H.R.2698

Federal Aviation Research and Development Reauthorization Act of 2007 (Introduced in House)

SECTION 1. SHORT TITLE.

This Act may be cited as the `Federal Aviation Research and Development Reauthorization Act of 2007'.

SEC. 2. DEFINITIONS.

As used in this Act--

(1) the term `Administrator' means the Administrator of the Federal Aviation Administration;

(2) the term `Director' means the Director of the Joint Planning and Development Office;

(3) the term `FAA' means the Federal Aviation Administration;

(4) the term `NASA' means the National Aeronautics and Space Administration;

(5) the term `National Research Council' means the National Research Council of the National Academies of science and Engineering;

(6) the term `NOAA' means the National Oceanic and Atmospheric Administration;

(7) the term `NSF' means the National Science Foundation;

(8) the term `Office' means the Next Generation Air Transportation System Joint Planning and Development Office; and

(9) the term `Secretary' means the Secretary of Transportation.

SEC. 3. AUTHORIZATION OF APPROPRIATIONS.

Section 48102(a) of title 49, United States Code, is amended--

(1) in paragraph (11)(L), by striking `and';

(2) in paragraph (12)(L), by striking the period and inserting a semicolon; and

(3) by adding at the end the following new paragraphs:

`(13) for fiscal year 2008, $335,191,000, including--
(A) $7,350,000 for fire research and safety;
(B) $4,086,000 for propulsion and fuel systems;
(C) $2,713,000 for advanced materials and structural safety;
(D) $3,574,000 for atmospheric hazards and digital system safety;
(E) $14,931,000 for aging aircraft;
(F) $2,202,000 for aircraft catastrophic failure prevention research;
(G) $14,651,000 for flightdeck maintenance, system integration, and human factors;
(H) $9,517,000 for aviation safety risk analysis;
(I) $15,254,000 for air traffic control, technical operations, and human factors;
(J) $6,780,000 for aeromedical research;
(K) $19,888,000 for weather programs;
(L) $6,310,000 for unmanned aircraft systems research;
(M) $18,100,000 for the Next Generation Air Transportation System Joint Planning and Development Office;
(N) $13,755,000 for wake turbulence;
(O) $20,469,000 for environment and energy;
(P) $1,184,000 for system planning and resource management;
(Q) $3,415,000 for the William J. Hughes Technical Center Laboratory Facility;
(R) $74,200,000 for the Center for Advanced Aviation System Development;
(S) $2,000,000 for the Airport Cooperative Research Program--capacity;
(T) $3,000,000 for the Airport Cooperative Research Program--environment;
(U) $5,000,000 for the Airport Cooperative Research Program--safety;
(V) $3,600,000 for GPS civil requirements;
(W) $5,000,000 for runway incursion reduction;
(X) $6,500,000 for system capacity, planning, and improvement;
(Y) $3,000,000 for operations concept validation;
(Z) $1,000,000 for NAS weather requirements;
(AA) $4,000,000 for the Airspace Management Lab;
(BB) $5,000,000 for airspace redesign;
(CC) $4,000,000 for wind profiling and weather research, Juneau;

(DD) $1,000,000 for the Local Area Augmentation System (LAAS);

(EE) $15,000,000 for Safe Flight 21, Alaska Capstone;

(FF) $20,000,000 for NextGen demonstration;

(GG) $8,907,000 for airports technology research--capacity;

(HH) $9,805,000 for airports technology research--safety; and

(14) for fiscal year 2009, $481,554,000, including--

(A) $8,457,000 for fire research and safety;

(B) $4,050,000 for propulsion and fuel systems;

(C) $2,686,000 for advanced materials and structural safety;

(D) $3,568,000 for atmospheric hazards and digital system safety;

(E) $14,683,000 for aging aircraft;

(F) $2,158,000 for aircraft catastrophic failure prevention research;

(G) $37,499,000 for flightdeck maintenance, system integration, and human factors;

