

Subtitle B—Unmanned Aircraft Systems

SEC. 331. DEFINITIONS.

In this subtitle, the following definitions apply:

- (1) **ARCTIC.**—The term “Arctic” means the United States zone of the Chukchi Sea, Beaufort Sea, and Bering Sea north of the Aleutian chain.
- (2) **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.
- (3) **PERMANENT AREAS.**—The term “permanent areas” means areas on land or water that provide for launch, recovery, and operation of small unmanned aircraft.
- (4) **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 (as defined in section 40102 of title 49, United States Code).
- (5) **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.
- (6) **SMALL UNMANNED AIRCRAFT.**—The term “small unmanned aircraft” means an unmanned aircraft weighing less than 55 pounds.
- (7) **TEST RANGE.**—The term “test range” means a defined geographic area where research and development are conducted.
- (8) **UNMANNED AIRCRAFT.**—The term “unmanned aircraft” means an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft.
- (9) **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 pilot in command to operate safely and efficiently in the national airspace system.

Applicability.
49 USC 40101
note.

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SEC. 332. INTEGRATION OF CIVIL UNMANNED AIRCRAFT SYSTEMS INTO NATIONAL AIRSPACE SYSTEM.

(a) **REQUIRED PLANNING FOR INTEGRATION.**—

- (1) **COMPREHENSIVE PLAN.**—Not later than 270 days after the date of enactment of this Act, 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

(F) airspace designation for cooperative manned and unmanned flight operations in the national airspace system;

(G) establishment of a process to develop certification, flight standards, and air traffic requirements for civil unmanned aircraft systems at test ranges where such systems are subject to testing;

(H) the best methods to ensure the safe operation of civil unmanned aircraft systems and public unmanned aircraft systems simultaneously in the national airspace system; and

(I) incorporation of the plan into the annual NextGen Implementation Plan document (or any successor document) of the Federal Aviation Administration.

(3) DEADLINE.—The plan required under paragraph (1) shall provide for the safe integration of civil unmanned aircraft systems into the national airspace system as soon as practicable, but not later than September 30, 2015.

(4) REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a copy of the plan required under paragraph (1).

Deadline.

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note.

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(5) ROADMAP.—Not later than 1 year after the date of enactment of this Act, the Secretary shall approve and make available in print and on the Administration’s Internet Web site a 5-year roadmap for the introduction of civil unmanned aircraft systems into the national airspace system, as coordinated by the Unmanned Aircraft Program Office of the Administration. The Secretary shall update the roadmap annually.

(b) RULEMAKING.—Not later than 18 months after the date on which the plan required under subsection (a)(1) is submitted to Congress under subsection (a)(4), the Secretary shall publish in the Federal Register—

(1) a final rule on small unmanned aircraft systems that will allow for civil operation of such systems in the national airspace system, to the extent the systems do not meet the requirements for expedited operational authorization under section 333 of this Act;

(2) a notice of proposed rulemaking to implement the recommendations of the plan required under subsection (a)(1), with the final rule to be published not later than 16 months after the date of publication of the notice; and
(3) an update to the Administration's most recent policy statement on unmanned aircraft systems, contained in Docket No. FAA-2006-25714.

(c) PILOT PROJECTS.—

(1) ESTABLISHMENT.—Not later than 180 days after the date of enactment of this Act, the Administrator shall establish a program to integrate unmanned aircraft systems into the national airspace system at 6 test ranges. The program shall terminate 5 years after the date of enactment of this Act.

(2) PROGRAM REQUIREMENTS.—In establishing the program under paragraph (1), the Administrator shall—

(A) safely designate airspace for integrated manned and unmanned flight operations in the national airspace system;

(B) develop certification standards and air traffic requirements for unmanned flight operations at test ranges;

(C) coordinate with and leverage the resources of the National Aeronautics and Space Administration and the Department of Defense;

(D) address both civil and public unmanned aircraft systems;

(E) ensure that the program is coordinated with the Next Generation Air Transportation System; and

(F) provide for verification of the safety of unmanned aircraft systems and related navigation procedures before integration into the national airspace system.

