

ORDER

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

9550.6A

5/18/95

SUBJ: TECHNOLOGY TRANSFER PROGRAM

1. **PURPOSE.** This order establishes the Technology Transfer Program. This order also establishes the Technology Transfer Awards Program and the Technology Transfer Awards Committee.
2. **DISTRIBUTION.** This order is distributed to division level in Washington, regions, and centers.
3. **CANCELLATION.** Order 9550.6, Technology Transfer Program, dated October 30, 1989, is canceled.
4. **BACKGROUND.** The Stevenson-Wydler Technology Innovation Act of 1980, Public Law 96-480, amended by the Federal Technology Transfer Act of 1986, Public Law 99-502, requires each Federal agency to establish a program for technology transfer. Specific Federal laboratories are directed to establish an Office of Research and Technology Applications to administer the technology transfer program. These laboratories are those comprising 200 or more full-time equivalent scientific, engineering, and related technical positions. Under the criteria established by Public Law 99-502, the FAA Technical Center is the only Federal laboratory within FAA. Executive Order 12591, Facilitating Access to Science and Technology, dated April 10, 1987, was issued to ensure that Federal agencies and laboratories assist universities and the private sector in transferring technology pursuant to the legislation.
5. **EXPLANATION OF CHANGES.** This revision:
 - a. Assigns the responsibility to manage and direct the Technology Transfer Awards Program to the Office of Research and Technology Applications. The Technology Transfer Program Manager in the Office of Research and Technology Applications performs the responsibilities necessary to conduct the awards program.
 - b. Transmits responsibilities and procedures to administer the Technology Transfer Awards Program.
 - c. Establishes the Technology Transfer Awards Committee.
 - d. Defines award categories and award amounts.
 - e. Assigns responsibilities to participating organizations.
 - f. Defines awards committee membership and responsibilities.
 - g. Outlines procedures for award nominations and the presentation of awards.

6. DELEGATION OF AUTHORITY.

a. The Director, FAA Technical Center, is delegated the authority to approve Cooperative Research and Development Agreements (CRDA). The head of an agency may modify or disapprove any such agreement when 30 days beginning on the date the agreement is presented to him or her by the laboratory concerned.

b. The Director, FAA Technical Center, is delegated the authority to manage and direct the Technology Transfer Awards Program. This authority may be redelegated.

7. **POLICY.** The Technology Transfer Program has been designed to achieve the maximum national benefit from FAA scientific and technical efforts. It shall be FAA policy to:

a. Encourage dissemination of scientific and technical information, data, and know-how developed by or for FAA to state and local governments and to the private sector, consistent with the requirements of United States national security.

b. Promote sharing of technology that fosters the advance of science or that has commercial potential and thus should be employed to the best advantage for the security and socio-economic well-being of the United States.

c. Support coordination between the industrial, academic, and government research and development activities of the United States by cooperating in the sharing of plans for future research efforts and the sharing of facilities as appropriate.

8. RESPONSIBILITIES.

a. The Executive Director for Acquisitions shall:

(1) Support the technology transfer process as an integral part of the R&D effort and incorporate technology transfer objectives into the mission of each appropriate R&D activity.

(2) Transfer to the Federal Laboratory Consortium (FLC) an amount equal to 0.008 percent of FAA's total R&D budget each fiscal year. It is to be utilized by the FLC as defined in this order. This transfer shall be provided through the National Institute of Standards & Technology for use by the FLC.

(3) Make available to the Office of Research and Technology Applications (ORTA) for use within FAA not less than 0.5 percent of FAA's total R&D budget each fiscal year to support the technology transfer functions of the office as specified in 15 U.S.C. Section 3710.

b. The Director, FAA Technical Center shall:

(1) Approve CRDA's.

(2) Support the use of FAA Technical Center laboratories and facilities for CRDA's on an as available basis.

(3) Support cooperative efforts to stimulate industrial innovation, especially in small businesses.

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(4) Support and encourage the exchange of scientific and technical personnel among academia, industry, and government.

(5) Encourage technology transfer in the workplace through its recognition in job descriptions, in promotion policies, in monetary awards, by distribution of royalties, and in performance evaluations for appropriate scientific and engineering personnel.

