

118TH CONGRESS
1ST SESSION

S. 307

To amend title 49, United States Code, to establish certain rules relating to unmanned aircraft systems and operations, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 7, 2023

Mr. WARNER (for himself and Mr. THUNE) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To amend title 49, United States Code, to establish certain rules relating to unmanned aircraft systems and operations, 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 “Increasing Competi-
5 tiveness for American Drones Act of 2023”.

6 **SEC. 2. BEYOND VISUAL LINE OF SIGHT OPERATIONS FOR**
7 **UNMANNED AIRCRAFT SYSTEMS.**

8 Chapter 448 of title 49, United States Code, is
9 amended by adding at the end the following:

1 **“SEC. 44811. BEYOND VISUAL LINE OF SIGHT OPERATIONS**
2 **FOR UNMANNED AIRCRAFT SYSTEMS.**

3 “(a) IN GENERAL.—Not later than 6 months after
4 the date of enactment of this section, the Administrator
5 of the Federal Aviation Administration (in this section re-
6 ferred to as the ‘Administrator’) shall issue a notice of
7 proposed rulemaking establishing a regulatory pathway
8 for certification or approval of unmanned aircraft systems
9 to enable commercial beyond visual line of sight (in this
10 section referred to as ‘BVLOS’) operations.

11 “(b) CONSULTATION.—

12 “(1) IN GENERAL.—Subject to paragraph (2),
13 in promulgating the rule under subsection (a), the
14 Administrator shall implement the final report and
15 recommendations of the Beyond Visual Line of Sight
16 Aviation Rulemaking Committee which were sub-
17 mitted to the Administrator on March 10, 2022.

18 “(2) EXCEPTION.—If the Administrator deter-
19 mines not to implement 1 or more of the rec-
20 ommendations described in paragraph (1), the Ad-
21 ministrator shall provide to the appropriate commit-
22 tees of Congress a statement of explanation for such
23 determination.

24 “(c) FINAL RULE.—

25 “(1) IN GENERAL.—Not later than 2 years
26 after the date of enactment of this section, the Ad-

1 administrator shall issue a final rule establishing a reg-
2 ulatory pathway for certification or approval of un-
3 manned aircraft systems to enable commercial
4 BVLOS operations.

5 “(2) REQUIREMENTS.—The final rule described
6 in paragraph (1) shall, at a minimum, do the fol-
7 lowing:

8 “(A) Establish an applicable risk assess-
9 ment methodology for the authorization of
10 BVLOS unmanned aircraft system operations
11 that includes quantified measures of accept-
12 ability which sufficiently account for the total
13 air and ground risks associated with such oper-
14 ations and the means for mitigating such risks,
15 taking into account an aircraft’s size, weight,
16 speed, kinetic energy, operational capability,
17 proximity to airports and populated areas, oper-
18 ation over people, and operation beyond the vis-
19 ual line of sight, or operation during the day or
20 night, including consideration of unmanned air-
21 craft using an approved or accepted detect and
22 avoid system appropriate for the class and type
23 of airspace in which the operation is being con-
24 ducted.

1 “(B) Establish remote pilot certification
2 standards for remote pilots for BVLOS oper-
3 ations, taking into account varying levels of
4 automated control and management of un-
5 manned aircraft system flights.

6 “(C) Establish an airworthiness process for
7 small unmanned aircraft systems that requires
8 a manufacturer’s declaration of compliance to a
9 Federal Aviation Administration accepted
10 means of compliance, which shall not require
11 type or production certification or the issuance
12 of a special airworthiness certificate.

