
18 237 (1980) (finding that the noise of overhead aircraft did not interfere with plaintiffs use and
19 enjoyment until he attempted to sell the land); *Drennen v. County of Ventura*, 38 Cal. App. 3d 84,
20 87-88 (1974) (declining to find trespass where the plaintiff did not actually use the land during
21 the time that aircraft was flying over the property); *Pueblo of Sandia ex rel. Chaves v. Smith*, 497
22 F.2d 1043, 1046 (10th Cir. 1974) (holding no substantial interference took place because the
23 plaintiff’s land was uninhabited and put to no use whatsoever)).

24
25 These precedents were adopted in response to the specific facts and flight characteristics
26 of manned aircraft. Applying these precedents to unmanned aircraft would raise entirely new
27 questions regarding whether it will be acceptable for drones to surreptitiously fly at low altitudes
28 in close proximity to homes so long as the unmanned aircraft is very quiet, or the residents are
29 not home. These precedents would also raise questions about whether an unmanned aircraft
30 take-off and landing facility may be built adjacent to uninhabited land, using the airspace above
31 that land at any altitude until such time as the landowner chooses to make use of the land.

32
33 Consider an unmanned aircraft hovering at 55 feet above a landowner’s property (note
34 that the average two-story home is 35 feet tall). (Gregory S. McNeal, *Drones and the Future of*
35 *Aerial Surveillance*, 84 GEO. WASH. L. REV. 354, 373 (2016)). This aircraft would be visible to
36 the landowner, perhaps audible to the land owner, and likely troubling to the land owner to the
37 point where he or she may want to exclude this aircraft but based on existing precedents would
38 not necessarily constitute substantial interference with the use of land, and therefore would likely
39 not be actionable (or excludable from that airspace). Compare this example with Justice
40 Brennan’s dissenting opinion in *Ciraolo*, in which he predicted a future with devices capable of
41 quiet hovering close to homes, in compliance with FAA regulations:

42
43 ‘Imagine a helicopter capable of hovering just above an enclosed
44 courtyard or patio without generating any noise, wind, or dust at all -- and,
45 for good measure, without posing any threat of injury. Suppose the police
46 employed this miraculous tool to discover not only what crops people

1 were growing in their greenhouses, but also what books they were reading
2 and who their dinner guests were. Suppose, finally, that the FAA
3 regulations remained unchanged, so that the police were undeniably
4 “where they had a right to be.” Would today's plurality continue to assert
5 that “[t]he right of the people to be secure in their persons, houses, papers,
6 and effects, against unreasonable searches and seizures” was not infringed
7 by such surveillance? Yet that is the logical consequence of the plurality's
8 rule’ Analyzing this passage, Professor Troy Rule notes “[t]wenty-
9 five years after Riley, law enforcement agencies can now easily purchase
10 the very hypothetical ‘miraculous tool’ that Justice Brennan forebodingly
11 described.”). (*Id.* at 382)
12

13 The example illustrates the point regarding why reference to interference or FAA
14 regulations when defining the trespass right makes little sense. Rather, given their low altitude
15 operations, drone intrusions are best treated as akin to trespasses to land. A trespasser walking
16 upon land is liable for trespass “irrespective of whether he thereby causes harm to any legally
17 protected interest of the other” (RESTATEMENT (SECOND) OF TORTS § 158 (1965)). An aerial
18 trespass by a drone under traditional aerial trespass law would trigger no such liability absent
19 proof of harm (despite proving that the aerial intrusion was within the immediate reaches). In
20 this respect, aerial trespass operates more like a nuisance suit than a right to exclude, and it is one
21 that will be very difficult to prove when it comes to unmanned aircraft. This Act seeks to remedy
22 this gap in the law.
23

24 The original aerial trespass doctrine made sense in an era when aircraft were rarely
25 operating close to the ground, people, and structures. This act is premised upon a conclusion that
26 the doctrine no longer makes sense in an era in which drones already number in the millions and
27 operate closer to the ground than manned aircraft have traditionally operated.
28

29 Requiring proof of both the immediate reaches concept and substantial interference in the
30 context of unmanned aircraft would result in the inability of landowners to exclude most
31 unmanned aircraft flights from even very low altitudes adjacent to land and buildings. It would
32 also force plaintiffs and defendants to enter litigation to determine whether flights actually
33 interfered with a landowner’s use and enjoyment of his or her land. Stated simply, unlike the *per*
34 *se* right that exists in trespass to land, which establishes an easily understandable bright line rule
35 prohibiting certain intrusions, there is no existing right to exclude aircraft from flying above
36 one’s land without showing the flight took place within the immediate reaches and that it
37 substantially interfered with the use and enjoyment of the land.
38

39 **V. A New Bright Line Per Se Doctrine Is Needed**

40

41 The existing aerial trespass laws fail to adequately protect both landowners/lessees and
42 unmanned aircraft pilots. Without changes, the inadequacy of the law is likely to engender
43 significant public backlash against unmanned aircraft technology as most landowners and lessees
44 understand their right to exclude traditional trespassers and likely assume the rules in the very
45 low altitude airspace similarly allow them to exclude unmanned aircraft without any need to
46 litigate the substantiality of interference with their use and enjoyment of land.

1 Similarly, unmanned aircraft pilots will likely believe themselves to be protected by the
2 fact-specific inquiry of the traditional aerial trespass doctrine and may find themselves the
3 subject of a lawsuit in which they must mount a defense that will rely on ambiguous definitions
4 of immediate reaches and substantial interference. (See e.g., *Victory For 'Drone Slayer' Puts*
5 *State Laws In Spotlight*, Law 360, April 20, 2017,
6 <https://www.law360.com/articles/915222/victory-for-drone-slayer-puts-state-laws-in-spotlight>
7 (describes self-help measure taken by a landowner who used a shotgun to resolve a dispute
8 regarding a drone flown over his property). Both potential plaintiffs and defendants would be
9 well served by bright line rules. (Cf. Robert A. Hazel, *Privacy and Trade Secret Law Applied to*
10 *Drones: An Economic Analysis*, 19 COLUM. SCI. & TECH. L. REV. 340, 372 (2018) (discussing
11 benefits of bright line rules).
12

13 Just as *de minimis* trespasses to land are rarely litigated, creating a *per se* doctrine that is
14 akin to trespass to land will likely not engender a rash of new litigation. As former aviation
15 lawyer and airline executive Robert A. Hazel notes in discussing inadvertent trespasses,
16

