

DRAFT
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TORT LAW RELATING TO DRONES ACT

NATIONAL CONFERENCE OF COMMISSIONERS
ON UNIFORM STATE LAWS

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March 6, 2018

TORT LAW RELATING TO DRONES ACT

The Committee appointed by and representing the National Conference of Commissioners on Uniform State Laws in preparing this Act consists of the following individuals:

PAUL M. KURTZ, 362 W. Cloverhurst Ave., Athens, GA 30606, *Chair*

MARK F. GLASER, 54 State St., 6th Floor, Albany, NY 12207, *Vice Chair*

MARK BAKER, P.O. Box 947, Brandon, MS 39043

STEPHEN Y. CHOW, 125 Summer St., Boston, MA 02110-1624

ELLEN F. DYKE, 2125 Cabots Point Ln., Reston, VA 20191

LYLE W. HILLYARD, 595 S. Riverwoods Pkwy., Suite 100, Logan, UT 84321

PETER F. LANGROCK, P.O. Drawer 351, Middlebury, VT 05753-0351

LARRY METZ, P. O. Box 57, Yalaha, FL 34797-0057

LOWELL PEARSON, P.O. Box 1251, 235 E. High St., Jefferson City, MO 65203

D. JOE WILLIS, 360 SW Bond St., Suite 500, Bend, OR 97702

JOAN ZELDON, District of Columbia Superior Court, 515 5th St. NW, Room 219, Washington, DC 20001

GREGORY S. MCNEAL, Pepperdine University, 24255 Pacific Coast Hwy., Malibu, CA 90263-0001, *Reporter*

EX OFFICIO

ANITA RAMASASTRY, University of Washington School of Law, William H. Gates Hall, Box 353020, Seattle, WA 98195-3020, *President*

WILLIAM W. BARRETT, 600 N. Emerson Ave., P.O. Box 405, Greenwood, IN 46142, *Division Chair*

AMERICAN BAR ASSOCIATION ADVISORS

JOHN P. RATNASWAMY, 350 W. Hubbard St., Suite 600, Chicago, IL 60654-6982, *ABA Advisor*

DANIEL R. MCGLYNN, 10420 Research Rd. SE, Albuquerque, NM 87123-3452, *ABA Section Advisor*

EXECUTIVE DIRECTOR

LIZA KARSAI, 111 N. Wabash Ave., Suite 1010, Chicago, IL 60602

Copies of this act may be obtained from:

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ON UNIFORM STATE LAWS
111 N. Wabash Ave., Suite 1010
Chicago, Illinois 60602
312/450-6600
www.uniformlaws.org

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1 **TORT LAW RELATING TO DRONES ACT**

2 **PART 1**

3 **GENERAL PROVISIONS**

4 **[SUBPART A. SHORT TITLE AND DEFINITIONS]**

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

7 **SECTION 102. DEFINITIONS.**

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

9 (1) “Control station” means any device used by the remote pilot to control or
10 direct the flight path of the small unmanned aircraft.

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

14 (3) “Firmware” means software installed in or on a small unmanned aircraft
15 system at the time of the manufacture of the unmanned aircraft, and in use, whether actively or
16 as a passive operation, including updates to the firmware released by the manufacturer and
17 installed on an unmanned aircraft system.

18 (4) “Flight Control Software” means the software used as part of the control
19 station.

20 (5) “Immediate Reaches” means the airspace from ground level to at least [100]
21 feet above the surface, or where surface improvements are present, the airspace at least [100] feet
22 above those surface improvements.

23 (6) “Small unmanned aircraft” means an unmanned aircraft weighing less than 55

1 pounds on takeoff, including everything that is on board or otherwise attached to the aircraft. For
2 the purposes of this statute, the term drone is synonymous with small unmanned aircraft.

3 (7) “Small unmanned aircraft system (small UAS)” means a small unmanned
4 aircraft and its associated elements (including communication links and the components that
5 control the small unmanned aircraft) that are required for the safe and efficient operation of the
6 small unmanned aircraft.

7 (8) “Software” means the carefully-organized instructions and code written by
8 programmers in any of various special computer languages. Software includes code that controls
9 the functions of a small unmanned aircraft system. It also includes applications that handle
10 common or specialized tasks related to the control of a small unmanned aircraft system.
11 Software includes applications provided by the unmanned aircraft manufacturer that are
12 necessary for the operation of some or all of the functions of the unmanned aircraft system, and
13 third party applications capable of controlling the unmanned aircraft system.

