

Calendar No. 290

105<sup>TH</sup> CONGRESS  
1<sup>ST</sup> Session

**H. R. 1271**

[Report No. 105-152]

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**AN ACT**

To authorize the Federal Aviation Administration's research, engineering, and development programs for fiscal years 1998 through 2000, and for other purposes.

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NOVEMBER 9, 1997

Reported with an amendment in the nature of a substitute

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105<sup>TH</sup> CONGRESS  
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IN THE SENATE OF THE UNITED STATES

APRIL 30, 1997

Received; read twice and referred to the Committee on Commerce, Science,  
and Transportation

NOVEMBER 9, 1997

Reported by Mr. MCCAIN, with an amendment in the nature of a substitute

[Strike all after the enacting clause and insert the part printed in italic]

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## **AN ACT**

To authorize the Federal Aviation Administration's research,  
engineering, and development programs for fiscal years  
1998 through 2000, 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,*

1 **SECTION 1. SHORT TITLE. THIS ACT MAY BE CITED AS THE**  
2 **“FAA RESEARCH, ENGINEERING, AND DEVEL-**  
3 **OPMENT AUTHORIZATION ACT OF 1997”.**

4 **SEC. 2. AUTHORIZATION OF APPROPRIATIONS.**

5 Section 48102(a) of title 49, United States Code, is  
6 amended—

7 (1) by striking “and” at the end of paragraph  
8 (2)(J);

9 (2) by striking the period at the end of para-  
10 graph (3)(J) and inserting in lieu thereof a semi-  
11 colon; and

12 (3) by adding at the end the following:

13 “(4) for fiscal year 1998, \$217,406,000, includ-  
14 ing—

15 “(A) \$75,550,000 for system development  
16 and infrastructure projects and activities;

17 “(B) \$19,614,000 for capacity and air  
18 traffic management technology projects and ac-  
19 tivities;

20 “(C) \$15,132,000 for communications,  
21 navigation, and surveillance projects and activi-  
22 ties;

23 “(D) \$9,982,000 for weather projects and  
24 activities;

25 “(E) \$5,458,000 for airport technology  
26 projects and activities;

1           “(F) \$26,625,000 for aircraft safety tech-  
2 nology projects and activities;

3           “(G) \$49,895,000 for system security tech-  
4 nology projects and activities;

5           “(H) \$10,737,000 for human factors and  
6 aviation medicine projects and activities;

7           “(I) \$3,291,000 for environment and en-  
8 ergy projects and activities; and

9           “(J) \$1,122,000 for innovative/cooperative  
10 research projects and activities;

11           “(5) for fiscal year 1999, \$224,000,000; and

12           “(6) for fiscal year 2000, \$231,000,000.”

13 **SEC. 3. BUDGET DESIGNATION FOR RESEARCH AND DEVEL-**  
14 **OPMENT ACTIVITIES.**

15       Section 48102 of title 49, United States Code, is  
16 amended by adding at the end the following new sub-  
17 section:

18       “(g) DESIGNATION OF ACTIVITIES.—(1) The  
19 amounts appropriated under subsection (a) are for the  
20 support of all research and development activities carried  
21 out by the Federal Aviation Administration that fall with-  
22 in the categories of basic research, applied research, and  
23 development, including the design and development of pro-  
24 totypes, in accordance with the classifications of the Office

1 of Management and Budget Circular A-11 (Budget For-  
2 mulation/Submission Process).