17 “there will be inadvertent trespasses and intrusions by drones, just as there
18 are inadvertent trespasses and intrusions by people, bicycles, cars, and
19 trucks at ground level today. Assuming that a drone public highway is
20 established, probably at the 200- to 400-foot level, there will be airspace
21 that belongs to the landowner somewhere below that. Drones will
22 occasionally trespass in that airspace. For example, drones making
23 package deliveries may slice into a nonconsenting landowner's airspace as
24 they descend from the drone public highway. There is no reason to treat
25 these incidents differently from other inadvertent trespasses, such as the
26 trespass of children retrieving their errant soccer ball from a neighbor's
27 lawn. Someday, the exact flight paths of all commercial drones will be
28 easily tracked, but currently, the same evidentiary problems exist for drone
29 trespassers as for ground-level trespassers. At least in the short term, most
30 drone trespasses will be undetected unless they cause visible damage.” (*Id.*
31 at 372).
32

33 In other words, daily life is filled with technical trespasses such as the one time crossing
34 of the front yard by a neighbor's child retrieving a ball, or a neighbor briefly stepping upon
35 another's property while mowing a lawn. This is an expected and understood aspect of life and
36 is rarely litigated. Similarly, most landowners expect that structures will not be built over their
37 property without their permission, and they understand that when the branch of a neighbor's tree
38 extends over their property line forty feet above the ground, they can trim the branch back to the
39 property line.

40 “The courts have generally recognized that vegetation penetrating adjacent
41 property presents a type of legal problem for which the remedy of self-
42 help can be invoked. This remedy can be generally defined as the
43 adjoining owner's removal of branches or roots, to the extent that they
44 protrude into his property. In addition, one court has indicated that, where
45 a tree's base divides, the divided portion overhanging adjacent premises
46 can be subject to abatement by self-help, as would a branch or any other

1 portion of the tree. A number of courts have indicated that, in certain
2 circumstances, self-help would be the only remedy available to the
3 adjoining owner complaining of the encroachment (§§ 8- 15). The
4 common judicial concern has been that neighbors should resolve their
5 disputes among themselves, and that allowing judicially imposed remedies
6 would result in clogging the courts with needless and vexatious
7 litigation.”). (65 A.L.R.4th 603)
8

9 Disputes in society are commonly resolved without resort to litigation in property and
10 trespass disputes because the concepts underlying property and trespass law are commonly
11 understood. Those same landowners who understand their rights in land in this common-sense
12 way, would be perplexed if they were told they could not exclude a drone above their property in
13 the same location as an offending branch, wire, or other intrusion. People in society have
14 typically minimized their intrusions onto the property of others because they understand property
15 boundaries and seek to not intrude upon another’s rights. Section 301 is drafted to make it easier
16 for parties to respect one another’s rights by creating bright line rules.
17

18 While Section 301 benefits landowner’s and drone operators, it also may ensure the
19 success of the unmanned aircraft industry by helping to resolve issues related to public
20 acceptance of this technology. For example, a poll conducted by Pew indicates that most
21 Americans want the benefits of drones, but also want the ability to exclude unmanned aircraft
22 from operating in certain areas, specifically “[w]hen it comes to what rules should apply to drone
23 use, roughly half the public (54%) thinks drones should not be allowed to fly near people’s
24 homes. Just 11% think this should be allowed, while 34% think it is OK in certain circumstances
25 but not others.” ([http://www.pewresearch.org/fact-tank/2017/12/19/8-of-americans-say-they-
26 own-a-drone-while-more-than-half-have-seen-one-in-operation/](http://www.pewresearch.org/fact-tank/2017/12/19/8-of-americans-say-they-own-a-drone-while-more-than-half-have-seen-one-in-operation/)).
27

28 Similarly, a Danish study found that the ability to have spatial separation from unmanned
29 aircraft was a key factor related to people’s concerns with drones. (Domen Bajde, et.al., General
30 Public’s Privacy Concerns Regarding Drone Use In Residential And Public Areas, Empirical
31 Research Report, May 2017, available at: [https://www.sdu.dk/-
32 /media/files/om_sdu/fakulteterne/samfundsvidenskab/samf_kommunikation/general+publics+pri
33 vacy+concerns+\(full+report\).pdf?la=en&hash=FDD15CD1FD4974D21EB01549ECC7AC7100
34 19E99D](https://www.sdu.dk/-/media/files/om_sdu/fakulteterne/samfundsvidenskab/samf_kommunikation/general+publics+privacy+concerns+(full+report).pdf?la=en&hash=FDD15CD1FD4974D21EB01549ECC7AC710019E99D) (noting, “there is a concern that drones will intrude into one’s private space, and disrupt
35 what we could call ‘spatial privacy’ via an unwarranted physical presence or noise.”)).
36

37 Furthermore, in comments accompanying the FAA’s most recent regulations for
38 unmanned aircraft, several entities noted their concerns regarding private property rights.
39

40 Several commenters, including the Illinois Farm Bureau, Colorado
41 Cattlemen's Association, and the IAAPA, raised concerns regarding small
42 UAS operations over private property and asserted that UAS operations
43 should not be permitted over private property without advance
44 authorization given by the business or property owner. In addition, the
45 IAAPA asserted that UAS could pose a threat to intellectual property and
46 other business interests of amusement parks, and other commenters raised

1 concerns regarding the use of UAS to collect proprietary data over
2 privately owned farms and businesses. However, the Wisconsin Society of
3 Land Surveyors commented that aerial geospatial data acquisition
4 practices using UAS provide significant societal benefit, are not a threat to
5 individual citizen privacy and therefore Federal efforts to impose limits on
6 UAS should exempt surveying and aerial mapping. As indicated in the
7 NPRM and by some commenters, State law and other legal protections
8 may already provide recourse for a person whose individual privacy, data
9 privacy, private property rights, or intellectual property rights may be
10 impacted by a remote pilot's civil or public use of a UAS.” (See Federal
11 Register Notice accompanying Operation and Certification of Small
12 Unmanned Aircraft Systems, 81 CFR 42063).
13