14 (9) “Unmanned aircraft” means an aircraft operated without the possibility of
15 direct human intervention from within or on the aircraft.

16 **Comment**

17 (1) This definition is adapted from FAA policy documents.
18

19 (2) This definition is adapted from FAA regulations. It is broadly drafted to include persons
20 who today include model aircraft and recreational operators, remote pilots, and entities operating
21 unmanned aircraft. It is also sufficiently broad to account for future autonomous systems.
22

23 (3) This definition is necessary to establish the difference between software that may
24 supplement the operation of an unmanned aircraft from that which is necessary for the operation
25 of the unmanned aircraft.
26

27 (4) [blank]
28

29 (5) This definition is necessary to clarify the unresolved question regarding at what altitude
30 private property rights end and the established yet undefined “public highway” in the sky begins.

1 In *U.S. v. Causby* the Supreme Court stated “*We have said that the airspace is a public*
2 *highway. Yet it is obvious that, if the landowner is to have full enjoyment of the land, he must have*
3 *exclusive control of the immediate reaches of the enveloping atmosphere. Otherwise buildings*
4 *could not be erected, trees could not be planted, and even fences could not be run.*” While the
5 Supreme Court established the principle that landowners must have control of the “immediate
6 reaches” the Court left the term undefined, and subsequent courts have failed to set a clear line
7 related to the minimum altitude at which a landowner’s rights begin. This is true despite the fact
8 that the Court clearly noted “*the flight of airplanes, which skim the surface but do not touch it, is*
9 *as much an appropriation of the use of the land as a more conventional entry upon it.*”
10

11 While owners likely do not physically occupy the airspace 100 feet above their land or
12 structures, an intrusion into this area, per this definition, would constitute an entry into the
13 immediate reaches of the land owner’s airspace without the need for fact specific inquiries which
14 have historically caused uncertainty and a lack of uniformity. In *Causby*, the Supreme Court on
15 the facts of that case found that the flight of a government operated aircraft at an altitude of 83 feet
16 interfered with the landowner’s property rights and the landowner was entitled to compensation.
17 On those facts the court explained the importance of the immediate reaches concept and the
18 property interest in the superadjacent airspace noting that intrusions into this area are “in the same
19 category as invasions of the surface.”
20

21 The court wrote, “*We would not doubt that, if the United States erected an elevated railway*
22 *over respondents' land at the precise altitude where its planes now fly, there would be a partial*
23 *taking, even though none of the supports of the structure rested on the land. The reason is that*
24 *there would be an intrusion so immediate and direct as to subtract from the owner's full enjoyment*
25 *of the property and to limit his exploitation of it. While the owner does not in any physical manner*
26 *occupy that stratum of airspace or make use of it in the conventional sense, he does use it in*
27 *somewhat the same sense that space left between buildings for the purpose of light and air is used.*
28 *The superadjacent airspace at this low altitude is so close to the land that continuous invasions of*
29 *it affect the use of the surface of the land itself. We think that the landowner, as an incident to his*
30 *ownership, has a claim to it, and that invasions of it are in the same category as invasions of the*
31 *surface.*” The “low altitude” that was seen as akin to the surface by the *Causby* Court was an
32 altitude of 83 feet.
33

34 However, the *Causby* case does not end there, as the Supreme Court remanded the case to
35 the Court of Federal Claims for further fact finding. Setting up the procedural history, the Court
36 of Federal Claims wrote “[w]e held that the United States had taken an easement of flight over
37 plaintiffs' property, resulting in the destruction of some of plaintiffs' property and damage to the
38 rest. We awarded judgment. The Supreme Court agreed there had been a taking but remanded the
39 case for findings describing the precise nature of the easement taken...” (*Causby v. U.S.*, 75 F.
40 Supp. 262, 263 (Ct. Cl. 1948) (internal citations omitted).
41

42 The Court of Federal Claims found “the United States took an easement over plaintiffs'
43 property...for the flight of its airplanes ... at an altitude varying from 83 feet above the surface of
44 the land to an altitude of 365 feet.” and the court decreed that the landowners were entitled to
45 compensation for their loss of property and the decrease in rental value of their property. Thus in
46 *Causby*, the immediate reaches ranged from 83 feet to 365 feet, other cases have come out

1 differently. The definition provided here removes ambiguity related to the altitude at which the
2 landowner --as incident to his ownership-- has rights in the superadjacent airspace, providing
3 clarity and uniformity.

