

sponses to non-normal conditions in designing the systems and instrumentation of such airplane. Such assumptions shall—

- (1) be based on test data, analysis, or other technical validation methods; and
- (2) account for generally accepted scientific consensus among experts in human factors regarding realistic pilot response time.

(c) **DEFINITION.**—In this section, the term “transport airplane” means a transport category airplane designed for operation by an air carrier or foreign air carrier type-certificated with a passenger seating capacity of 30 or more or an all-cargo or combi derivative of such an airplane.

(Added Pub. L. 116-260, div. V, title I, §119(a), Dec. 27, 2020, 134 Stat. 2338.)

#### REFERENCES IN TEXT

Section 119(c) of the Aircraft Certification, Safety, and Accountability Act, referred to in subsec. (b), is section 119(c) of title I of Pub. L. 116-260, div. V, Dec. 27, 2020, 134 Stat. 2339, which is set out as a note under section 44704 of this title.

### § 44744. Flight crew alerting

(a) **IN GENERAL.**—Beginning on December 27, 2022, the Administrator may not issue a type certificate for a transport category airplane unless such airplane incorporates a flight crew alerting system that, at a minimum—

- (1) displays and differentiates among warnings, cautions, and advisories; and
- (2) includes functions to assist the flight crew in prioritizing corrective actions and responding to systems failures.

(b) **LIMITATION.**—The prohibition in subsection (a) shall not apply to any application for an original or amended type certificate that was submitted to the Administrator prior to December 27, 2020.

(c) **SAFETY ENHANCEMENTS.**—

(1) **RESTRICTION ON AIRWORTHINESS CERTIFICATE ISSUANCE.**—Beginning on the date that is 1 year after the date on which the Administrator issues a type certificate for the Boeing 737-10, the Administrator may not issue an original airworthiness certificate for any Boeing 737 MAX aircraft unless the Administrator finds that the type design for the aircraft includes safety enhancements that have been approved by the Administrator.

(2) **RESTRICTION ON OPERATION.**—Beginning on the date that is 3 years after the date on which the Administrator issues a type certificate for the Boeing 737-10, no person may operate a Boeing 737 MAX aircraft unless—

- (A) the type design for the aircraft includes safety enhancements approved by the Administrator; and
- (B) the aircraft was—
  - (i) produced in conformance with such type design; or
  - (ii) altered in accordance with such type design.

(d) **DEFINITIONS.**—In this section:

- (1) **BOEING 737 MAX AIRCRAFT.**—The term “Boeing 737 MAX aircraft” means any—
  - (A) Model 737 series aircraft designated as a 737-7, 737-8, 737-8200, 737-9, or 737-10; or

(B) other variant of a model described in subparagraph (A).

(2) **SAFETY ENHANCEMENT.**—The term “safety enhancement” means any design change to the flight crew alerting system approved by the Administrator for the Boeing 737-10, including—

- (A) a—
  - (i) synthetic enhanced angle-of-attack system; and
  - (ii) means to shut off stall warning and overspeed alerts; or

(B) any design changes equivalent to subparagraph (A) determined appropriate by the Administrator.

(Added Pub. L. 117-328, div. O, title V, §501(a), Dec. 29, 2022, 136 Stat. 5230.)

### Statutory Notes and Related Subsidiaries

#### COSTS OF SAFETY ENHANCEMENTS

Pub. L. 117-328, div. O, title V, §501(c), Dec. 29, 2022, 136 Stat. 5231, provided that: “Any costs associated with the safety enhancements required by section 44744 of title 49, United States Code, as added by subsection (a), shall be borne by the holder of the type certificate.”

#### CONGRESSIONAL BRIEFINGS

Pub. L. 117-328, div. O, title V, §501(d), Dec. 29, 2022, 136 Stat. 5231, provided that: “Not later than March 1, 2023, and on a quarterly basis thereafter, the Administrator shall brief Congress on the status of—

- “(1) the issuance of a type certificate for the Boeing 737-7 and 737-10, including any design enhancements, pilot procedures, or training requirements resulting from system safety assessments; and
- “(2) the implementation of safety enhancements for Boeing 737 MAX aircraft, as required by section 44744 of title 49, United States Code, as added by subsection (a).”