13 “(D) Establish a special airworthiness cer-
14 tificate to be issued upon a manufacturer’s dec-
15 laration of compliance to a Federal Aviation
16 Administration accepted means of compliance,
17 which—

18 “(i) shall not require type or produc-
19 tion certification;

20 “(ii) shall, at least, govern airworthi-
21 ness of any unmanned aircraft system
22 that—

23 “(I) is not—

24 “(aa) a small unmanned air-
25 craft system; and

1 “(bb) appropriate for the
2 process described in subpara-
3 graph (C), as determined by the
4 Administrator;

5 “(II) has a maximum gross
6 weight of not more than 1,320 lbs;
7 and

8 “(III) has a maximum speed of
9 100 miles per hour; and

10 “(iii) may require unmanned aircraft
11 systems subject to the certificate to oper-
12 ate in the national airspace system at alti-
13 tudes below at least—

14 “(I) 400 feet above ground level;
15 or

16 “(II) with respect to an un-
17 manned aircraft system flown within a
18 400-foot radius of a structure, 400
19 feet above the structure’s immediate
20 uppermost limit.

21 “(E) Amend the Code of Federal Regula-
22 tions to establish generally applicable standards
23 for the type certification of unmanned aircraft
24 systems that the Administrator determines pose
25 higher air or ground risks such that those un-

1 manned aircraft systems are not appropriate
 2 for approvals under the processes described in
 3 subparagraph (C) or (D).

4 “(F) Establish operating rules for—

5 “(i) the operation of the unmanned
 6 aircraft systems described in subparagraph
 7 (C), (D), or (E); and

8 “(ii) certain unmanned aircraft sys-
 9 tems to enable lower-risk BVLOS oper-
 10 ations without airworthiness requirements
 11 in a manner consistent with the final re-
 12 port and recommendations of the Beyond
 13 Visual Line of Sight Aviation Rulemaking
 14 Committee described in subsection (b)(1).

15 “(3) RULE OF CONSTRUCTION.—Nothing in
 16 this section shall prohibit the use of the manufac-
 17 turer declarations of compliance required under
 18 paragraph (2)(C) for other unmanned aircraft sys-
 19 tems.”.

20 **SEC. 3. ESTABLISHMENT OF ASSOCIATE ADMINISTRATOR**
 21 **OF UAS INTEGRATION.**

22 Section 106 of title 49, United States Code, is
 23 amended by adding at the end the following new sub-
 24 section:

1 “(u) OFFICE OF THE ASSOCIATE ADMINISTRATOR OF
2 UAS INTEGRATION.—

3 “(1) ESTABLISHMENT.—There is established in
4 the Federal Aviation Administration the Office of
5 Associate Administrator of UAS Integration (in this
6 subsection referred to as the ‘Office’).

7 “(2) ASSOCIATE ADMINISTRATOR.—The Office
8 shall be headed by an Associate Administrator, who
9 shall—

10 “(A) be appointed by the Administrator, in
11 consultation with the Secretary of Transpor-
12 tation; and

13 “(B) report directly to the Administrator.

14 “(3) PURPOSES.—The purposes of the Office
15 are to—

16 “(A) ensure and oversee the safe integra-
17 tion of UASs into the national airspace system;

18 “(B) encourage and facilitate a commer-
19 cially viable UAS industry and the leadership of
20 the United States in UAS;

21 “(C) increase overall safety of the trans-
22 portation system on a mode-neutral basis;

23 “(D) promote the global leadership of the
24 United States in advanced aviation; and

25 “(E) manage the UAS Integration Office.

1 “(4) DUTIES.—The Associate Administrator
2 shall—

3 “(A) conduct rulemaking proceedings with
4 respect to UASs;

5 “(B) review submissions under the proc-
6 esses established in subparagraphs (C) through
7 (E) of section 44811(c)(2) and, as appropriate,
8 grant certifications and other operational ap-
9 provals;

10 “(C) review, modify, accept, or approve in-
11 dustry-developed standards, means of compli-
12 ance, and declarations of compliance;

13 “(D) consult and coordinate with subject
14 matter experts from all relevant lines of busi-
15 ness and staff offices in carrying out the duties
16 described in this paragraph in a timely and effi-
17 cient manner;

18 “(E) hire full time equivalent employees,
19 as appropriate, to build expertise within the Of-
20 fice in assessing new technologies and novel risk
21 mitigations;

22 “(F) manage the UAS Certification Unit
23 (as described in subsection (v)); and

24 “(G) engage in any other activities deemed
25 necessary by the Associate Administrator to

1 carry out the purposes described in paragraph
2 (3).