4
5 (6) This definition is adapted from FAA regulations.

6 (7) This definition is adapted from FAA regulations.

7 (8) [blank]

8 (9) This definition is adapted from FAA regulations.

9 **[SUBPART B. GENERAL SCOPE AND TERMS]**

10 **SECTION 201. SCOPE; EXCLUSIONS.**

11 (a) [**Scope in general.**]. This [Act] applies to small unmanned aircraft systems.

12 **SECTION 202. RELATION TO FEDERAL LAW.**

13 (a) [**Federal preemption.**] A provision of this [Act] which is explicitly preempted by
14 federal law is unenforceable to the extent of the preemption.

15 **Comment**

16 The Uniform Law Commission has coordinated with the FAA on the scope and formation
17 of this Uniform Act and has determined that tort law is not preempted. <Insert memo and record
18 of correspondence>.

19
20 **SECTION 203. RULES OF CONSTRUCTION.**

21 (a) [**Liberal construction and application.**] This [Act] must be liberally construed and
22 applied to promote its underlying purpose and policies to:

23 (1) support and facilitate the realization of the full potential of unmanned aircraft
24 by creating clearly defined rules that protect unmanned aircraft operators and stakeholders;

25 (2) clarify the disparate tort laws related to unmanned aircraft in instances
26 involving aerial trespass, nuisance, privacy and associated harms; and

27 (3) promote uniformity of the law with respect to the subject matter of this [Act]

1 among states that enact it.

2 **Comment**

3 **1. Purpose of the Section.** This section brings together rules regarding construction of this Act.

4
5 **2. Purpose of the Act.** This Act must be construed in light of its purposes. As stated in paragraph
6 (1), these are not regulatory, but are intended to facilitate and support the use of unmanned
7 aircraft while protecting stakeholders from the negative consequences of these unmanned
8 aircraft. To construe an Act in light of its purposes does not mean that general purposes supplant
9 specific provisions. However, in cases of uncertainty, the meaning of this Act should be
10 construed by reference to the stated purposes developed in the Act, as opposed to inconsistent or
11 extraneous policies that contradict those of this Act.

12
13 **[TITLE 3 AND TITLE 4 RESERVED]**

14 **[SUBSTANTIVE PROVISIONS]**

15 **SECTION 501. AERIAL TRESPASS USING AN UNMANNED AIRCRAFT.**

16 (a) A person operating an unmanned aircraft is liable to an individual for trespass, if,
17 without consent, the person causes the unmanned aircraft to enter into the immediate reaches of
18 the airspace above the land of another.

19 (b) This section shall not apply to peace officers as defined [] or any federal, state,
20 or local government employees engaged in the performance of their duties, or to any firefighters,
21 emergency medical personnel, or public utility employees engaged in addressing an emergency
22 that presents an imminent danger to health, safety, or the environment in the performance of their
23 duties. The provisions of this section shall not prohibit railroad employees and emergency
24 equipment from entering such land to restore rail service following an accident, derailment or
25 natural disaster; nor the entrance of utility employees or contractors while acting in the scope of
26 their employment; nor employees or contractors of valid easement or license holders while
27 acting in the scope of their employment.

28 (c) Consent to enter the immediate reaches of the airspace above the land of another may

1 be proven through express verbal, written or electronic consent. Such consent must be given by
2 the person authorized to grant entry to the immediate reaches of the airspace above land.
3 Consent must be freely given, specific, informed and must unambiguously indicate the wishes of
4 the party granting consent and the terms under which consent may be revoked. Electronic
5 consent must include a clear affirmative action that signifies specific agreement to the overflight.
6 The person causing an unmanned aircraft to enter the immediate reaches of the airspace has the
7 burden to produce evidence of consent.

8 **Comment**

9 This section is intended to promote clarity and uniformity by making clear that the low
10 altitude intrusion of an unmanned aircraft into the superadjacent airspace above land is akin to a
11 trespass upon the land. This section assumes a landowner may exclude a non-consensual entry by
12 drone into the immediate reaches of the airspace above their land or surface improvements on the
13 land. This ensures that the unmanned aircraft always remains (per the definition of immediate
14 reaches) 100 feet above ground level or 100 feet above surface improvements, whichever is greater.
15 Such a rule will protect rooftop pools, decks, patios and other uses in urban areas. The altitude
16 ceiling for this exclusion is low enough that unmanned aircraft will still have a right to transit
17 above property and surface improvements.

