

AMENDMENT TO H.R. 4489
OFFERED BY MS. EDDIE BERNICE JOHNSON OF
TEXAS

Page 3, line 4, insert “(a) IN GENERAL.—” before “Section 48102(a)”.

Page 4, line 11, insert “and” after “Aviation;”.

Page 4, strike lines 14 through 23.

Page 7, line 3, insert “and Development” after “Cybersecurity Research”.

Page 9, line 13, insert “and Development” after “Cybersecurity Research”.

Page 11, line 23, insert “and Development” after “Cybersecurity Research”.

Page 13, after line 4, insert the following:

1 (b) AUTHORIZATION OF ADDITIONAL ACTIVITIES.—
2 The Administrator is authorized to carry out the research
3 and development activities for Facilities and Equipment
4 and Grants-in-Aid for Airports for each of the fiscal years
5 2016 through 2019 that are included in the National Avia-
6 tion Research Plan.

Page 16, line 1, strike “**PLAN**” and insert “**STUDY**”.

Page 16, lines 3 and 13, strike “PLAN” and insert “STUDY”.

Page 16, lines 9 through 12, strike “develop a plan” and all that follows through “to such entity” and insert “conduct a study to evaluate the appropriate allocation of current FAA research and development activities if the national air traffic control system is transferred to a non-Federal entity”.

Page 16, line 20, through page 17, line 2, amend paragraph (3) to read as follows:

1 (3) recommend how research and development
2 activities should be managed between the FAA and
3 a non-Federal entity, and include the basis for those
4 recommendations;

Page 16, line 13, and page 17, lines 15 and 25, strike “plan” and insert “study”.

Page 18, after line 4, insert the following new sections:

1 **SEC. 14. DECADAL SURVEY ON FAA'S CIVIL AVIATION RE-**
2 **SEARCH.**

3 (a) IN GENERAL.—The Secretary shall enter into an
4 arrangement with the National Academies for a com-
5 prehensive research survey and strategy for FAA's civil
6 aviation activities, including NextGen, over the next dec-
7 ade. The survey shall encompass research activities in
8 FAA's Research, Engineering, and Development, Facili-
9 ties and Equipment, and Grants-in-Aid for Airports ac-
10 counts, as well as any other research or emerging research
11 areas that will enhance FAA's civil aviation activities. The
12 survey shall—

13 (1) prioritize FAA civil aviation research needs
14 and align such research needs with the mission of
15 FAA;

16 (2) examine the status of research methods and
17 tools, including modeling and simulation, data anal-
18 ysis, and technology demonstration capabilities, that
19 can contribute to FAA civil aviation research;

20 (3) examine the status of FAA-owned research
21 facilities and equipment, the extent to which their
22 availability and accessibility is coordinated across
23 FAA's research programs, and their ability to sup-
24 port FAA civil aviation research over the next dec-
25 ade;

1 (4) identify workforce skills, workforce develop-
2 ment, and training needed to support research prior-
3 ities over the next decade;

4 (5) examine the process and issues related to
5 translating research advances into operational use,
6 including the process required for the certification,
7 operational approval, and implementation of new
8 technologies and resulting operations into the Na-
9 tional Airspace System, and identify the best prac-
10 tices used by other United States or non-United
11 States organizations in transitioning such research
12 into operations;

13 (6) examine issues related to the dissemination
14 of relevant research to the broader aviation commu-
15 nity;

16 (7) consider the research contributions of FAA
17 Centers of Excellence, NASA, and other United
18 States Government or nongovernment entities to
19 civil aviation; and

20 (8) make prioritized recommendations on the
21 areas described in paragraphs (1) through (7).

22 (b) TRANSMITTAL.—Not later than 2 years after the
23 date of enactment of this Act, the Secretary shall transmit
24 the results of the National Academies decadal survey to
25 the Committee on Science, Space, and Technology of the

1 House of Representatives and the Committee on Com-
2 merce, Science, and Transportation of the Senate.

3 **SEC. 15. 5-YEAR STRATEGIC AND INTEGRATED RESEARCH**
4 **PLAN.**

5 (a) PLAN.—Not later than 9 months after the date
6 of transmittal of the decadal survey under section 14(b),
7 the Secretary shall transmit to the Committee on Science,
8 Space, and Technology of the House of Representatives
9 and the Committee on Commerce, Science, and Transpor-
10 tation of the Senate a Strategic and Integrated Research
11 Plan that establishes a program of research and develop-
12 ment activities that reflects the results of such decadal
13 survey. The plan shall—

