

114TH CONGRESS  
1ST SESSION

# S. 1608

To protect the safety of the national airspace system from the hazardous operation of consumer drones, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

JUNE 18, 2015

Mrs. FEINSTEIN (for herself and Mr. SCHUMER) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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## A BILL

To protect the safety of the national airspace system from the hazardous operation of consumer drones, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Consumer Drone Safe-  
5 ty Act”.

6 **SEC. 2. SAFETY REQUIREMENTS FOR OPERATION OF CON-**  
7 **SUMER DRONES.**

8 (a) RULEMAKING.—For the purpose of allowing con-  
9 sumer drones to be operated without posing a danger to

1 manned aircraft, the Administrator shall publish a final  
2 rule not later than 18 months after the date of the enact-  
3 ment of this Act containing safety requirements applicable  
4 to the operation of consumer drones.

5 (b) APPLICABILITY.—The final rule required by sub-  
6 section (a) shall apply to consumer drones that—

7 (1) are flown for hobby or recreational use; and

8 (2) are not operated in accordance with a com-  
9 munity-based set of safety guidelines and within the  
10 programming of a nationwide community-based or-  
11 ganization.

12 (c) REQUIREMENTS.—The final rule required by sub-  
13 section (a) shall include—

14 (1) a maximum altitude above ground level for  
15 flight of consumer drones;

16 (2) circumstances or areas where flights are re-  
17 stricted because of the risk of unsafe interactions  
18 with manned aircraft, such as within an unsafe dis-  
19 tance from an airport or in the flight path of a  
20 manned aircraft;

21 (3) circumstances or areas where flights are re-  
22 stricted because of the risk to persons or property  
23 on the ground, such as within an unsafe distance  
24 from urban areas, residential areas, electrical infra-

1 structure, transportation infrastructure, amusement  
2 parks, or public areas where spectators are present;

3 (4) conditions that may require limitations on  
4 flight, such as weather or time of day; and

5 (5) any other requirement that the Adminis-  
6 trator determines is necessary to minimize the risk  
7 that a consumer drone will collide with a manned  
8 aircraft or otherwise endanger the safety of the na-  
9 tional airspace system or persons and property on  
10 the ground.

11 **SEC. 3. SAFETY REQUIREMENTS FOR MANUFACTURERS OF**  
12 **CONSUMER DRONES.**

13 (a) RULEMAKING.—Not later than 18 months after  
14 the date of the enactment of this Act, the Administrator  
15 shall publish a final rule containing safety requirements  
16 applicable to consumer drones manufactured in, imported  
17 into, or sold in the United States.

18 (b) REQUIREMENTS.—The final rule required by sub-  
19 section (a) shall include—

20 (1) limitations on altitude for consumer drones,  
21 whether through software or other technological  
22 means;

23 (2) a means of preventing unauthorized oper-  
24 ation within an unsafe distance from an airport or  
25 in protected airspace;

1           (3) a system that, through sensors and software  
2           or other similar means, enables avoidance of colli-  
3           sions;

4           (4) a technological means to maintain safety in  
5           the event that a communications link between a con-  
6           sumer drone and its operator is lost or compromised,  
7           such as by ensuring that the drone autonomously  
8           lands safely in a particular location;

9           (5) a requirement that a consumer drone be de-  
10          tectable and identifiable to pilots and air traffic con-  
11          trollers, including through the use of an identifica-  
12          tion number and a transponder or similar technology  
13          to convey the drone's location and altitude;

14          (6) a means to prevent tampering with or modi-  
15          fication of any system, limitation, or other safety  
16          mechanism required by the Administrator under this  
17          section or any other provision of law, including a  
18          means to identify any tampering or modification  
19          that has been made;

20          (7) educational materials to be provided to a  
21          consumer who purchases a consumer drone; and

22          (8) such other requirements as the Adminis-  
23          trator considers necessary to ensure the safety of the  
24          national airspace system.

25          (c) UPDATING EXISTING CONSUMER DRONES.—

1           (1) IN GENERAL.—The final rule required by  
2       subsection (a) shall require modification, at the  
3       manufacturer’s expense, of any consumer drone that  
4       was commercially distributed before the publication  
5       of the rule so that, to the greatest extent prac-  
6       ticable, such consumer drones meet the requirements  
7       prescribed under the rule.

8           (2) REQUIREMENTS FOR CONSUMER DRONES  
9       THAT CANNOT BE FULLY UPDATED.—If any con-  
10      sumer drone cannot be modified as described in  
11      paragraph (1), the Administrator may authorize the  
12      operation of the consumer drone in accordance with  
13      subsection (d).

14          (3) NOTIFICATION.—The final rule required by  
15      subsection (a) shall include provisions to publicize  
16      and notify the owners of consumer drones of the  
17      modifications required by paragraph (1) and of the  
18      manufacturer’s responsibility to pay for the modi-  
19      fications.