(6) Ensure one full-time equivalent position is established to manage the technology transfer program for the agency, at a minimum

(7) Provide for the participation of ORTA designated personnel in appropriate management development programs.

(8) License, assign, or waive rights to intellectual property developed by FAA through CRDA's.

(9) Following delegated authority from the DOT patent counsel, negotiate licensing agreements under section 207 of Title 35, or under other authorities for Government-owned inventions made at the laboratory and other inventions of Federal employees that may be voluntarily assigned to the Government.

(10) Serve as Chairperson of the Technology Transfer Awards Committee

c. The Office of Research & Technology Applications through the Technology Transfer Program Manager shall:

(1) Develop agency policies and procedures for technology transfer

(2) Coordinate agency activity under the technology transfer program.

(3) Act as FAA focus for technology transfer activities including all CRDA's.

(4) Maintain permanent records of all CRDA's and Memoranda of Understanding with other Federal laboratories and agencies.

(5) Ensure review by the Office of the Assistant Chief Counsel of laboratory activities such that:

(a) CRDA's are consistent with conflict of interest requirements prior to final approval and participation in a CRDA.

(b) Rights to technical data and software, patent and licensing implications, and the commercial potential of the patentable technology are properly determined.

(c) Contractual rights and liabilities of FAA are properly described.

- (6) Prepare an application assessment of selected FAA R&D projects which have potential for successful application in State or local government or private industry.
- (7) Provide and disseminate information on federally owned or originated products, processes, or services having potential applications within FAA.
- (8) Cooperate within and assist the National Technical Information Service, the FLC, and other organizations that link the R&D resources of the laboratory and the Federal Government as a whole to potential users in State and local governments and private industry.
- (9) Participate, where feasible, in regional, State, and local programs designed to facilitate technology transfer for the benefit of said jurisdictions.
- (10) Participate in appropriate activities of the public and private sector that provide the opportunities to achieve technology transfer objectives; e.g., local government meetings or small business conferences.
- (11) Work with program managers and technical department heads in identifying technologies suitable for transfer.
- (12) Ensure that no technology transfer functions substantially compete with similar services available in the private sector.
- (13) Ensure that no technology transfer functions conflict with export control regulations, policies governing militarily critical technology, or any of the responsibilities and procedures for technology transfer control set forth by the Department of Commerce.
- (14) Encourage and cooperate with the establishment of technical volunteer programs as a resource to complement and support technology transfer activities.
- (15) Establish a mechanism for coordinating technology transfer efforts with Small and Disadvantaged Business Utilization Specialists for the purpose of stimulating commercialization of appropriate technologies by small business.
- (16) Participate as a voting member along with the appropriate ORTA's from other Federal laboratories in the FLC.
- (17) Provide technical assistance to State and local government officials.

9. PRINCIPLES. The principles of the technology transfer program as established by FAA must include but are not limited to the following

a. FAA may enter into CRDA's. Within CRDA's, and subject to national security limitations, FAA may

(1) Be party to an agreement that includes other Federal agencies, State and local governments, industrial organizations, public and private foundations, nonprofit organizations, or other persons (including licenses of inventions owned by the Federal agency). Such agreements, to the maximum extent possible, shall give special consideration to small business firms and consortia involving small business firms. They shall also give preference to business units located in the United States which agree that products embodying inventions made under a CRDA or produced through the use of such inventions will be manufactured substantially in the United States. In the case of any industrial organization or other person subject to the control of a foreign company or government, FAA shall take into account whether or not such foreign government permits U.S. agencies, organizations, or other persons to enter into CRDA's and licensing agreements

(2) Provide personnel, services, facilities, equipment, or other resources with or without reimbursement (but not funds to non-Federal parties). Non-Federal parties may provide funds, personnel, services, facilities, equipment, or other resources toward the conduct of specified research or development efforts which are consistent with the mission of FAA

(3) Grant or agree to grant in advance, to a collaborating party, patent licenses or assignments, or options thereto, in any invention made in whole or in part by a Federal employee under the agreement, retaining a nonexclusive, nontransferable, irrevocable, paid-up license to practice the invention throughout the world by or on behalf of the Government and such other rights as FAA deems appropriate.