3 “(5) DEFINITIONS.—In this subsection:

4 “(A) BEYOND VISUAL LINE OF SIGHT;
5 BVLOS.—The terms ‘beyond visual line of sight’
6 or ‘BVLOS’ mean the operation of a UAS be-
7 yond the capability of the flightcrew members
8 to see the UAS with vision unaided by any de-
9 vice other than corrective lenses (such as spec-
10 tacles or contact lenses).

11 “(B) UAS.—The term ‘UAS’ has the
12 meaning given the term ‘unmanned aircraft sys-
13 tem’ in section 44801.”.

14 **SEC. 4. ESTABLISHMENT OF UAS CERTIFICATION UNIT.**

15 Section 106 of title 49, United States Code, as
16 amended by section 3, is amended by adding at the end
17 the following new subsection:

18 “(v) UAS CERTIFICATION UNIT.—

19 “(1) ESTABLISHMENT.—There is established in
20 the Office of Associate Administrator of UAS Inte-
21 gration (as established in subsection (u)) the UAS
22 Certification Unit (in this subsection referred to as
23 the ‘Unit’).

24 “(2) MEMBERSHIP.—

1 “(A) EMPLOYEES.—The Unit shall include
2 not less than 1 employee from each relevant
3 line of business of the Federal Aviation Admin-
4 istration, including the UAS Integration Office,
5 the Aircraft Certification Service, the Flight
6 Standards Service, Air Traffic Control, the Of-
7 fice of Chief Counsel, the Office of Environment
8 and Energy, and any other office deemed ap-
9 propriate by the Associate Administrator.

10 “(B) LEADERSHIP.—Out of the employees
11 described in subparagraph (A), the Associate
12 Administrator of the Office of Associate Admin-
13 istrator of UAS Integration may designate a di-
14 rector and steering committee to lead the Unit,
15 which shall consist of not less than 1 employee
16 from each line of business participating in the
17 Unit.

18 “(3) DUTIES.—The Unit shall develop and im-
19 plement the unmanned aircraft system certification
20 or approval processes described in section 44811
21 by—

22 “(A) reviewing and accepting industry-
23 based airworthiness standards and means of
24 compliance;

1 “(B) engaging with applicants on the cer-
2 tification or approval process;

3 “(C) providing clear and consistent guid-
4 ance to industry standards organizations, in-
5 cluding setting either a target level of safety or
6 an acceptable level of risk;

7 “(D) promptly responding to questions
8 from any person seeking an approval described
9 in subparagraphs (C) through (D) of section
10 44811(c)(2); and

11 “(E) taking all necessary steps to move the
12 unmanned aircraft system certification and ac-
13 ceptance processes forward without avoidable
14 delay.

15 “(4) UAS SPECIAL AIRWORTHINESS CERTIFI-
16 CATE APPROVALS.—The Associate Administrator
17 shall have the authority to grant or deny an applica-
18 tion for any approval described in section 44811,
19 upon review of the recommendations of the Unit and
20 after consultation with the managers of the Aircraft
21 Certification Service and Flight Standards Service,
22 if either manager requests consultation.”.

1 **SEC. 5. USE OF MODELING AND SIMULATION TOOLS IN UN-**
2 **MANNED AIRCRAFT TEST RANGES; PROGRAM**
3 **EXTENSION.**

4 (a) USE OF MODELING AND SIMULATION TOOLS.—
5 Section 44803(b) of title 49, United States Code, is
6 amended—

7 (1) in paragraph (11), by striking the period at
8 the end and inserting “; and”; and

9 (2) by adding at the end the following new
10 paragraph:

11 “(12) use modeling and simulation tools to as-
12 sist in the testing, evaluation, verification, and vali-
13 dation of unmanned aircraft systems.”.