18
19 This section primarily protects property interests, a right of quiet solitude, and a right to be
20 left alone. Privacy interests are not directly addressed by this Section (see Section 502), however,
21 a collateral benefit of a right to exclude nonconsensual entry of unmanned aircraft into the
22 immediate reaches of airspace may be some incremental gains to privacy.

23
24 This section is a corrective to the existing aerial trespass doctrine which according to the
25 Restatement (Second) of Torts § 159(2) states:

26
27 Flight by an aircraft in the air space above the land of another is trespass if
28 (1) “[the aircraft] enters into the immediate reaches of the air space next to the land, and
29 (2) [it] interferes substantially with the other’s use and enjoyment of the land.”:

30
31 Notably, unlike trespass to land which allows for an automatic right to exclude non-
32 consensual entries, aerial trespass as presently understood does not afford such an automatic
33 exclusionary right. Thus while a trespasser walking upon land is liable for trespass “irrespective
34 of whether he thereby causes harm to any legally protected interest of the other” (Restatement
35 (Second) of Torts § 158 (1965)) an aerial trespass would trigger no such right of exclusion unless
36 a plaintiff could show both that the unmanned aircraft entered the immediate reaches and that there
37 was substantial interference with the use and enjoyment of the land.
38

1 Requiring proof of both of these elements for unmanned aircraft will likely result in the
2 inability of landowners to exclude most unmanned aircraft flights from even very low altitudes
3 adjacent to land and buildings and will force courts to adjudicate whether flights actually interfered
4 with a landowner's use and enjoyment of their land. The traditional rule's requirement that there
5 exist an interference with use and enjoyment of land is drawn from nuisance law and has a harm
6 element associated with it, which distinguishes it from the trespass to land jurisprudence. Stated
7 simply, unlike the automatic right that exists in trespass to land --- the ability to exclude a person
8 from walking upon one's land --- there is no existing right to exclude aircraft from flying above
9 one's land without showing interference with use and enjoyment of the land. For unmanned
10 aircraft, this will likely prove problematic as it will require a fact-specific showing related to each
11 overflight before an unmanned aircraft could be excludable, leading to uncertainty and lack of
12 uniformity.

13
14 Complicating matters further, existing precedents from manned aviation require substantial
15 interferences of a type that when applied to unmanned aircraft will likely not allow for a right of
16 exclusion. For example, Courts have found that noise alone is not an interference with use of land,
17 overflight of uninhabited land is not an interference, and overflights of inhabited land when the
18 land was not being used at the time of the overflight was not interference. Applying this to
19 unmanned aircraft will raise questions about whether drones are permitted to fly at low altitudes
20 in close proximity to homes, so long as the unmanned aircraft is very quiet, or the residents are not
21 home, or these precedents may raise questions about whether an unmanned aircraft take-off and
22 landing facility may be built adjacent to uninhabited land, using the airspace above that land at any
23 altitude until such time as the landowner chooses to make use of the land.

24
25 Consider an unmanned aircraft hovering at 55 feet above a landowner's property (note that
26 the average two story home is 35 feet tall). This aircraft would be visible to the landowner, perhaps
27 audible to the land owner, and likely troubling to the land owner, but based on existing precedents
28 would not necessarily constitute interference with the use of land, and therefore would likely not
29 be actionable (or excludable from that airspace).

30
31 Existing aerial trespass doctrine does not serve the interests of persons operating unmanned
32 aircraft or land owners. For persons operating unmanned aircraft, an unclear line as to what
33 constitutes a trespass will lead to uncertainty and threats of litigation in instances where the person
34 may believe they have not "substantially interfered" with the use and enjoyment of one's land. For
35 land owners, they too will face uncertainty as to what rights of exclusion they have against drones,
36 forcing courts to make case by case determinations about whether and at what altitude a landowner
37 may exclude an overflight. Moreover, existing case law, despite nearly a half century of
38 development, has not clarified where a landowner's rights in airspace cease. A bright-line
39 approach defining an entry into the immediate reaches as a trespass was deemed the best resolution
40 to this lack of uniformity.