(H) $8,349,000 for aviation safety risk analysis;

(I) $15,323,000 for air traffic control, technical operations, and human factors;

(J) $6,932,000 for aeromedical research;

(K) $22,336,000 for weather program;

(L) $6,738,000 for unmanned aircraft systems research;

(M) $18,100,000 for the Next Generation Air Transportation System Joint Planning and Development Office;

(N) $11,560,000 for wake turbulence;

(O) $35,039,000 for environment and energy;

(P) $1,847,000 for system planning and resource management;

(Q) $3,548,000 for the William J. Hughes Technical Center Laboratory Facility;

(R) $85,000,000 for Center for Advanced Aviation System Development;

(S) $5,000,000 for the Airport Cooperative Research Program--capacity;

(T) $5,000,000 for the Airport Cooperative Research Program--environment;

(U) $5,000,000 for the Airport Cooperative Research Program--safety;
(V) $3,469,000 for GPS civil requirements;
(W) $5,000,000 for runway incursion reduction;
(X) $6,500,000 for system capacity, planning and improvement;
(Y) $3,000,000 for Operations Concept Validation;
(Z) $1,000,000 for NAS weather requirements;
(AA) $4,000,000 for the Airspace Management Lab;
(BB) $3,000,000 for airspace redesign;
(CC) $20,000,000 for Safe Flight 21, Alaska Capstone;
-DD) $12,000,000 for NextGen demonstration;
(EE) $102,000,000 for NextGen system development;
(FF) $8,907,000 for airports technology research--capacity;
(GG) $9,805,000 for airports technology research--safety; and

(15) for fiscal year 2010, $486,502,000, including--

(A) $8,546,000 for fire research and safety;
(B) $4,075,000 for propulsion and fuel systems;
(C) $2,700,000 for advanced materials and structural safety;
(D) $3,608,000 for atmospheric hazards and digital system safety;
(E) $14,688,000 for aging aircraft;
(F) $2,153,000 for aircraft catastrophic failure prevention research;
(G) $36,967,000 for flightdeck maintenance, system integration, and human factors;
(H) $8,334,000 for aviation safety risk analysis;
(I) $15,471,000 for air traffic control, technical operations, and human factors;
(J) $7,149,000 for aeromedical research;
(K) $23,286,000 for weather program;
(L) $6,236,000 for unmanned aircraft systems research;
(M) $18,100,000 for the Next Generation Air Transportation System Joint Planning and Development Office;
(N) $11,412,000 for wake turbulence;
(O) $34,678,000 for environment and energy;
(P) $1,827,000 for system planning and resource management;
(Q) $3,644,000 for William J. Hughes Technical Center Laboratory Facility;
(R) $90,000,000 for the Center for Advanced Aviation System Development;
(S) $5,000,000 for the Airport Cooperative Research Program--capacity;
(T) $5,000,000 for the Airport Cooperative Research Program--environment;
(U) $5,000,000 for the Airport Cooperative Research Program--safety;
(V) $3,416,000 for GPS civil requirements;
(W) $5,000,000 for runway incursion reduction;
(X) $6,500,000 for system capacity, planning and improvement;
(Y) $3,000,000 for operations concept validation;
(Z) $1,000,000 for NAS weather requirements;
(AA) $4,000,000 for the Airspace Management Lab;
(BB) $3,000,000 for airspace redesign;
(CC) $20,000,000 for Safe Flight 21, Alaska Capstone;
(DD) $12,000,000 for NextGen demonstration;
(EE) $102,000,000 for NextGen system development;
(FF) $8,907,000 for airports technology research--capacity;
(GG) $9,805,000 for airports technology research--safety; and
(16) for fiscal year 2011, $514,832,000, including--
(A) $8,815,000 for fire research and safety;
(B) $4,150,000 for propulsion and fuel systems;
(C) $2,747,000 for advanced materials and structural safety;
(D) $3,687,000 for atmospheric hazards and digital system safety;
(E) $14,903,000 for aging aircraft;
(F) $2,181,000 for aircraft catastrophic failure prevention research;
(G) $39,245,000 for flightdeck maintenance, system integration and human factors;
(H) $8,446,000 for aviation safety risk analysis;
(I) $15,715,000 for air traffic control, technical operations, and human factors;
(J) $7,390,000 for aeromedical research;
(K) $23,638,000 for weather program;
(L) $6,295,000 for unmanned aircraft systems research;
(M) $18,100,000 for the Next Generation Air Transportation System Joint Planning and Development Office;
(N) $11,471,000 for wake turbulence;
(O) $34,811,000 for environment and energy;
(P) $1,836,000 for system planning and resource management;
(Q) $3,758,000 for William J. Hughes Technical Center Laboratory Facility;
(R) $114,000,000 for Center for Advanced Aviation System Development;
(S) $5,000,000 for the Airport Cooperative Research Program--capacity;
(T) $5,000,000 for the Airport Cooperative Research Program--environment;
(U) $5,000,000 for the Airport Cooperative Research Program--safety;
(V) $3,432,000 for GPS civil requirements;
(W) $2,000,000 for runway incursion reduction;
(X) $6,500,000 for system capacity, planning and improvement;
(Y) $3,000,000 for operations concept validation;
(Z) $1,000,000 for NAS weather requirements;
(AA) $4,000,000 for the Airspace Management Lab;
(BB) $3,000,000 for airspace redesign;
(CC) $20,000,000 for Safe Flight 21, Alaska Capstone;
(DD) $12,000,000 for NextGen demonstration;
(EE) $105,000,000 for NextGen system development;
(FF) $8,907,000 for airports technology research--capacity;
(GG) $9,805,000 for airports technology research--safety; and'.