(3) TEST RANGE LOCATIONS.—In determining the location of the 6 test ranges of the program under paragraph (1), the Administrator shall—

(A) take into consideration geographic and climatic diversity;

(B) take into consideration the location of ground infrastructure and research needs; and

(C) consult with the National Aeronautics and Space Administration and the Department of Defense.

Consultation.

Standards.

Termination

date.

Deadline.

Deadline.

Federal Register,

publication.

Deadlines.

Publication.

Web posting.

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(4) TEST RANGE OPERATION.—A project at a test range shall be operational not later than 180 days after the date on which the project is established.

(5) REPORT TO CONGRESS.—

(A) IN GENERAL.—Not later than 90 days after the date of the termination of the program under paragraph (1), the Administrator shall submit to the Committee on

Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure and the Committee on Science, Space, and Technology of the House of Representatives a report setting forth the Administrator's findings and conclusions concerning the projects.

(B) **ADDITIONAL CONTENTS.**—The report under subparagraph

(A) shall include a description and assessment of the progress being made in establishing special use airspace to fill the immediate need of the Department of Defense—

(i) to develop detection techniques for small unmanned aircraft systems; and

(ii) to validate the sense and avoid capability and operation of unmanned aircraft systems.

(d) **EXPANDING USE OF UNMANNED AIRCRAFT SYSTEMS IN ARCTIC.**—

(1) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act, the Secretary shall develop a plan and initiate a process to work with relevant Federal agencies and national and international communities to designate permanent areas in the Arctic where small unmanned aircraft may operate 24 hours per day for research and commercial purposes. The plan for operations in these permanent areas shall include the development of processes to facilitate the safe operation of unmanned aircraft beyond line of sight. Such areas shall enable over-water flights from the surface to at least 2,000 feet in altitude, with ingress and egress routes from selected coastal launch sites.

(2) **AGREEMENTS.**—To implement the plan under paragraph (1), the Secretary may enter into an agreement with relevant national and international communities.

(3) **AIRCRAFT APPROVAL.**—Not later than 1 year after the entry into force of an agreement necessary to effectuate the purposes of this subsection, the Secretary shall work with relevant national and international communities to establish and implement a process, or may apply an applicable process already established, for approving the use of unmanned aircraft in the designated permanent areas in the Arctic without regard to whether an unmanned aircraft is used as a public aircraft, a civil aircraft, or a model aircraft.

SEC. 333. SPECIAL RULES FOR CERTAIN UNMANNED AIRCRAFT SYSTEMS.

(a) **IN GENERAL.**—Notwithstanding any other requirement of this subtitle, and not later than 180 days after the date of enactment of this Act, the Secretary of Transportation shall determine if certain unmanned aircraft systems may operate safely in the national airspace system before completion of the plan and rulemaking required by section 332 of this Act or the guidance required by section 334 of this Act.

Deadline.

Determination.

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note.

Deadline.

Deadline.

Plans.

Deadline.

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(b) **ASSESSMENT OF UNMANNED AIRCRAFT SYSTEMS.**—In making the determination under subsection (a), the Secretary shall determine,

at a minimum—

(1) which types of unmanned aircraft systems, if any, as a result of their size, weight, speed, operational capability, proximity to airports and populated areas, and operation within visual line of sight do not create a hazard to users of the national airspace system or the public or pose a threat to national security; and

(2) whether a certificate of waiver, certificate of authorization, or airworthiness certification under section 44704 of title 49, United States Code, is required for the operation of unmanned aircraft systems identified under paragraph (1).

(c) REQUIREMENTS FOR SAFE OPERATION.—If the Secretary determines under this section that certain unmanned aircraft systems may operate safely in the national airspace system, the Secretary shall establish requirements for the safe operation of such aircraft systems in the national airspace system.

SEC. 334. PUBLIC UNMANNED AIRCRAFT SYSTEMS.