20          (d) LIMITED EXEMPTIONS PERMITTED.—In the final  
21      rule required by subsection (a), the Administrator may ex-  
22      empt a type of consumer drone, by virtue of its size,  
23      weight, operational capabilities, technological capabilities,  
24      or other characteristic, from a requirement under sub-  
25      section (b) only if—

1 (1) complying with that requirement is techno-  
 2 logically infeasible or cost-prohibitive for the type of  
 3 consumer drone;

4 (2) exempting the type of consumer drone from  
 5 the requirement does not create a hazard to users of  
 6 the national airspace system or the public or pose a  
 7 threat to national security;

8 (3) the Administrator establishes requirements  
 9 for the safe operation of the consumer drone in the  
 10 national airspace system; and

11 (4) the Administrator makes a determination  
 12 under section 4(b) with respect to such exemption.

13 **SEC. 4. SAFETY DETERMINATION REQUIRED TO AUTHOR-**  
 14 **IZE OPERATION OF CONSUMER DRONES.**

15 (a) CODIFICATION OF EXISTING FEDERAL AVIATION  
 16 ADMINISTRATION POLICY.—No person may operate a con-  
 17 sumer drone in the national airspace system without spe-  
 18 cific authority from the Federal Aviation Administration.

19 (b) SAFETY DETERMINATION REQUIRED BEFORE  
 20 ISSUANCE OF SPECIFIC AUTHORITY.—The Administrator  
 21 may not provide any form of specific authority for the op-  
 22 eration of a consumer drone in the national airspace sys-  
 23 tem without—

24 (1) making a determination, following an eval-  
 25 uation of all foreseeable safety or operational risks,

1 including risks arising from potential malfunctions,  
 2 that providing such authority does not endanger the  
 3 safety of the national airspace system or any indi-  
 4 vidual; and

5 (2) documenting that determination and the  
 6 reasons for that determination in writing.

7 (c) RULE OF CONSTRUCTION.—Nothing in this sec-  
 8 tion shall be construed to terminate any specific authority  
 9 provided by the Administrator.

10 **SEC. 5. CLARIFICATIONS OF AGENCY AUTHORITY.**

11 (a) CLARIFICATION OF ENFORCEMENT AUTHOR-  
 12 ITY.—

13 (1) CIVIL PENALTIES.—The Administrator may  
 14 impose a civil penalty under section 46301 of title  
 15 49, United States Code, for a violation of this Act  
 16 or a regulation prescribed or order or specific au-  
 17 thority issued under this Act in the same manner  
 18 and to the same extent as the Administrator may  
 19 impose a penalty under such section 46301 for a vio-  
 20 lation of chapter 447 of such title (other than a vio-  
 21 lation of sections 44719 through 44723 of such  
 22 chapter).

23 (2) RULE OF CONSTRUCTION WITH RESPECT TO  
 24 EXISTING AUTHORITY.—Nothing in this subsection  
 25 shall be construed to limit the authority of the Ad-

1        administrator to pursue an enforcement action for a  
2        violation of this Act, a regulation prescribed or order  
3        or authority issued under this Act, or any other ap-  
4        plicable provision of law or regulation.

5        (b) SUNSET OF PRIOR SPECIFIC AUTHORITY.—Be-  
6        ginning on the date that is 120 days after the date of  
7        the enactment of this Act, Federal Aviation Administra-  
8        tion Advisory Circular 91–57, issued June 9, 1981, shall  
9        not be construed to authorize the operation of any con-  
10       sumer drone for recreational or hobby purposes that does  
11       not comply with the standards specified in paragraphs (1)  
12       through (5) of section 336(a) of the FAA Modernization  
13       and Reform Act of 2012 (Public Law 112–95; 49 U.S.C.  
14       40101 note).

15       (c) IMPORT ENFORCEMENT.—The Commissioner of  
16       U.S. Customs and Border Protection may use existing au-  
17       thority to enforce restrictions on the importation of con-  
18       sumer drones into the United States pursuant to the final  
19       rule required by section 3(a).

20       (d) RULE OF CONSTRUCTION.—Nothing in this Act  
21       shall be construed to limit the authority of the Adminis-  
22       trator to regulate the operation of consumer drones or to  
23       pursue enforcement action against persons operating con-  
24       sumer drones who endanger the safety of the national air-  
25       space system.



1 **SEC. 6. DEFINITIONS.**

2 In this Act:

3 (1) ADMINISTRATOR.—The term “Adminis-  
4 trator” means the Administrator of the Federal  
5 Aviation Administration.