14 Other studies globally have come to the same conclusion. (See also, *CDT Proposes*
15 *Privacy Best Practices for Drones*, available at: [https://cdt.org/blog/cdt-proposes-privacy-best-](https://cdt.org/blog/cdt-proposes-privacy-best-practices-for-drones/)
16 [practices-for-drones/](https://cdt.org/blog/cdt-proposes-privacy-best-practices-for-drones/), (stating “Private drone operators should not intentionally use a drone to
17 enter private property without the landowner’s consent.”); Reece A. Clothier, et.al., *Risk*
18 *Perception and the Public Acceptance of Drones*, *Risk Analysis*,
19 <https://onlinelibrary.wiley.com/doi/pdf/10.1111/risa.12330>; See also, European Drones Outlook
20 Study Unlocking the value for Europe,
21 [https://www.sesarju.eu/sites/default/files/documents/reports/European_Drones_Outlook_Study_2](https://www.sesarju.eu/sites/default/files/documents/reports/European_Drones_Outlook_Study_2016.pdf)
22 [016.pdf](https://www.sesarju.eu/sites/default/files/documents/reports/European_Drones_Outlook_Study_2016.pdf);
23

24 In many instances, drones provide their greatest benefits in close proximity to people and
25 property. This is a new challenge for existing law because, despite over 100 years of aviation
26 history, the number of traditional aircraft operating in the very low altitude airspace and in close
27 proximity to people and property has remained relatively steady and minimal as compared to
28 unmanned aircraft. ([https://www.aopa.org/about/general-aviation-statistics/active-general-](https://www.aopa.org/about/general-aviation-statistics/active-general-aviation-aircraft-in-the-u-s)
29 [aviation-aircraft-in-the-u-s](https://www.aopa.org/about/general-aviation-statistics/active-general-aviation-aircraft-in-the-u-s)).

30
31 Manned aircraft (other than helicopters) must adhere to FAA-established minimum safe
32 altitudes, below which those manned aircraft may not fly. (14 CFR 91.119). FAA Regulations
33 require that manned aircraft, with the exception of take-off landing, not operate below 500 feet in
34 unpopulated areas, 1000 feet in populated areas and must stay 500 feet laterally from people and
35 structures in unpopulated areas and 2,000 feet in populated areas. (14 CFR 91.119) While
36 helicopters are exempt from the rule for minimum safe altitudes, there are presently only 10,577
37 active general aviation helicopters registered in the entire United States. (See, 2017 General
38 Aviation Manufacturers Association Annual Report, [https://gama.aero/wp-](https://gama.aero/wp-content/uploads/GAMA_2017_AnnualReport_ForWeb.pdf)
39 [content/uploads/GAMA_2017_AnnualReport_ForWeb.pdf](https://gama.aero/wp-content/uploads/GAMA_2017_AnnualReport_ForWeb.pdf)).

40
41 Compare the relatively low numbers of manned aircraft, operated at great distances from
42 people and property, to unmanned aircraft for which there are over 878,000 registered hobbyists
43 (who may have multiple drones) and over 122,000 commercial drones, almost all of those
44 unmanned aircraft are required to operate within 400 feet of structures or the ground. (See 14
45 CFR 107.51(b) above).
46

1 “Given the large number of drones, it would likely reduce litigation costs if the courts
2 adopted simple rules that establish a presumption of intrusion, for example, when drones are
3 operated below a certain height when within a certain distance of the property line. A simple rule
4 would make it easy for drone operators to predict when their activities would be presumed to be
5 intrusive.” (See Hazel article, *supra*, at 365 (2018)). The ease of access to unmanned aircraft
6 technology, the scale at which drones are already operating, and the low altitude airspace in
7 which these aircraft must operate, all suggest that a uniform law for *per se* aerial trespass is
8 necessary.

1 **TORT LAW RELATING TO DRONES ACT**

2 **ARTICLE 1**

3 **SHORT TITLE AND DEFINITIONS**

4 **SECTION 101. SHORT TITLE.** This [Act] may be cited as the Tort Law Relating to
5 Drones Act.

6 **SECTION 102. DEFINITIONS.**

7 (a) [General definitions.]. In this [Act]:

8 (1) “Person” means an individual, firm, partnership, corporation, company,
9 association, joint-stock association, or governmental entity. It includes a trustee, receiver,
10 assignee, or similar representative of any of them.

11 (2) “Unmanned aircraft” means an aircraft operated without the possibility of
12 direct human intervention from within or on the aircraft. For the purposes of this act, this term is
13 synonymous with the term “drone.”

14 **Comment**

15 The definition of person in Subsection (1) is drawn from the FAA’s definition, and
16 includes corporations and governmental entities both of which are covered by this Act.

17
18 The term drone is an undefined colloquial term typically used to refer to devices that are
19 technically known as “unmanned aircraft.” To resolve any confusion as to the scope of the Act,
20 Subsection (2) adopts the FAA definition of unmanned aircraft and makes clear that the term
21 “drone” is synonymous with the term “unmanned aircraft.”
22

23 **ARTICLE 2**

24 **GENERAL SCOPE AND TERMS**

25 **SECTION 201. SCOPE.** This [Act] applies to unmanned aircraft operations.

26 **SECTION 202. RELATION TO FEDERAL LAW.** A provision of this [Act] which is
27 preempted by federal law is unenforceable to the extent of the preemption.

1 **Comment**

2 The Uniform Law Commission has worked in consultation with the FAA since 2015,
3 informing the agency of the ULC’s work, and worked with the FAA during the formation of the
4 committee and the determination of the scope of the Committee’s work. Multiple telephone
5 conversations were held with the FAA’s Office of the Chief Counsel and attorneys from the
6 Office of Regulation and Enforcement at the Department of Transportation.
7

8 The subject of federal preemption was discussed, the ULC took note of the FAA’s
9 comments as well as the agency’s December 17, 2015 document entitled “*State and Local*
10 *Regulation of Unmanned Aircraft Systems (UAS) Fact Sheet*” which states “[l]aws traditionally
11 related to state and local police power – including land use, zoning, privacy, trespass, and law
12 enforcement operations...generally are not subject to federal regulation.”
13 (https://www.faa.gov/uas/resources/uas_regulations_policy/media/uas_fact_sheet_final.pdf).
14

15 Importantly, the areas of property rights, land use, and zoning are not in conflict with
16 federal regulations. As the Supreme Court has noted “[t]he United States does not “own” the
17 airspace above its territorial boundaries, although it undoubtedly has considerable authority to
18 regulate the use of that airspace.” (*Massachusetts v. U. S.*, 435 U.S. 444, 473 (1978)).
19 Consistent with this review of existing law and consultation with the FAA, the ULC decided the
20 scope of the drafting committee’s work should initially focus upon tort law.
21

22 **ARTICLE 3**

23 **SUBSTANTIVE PROVISIONS**

24 **SECTION 301. PER SE AERIAL TRESPASS.**

25 (a) A person operating an unmanned aircraft is liable to a land owner or lessee for *per se*
26 aerial trespass, when the person, without consent, intentionally causes the unmanned aircraft to
27 enter into the airspace below [200] feet above the surface of land or below [200] feet above
28 improvements built upon the surface of land.