### CHAPTER 448—UNMANNED AIRCRAFT SYSTEMS

Sec.	Definitions.
44801.	Integration of civil unmanned aircraft systems into national airspace system.
44803.	Unmanned aircraft system test ranges. <sup>1</sup>
44804.	Small unmanned aircraft in the Arctic.
44805.	Small unmanned aircraft safety standards. <sup>1</sup>
44806.	Public unmanned aircraft systems.
44807.	Special authority for certain unmanned aircraft systems.
44808.	Carriage of property by small unmanned aircraft systems for compensation or hire.
44809.	Exception for limited recreational operations of unmanned aircraft.
44810.	Airport safety and airspace hazard mitigation and enforcement.

#### Editorial Notes

##### AMENDMENTS

2018—Pub. L. 115-254, div. B, title III, §§343(b), 344(b), 345(c), 346(b)(1), 347(b)(1), 348(b), 349(b)(1), 383(b)(1), Oct. 5, 2018, 132 Stat. 3290, 3291, 3293, 3295-3297, 3300, 3322, added items 44803 to 44810.

### § 44801. Definitions

In this chapter, the following definitions apply:

<sup>1</sup> So in original. Does not conform to section catchline.

(1) **ACTIVELY TETHERED UNMANNED AIRCRAFT SYSTEM.**—The term “actively tethered unmanned aircraft system” means an unmanned aircraft system in which the unmanned aircraft component—

(A) weighs 4.4 pounds or less, including payload but not including the tether;

(B) is physically attached to a ground station with a taut, appropriately load-rated tether that provides continuous power to the unmanned aircraft and is unlikely to be separated from the unmanned aircraft; and

(C) is controlled and retrieved by such ground station through physical manipulation of the tether.

(2) **APPROPRIATE COMMITTEES OF CONGRESS.**—The term “appropriate committees of Congress” means the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.

(3) **ARCTIC.**—The term “Arctic” means the United States zone of the Chukchi Sea, Beaufort Sea, and Bering Sea north of the Aleutian chain.

(4) **CERTIFICATE OF WAIVER; CERTIFICATE OF AUTHORIZATION.**—The terms “certificate of waiver” and “certificate of authorization” mean a Federal Aviation Administration grant of approval for a specific flight operation.

(5) **COUNTER-UAS SYSTEM.**—The term “counter-UAS system” means a system or device capable of lawfully and safely disabling, disrupting, or seizing control of an unmanned aircraft or unmanned aircraft system.

(6) **PERMANENT AREAS.**—The term “permanent areas” means areas on land or water that provide for launch, recovery, and operation of small unmanned aircraft.

(7) **PUBLIC UNMANNED AIRCRAFT SYSTEM.**—The term “public unmanned aircraft system” means an unmanned aircraft system that meets the qualifications and conditions required for operation of a public aircraft.

(8) **SENSE AND AVOID CAPABILITY.**—The term “sense and avoid capability” means the capability of an unmanned aircraft to remain a safe distance from and to avoid collisions with other airborne aircraft, structures on the ground, and other objects.

(9) **SMALL UNMANNED AIRCRAFT.**—The term “small unmanned aircraft” means an unmanned aircraft weighing less than 55 pounds, including the weight of anything attached to or carried by the aircraft.

(10) **TEST RANGE.**—The term “test range” means a defined geographic area where research and development are conducted as authorized by the Administrator of the Federal Aviation Administration, and includes any of the 6 test ranges established by the Administrator under section 332(c) of the FAA Modernization and Reform Act of 2012 (49 U.S.C. 40101 note), as in effect on the day before the date of enactment of the FAA Reauthorization Act of 2018, and any public entity authorized by the Federal Aviation Administration as an unmanned aircraft system flight test center before January 1, 2009.

(11) **UNMANNED AIRCRAFT.**—The term “unmanned aircraft” means an aircraft that is op-

erated without the possibility of direct human intervention from within or on the aircraft.

(12) **UNMANNED AIRCRAFT SYSTEM.**—The term “unmanned aircraft system” means an unmanned aircraft and associated elements (including communication links and the components that control the unmanned aircraft) that are required for the operator to operate safely and efficiently in the national airspace system.