14 (b) PROGRAM EXTENSION.—Section 44803(h) of title
15 49, United States Code, is amended by striking “Sep-
16 tember 30, 2023” and inserting “September 30, 2028”.

17 **SEC. 6. EXTENSION OF SPECIAL AUTHORITY FOR UN-**
18 **MANNED AIRCRAFT SYSTEMS.**

19 (a) SENSE OF CONGRESS.—It is the sense of Con-
20 gress that—

21 (1) the lack of appropriate certification stand-
22 ards, rules, and processes set by the Federal Avia-
23 tion Administration for airworthiness determinations
24 and operational approvals of unmanned aircraft sys-
25 tems (as defined in section 44801 of title 49, United
26 States Code) puts the United States at a disadvan-

1 tage in global competitiveness and delays the inte-
2 gration of promising new technology into commu-
3 nities in the United States;

4 (2) this lack of progress on a standardized air-
5 worthiness and operational approvals approach com-
6 pels the extension of authority to issue exemptions
7 under section 44807 of such title 49; and

8 (3) such section 44807—

9 (A) should continue to use a risk-based ap-
10 proach to authorize operations that do not fit
11 within part 107 of title 14, Code of Federal
12 Regulations; and

13 (B) should not be limited to type certifi-
14 cate applicants.

15 (b) EXTENSION.—Section 44807(d) of title 49,
16 United States Code, is amended by striking “September
17 30, 2023” and inserting “on the date the rules described
18 in section 44811 take effect”.

19 (c) CLARIFICATION.—Section 44807(a) of title 49,
20 United States Code, is amended by inserting “or chapter
21 447” after “Notwithstanding any other requirement of
22 this chapter”.

23 (d) EXPEDITED EXEMPTIONS.—In exercising author-
24 ity under section 44807 of title 49, United States Code
25 (as amended by subsection (b)), the Administrator of the

1 Federal Aviation Administration shall, taking into account
2 the statutory mandate to ensure safe and efficient use of
3 the national airspace system and without requiring a rule-
4 making or imposing the requirements of part 11 of title
5 14, Code of Federal Regulations, grant exemptions to en-
6 able—

7 (1) low-risk beyond visual line of sight oper-
8 ations, such as certain package delivery operations
9 or shielded operations within 100 feet of the ground
10 or a structure; or

11 (2) extended visual line of sight operations that
12 rely on visual observers to keep the aircraft or air-
13 space within view.

14 (e) CLARIFICATION OF STATUS OF PREVIOUSLY
15 ISSUED RULEMAKINGS AND EXEMPTIONS.—

16 (1) RULEMAKINGS.—Any rulemaking published
17 prior to the date of enactment of this Act under the
18 authority described in section 44807 of title 49,
19 United States Code, shall continue to be in effect
20 following the expiration of such authority.

21 (2) EXEMPTIONS.—Any exemption granted
22 under the authority described in section 44807 of
23 title 49, United States Code, and in effect as of Sep-
24 tember 30, 2023, shall continue to be in effect until

1 the date that is 3 years after the date of termination
2 described in such exemption.

3 (3) DELEGATION.—The authority granted to
4 the Secretary of Transportation in such section
5 44807 may continue to be delegated to the Adminis-
6 trator of the Federal Aviation Administration in
7 whole or in part.

8 (4) RULES OF CONSTRUCTION.—Nothing in
9 this section shall be construed to interfere with the
10 Secretary of Transportation's—

11 (A) authority to rescind or amend the
12 granting of an exemption for reasons such as
13 unsafe conditions or operator oversight; or

14 (B) ability to grant an exemption based on
15 a determination made pursuant to such section
16 44807 before the expiration of that provision.

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