29 (b) Except where conduct interferes or is likely to interfere with emergency, rescue or
30 public safety operations, this section shall not apply to the extent that the conduct:

31 (1) is protected by the First Amendment;

32 (2) pursuant to the requirements of the Fourth Amendment, or is undertaken
33 pursuant to a warrant or other order issued by a judge;

1 (3) is undertaken by public employees engaged in the performance of their duties,
2 including firefighters, emergency medical personnel, or public utility employees while engaged
3 in addressing an emergency that presents an imminent danger to health, safety, or the
4 environment;

5 (4) is undertaken by persons acting as part of government organized recovery
6 efforts following an accident or natural disaster;

7 (5) is undertaken by employees or contractors of a holder of a valid easement,
8 right of way or license while acting in the scope of their employment and acting consistently with
9 the easement, right of way, or license;

10 (6) occurred only because the person operating or responsible for the operation of
11 the unmanned aircraft took or was in the process of taking immediate action caused by an in-
12 flight emergency;

13 (7) was undertaken pursuant to federal law or regulation; or,

14 (8) amounts to a privileged entry [under the laws of this state.]

15 (c) Consent to enter the airspace described in subsection (a) may be given verbally, in
16 writing or through electronic consent. Electronic consent must include a clear affirmative action
17 that signifies specific agreement to entry into the airspace described in subsection (a). Such
18 consent must be given by a person authorized to grant entry to the airspace above the land.
19 Consent must be freely given, specific and informed and must unambiguously indicate the
20 wishes of the party granting consent. The consenting party shall have the right to withdraw
21 consent at any time. Verbal and written consent may be withdrawn through a clear statement
22 indicating the withdrawal of consent. The method of withdrawal for electronic consent should, at
23 a minimum, include a method that is identical to that used to grant consent. The person causing

1 an unmanned aircraft to enter the airspace described in subsection (a) has the burden of proving
2 consent.

3 (d) Above the altitude set forth in Subsection (a), any existing aerial trespass law of this
4 state applies.

5 **Comment**

6 Section 301’s *per se* trespass rule primarily protects property interests, a right of quiet
7 solitude, and a right to be left alone. Privacy interests are not directly addressed by this Section
8 (*but see* Section 302). However, a collateral benefit of a right to exclude nonconsensual entry of
9 unmanned aircraft into the immediate reaches of airspace is an incremental gain to privacy. As
10 James C. Smith notes, “The right to exclude others from one’s airspace serves a number of
11 purposes. One purpose it has always served is to protect privacy interests of possessors of land.
12 With modern technology that makes overhead photography and surveillance relatively easy and
13 inexpensive to accomplish, the interest in privacy has taken on heightened importance.
14 Legislation is one response. California has extended its statutory cause of action for the physical
15 invasion of privacy to include airspace invasions that capture an image, recording, or impression
16 of a person’s private activity “in a manner that is offensive to a reasonable person. *Cal. Civ.*
17 *Code § 1708.8* (effective 2016).” (James C. Smith, NEIGHBORING PROPERTY OWNERS § 5:3).

18
19 Subsection (a) is intended to promote clarity and uniformity by establishing that the low
20 altitude intrusion of an unmanned aircraft into the “superadjacent airspace” or “immediate
21 reaches” above land, defined here by an altitude of 200 feet above ground level or 200 feet above
22 structures, is akin to a trespass upon the land, and is therefore a *per se* trespass.

23
24 Subsection (a) provides a landowner may exclude a non-consensual entry by drone into
25 the airspace within 200 feet above their land and surface improvements on the land. This ensures
26 that the unmanned aircraft always remains 200 feet above ground level or 200 feet above surface
27 improvements unless consent is given, or an exception applies. Such a rule will protect
28 backyards, rooftop pools, decks, patios and other uses in urban areas. It also will protect
29 commercial facilities, hotels and resorts, and other areas where persons may desire a right to
30 exclude low altitude overflights. The altitude ceiling for this exclusion is low enough that
31 unmanned aircraft will still have a right to transit above property and surface improvements.
32 (See e.g., *Amazon Whitepaper: Revising the Airspace Model for the Safe Integration of Small*
33 *Unmanned Aircraft Systems*, available through NASA at:

34 [https://utm.arc.nasa.gov/docs/Amazon_Revising%20the%20Airspace%20Model%20for](https://utm.arc.nasa.gov/docs/Amazon_Revising%20the%20Airspace%20Model%20for%20the%20Safe%20Integration%20of%20sUAS[6].pdf)
35 [%20the%20Safe%20Integration%20of%20sUAS\[6\].pdf](https://utm.arc.nasa.gov/docs/Amazon_Revising%20the%20Airspace%20Model%20for%20the%20Safe%20Integration%20of%20sUAS[6].pdf); *see also* Forbes, “*Amazon Proposes*
36 *Drone Highway As It Readies For Flying Package Delivery*”
37 [https://www.forbes.com/sites/ryanmac/2015/07/28/amazon-proposes-drone-highway-as-it-](https://www.forbes.com/sites/ryanmac/2015/07/28/amazon-proposes-drone-highway-as-it-readies-for-flying-package-delivery/#6b230ce62fe8)
38 [readies-for-flying-package-delivery/#6b230ce62fe8](https://www.forbes.com/sites/ryanmac/2015/07/28/amazon-proposes-drone-highway-as-it-readies-for-flying-package-delivery/#6b230ce62fe8) (noting Amazon’s proposal that “areas
39 between 200 and 400 feet would be reserved for a sort of drone highway. UAVs in this 200-foot
40 range would likely be traveling autonomously at high-speeds and out of the line-of-sight of any
41 operator.”).