(4) Waive, subject to reservation by the Government of a nonexclusive, irrevocable, paid-up license to practice an invention or have an invention practiced throughout the world by or on behalf of the Government, in advance, in whole or in part, any right of ownership which the Federal Government may have any subject invention made under an agreement by a collaborating party or employee of a collaborating party

(5) To the extent consistent with established FAA requirements and standards of conduct, permit employees or former employees to participate in efforts to commercialize inventions made while in U.S. Government service subject to national security considerations.

b. Distribution of royalties received by FAA:

(1) Income received from royalties, or licensing or assignment of inventions shall be payable to the inventor(s) as described here, if such persons were employed by the agency at the time of the invention. Such payments shall continue as long as the agency receives economic benefit regardless of the inventor's future employment status. If an invention is licensed for commercial use and royalty or other income results from the license, the inventor is to receive a total of 25 percent of income. If more than one inventor, the inventors shall share the 25 percent of income equally. If the income received is less than \$1,000 times the number of inventors (one or more), the inventors will receive the entire amount divided equally.

(2) Payments from royalties to an employee shall not exceed \$100,000 per year without Presidential approval as provided in U.S.C. Title 5, Section 4504, Presidential awards.

(3) Royalty payments to an employee will be reported annually, as income with appropriate income tax withheld on Internal Revenue Form 1099.

(4) Assignment and use of income should be used in accordance with the following schedule.

(a) It must be used within the fiscal year received plus the succeeding year

(b) It should be principally used by the activity that participated in the development of the invention.

(c) After assignment of royalties to inventors under paragraph 9b(1), income may be used for:

1 Payment of expenses incidental to administration and licensing of inventions.

2 Reward of scientific, engineering, and technical employees at that activity

3 Promotion of scientific exchange among other activities of the FAA laboratory.

4 Education and training of employees consistent with the R&D mission and objectives of FAA.

c. The Federal Government will make every effort where practicable to commercialize patentable results of federally funded research.

(1) FAA will promote commercialization by granting to all contractors the title to patents made in whole or part with Federal funds, in exchange for royalty free use by or on behalf of the Government.

(2) FAA will implement as expeditiously as practicable, royalty sharing programs with inventors who were employees at the time their inventions were made.

(3) If the agency has the right of ownership under United States Code Annotated, Title 15, Section 3710d, Employee Activities, and does not intend to file a patent application or otherwise promote commercialization of such invention, the agency shall allow the inventor, if the inventor is a Government employee or former employee who made the invention during the course of employment with the Government, to retain title to the invention (subject to reservation by the Government of a nonexclusive, nontransferable, irrevocable, paid-up license to practice the invention or have the invention practiced throughout the world by or on behalf of the Government). In addition, the agency may condition the inventor's right to title on the timely filing of a patent application in cases when the Government determines that it has or may have a need to practice the invention.

10. TECHNOLOGY TRANSFER AWARDS PROGRAM. The Technology Transfer Awards Program is designed to reward annually those individuals throughout the agency who have made major contributions to technology transfer. These awards shall not be given in place of, or in lieu of, any monetary gain obtained by current or former employees as a result of royalties, licenses, or any other such agreements. There is no requirement to make any award in any category if the criteria for selection outlined by the awards committee are not met by the nominee(s). It is FAA policy to:

a. Recognize Federal employees who contribute to the Technology Transfer Program with appropriate monetary and professional excellence awards for:

(1) Inventions, innovations, or other outstanding scientific or technological contributions to the mission of FAA or the Federal Government. This includes the opportunity to reward inventors whose inventions may not be commercialized for national security or other reasons.