6 (2) AUTOMATIC STABILIZATION SYSTEM.—

7 (A) IN GENERAL.—The term “automatic  
8 stabilization system” means any system that  
9 has the capability to maintain stable flight  
10 (such as maintaining hover altitude, heading, or  
11 altitude control) without an operator providing  
12 control input, such as a system that coordinates  
13 the operation of any combination of—

14 (i) elements of the propulsion system  
15 of an aircraft, including any rotor or pro-  
16 peller; or

17 (ii) the flight control surfaces of an  
18 aircraft, including any aileron, elevator,  
19 rudder, spoiler, flap, slat, or air brake.

20 (B) INCLUSION.—Any rotorcraft utilizing  
21 4 rotors and any aircraft that is capable of au-  
22 tonomous flight shall be considered to be using  
23 an automatic stabilization system.

24 (3) CIVIL.—The term “civil”, with respect to an  
25 unmanned aircraft system, means that the un-

1       manned aircraft is not a public aircraft (as defined  
2       in section 40102 of title 49, United States Code).

3               (4) CONSUMER DRONE.—

4               (A) IN GENERAL.—The term “consumer  
5       drone” means a civil unmanned aircraft or a  
6       civil unmanned aircraft system that—

7                       (i) is—

8                               (I) equipped with an automatic  
9                               stabilization system; or

10                              (II) capable of providing a video  
11                              signal allowing operation beyond the  
12                              visual line of sight of the operator;

13                       (ii) is manufactured and intended for  
14       commercial distribution; and

15                       (iii) weighs 55 pounds or less or is  
16       certified as described in section 336(a)(3)  
17       of the FAA Modernization and Reform Act  
18       of 2012 (Public Law 112–95; 49 U.S.C.  
19       40101 note).

20               (B) INCLUSION.—The term “consumer  
21       drone” includes a kit of component parts that  
22       would be a consumer drone if the kit were as-  
23       sembled prior to commercial distribution.

24               (5) NATIONWIDE COMMUNITY-BASED ORGANI-  
25       ZATION.—The term “nationwide community-based

1 organization” means a membership-based associa-  
2 tion that—

3 (A) represents the aeromodeling commu-  
4 nity within the United States;

5 (B) provides its members a comprehensive  
6 set of safety guidelines that underscore safe  
7 aeromodeling operations within the national air-  
8 space system and the protection and safety of  
9 the general public on the ground;

10 (C) develops and maintains mutually sup-  
11 portive programming with educational institu-  
12 tions, government entities, and other aviation  
13 associations; and

14 (D) acts as a liaison with government  
15 agencies and as an advocate for its members.

16 (6) PROTECTED AIRSPACE.—The term “pro-  
17 tected airspace” includes the following types of air-  
18 space:

19 (A) Special use airspace under part 73 of  
20 title 14, Code of Federal Regulations (or any  
21 corresponding similar regulation or ruling), in-  
22 cluding prohibited airspace under subpart C of  
23 such part.

24 (B) Any other airspace the Administrator  
25 considers appropriate.

1           (7) SPECIFIC AUTHORITY.—The term “specific  
2       authority” means a certificate of authorization, spe-  
3       cial airworthiness certificate, authorization issued  
4       under section 333 of the FAA Modernization and  
5       Reform Act of 2012 (Public Law 112–95; 49 U.S.C.  
6       40101 note), rule, regulation, policy statement, advi-  
7       sory circular, or any other form of permit or author-  
8       ization issued by the Federal Aviation Administra-  
9       tion for operation of a consumer drone in the na-  
10      tional airspace system, including—

11           (A) Federal Aviation Administrator Advi-  
12      sory Circular 91–57 (relating to model aircraft  
13      operating standards) and subsequent versions  
14      thereof;

15           (B) the notice of policy on unmanned air-  
16      craft operations in the national airspace system  
17      of the Federal Aviation Administration (Docket  
18      No. FAA–2006–25714); or

19           (C) the notice of interpretation of the spe-  
20      cial rule for model aircraft of the Federal Avia-  
21      tion Administration (Docket No. FAA–2014–  
22      0396).

23           (8) UNMANNED AIRCRAFT; UNMANNED AIR-  
24      CRAFT SYSTEM.—The terms “unmanned aircraft”  
25      and “unmanned aircraft system” have the meanings

1       given those terms in section 331 of the FAA Mod-  
2       ernization and Reform Act of 2012 (Public Law  
3       112–95; 49 U.S.C. 40101 note).

4   **SEC. 7. CONFORMING AMENDMENT.**

5       Section 336(a)(2) of the FAA Modernization and Re-  
6       form Act of 2012 (Public Law 112–95; 49 U.S.C. 40101  
7       note) is amended by inserting “(as defined in section 6  
8       of the Consumer Drone Safety Act)” after “nationwide  
9       community-based organization”.

○