3           ~~“(2) The President’s annual budget request for~~  
4           ~~the Federal Aviation Administration shall include all~~  
5           ~~research and development activities within a single~~  
6           ~~budget category. All of the activities carried out by~~  
7           ~~the Administration within the categories of basic re-~~  
8           ~~search, applied research, and development, as classi-~~  
9           ~~fied by the Office of Management and Budget Cir-~~  
10           ~~cular A-11, shall be placed in this single budget cat-~~  
11           ~~egory.’.~~

12 **SEC. 4. NATIONAL AVIATION RESEARCH PLAN.**

13           Section 44501(c)(2)(B) of title 49, United States  
14 Code, is amended—

15           ~~(1) by striking “and” at the end of clause (iii);~~

16           ~~(2) by striking the period at the end of clause~~  
17           ~~(iv) and inserting in lieu thereof “; and”; and~~

18           ~~(3) by adding at the end the following new~~  
19           ~~clause:~~

20                           ~~“(v) highlight the research and devel-~~  
21                           ~~opment technology transfer activities that~~  
22                           ~~promote technology sharing among govern-~~  
23                           ~~ment, industry, and academia through the~~  
24                           ~~Stevenson-Wydler Technology Innovation~~  
25                           ~~Act of 1980.’.~~

1 **SEC. 5. RESEARCH GRANTS PROGRAM INVOLVING UNDER-**  
2 **GRADUATE STUDENTS.**

3 (a) PROGRAM.—Section 48102 of title 49, United  
4 States Code, is amended by adding at the end the follow-  
5 ing new subsection:

6 “(h) RESEARCH GRANTS PROGRAM INVOLVING UN-  
7 DERGRADUATE STUDENTS.—

8 “(1) ESTABLISHMENT.—The Administrator of  
9 the Federal Aviation Administration shall establish a  
10 program for awarding grants to researchers at pri-  
11 marily undergraduate institutions, including pri-  
12 marily undergraduate Historically Black Colleges  
13 and Universities and Hispanic Serving Institutions,  
14 who involve undergraduate students in their research  
15 on subjects of relevance to the Federal Aviation Ad-  
16 ministration. Grants may be awarded under this  
17 subsection for—

18 “(A) research projects to be carried out at  
19 primarily undergraduate institutions; or

20 “(B) research projects that combine re-  
21 search at primarily undergraduate institutions  
22 with other research supported by the Federal  
23 Aviation Administration.

24 “(2) NOTICE OF CRITERIA.—Within 6 months  
25 after the date of the enactment of the FAA Re-  
26 search, Engineering, and Development Authorization

1 Act of 1997, the Administrator of the Federal Avia-  
2 tion Administration shall establish and publish in  
3 the Federal Register criteria for the submittal of  
4 proposals for a grant under this subsection, and for  
5 the awarding of such grants.

6 “(3) ~~PRINCIPAL CRITERIA.~~—The principal cri-  
7 teria for the awarding of grants under this sub-  
8 section shall be—

9 “(A) the relevance of the proposed re-  
10 search to technical research needs identified by  
11 the Federal Aviation Administration;

12 “(B) the scientific and technical merit of  
13 the proposed research; and

14 “(C) the potential for participation by un-  
15 dergraduate students in the proposed research.

16 “(4) ~~COMPETITIVE, MERIT-BASED EVALUA-~~  
17 ~~TION.~~—Grants shall be awarded under this sub-  
18 section on the basis of evaluation of proposals  
19 through a competitive, merit-based process.’.

20 (b) ~~AUTHORIZATION OF APPROPRIATIONS.~~—Section  
21 48102(a) of title 49, United States Code, as amended by  
22 this Act, is further amended—

23 (1) by inserting “, of which \$500,000 shall be  
24 for carrying out the grant program established

1 under subsection (h)” after “projects and activities”  
2 in paragraph (4)(J);

3 (2) by inserting “, of which \$500,000 shall be  
4 for carrying out the grant program established  
5 under subsection (h)” after “\$224,000,000” in para-  
6 graph (5); and

7 (3) by inserting “, of which \$500,000 shall be  
8 for carrying out the grant program established  
9 under subsection (h)” after “\$231,000,000” in para-  
10 graph (6).