1 The altitude limit of 200 feet was selected by the Drafting Committee because the FAA
2 has historically not been concerned with most obstacles and other structures below 200 feet
3 (except near airports), whereas obstacles extending above that altitude have typically appeared
4 on FAA navigational charts and have required safety lighting. Also, in 2017, the White House
5 issued an Executive Order specifying that state, local and tribal officials, operating under the
6 auspices of the Drone Integration Pilot Program could make reasonable time, manner, and place
7 restrictions regarding the use of unmanned aircraft. That executive order mirrored the language
8 of bipartisan legislation introduced in the House and Senate in 2017 and re-introduced as a
9 codification of the Pilot Program in the FAA Reauthorization Bill introduced in the House in
10 2018. In May of 2018, ten state, local and tribal entities were selected by the U.S. Department of
11 Transportation to participate in advanced unmanned aircraft operations, part of the selection
12 criteria used by the federal government was an assessment of the willingness of these entities to
13 craft reasonable time, manner, and place restrictions below 200 feet (and above that when a case
14 could be made for such restrictions). Practical reasons for selecting this altitude include the fact
15 that at least three states have adopted altitude limits higher than that adopted in this Act,
16 including one state (Nevada) where a leading drone package delivery company testified in
17 support of legislation that featured a 250 foot altitude limitation. (*Testimony of John Griffin of*
18 *Amazon Inc.*, <https://www.leg.state.nv.us/Session/78th2015/Minutes/Senate/JUD/Final/1124.pdf>).
19 Finally, the altitude selected divides the airspace in half between unmanned aircraft which need a
20 right to transit over private property, and landowners who, per the Supreme Court in *Causby*,
21 have rights in the airspace.

22
23 Subsection (b)(2) is drafted in this manner to allow for conduct permitted by the Fourth
24 Amendment to the U.S. Constitution or provisions of state constitutions or other state statutes.

25
26 Subsection (b)(6) ensures that actions taken to avoid an in-flight emergency do not trigger
27 trespass liability. Specifically, by using the terms “immediate action caused by an in-flight
28 emergency” this subsection allows for reference to existing and future FAA regulations regarding
29 in-flight emergencies. For example, federal aviation regulations in 14 CFR 107.21 which deals
30 with small unmanned aircraft state:

31
32 “In-flight emergency. (a) In an in-flight emergency requiring immediate
33 action, the remote pilot in command may deviate from any rule of this part
34 to the extent necessary to meet that emergency. (b) Each remote pilot in
35 command who deviates from a rule under paragraph (a) of this section
36 must, upon request of the Administrator, send a written report of that
37 deviation to the Administrator. (14 CFR 107.21).
38

39 Similarly, 14 CFR 91.3 which deals with aircraft other than small unmanned aircraft states:

40
41 “Responsibility and authority of the pilot in command.
42 (a) The pilot in command of an aircraft is directly responsible for, and is
43 the final authority as to, the operation of that aircraft.
44 (b) In an in-flight emergency requiring immediate action, the pilot in
45 command may deviate from any rule of this part to the extent required to
46 meet that emergency.

1 (c) Each pilot in command who deviates from a rule under paragraph
2 (b) of this section shall, upon the request of the Administrator, send a
3 written report of that deviation to the Administrator. (14 CFR 91.3
4 (important as future unmanned aircraft may not fall under Part 107)).
5

6 Subsection (b)(7) creates an exception for privileged entry if one exists in the state. This
7 exception, in its most common form, appears in the Restatement (Second) of Torts § 198 (1965):
8

- 9 (1) One is privileged to enter land in the possession of another, at a reasonable
10 time and in a reasonable manner, for the purpose of removing a chattel to the
11 immediate possession of which the actor is entitled, and which has come upon
12 the land otherwise than with the actor's consent or by his tortious conduct or
13 contributory negligence.
14
- 15 (2) The actor is subject to liability for any harm done in the exercise of the
16 privilege stated in Subsection (1) to any legally protected interest of the
17 possessor in the land or connected with it, except where the chattel is on the
18 land through the tortious conduct or contributory negligence of the possessor.
19 (§ 198 (1965)).
20

21 Typically, this exception is limited by a requirement that an owner seeking to recover a
22 chattel first seek permission to enter from the landowner, and only if this permission cannot be
23 obtained, may the property owner enter under the privileged-entry exception. The remaining
24 exceptions in subsection (b) are self-explanatory and are mostly intended to bring Section 301 in
25 line with existing trespass to land doctrine.
26

27 Subsection (c) is adapted in part from standard data protection practices and is intended
28 to ensure that consent can be easily given and easily withdrawn, and that there is parity between
29 granting and withdrawing consent. For example, the provision seeks to avoid a circumstance
30 where one can unknowingly provide consent (through silence, pre-ticked boxes, or inactivity). It
31 also seeks to avoid a circumstance where an individual can easily provide consent yet cannot
32 easily withdraw it as in situations where ticking a box when visiting an internet website can
33 provide consent, but withdrawal of consent requires a writing through certified mail.
34

35 **Alternative A**

36 **SECTION 301. AIRSPACE INTRUSIONS.**

37 (a) A person may operate an unmanned aircraft over any property where such operation is
38 not otherwise prohibited or restricted by law or applicable regulation.

39 (b) A trespass to land is presumed when any person intentionally and without consent of
40 the landowner operates an unmanned aircraft over any property at an altitude of less than [200]

1 feet above ground level or [200] feet above the tallest improvement on the land, whichever is
2 higher;

3 (c) The presumption created in subdivision (b) may be rebutted by a showing that the
4 intrusion did not significantly intrude upon the landowner's enjoyment or use of her property.

5 (d) In determining whether a trespass has significantly intruded upon the landowner's
6 enjoyment or use of her property, the factors to be considered include –

7 (1) The amount of the time that the drone operated over the landowner's property,
8 and especially whether that time was minimal either in absolute terms or in relation to the size of
9 the property as a whole;

10 (2) The extent of the intrusion into the airspace below the [200] foot ceiling
11 described in subdivision 301(b), above;

12 (3) The extent of the noise produced by operation of the drone in the context of
13 any other noise nearby to or over the landowner's property;

14 (4) Whether the unmanned aircraft recorded video or still photographs while over
15 the landowner's property;

16 (5) Whether the landowner regularly allowed operation of unmanned aircraft over
17 her property;

18 (6) Whether the operation of the unmanned aircraft caused any physical damage
19 to the landowner's property;

20 (7) Whether the operation of the unmanned aircraft caused the landowner any
21 economic damage;

22 (8) The time of day of the intrusion;

23 (9) The purpose of the flight.