14 (1) describe how FAA’s research and develop-
15 ment activities and associated projects, including
16 those related to—

- 17 (A) NextGen-associated research;
18 (B) research, engineering, and development
19 and facilities and equipment;
20 (C) grants-in-aid for airports research; and
21 (D) other research areas recommended in
22 the decadal survey,

23 will be interlinked to address common themes and
24 contribute to making progress on the priorities iden-

1 tified in the decadal survey transmitted under sec-
2 tion 14(b);

3 (2) provide integrated research objectives, mile-
4 stones, and timelines for achieving those priorities
5 over the next 5 years; and

6 (3) describe research activities that will lead to
7 procedures for the certification and operational ap-
8 proval of new technologies for their timely and cost-
9 effective introduction into the National Airspace
10 System.

11 (b) REVIEW.—Not later than 3 years after the trans-
12 mittal of the Strategic and Integrated Research Plan
13 under subsection (a), the Secretary shall enter into an ar-
14 rangement with the National Academies to review FAA's
15 progress on implementing the Strategic and Integrated
16 Research Plan.

17 (c) TRANSMITTAL OF REVIEW.—Not later than 12
18 months after the Secretary enters into the arrangement
19 required under subsection (b), the Secretary shall transmit
20 the results of the National Academies' review to the Com-
21 mittee on Science, Space, and Technology of the House
22 of Representatives and the Committee on Commerce,
23 Science, and Transportation of the Senate.

Page 22, lines 21 and 22, strike “date of enactment of this Act” and insert “date that appropriations become available for carrying out this section”.

Page 23, line 6, strike “develop” and insert “maintain”.

Page 24, line 22, strike “may” and insert “shall”.

Page 25, line 10, strike “5 years” and insert “2 years”.

Page 25, lines 11 and 12, strike “date of enactment of this Act” and insert “date that appropriations become available for carrying out this section”.

Page 25, line 18, insert “This report shall contain classified annexes.” after “modeling program.”.

Page 26, line 21, strike “date of enactment of this Act” and insert “date that appropriations become available for carrying out this section”.

Page 27, line 2, strike “date of enactment of this Act” and insert “date that appropriations become available for carrying out this section”.

Page 27, line 18, strike “date of enactment of this Act” and insert “date that appropriations become available for carrying out this section”.

Page 31, line 2, strike “date of enactment of this Act” and insert “date that appropriations become available for carrying out this section”.

Page 31, lines 17 and 18, strike “date of enactment of this Act” and insert “date that appropriations become available for carrying out this section”.

At the end of the bill, add the following new section:

1 **SEC. 45. REVIEW OF RESEARCH SYNERGY OF UNMANNED**
2 **AIRCRAFT SYSTEMS TEST SITES AND CENTER**
3 **OF EXCELLENCE.**

4 (a) REVIEW.—Not later than 3 months after the date
5 of enactment of this Act, the Comptroller General shall
6 initiate a review of the effectiveness of the 6 FAA un-
7 manned aircraft system test sites and the opportunities
8 for coordinating and integrating the research conducted
9 at the test sites with that conducted by the Center of Ex-
10 cellence on Unmanned Aircraft Systems. The review shall
11 include input from stakeholders and users of the test sites
12 and participants of the Center of Excellence.

13 (b) ISSUES.—The review shall address—

14 (1) FAA’s plans for the utilization of research
15 carried out at the test sites and the Center of Excel-
16 lence on Unmanned Aircraft Systems and any rela-

1 tionship of such research to the plan required under
2 section 15(a);

3 (2) the coordination of the research carried out
4 at the test sites and the Center of Excellence; and

5 (3) the mechanism by which FAA will exchange
6 information and communications with both the test
7 sites and the Center of Excellence on potential op-
8 portunities for them to address FAA's research and
9 development needs and on potential opportunities for
10 FAA to facilitate potential partnerships within and
11 among the test sites, the Center of Excellence, and
12 other relevant entities to help address FAA's re-
13 search and development needs.

14 (c) TRANSMITTAL.—The Comptroller General shall
15 transmit the review under this section to the Committee
16 on Science, Space, and Technology of the House of Rep-
17 resentatives and the Committee on Commerce, Science,
18 and Transportation of the Senate not later than 12
19 months after the date of enactment of this Act.