(13) **UTM.**—The term “UTM” means an unmanned aircraft system traffic management system or service.”

(Added Pub. L. 115-254, div. B, title III, §341(a), Oct. 5, 2018, 132 Stat. 3284.)

#### Editorial Notes

##### REFERENCES IN TEXT

Section 332(c) of the FAA Modernization and Reform Act of 2012 (49 U.S.C. 40101 note), as in effect on the day before the date of enactment of the FAA Reauthorization Act of 2018, referred to in par. (10), means section 332(c) of Pub. L. 112-95, as in effect on the day before the date of enactment of Pub. L. 115-254, which was approved Oct. 5, 2018. Section 332 of Pub. L. 112-95 was set out in a note under section 40101 of this title, prior to repeal by Pub. L. 115-254, div. B, title III, §341(b)(2), Oct. 5, 2018, 132 Stat. 3287. The remainder of the note comprised of subtitle B of title III of Pub. L. 112-95 was transferred and is set out under section 44802 of this title.

#### Statutory Notes and Related Subsidiaries

##### UNMANNED AIRCRAFT SYSTEMS PRIVACY POLICY

Pub. L. 115-254, div. B, title III, §357, Oct. 5, 2018, 132 Stat. 3305, provided that: “It is the policy of the United States that the operation of any unmanned aircraft or unmanned aircraft system shall be carried out in a manner that respects and protects personal privacy consistent with the United States Constitution and Federal, State, and local law.”

##### STRATEGY FOR RESPONDING TO PUBLIC SAFETY THREATS AND ENFORCEMENT UTILITY OF UNMANNED AIRCRAFT SYSTEMS

Pub. L. 115-254, div. B, title III, §366, Oct. 5, 2018, 132 Stat. 3310, provided that:

“(a) **IN GENERAL.**—Not later than 1 year after the date of enactment of this Act [Oct. 5, 2018], the Administrator of the Federal Aviation Administration shall develop a comprehensive strategy to provide outreach to State and local governments and provide guidance for local law enforcement agencies and first responders with respect to—

“(1) how to identify and respond to public safety threats posed by unmanned aircraft systems; and

“(2) how to identify and take advantage of opportunities to use unmanned aircraft systems to enhance the effectiveness of local law enforcement agencies and first responders.

“(b) **RESOURCES.**—Not later than 180 days after the date of enactment of this Act, the Administrator shall establish a publicly available Internet website that contains resources for State and local law enforcement agencies and first responders seeking—

“(1) to respond to public safety threats posed by unmanned aircraft systems; and

“(2) to identify and take advantage of opportunities to use unmanned aircraft systems to enhance the effectiveness of local law enforcement agencies and public safety response efforts.

“(c) **UNMANNED AIRCRAFT SYSTEM DEFINED.**—In this section, the term ‘unmanned aircraft system’ has the meaning given that term in section 44801 of title 49, United States Code, as added by this Act.”

## FEDERAL TRADE COMMISSION AUTHORITY

Pub. L. 115-254, div. B, title III, §375, Oct. 5, 2018, 132 Stat. 3314, provided that:

“(a) IN GENERAL.—A violation of a privacy policy by a person that uses an unmanned aircraft system for compensation or hire, or in the furtherance of a business enterprise, in the national airspace system shall be an unfair and deceptive practice in violation of section 5(a) of the Federal Trade Commission Act (15 U.S.C. 45(a)).

“(b) DEFINITIONS.—In this section, the terms ‘unmanned aircraft’ and ‘unmanned aircraft system’ have the meanings given those terms in section 44801 of title 49, United States Code.”

## COMMERCIAL AND GOVERNMENTAL OPERATORS

Pub. L. 115-254, div. B, title III, §379, Oct. 5, 2018, 132 Stat. 3318, provided that:

“(a) IN GENERAL.—Not later than 270 days after the date of enactment of this Act [Oct. 5, 2018], the Administrator [of the Federal Aviation Administration] shall, to the extent practicable and consistent with applicable law, make available in a single location on the website of the Department of Transportation:

“(1) Any certificate of waiver or authorization issued by the Administration to Federal, State, tribal or local governments for the operation of unmanned aircraft systems within 30 days of issuance of such certificate of waiver or authorization.