41
42 **SECTION 502. PHYSICAL INVASION OF PRIVACY.** A person is liable for
43 physical invasion of privacy when the person:

- 44 (a) knowingly enters onto the land or into the airspace above the land of another person

1 without permission;

2 (b) commits a trespass;

3 (c) in order to capture any type of visual image, sound recording, or other physical

4 impression of a person that violates the person’s reasonable expectation of privacy; or

5 (d) captures the person engaging in a private, personal, or familial activity; and the

6 capturing of the visual image, sound recording, or physical impression occurs in a manner that is

7 (1) offensive to a reasonable person or

8 (2) violates the person’s reasonable expectation of privacy.

9 (e) For purposes of this section, a person is presumed to have a reasonable expectation of

10 privacy on his or her privately owned real property if he or she is not observable by persons

11 located at ground level in a place where they have a legal right to be, regardless of whether the

12 observed person is otherwise observable from the air.

13 **Comment**

14 Note there is no altitude limit on this provision as it is designed to protect against privacy

15 invasions, this is distinguishable from aerial trespass using an unmanned aircraft (Section 501)

16 which is intended to protect property interests. While there is no altitude limit, the provision

17 limiting the impression to “private, personal, or familial activity” and the proof requirement that

18 the invasion be “offensive to a reasonable person” limits the potential for overbreadth. This

19 section is adapted from California law and Florida law.

20

21 **SECTION 503. CONSTRUCTIVE INVASION OF PRIVACY.** A person is liable for

22 constructive invasion of privacy when the person

23 (a) attempts to capture, in a manner that is offensive to a reasonable person, any type of

24 (1) visual image,

25 (2) sound recording, or

26 (3) other physical impression of a person

27 (b) that captures the person engaging in a private, personal, or familial activity, or

1 (c) violates the person’s reasonable expectation of privacy.

2 (d) through the use of any device, regardless of whether there is a physical trespass, if this
3 image, sound recording, or other physical impression could not have been achieved without a
4 trespass unless the device was used.

5 (e) For purposes of this section, a person is presumed to have a reasonable expectation of
6 privacy on his or her privately owned real property if he or she is not observable by persons
7 located at ground level in a place where they have a legal right to be, regardless of whether the
8 observed person is otherwise observable from the air.

9 **Comment**

10 This section seeks to protect against non-trespassory privacy invasions from adjacent
11 airspace (for example an observation into a private area from airspace above a public street or
12 above neighboring private property). The section has similar language to Section 502 protecting
13 from overbreadth by ensuring that the capturing is offensive, and violates a reasonable expectation
14 of privacy or is otherwise of private, personal, or familial activity. This section is adapted from
15 California law and Florida law.
16

17 **SECTION 504. NUISANCE.** An unmanned aircraft may be an instrumentality of a
18 Public or Private Nuisance as defined in [section of state code]

19 **SECTION 505. INTENTIONAL TORTS.** An unmanned aircraft may be an
20 instrumentality of an Intentional Tort as defined in [section of state code]

21 **SECTION 506. STRICT LIABILITY, UNMANNED AIRCRAFT GOODS, AND**
22 **UNMANNED AIRCRAFT SERVICES.**

23 (a) A manufacturer of an unmanned aircraft system is strictly liable for damages arising
24 from defects in the unmanned aircraft system, and the unmanned aircraft system will be treated
25 as a good for purposes of the UCC, except for (c) below.

26 (b) For the purposes of this section, software produced by the unmanned aircraft
27 manufacturer intended for use with the unmanned aircraft, to include manufacturer produced

1 flight control software, firmware, and software necessary to enable the use of the unmanned
2 aircraft's functions, are considered part of the unmanned aircraft system and will be treated as a
3 good for purposes of the UCC, except pursuant to (c) below.

4 (c) Unmanned aircraft software that is not necessary for the operation of the unmanned
5 aircraft system, but is capable of controlling the unmanned aircraft system, will be treated as a
6 service for purposes of the UCC.

7 **Comment**

8 The committee briefly discussed a framework like that set forth above, however more
9 discussion is required.

10 **SECTION 507. LIMITATION OF LIABILITY.**

11 (a) An owner, lessee, or occupant of land:

12 (1) does not owe a duty of care to a trespasser in the immediate reaches of the
13 airspace above the land; and

14 (2) is not liable for any injury to a trespasser in the immediate reaches of the
15 airspace above the land, except for willful or wanton acts or gross negligence by the owner,
16 lessee, or other occupant of land.

17 (b) Subsection (a) shall not limit the liability of an owner, lessee, or occupant of real
18 property who has been grossly negligent or has acted with malicious intent or in bad faith.
19