(a) GUIDANCE.—Not later than 270 days after the date of enactment of this Act, the Secretary of Transportation shall issue guidance regarding the operation of public unmanned aircraft systems to—

(1) expedite the issuance of a certificate of authorization process;

(2) provide for a collaborative process with public agencies to allow for an incremental expansion of access to the national airspace system as technology matures and the necessary safety analysis and data become available, and until standards are completed and technology issues are resolved;

(3) facilitate the capability of public agencies to develop and use test ranges, subject to operating restrictions required by the Federal Aviation Administration, to test and operate unmanned aircraft systems; and

(4) provide guidance on a public entity's responsibility when operating an unmanned aircraft without a civil airworthiness certificate issued by the Administration.

(b) STANDARDS FOR OPERATION AND CERTIFICATION.—Not later than December 31, 2015, the Administrator shall develop and implement operational and certification requirements for the operation of public unmanned aircraft systems in the national airspace system.

(c) AGREEMENTS WITH GOVERNMENT AGENCIES.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Secretary shall enter into agreements with appropriate government agencies to simplify the process for issuing certificates of waiver or authorization with respect to applications seeking authorization to operate public unmanned aircraft systems in the national airspace system.

(2) CONTENTS.—The agreements shall—

(A) with respect to an application described in paragraph

(1)—

(i) provide for an expedited review of the application;

Deadline.

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Deadline.

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note.

Determination.

- (ii) require a decision by the Administrator on approval or disapproval within 60 business days of the date of submission of the application; and
- (iii) allow for an expedited appeal if the application is disapproved;
- (B) allow for a one-time approval of similar operations carried out during a fixed period of time; and
- (C) allow a government public safety agency to operate unmanned aircraft weighing 4.4 pounds or less, if operated—
 - (i) within the line of sight of the operator;
 - (ii) less than 400 feet above the ground;
 - (iii) during daylight conditions;
 - (iv) within Class G airspace; and
 - (v) outside of 5 statute miles from any airport, heliport, seaplane base, spaceport, or other location with aviation activities.

SEC. 335. SAFETY STUDIES.

The Administrator of the Federal Aviation Administration shall carry out all safety studies necessary to support the integration of unmanned aircraft systems into the national airspace system.

SEC. 336. SPECIAL RULE FOR MODEL AIRCRAFT.

- (a) IN GENERAL.—Notwithstanding any other provision of law relating to the incorporation of unmanned aircraft systems into Federal Aviation Administration plans and policies, including this subtitle, the Administrator of the Federal Aviation Administration may not promulgate any rule or regulation regarding a model aircraft, or an aircraft being developed as a model aircraft, if—
- (1) the aircraft is flown strictly for hobby or recreational use;
 - (2) the aircraft is operated in accordance with a communitybased set of safety guidelines and within the programming of a nationwide community-based organization;
 - (3) the aircraft is limited to not more than 55 pounds unless otherwise certified through a design, construction, inspection, flight test, and operational safety program administered by a community-based organization;
 - (4) the aircraft is operated in a manner that does not interfere with and gives way to any manned aircraft; and
 - (5) when flown within 5 miles of an airport, the operator of the aircraft provides the airport operator and the airport air traffic control tower (when an air traffic facility is located at the airport) with prior notice of the operation (model aircraft operators flying from a permanent location within 5 miles of an airport should establish a mutually-agreed upon operating procedure with the airport operator and the airport air traffic control tower (when an air traffic facility is located at the airport)).
- (b) STATUTORY CONSTRUCTION.—Nothing in this section shall be construed to limit the authority of the Administrator to pursue enforcement action against persons operating model aircraft who endanger the safety of the national airspace system.
- (c) MODEL AIRCRAFT DEFINED.—In this section, the term “model aircraft” means an unmanned aircraft that is—
- (1) capable of sustained flight in the atmosphere;

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Deadline.

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(2) flown within visual line of sight of the person operating the aircraft; and

(3) flown for hobby or recreational purposes.