“(2) A spreadsheet of UAS registrations, including the city, state [probably should be “State”], and zip code of each registered drone owner, on its website that is updated once per quarter each calendar year.

“(3) Summary descriptions and general purposes of public unmanned aircraft operations, including the locations where such unmanned aircraft may generally operate.

“(4) Summary descriptions of common civil unmanned aircraft operations.

“(5) The expiration date of any authorization of public or civil unmanned aircraft operations.

“(6) Links to websites of State agencies that enforce any applicable privacy laws.

“(7) For any unmanned aircraft system, except with respect to any operation protected by the First Amendment to the Constitution of the United States, that will collect personally identifiable information about individuals, including the use of facial recognition—

“(A) the circumstance under which the system will be used;

“(B) the specific kinds of personally identifiable information that the system will collect about individuals; and

“(C) how the information referred to in subparagraph (B), and the conclusions drawn from such information, will be used, disclosed, and otherwise handled, including—

“(i) how the collection or retention of such information that is unrelated to the specific use will be minimized;

“(ii) under what circumstances such information might be sold, leased, or otherwise provided to third parties;

“(iii) the period during which such information will be retained;

“(iv) when and how such information, including information no longer relevant to the specified use, will be destroyed; and

“(v) steps that will be used to protect against the unauthorized disclosure of any information or data, such as the use of encryption methods and other security features.

“(8) With respect to public unmanned aircraft systems—

“(A) the locations where the unmanned aircraft system will operate;

“(B) the time during which the unmanned aircraft system will operate;

“(C) the general purpose of the flight; and

“(D) the technical capabilities that the unmanned aircraft system possesses.

“(b) EXCEPTIONS.—The Administrator shall not disclose information pursuant to subsection (a) if the Administrator determines that the release of such information—

“(1) is not applicable;

“(2) is not practicable, including when the information is not available to the Administrator;

“(3) is not in compliance with applicable law;

“(4) would compromise national defense, homeland security or law enforcement activity;

“(5) would be withheld pursuant to an exception of the [sic] section 552 of title 5, United States Code (commonly known as the ‘Freedom of Information Act’); or

“(6) is otherwise contrary to the public interest.

“(c) SUNSET.—This section will cease to be effective on the date that is the earlier of—

“(1) the date of publication of a Notice of Proposed Rulemaking or guidance regarding remote identification standards under section 2202 of the FAA Extension, Safety, and Security Act of 2016 (Public Law 114-190; 130 Stat. 615 [629]) [49 U.S.C. 44802 note]; or

“(2) September 30, 2023.”

### § 44802. Integration of civil unmanned aircraft systems into national airspace system

(a) REQUIRED PLANNING FOR INTEGRATION.—

(1) COMPREHENSIVE PLAN.—Not later than November 10, 2012,<sup>1</sup> the Secretary of Transportation, in consultation with representatives of the aviation industry, Federal agencies that employ unmanned aircraft systems technology in the national airspace system, and the unmanned aircraft systems industry, shall develop a comprehensive plan to safely accelerate the integration of civil unmanned aircraft systems into the national airspace system.

(2) CONTENTS OF PLAN.—The plan required under paragraph (1) shall contain, at a minimum, recommendations or projections on—

(A) the rulemaking to be conducted under subsection (b), with specific recommendations on how the rulemaking will—

(i) define the acceptable standards for operation and certification of civil unmanned aircraft systems;

(ii) ensure that any civil unmanned aircraft system includes a sense-and-avoid capability; and

(iii) establish standards and requirements for the operator and pilot of a civil unmanned aircraft system, including standards and requirements for registration and licensing;

(B) the best methods to enhance the technologies and subsystems necessary to achieve the safe and routine operation of civil unmanned aircraft systems in the national airspace system;

(C) a phased-in approach to the integration of civil unmanned aircraft systems into the national airspace system;

(D) a timeline for the phased-in approach described under subparagraph (C);

(E) creation of a safe airspace designation for cooperative manned and unmanned flight operations in the national airspace system;

<sup>1</sup> See Prior Provisions note below.