1 The fact that a flight was for commercial purposes shall not itself bar a finding that the flight did
2 not intrude upon the owner’s enjoyment and use of her property.

3 **Comment**
4

5 Subsection (a) makes clear that unmanned aircraft are entitled to fly in the space above
6 property unless prohibited to do so by applicable law or regulation. The limitation provides
7 clarification that other laws may be relevant to the operation of a particular unmanned aircraft
8 besides this statute.
9

10 Subsection (b) creates a rebuttable presumption that operation of unmanned aircraft at an
11 altitude below a predetermined level (200 feet is proposed here) constitutes a trespass to land.
12

13 Subsection (c) provides that proof that any operation of an unmanned aircraft that does
14 not interfere with the landowner’s enjoyment or use of her land provides grounds for rebuttal of
15 the presumption created in subsection (b) by any defendant in an action for trespass based on
16 operation of an unmanned aircraft defined as a trespass in subsection (b).

17 Subsection (d) provides a list of non-exclusive factors that may in various circumstances be
18 relevant to whether the operation of the unmanned aircraft has significantly intruded. The list is
19 not exclusive, nor will every inquiry in the list be relevant in every circumstance.

20 Subsection (d)(1) focuses on the amount of time that the drone intruded into the space below the
21 ceiling set in subsection (b), and notes that the context of the timing could be relevant.
22 Specifically, if the drone was operated in a straight line over a large piece of property, but did so
23 relatively quickly given the size of the property, this would favor the defendant’s attempt to rebut
24 subsection (b)’s presumption of actionable trespass. If the drone took a relatively long time to
25 traverse a comparatively small piece of property, this would favor the plaintiff in retaining the
26 presumption.
27

28 Subsection (d)(2) focuses on how low the unmanned aircraft flew, measuring that in
29 relation to the distance under the ceiling set in subsection (b). The lower the unmanned aircraft
30 flew, the more likely the presumption should apply, and the higher – and thus closer to the
31 ceiling – the unmanned aircraft flew, the less likely the presumption should apply.

32 Subsection (d)(3) considers the amount of noise produced by the unmanned aircraft, and should
33 be measured from relevant areas as inhabited or used by the landowner. If the landowner heard
34 the noise of the unmanned aircraft through an open window in a third floor bedroom, that would
35 be a relevant location for purposes of subsection (d)(3), though outside on the ground will likely
36 be the relevant location for these purposes. Evidence of noise may be the testimony of the
37 landowner as to what he or she heard, but may also be measurements of noise using appropriate
38 sound detection technology.
39

40 Subsection (d)(4) asks the question of whether the unmanned aircraft was recording video
41 or audio or taking photographs while over the landowner’s property. Where video or audio was
42 recorded, or photographs taken, especially of the landowner’s property or people or items on it,
43 this factor would favor the plaintiff and retention of the privilege, while a lack of these would
44 favor the defendant’s attempted rebuttal of the presumption.

1 Subsection (d)(5) asks whether the landowner regularly allowed unmanned aircraft to
2 operate over her property. A landowner who regularly allows such operations indicates that such
3 activities are less likely to significantly intrude upon her enjoyment and use of her property.
4 Subsection (d)(6) considers whether damage resulted from the unmanned aircraft’s operation
5 over her property. Where it did, it should be more difficult for an unmanned aircraft operator to
6 rebut the presumption that a trespass took place.

7
8 Subsection (d)(7) somehow caused the landowner economic damage, for example by
9 discouraging customers from coming to a business or participating in economic activities, this
10 factor should favor the landowner in determining whether an unmanned aircraft operator has
11 overcome the presumption of trespass.

12
13 Subsection (d)(8) indicates that the time of day of an intrusion may be relevant, and when
14 considered with other factors, such as subsection (d)(3), may favor the presumption – where, for
15 example, an unmanned aircraft was loudly flying over property at night – or may favor its
16 rebuttal – where, for example, a drone is flying quietly over property during the day.
17 Subsection (d)(9) takes into account the purpose of the flight, and leaves that factor open for
18 interpretation based on the full context of the unmanned aircraft’s operation.
19 The closing paragraph of subsection (d) clarifies that the commercial or non-commercial nature
20 of a flight is not dispositive of whether the resumption should apply or whether a defendant has
21 met the burden of rebutting it.

22 **Alternative B**

23 **SECTION 301. TRESPASS IN AIRSPACE APPURTENANT TO LAND.**

24 (a) Legislative Findings

25
26 (1) [This state] recognizes a right of landowners in the airspace appurtenant to
27 their land extending to various heights depending primarily upon the use and location of the land
28 in question.

29 (2) In rural regions as defined in [state law], the recognized right extends to a
30 height of [150 feet above ground level].

31 (3) In suburban regions as defined in [state law], the recognized right extends to a
32 height of [150 feet above ground level].

33 (4) In agricultural regions as defined in [state law], the recognized right extends to
34 a height of [150 feet above ground level].

1 (5) In urban regions as defined in [state law], the recognized right extends to a
2 height of [150 feet above ground level or 50 feet above the maximum height of any structure on
3 the land, whichever is higher].

4 (6) These findings do not create any new rights to landowners, but rather
5 recognize the common law and statutory rights already held by landowners in [this state].

6 (b) A trespass to land claim may be brought for any intentional physical intrusion into the
7 airspace above the land up the following stated heights:

8 (1) In rural regions as defined in [state law], [150 feet above ground level].

9 (2) In suburban regions as defined in [state law], [150 feet above ground level].

10 (3) In agricultural regions as defined in [state law], [150 feet above ground level].

11 (4) In urban regions as defined in [state law], [150 feet above ground level or 50
12 feet above the maximum height of any structure on the land, whichever is higher].

13 (c) The height stated in subsection (a) defines the limit of [this state's] definition of rights
14 in land for purposes of the tort of trespass.

15 (d) All common law, statutory and constitutional defenses, privileges and immunities
16 apply to the right recognized in this section to the same extent as they do to alleged trespasses
17 upon land.