SEC. 4. NEXT GENERATION AIR TRANSPORTATION SYSTEM JOINT PLANNING AND DEVELOPMENT OFFICE.

(a) Status of Director and Responsibilities of Office- Section 709 of the Vision 100--Century of Aviation Reauthorization Act (49 U.S.C. 40101 note) is amended--

(1) in subsection (a)--

(A) in paragraph (1), by adding at the end the following: `The head of the Office shall be the Director. The Director shall report to the Administrator of the Federal Aviation Administration and shall serve as Associate Administrator for the Next Generation Air Transportation System, and shall be a voting member
and co-chair of the Joint Resources Council.';

(B) by amending paragraph (2)(C) to read:
\`
(C) creating a transition plan for the implementation of that system that includes date-specific milestones for the implementation of new capabilities into the national airspace system;'
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(C) in paragraph (2)(G), by striking `; and' and inserting a semicolon;

(D) in paragraph (2)(H), by striking the period at the end and inserting `; and';

(E) by adding at the end of paragraph (2) the following:
\`
(I) establishing specific quantitative goals for the safety, capacity, efficiency, performance, and environmental impacts of each phase of Next Generation Air Transportation System implementation activities and measuring actual operational experience against those goals;

(J) working to ensure global interoperability of the Next Generation Air Transportation System;

(K) integrating aviation weather information and space weather information into the Next Generation Air Transportation System as soon as possible;

(L) overseeing, with the Administrator, the selection of products or outcomes of research and development activities that would be moved to the next stage of a demonstration project through the Joint Resources Council;

(M) maintaining a baseline modeling and simulation environment for testing and evaluating alternative concepts to satisfy Next Generation Air Transportation enterprise architecture requirements; and

(N) pursuing the integration of unmanned aircraft systems into the national airspace system through research and demonstration programs under the auspices of a public and private partnership.'; and

(2) in subsection (e), by striking `2010' and inserting `2011'.

