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:

(3) recommend how research and development activities should be managed between the FAA and a non-Federal entity, and include the basis for those 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:
SEC. 14. DECADAL SURVEY ON FAA'S CIVIL AVIATION RESEARCH.

(a) IN GENERAL.—The Secretary shall enter into an arrangement with the National Academies for a comprehensive research survey and strategy for FAA’s civil aviation activities, including NextGen, over the next decade. The survey shall encompass research activities in FAA’s Research, Engineering, and Development, Facilities and Equipment, and Grants-in-Aid for Airports accounts, as well as any other research or emerging research areas that will enhance FAA’s civil aviation activities. The survey shall—

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

(2) examine the status of research methods and tools, including modeling and simulation, data analysis, and technology demonstration capabilities, that can contribute to FAA civil aviation research;

(3) examine the status of FAA-owned research facilities and equipment, the extent to which their availability and accessibility is coordinated across FAA’s research programs, and their ability to support FAA civil aviation research over the next decade;
(4) identify workforce skills, workforce development, and training needed to support research priorities over the next decade;

(5) examine the process and issues related to translating research advances into operational use, including the process required for the certification, operational approval, and implementation of new technologies and resulting operations into the National Airspace System, and identify the best practices used by other United States or non-United States organizations in transitioning such research into operations;

(6) examine issues related to the dissemination of relevant research to the broader aviation community;

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

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

(b) TRANSMITTAL.—Not later than 2 years after the date of enactment of this Act, the Secretary shall transmit the results of the National Academies decadal survey to the Committee on Science, Space, and Technology of the
1 House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

SEC. 15. 5-YEAR STRATEGIC AND INTEGRATED RESEARCH PLAN.

(a) Plan.—Not later than 9 months after the date of transmittal of the decadal survey under section 14(b), the Secretary shall transmit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a Strategic and Integrated Research Plan that establishes a program of research and development activities that reflects the results of such decadal survey. The plan shall—

(1) describe how FAA’s research and development activities and associated projects, including those related to—

(A) NextGen-associated research;

(B) research, engineering, and development and facilities and equipment;

(C) grants-in-aid for airports research; and

(D) other research areas recommended in the decadal survey,

will be interlinked to address common themes and contribute to making progress on the priorities iden-
ified in the decadal survey transmitted under section 14(b);

(2) provide integrated research objectives, milestones, and timelines for achieving those priorities over the next 5 years; and

(3) describe research activities that will lead to procedures for the certification and operational approval of new technologies for their timely and cost-effective introduction into the National Airspace System.

(b) REVIEW.—Not later than 3 years after the transmittal of the Strategic and Integrated Research Plan under subsection (a), the Secretary shall enter into an arrangement with the National Academies to review FAA’s progress on implementing the Strategic and Integrated Research Plan.

(c) TRANSMITTAL OF REVIEW.—Not later than 12 months after the Secretary enters into the arrangement required under subsection (b), the Secretary shall transmit the results of the National Academies’ review to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, 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 27, line 2, 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:

SEC. 45. REVIEW OF RESEARCH SYNERGY OF UNMANNED AIRCRAFT SYSTEMS TEST SITES AND CENTER OF EXCELLENCE.

(a) Review.—Not later than 3 months after the date of enactment of this Act, the Comptroller General shall initiate a review of the effectiveness of the FAA unmanned aircraft system test sites and the opportunities for coordinating and integrating the research conducted at the test sites with that conducted by the Center of Excellence on Unmanned Aircraft Systems. The review shall include input from stakeholders and users of the test sites and participants of the Center of Excellence.

(b) Issues.—The review shall address—

(1) FAA’s plans for the utilization of research carried out at the test sites and the Center of Excellence on Unmanned Aircraft Systems and any rela-
tionship of such research to the plan required under
section 15(a);

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

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

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