18 (e) This section does not create any additional rights for landowners in the airspace
19 appurtenant to their land, including but not limited to any right of development, use or alienation.

20
21 **Comment**
22

23 Subsection (a) states the legislative findings regarding the individual state's recognition
24 of landowner rights in airspace appurtenant to land. These findings are to be based upon the
25 state's history of recognizing such rights and as such may vary from location to location and
26 from region to region. The exemplary findings in subsection (a) provide a framework for
27 considering rights within a state, but are not intended to be adhered to slavishly. Uniformity will

1 not arise from identical “flight ceilings” in all states that adopt this law, or even within any state
2 that adopts this law, but will arise from the existence of explicit recognition of such ceilings in
3 the law itself. Subsections (a)(1) through (a)(5) provide exemplary categorizations that may be
4 useful in recognizing the extent of appurtenant rights in airspace in various states.

5
6 Subsection (a)(6) makes clear that the recognition of such rights does create any new
7 rights, but instead recognizes existing rights in land in an explicit and clear fashion.

8
9 Subsection (b) directly operationalizes subsection (a)’s findings.

10
11 Subsection (c) clarifies that this section is definitional in recognizing the existing extent
12 of ownership in airspace appurtenant to land for purposes of trespass law.

13
14 Subsection (d) makes all existing state law defenses, privileges and immunities that
15 would otherwise be available in defense of a trespass action applicable to trespass actions
16 brought based on physical invasions of appurtenant airspace, regardless of whether they are
17 based in the common law, on statute, or the Constitution.

18
19 Subsection (e) reinforces the recognition in the legislative findings that the section does
20 not create any new rights in landowners, whether those rights are based in development, use or
21 alienation.

22
23 **End of Alternatives**

24 **SECTION 302. TORTIOUS ACQUISITION OF IMAGES, RECORDINGS OR**
25 **PHYSICAL OR ELECTRONIC IMPRESSIONS USING AN UNMANNED AIRCRAFT.**

26 (a) A person commits tortious acquisition of images, recordings or physical or electronic
27 impressions using an unmanned aircraft when the person operates an unmanned aircraft and:

28 (1) acquires a visual image, sound recording, or other physical or electronic
29 impression of another person depicting private facts or a trade secret;

30 (2) the image, sound recording or other physical or electronic impression is
31 acquired in a manner that is highly offensive to a reasonable person; and

32 (3) such acquisition is not otherwise protected by the First Amendment or does
33 not conform to the requirements of the Fourth Amendment, a warrant, or other order issued by a
34 judge.

1 (b) For purposes of Subsection (a)(1), a visual image, sound recording, or other physical
2 or electronic impression using an unmanned aircraft is subject to a rebuttable presumption that it
3 is “depicting private facts” if that visual image, sound recording, or other physical or electronic
4 impression would not be capable of being acquired from ground level or from structures where
5 an observer has a legal right to be.

6 (c) For purposes of Subsection (a)(2), there exists a rebuttable presumption that an image
7 is acquired in a manner that is highly offensive to a reasonable person if the acquisition occurs in
8 the course of or following a “per se aerial trespass,” [as defined in Section 301] or an aerial
9 trespass [as defined elsewhere in the existing law of this state].

10 (d) A visual image, sound recording, or other physical or electronic impression acquired
11 solely for navigation and aviation safety purposes is exempt from this section, so long as such
12 visual image, sound recording, or other physical or electronic impression is not used for purposes
13 other than navigation and aviation safety and is not disclosed to other persons other than for the
14 purpose of navigation and aviation safety.

15 **Comment**

16 Subsection (a) seeks to protect against intentional non-trespassory privacy invasions from
17 adjacent airspace (for example an observation into a private area from airspace above a public
18 street or above neighboring private property) and trespassory privacy invasions. Subsection
19 (a)(3) protects against overbreadth by mandating proof that the acquisition was offensive to a
20 reasonable person, and is not otherwise protected by the 1st Amendment. (Cf.
21 [https://www.rcfp.org/browse-media-law-resources/digital-journalists-legal-guide/what-types-
22 conduct-are-considered-offen-0](https://www.rcfp.org/browse-media-law-resources/digital-journalists-legal-guide/what-types-conduct-are-considered-offen-0)). This approach is similar to the approach taken in cases
23 involving publication of private facts.
24 (Cf., [https://cases.justia.com/michigan/court-of-appeals-unpublished/2014-313738-
25 0.pdf?ts=1400004850](https://cases.justia.com/michigan/court-of-appeals-unpublished/2014-313738-0.pdf?ts=1400004850)).

26
27 Subsection (b) presumes that the acquired information depicts “private facts” where the
28 acquisition of information could not otherwise be accomplished from the ground. It is modeled
29 on an approach followed by *Fla. Stat. §934.50(3)(b)* which defines a reasonable expectation of
30 privacy by reference to what could be observed from the ground. The subsection is intended to
31 allow individuals to protect their privacy by focusing upon taking measures to protect their

1 privacy against ground observations and observations from structures built upon the ground. By
2 creating a form of legal protection from aerial observations, it ensures that individuals need not
3 go to extreme measures to shield their activity from aerial observations. These provisions
4 protect not only persons, but also trade secrets which are not presently protected from overflight
5 in some jurisdictions. This Act remedies this gap in the law as it relates to aerial observations.
6

7 The exemption created by Subsection (d) is necessary because many unmanned aircraft
8 operations will use cameras and other sensors for navigational purposes, this exemption helps
9 narrowly tailor the application of the Act to ensure it does not interfere with aviation safety.
10

11 **SECTION 303. NUISANCE.** A drone, a group of drones acting in concert, or a group
12 of drones operated by the same person over an extended period of time may be instrumentalities
13 of a public or private nuisance as defined by [other law of this state].

14 **SECTION 304. INTENTIONAL TORTS.** A drone may be the instrumentality of an
15 intentional tort as defined by [other law of this state].

16 **SECTION 305. TRESPASS TO CHATTELS.** A drone may be the instrumentality of
17 a trespass to chattels as defined by [other law of this state].

18 **Comment**

19
20 [Reserved for a comment outlining hypotheticals where a drone would be understood as
21 committing a trespass to chattel.]
22

23 **SECTION 306. EXISTING PRODUCTS LIABILITY LAW UNDISTURBED.**

24 Nothing in this Act is intended to alter the scope or applicability of products liability law under
25 [other law of this state].