11 **SEC. 6. LIMITATIONS.**

12 (a) PROHIBITION OF LOBBYING ACTIVITIES.—None  
13 of the funds authorized by the amendments made by this  
14 Act shall be available for any activity whose purpose is  
15 to influence legislation pending before the Congress, ex-  
16 cept that this subsection shall not prevent officers or em-  
17 ployees of the United States or of its departments or agen-  
18 cies from communicating to Members of Congress on the  
19 request of any Member or to Congress, through the proper  
20 channels, requests for legislation or appropriations which  
21 they deem necessary for the efficient conduct of the public  
22 business.

23 (b) LIMITATION ON APPROPRIATIONS.—No sums are  
24 authorized to be appropriated to the Administrator of the  
25 Federal Aviation Administration for fiscal years 1998,

1 1999, and 2000 for the Federal Aviation Administration  
2 Research, Engineering, and Development account, unless  
3 such sums are specifically authorized to be appropriated  
4 by the amendments made by this Act.

5 (e) ELIGIBILITY FOR AWARDS.—

6 (1) IN GENERAL.—The Administrator of the  
7 Federal Aviation Administration shall exclude from  
8 consideration for grant agreements made by that  
9 Administration from the Research, Engineering, and  
10 Development account after fiscal year 1997 any per-  
11 son who received funds, other than those described  
12 in paragraph (2), appropriated for a fiscal year after  
13 fiscal year 1997, under a grant agreement from any  
14 Federal funding source for a project that was not  
15 subjected to a competitive, merit-based award pro-  
16 cess. Any exclusion from consideration pursuant to  
17 this subsection shall be effective for a period of 5  
18 years after the person receives such Federal funds.

19 (2) EXCEPTION.—Paragraph (1) shall not  
20 apply to the receipt of Federal funds by a person  
21 due to the membership of that person in a class  
22 specified by law for which assistance is awarded to  
23 members of the class according to a formula pro-  
24 vided by law.

1           (3) DEFINITION.—For purposes of this sub-  
2           section, the term “grant agreement” means a legal  
3           instrument whose principal purpose is to transfer a  
4           thing of value to the recipient to carry out a public  
5           purpose of support or stimulation authorized by a  
6           law of the United States, and does not include the  
7           acquisition (by purchase, lease, or barter) of prop-  
8           erty or services for the direct benefit or use of the  
9           United States Government. Such term does not in-  
10          clude a cooperative agreement (as such term is used  
11          in section 6305 of title 31, United States Code) or  
12          a cooperative research and development agreement  
13          (as such term is defined in section 12(d)(1) of the  
14          Stevenson-Wydler Technology Innovation Act of  
15          1980 (15 U.S.C. 3710a(d)(1))).

16 **SEC. 7. NOTICE.**

17          (a) NOTICE OF REPROGRAMMING.—If any funds au-  
18          thorized by the amendments made by this Act are subject  
19          to a reprogramming action that requires notice to be pro-  
20          vided to the Appropriations Committees of the House of  
21          Representatives and the Senate, notice of such action shall  
22          concurrently be provided to the Committees on Science  
23          and Transportation and Infrastructure of the House of  
24          Representatives and the Committee on Commerce,  
25          Science, and Transportation of the Senate.

1 (b) NOTICE OF REORGANIZATION.—The Adminis-  
2 trator of the Federal Aviation Administration shall provide  
3 notice to the Committees on Science, Transportation and  
4 Infrastructure, and Appropriations of the House of Rep-  
5 resentatives, and the Committees on Commerce, Science,  
6 and Transportation and Appropriations of the Senate, not  
7 later than 15 days before any major reorganization of any  
8 program, project, or activity of the Federal Aviation Ad-  
9 ministration for which funds are authorized by this Act.