(b) Accountability- Such section is further amended--

(1) in paragraph (3), by inserting `(A)' after the paragraph designation; and

(2) by adding at the end of paragraph (3) the following:
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(B) The Administrator, the Secretary of Defense, the Administrator of NASA, the Secretary of Commerce, the Secretary of Homeland Security, and the head of any other Department or Federal agency from which the Secretary of Transportation requests assistance under paragraph (A) shall designate a senior official in the department or agency to be responsible for--

(i) implementing the department's or agency's Next Generation Air Transportation System activities with the Office, including the execution of all aspects of the department's or agency's work on developing and implementing the integrated plan described in section 709(2)(A); and

(ii) ensuring that the department or agency meets its obligations as set forth in the memorandum of understanding executed by or on behalf of the
department or agency under subparagraph (D).

(C) The head of any such department or agency shall--

(i) establish an office within the department or agency to carry out its responsibilities under the memorandum of understanding under the supervision of the designated official; and

(ii) ensure that the designated official has sufficient budgetary authority and staff resources to carry out the department's or agency's Next Generation Air Transportation System responsibilities as set forth in the integrated plan under section 709(b).

(D) Not later than 6 months after the date of enactment of the Federal Aviation Research and Development Reauthorization Act of 2007, the head of each department or agency that has responsibility for carrying out any activity under the integrated plan under section 709(b) shall execute a memorandum of understanding with the Office obligating that department or agency to carry out those activities.'.

(c) Integrated Plan- Section 709(b) of the Vision 100--Century of Aviation Reauthorization Act (49 U.S.C. 40101 note) is amended--

(1) by striking the first sentence and inserting '

The integrated plan shall be designed to ensure that the Next Generation Air Transportation System meets anticipated future air transportation safety, security, mobility, efficiency, and capacity needs and accomplishes the goals under subsection (c).';

(2) in paragraph (3)(C), by striking '; and' and inserting a semicolon;

(3) by adding at the end the following:

(5) Date-specific timetables for the partial and complete implementation of planned Next Generation Air Transportation System capabilities, including but not limited to Automated Dependent Surveillance-Broadcast, Unmanned Aircraft Systems operations, Next Generation Enabled Weather system, Next Generation Data Communications, NAS Voice Switch, System Wide Information Management system, and space weather information, and including any necessary certification activities, and including an evaluation of the costs and benefits of accelerating any of the implementation and certification timetables;

(6) Identification of planned demonstration projects and date-specific timetables for the conduct of the demonstration projects and subsequent certification activities and an evaluation of the costs and benefits of accelerating any of the demonstration projects and certification activities;

(7) Date-specific timetables for meeting the environmental requirements identified in subsection (I); and

(8) Identification, on an annual basis, of each entity that will be responsible for each component of any research, development, or implementation activity.'.

(d) Annual Report- Section 709(d) of the Vision 100--Century of Aviation Reauthorization Act (49 U.S.C. 40101 note) is amended--

(1) by striking the first sentence and inserting '

The integrated plan shall be designed to ensure that the Next Generation Air Transportation System meets anticipated future air transportation safety, security, mobility, efficiency, and capacity needs and accomplishes the goals under subsection (c).';

(2) in paragraph (3), by striking '; and' and inserting a semicolon;

(3) by adding at the end the following:

(5) Date-specific timetables for the partial and complete implementation of planned Next Generation Air Transportation System capabilities, including but not limited to Automated Dependent Surveillance-Broadcast, Unmanned Aircraft Systems operations, Next Generation Enabled Weather system, Next Generation Data Communications, NAS Voice Switch, System Wide Information Management system, and space weather information, and including any necessary certification activities, and including an evaluation of the costs and benefits of accelerating any of the implementation and certification timetables;

(6) Identification of planned demonstration projects and date-specific timetables for the conduct of the demonstration projects and subsequent certification activities and an evaluation of the costs and benefits of accelerating any of the demonstration projects and certification activities;

(7) Date-specific timetables for meeting the environmental requirements identified in subsection (I); and

(8) Identification, on an annual basis, of each entity that will be responsible for each component of any research, development, or implementation activity.'.