26 **SECTION 307. LIMITATION OF LIABILITY.** An owner, lessee, or occupant of
27 land:

28 (a) does not owe a duty of care to a *per se* aerial trespasser [as defined in Section 301];

29 and

1 (b) is not liable for any injury to a *per se* aerial trespasser [as defined in Section 301]
2 except for criminal or willful or wanton acts or gross negligence by the owner, lessee, or other
3 occupant of land.

4 **SECTION 308. DEFENSES.**

5 (a) In an action for *per se* trespass under Section 301, a defendant may raise the same
6 defenses that may be raised in a trespass to land action [under the law of the state].

7 [(b) In an action for tortious acquisition of images, recordings, or other physical or
8 electronic impressions using an unmanned aircraft under Section 302, it shall be a defense to a
9 cause of action that upon discovering the acquisition of information protected by that Section the
10 acquiring person immediately deleted [and rendered inaccessible to all persons] the images,
11 recordings, or electronic impressions and any copies of the same.]

12 **Comment**

13 Subsection (a) makes clear that *per se* aerial trespass defenses should mirror those in
14 trespass to land actions. This includes public and private necessity defenses and in combination
15 with the Section 301 exceptions appropriately tailors the scope and applicability of the newly
16 created *per se* trespass cause of action.

17
18 [Subsection (b) provides a safe harbor and an incentive for a party to delete and not
19 distribute wrongfully gathered visual images, recordings, or other physical or electronic
20 impressions]. This safe harbor provision is similar to safe harbors seen in cybersecurity, data
21 breach and other contexts.

22
23 **SECTION 309. REMEDIES.**

24 (a) In an action for *per se* trespass under Section 301, remedies and damages are identical
25 to those for trespass to land [under other law of this state].

26 (b) In an action for tortious acquisition of images, recordings or other physical or
27 electronic impressions using an unmanned aircraft under Section 302, a plaintiff may be entitled
28 to recover from the defendant:

- 1 (1) general damages [under other law of this state]
- 2 (2) special damages [under other law of this state]
- 3 (3) punitive damages [under other law of this state]
- 4 (4) the value of any payment or benefit received as a result of conduct in violation
- 5 of Section 302.
- 6 [(5) equitable relief [under other law of this state].]

7 (c) Any third parties that use a visual image, sound recording, or other physical or
8 electronic impression made in violation of Section 302 are subject to the damage provisions in
9 Subsections (b)(1-3), but only if that third party:

10 (1) knew or should have known that the acquisition or use of the visual image,
11 sound recording, or other physical or electronic impression would be highly offensive to a
12 reasonable person;

13 (2) provided consideration to the acquirer or the acquirer’s agent for acquisition of
14 the visual image, sound recording or other physical or electronic impression or provided
15 consideration for the rights to use the visual image, sound recording or other physical or
16 electronic impression; and

17 (3) the visual image, sound recording, or other physical or electronic impression
18 depicted information, or a circumstance that was not of legitimate concern to the public.

19 **Comment**

20 Subsection (b)(1-3) provisions mirror the Restatement’s recognition of damages for
21 privacy harms. By allowing recovery of damages for harm to privacy interests these provisions,
22 like the Restatement, ensure privacy laws can be enforced despite the intangible nature of harm
23 flowing from a breach of privacy. Privacy harms are difficult to quantify, and the value of a
24 person’s private information may vary based upon their notoriety or celebrity status. A punitive
25 damages provision allows for a means to deter privacy harms even where the economic damage
26 associated with the privacy harm is difficult to calculate.

1 Subsection (b)(4) makes clear that privacy harms are deemed more wrongful when the
2 tortfeasor profits from the tort. This subsection acts as a disgorgement provision and is a means
3 to prevent unjust enrichment. For example, the actual damages suffered by a person whose
4 picture is taken by a drone may be minimal, perhaps \$100, but if the person who wrongfully
5 takes the image is able to sell that same image for \$1,000 they will benefit from the wrongful act.
6 This remedy provides a means to ensure the tortfeasor is not unjustly enriched by the wrongful
7 act.
8

9 [Subsection (b)(5) provides a tentative conclusion on the availability of equitable relief.
10 The Drafting Committee is continuing its discussion of the merits of this provision. Preliminary
11 discussions indicate that equitable relief may be appropriate in at least some situations. An
12 injunction may be the best way to stop certain conduct when legal remedies or monetary
13 compensation cannot adequately resolve the wrongdoing. For example, the benefits to a drone
14 operator that flow from gathering certain images may far exceed an award of monetary
15 compensation that would otherwise deter the operator’s conduct.]
16

17 Subsection (c) is drawn from the Restatement (Second) of Torts approach to public
18 disclosure of private facts and is intended to narrow the scope of the third party liability
19 provision. It is drafted to prevent those in receipt of information gathered in violation of
20 another’s privacy rights from further disseminating the improperly gathered information. The
21 Constitutional issues, especially First Amendment concerns, raised by third party liability and
22 limits on publication require all three elements be proven before a third party can be held liable.
23

24 Subsection (c)(2) specifically addresses two separate situations. First, it covers
25 circumstances where an individual is hired to engage in the act of acquiring a visual image,
26 sound recording, or other physical or electronic impression. Additionally, it covers the scenario
27 where a third party doesn’t pay for the acquisition itself, but instead purchases the rights to use
28 the already-gathered wrongful visual image, sound recording, or other physical or electronic
29 impression, even if not from the party who originally acquired the image.
30

31 **SECTION 310. UNIFORMITY OF APPLICATION AND CONSTRUCTION.** In

32 applying and construing this uniform act, consideration must be given to the need to promote
33 uniformity of the law with respect to its subject matter among the states that enact it.

34 **SECTION 311. RELATION TO ELECTRONIC SIGNATURES IN GLOBAL**
35 **AND NATIONAL COMMERCE ACT.** This [act] modifies, limits, or supersedes the
36 Electronic Signatures in Global and National Commerce Act, 15 U.S.C. Section 7001 et seq., but
37 does not modify, limit, or supersede Section 101(c) of that act, 15 U.S.C. Section 7001(c), or

1 authorize electronic delivery of any of the notices described in Section 103(b) of that act, 15
2 U.S.C. Section 7003(b).

3 **SECTION 312. EFFECTIVE DATE.** This [act] takes effect