10 **SEC. 8. SENSE OF CONGRESS ON THE YEAR 2000 PROBLEM.**

11 With the year 2000 fast approaching, it is the sense  
12 of Congress that the Federal Aviation Administration  
13 should—

14 (1) give high priority to correcting all 2-digit  
15 date-related problems in its computer systems to en-  
16 sure that those systems continue to operate effec-  
17 tively in the year 2000 and beyond;

18 (2) assess immediately the extent of the risk to  
19 the operations of the Federal Aviation Administra-  
20 tion posed by the problems referred to in paragraph  
21 (1), and plan and budget for achieving Year 2000  
22 compliance for all of its mission-critical systems; and

23 (3) develop contingency plans for those systems  
24 that the Federal Aviation Administration is unable  
25 to correct in time.

1 **SEC. 9. BUY AMERICAN.**

2 (a) COMPLIANCE WITH BUY AMERICAN ACT.—No  
3 funds appropriated pursuant to the amendments made by  
4 this Act may be expended by an entity unless the entity  
5 agrees that in expending the assistance the entity will  
6 comply with sections 2 through 4 of the Act of March 3,  
7 1933 (41 U.S.C. 10a-10e, popularly known as the “Buy  
8 American Act”).

9 (b) SENSE OF CONGRESS.—In the case of any equip-  
10 ment or products that may be authorized to be purchased  
11 with financial assistance provided under the amendments  
12 made by this Act, it is the sense of Congress that entities  
13 receiving such assistance should, in expending the assist-  
14 ance, purchase only American-made equipment and prod-  
15 ucts.

16 (c) NOTICE TO RECIPIENTS OF ASSISTANCE.—In  
17 providing financial assistance under the amendments  
18 made by this Act, the Administrator of the Federal Avia-  
19 tion Administration shall provide to each recipient of the  
20 assistance a notice describing the statement made in sub-  
21 section (a) by the Congress.

22 **SECTION 1. SHORT TITLE.**

23 *This Act may be cited as the “FAA Research, Engi-  
24 neering, and Development Authorization Act of 1997”.*

1 **SEC. 2. AUTHORIZATION OF APPROPRIATIONS.**

2 *Section 48102(a) of title 49, United States Code, is*  
3 *amended—*

4 *(1) by striking “and” at the end of paragraph*  
5 *(2)(J);*

6 *(2) by striking the period at the end of para-*  
7 *graph (3)(J) and inserting in lieu thereof a semi-*  
8 *colon; and*

9 *(3) by adding at the end the following:*

10 *“(4) for fiscal year 1998, \$229,673,000, includ-*  
11 *ing—*

12 *“(A) \$16,379,000 for system development*  
13 *and infrastructure projects and activities;*

14 *“(B) \$27,089,000 for capacity and air traf-*  
15 *fic management technology projects and activi-*  
16 *ties;*

17 *“(C) \$23,362,000 for communications, navi-*  
18 *gation, and surveillance projects and activities;*

19 *“(D) \$16,600,000 for weather projects and*  
20 *activities;*

21 *“(E) \$7,854,000 for airport technology*  
22 *projects and activities;*

23 *“(F) \$49,202,000 for aircraft safety tech-*  
24 *nology projects and activities;*

25 *“(G) \$56,045,000 for system security tech-*  
26 *nology projects and activities;*

1                   “(H) \$27,137,000 for human factors and  
2                   aviation medicine projects and activities;

3                   “(I) \$2,891,000 for environment and energy  
4                   projects and activities; and

5                   “(J) \$3,114,000 for innovative/cooperative  
6                   research projects and activities.”.

7 **SEC. 3. RESEARCH GRANTS PROGRAM INVOLVING UNDER-**  
8 **GRADUATE STUDENTS.**

9           (a) *PROGRAM.*—Section 48102 of title 49, United  
10 States Code, is amended by adding at the end the following  
11 new subsection:

12           “(h) *RESEARCH GRANTS PROGRAM INVOLVING UN-*  
13 *DERGRADUATE STUDENTS.*—

14                   “(1) *ESTABLISHMENT.*—The Administrator of  
15 the Federal Aviation Administration shall establish a  
16 program to utilize undergraduate and technical col-  
17 leges in research on subjects of relevance to the Fed-  
18 eral Aviation Administration. Grants may be award-  
19 ed under this subsection for—

20                           “(A) research projects to be carried out at  
21 primarily undergraduate institutions and tech-  
22 nical colleges;

23                           “(B) research projects that combine research  
24 at primarily undergraduate institutions and

1           *technical colleges with other research supported*  
2           *by the Federal Aviation Administration; or*

3           “(C) *research on future training require-*  
4           *ments on projected changes in regulatory re-*  
5           *quirements for aircraft maintenance and power*  
6           *plant licensees.*

7           “(2) *NOTICE OF CRITERIA.—Within 6 months*  
8           *after the date of the enactment of the FAA Research,*  
9           *Engineering, and Development Authorization Act of*  
10           *1997, the Administrator of the Federal Aviation Ad-*  
11           *ministration shall establish and publish in the Fed-*  
12           *eral Register criteria for the submittal of proposals*  
13           *for a grant under this subsection, and for the award-*  
14           *ing of such grants.*

15           “(3) *PRINCIPAL CRITERIA.—The principal cri-*  
16           *teria for the awarding of grants under this subsection*  
17           *shall be—*

18           “(A) *the relevance of the proposed research*  
19           *to technical research needs identified by the Fed-*  
20           *eral Aviation Administration;*

21           “(B) *the scientific and technical merit of*  
22           *the proposed research; and*

23           “(C) *the potential for participation by un-*  
24           *dergraduate students in the proposed research.*

1           “(4) *COMPETITIVE, MERIT-BASED EVALUA-*  
2           *TION.—Grants shall be awarded under this subsection*  
3           *on the basis of evaluation of proposals through a com-*  
4           *petitive, merit-based process.”.*

5           **(b) AUTHORIZATION OF APPROPRIATIONS.**—*Section*  
6           *48102(a) of title 49, United States Code, as amended by*  
7           *this Act, is further amended by inserting “, of which*  
8           *\$750,000 shall be for carrying out the grant program estab-*  
9           *lished under subsection (h)” after “projects and activities”*  
10          *in paragraph (4)(J).*

11          **SEC. 4. LIMITATION ON APPROPRIATIONS.**

12          *No sums are authorized to be appropriated to the Ad-*  
13          *ministrator of the Federal Aviation Administration for fis-*  
14          *cal year 1998 for the Federal Aviation Administration Re-*  
15          *search, Engineering, and Development account, unless such*  
16          *sums are specifically authorized to be appropriated by the*  
17          *amendments made by this Act.*

18          **SEC. 5. NOTICE OF REPROGRAMMING.**

19          *If any funds authorized by the amendments made by*  
20          *this Act are subject to a reprogramming action that requires*  
21          *notice to be provided to the Appropriations Committees of*  
22          *the House of Representatives and the Senate, notice of such*  
23          *action shall concurrently be provided to the Committees on*  
24          *Science and Transportation and Infrastructure of the*

1 *House of Representatives and the Committee on Commerce,*  
2 *Science, and Transportation of the Senate.*

3 **SEC. 6. SENSE OF CONGRESS ON THE YEAR 2000 PROBLEM.**

4 *With the year 2000 fast approaching, it is the sense*  
5 *of Congress that the Federal Aviation Administration*  
6 *should—*

7 *(1) give high priority to correcting all 2-digit*  
8 *date-related problems in its computer systems to en-*  
9 *sure that those systems continue to operate effectively*  
10 *in the year 2000 and beyond;*

11 *(2) assess immediately the extent of the risk to*  
12 *the operations of the Federal Aviation Administration*  
13 *posed by the problems referred to in paragraph (1),*  
14 *and plan and budget for achieving Year 2000 compli-*  
15 *ance for all of its mission-critical systems; and*

16 *(3) develop contingency plans for those systems*  
17 *that the Federal Aviation Administration is unable to*  
18 *correct in time.*