(2) Exemplary activities that promote transfer of science and technology development within the Federal Government and result in utilization of such science and technology by American industry, universities, State or local government, or other non-Federal parties.

b. Fund this awards program from within the annual R&D budget authority appropriated for the Technology Transfer Program sub-line item within the innovative and cooperative research budget activity. After assignment of royalties to inventors, royalty income received by FAA may be used to supplement available funding.

c. Present awards as an incentive for FAA personnel to participate in technology transfer. Awards shall be presented to the employees who are directly involved with the technology transfer activities being recognized.

d. Select award recipients by a committee composed of the individuals identified in paragraph 12b.

e. Present awards annually, when applicable, in one or more category.

f. Submit award nominations, as appropriate, from the Technology Transfer Awards Committee to the Federal Laboratory Consortium (FLC) for consideration in its awards process.

11. AWARD CATEGORIES. The following award categories are applicable for FAA personnel participating in and actively promoting technology transfer. Appropriate rating and evaluation procedures for selection of award recipients will be determined by the Technology Transfer Awards Committee. Award amounts are derived from the maximum allowable amount authorized for approval by the Administrator or Deputy Administrator, as described in Order 3450.7E, Incentive Awards Program. In the event of a team award, the award amount will be divided equally among the team members.

a. **Intellectual Property.** To the individual(s) whose activities and efforts have significantly increased the technology base of FAA, whether through patents, software, or other exploitable technology (award amount: \$5,000).

b. **Innovative Efforts.** To the individual(s) whose innovative efforts had the most significant positive impact on transferring technology (award amount: \$5,000).

c. **Cooperative Research and Development Agreements (CRDA).** To the individual(s) whose contributions in arranging CRDA's created a positive environment for technology transfer (award amount: \$5,000).

d. **Management.** To the manager(s) whose direct efforts promoting the transfer of technology had the greatest positive effect on the Technology Transfer Program (award amount: \$3,000).

e. **Technology Transfer Assistance.** To the individual(s) whose direct assistance had the most positive effect on technology transfer; i.e., aided development of patents, CRDA's, licensing agreements, etc. (award amount: \$3,000).

f. **Awards Committee Award.** To any individual(s) whose activities in the area of technology transfer are worthy of recognition (award amount: \$1,000).

12. TECHNOLOGY TRANSFER AWARDS COMMITTEE.

a. The Technology Transfer Awards Committee is chaired by the Director, FAA Technical Center.

b. Membership shall include: two representative appointed from within the Associate Administrator for Research and Acquisitions; the Technology Transfer program manager; one representative from the Office of the Assistant Chief Counsel at the FAA T FAA Technical Center; an executive secretary appointed by the Technology Transfer Program manager; and optional ad-hoc members appointed at the chairperson's discretion.

c. Representation on the awards committee should reflect a cross section of personnel with technical knowledge and background.

d. The Office of Research and Technology Applications shall:

(1) Administer and manage the Technology Transfer Awards Program for the agency.

(2) Coordinate the awards presentation ceremony.

(3) Provide funding for the Technology Transfer Awards Program through the Technology Transfer Program sub-line item of the innovative and cooperative research program budget.

(4) Appoint an executive secretary to serve on the Technology Transfer Awards Committee. The executive secretary shall provide support and assistance to the committee throughout the process from the initial planning to the final program evaluation.

(5) Evaluate the effectiveness of the Technology Transfer Awards Program and recommend improvements as required.

(6) Maintain records of awards and award nominations.

(7) Forward award presentation documents to the Administrator, through the Director, FAA Technical Center.

(8) Submit nominations, as appropriate, to the FLC for consideration in its awards process.

e. The Public Affairs Staff, ACT-5, shall publicize the Technology Transfer Awards Program FAA-wide, including the call for nominations, the names of award nominees, and the names of award recipients.

13. NOMINATIONS.

a. The call for nominations period shall be publicized and will begin November 15 and close January 15.

b. Award nominations shall be made using FAA Form 9550-8, Technology Transfer Award Nomination Form. Appendix 1, Technology Transfer Award Nomination Form, contains a sample nomination form. This form shall be used when submitting a nomination for any category of award listed in paragraph 11.

c. Nominations shall be forwarded to the ORTA by January 15.

14. PROCEDURES.

a. Nominations will not be accepted for individuals for more than one category based on the same achievement or justification.

b. Nominations may be made by individuals other than supervisors, however, second level supervisory concurrences must be completed on the nomination form.

c. Appropriate rating and evaluation procedures for selection of award recipients will be determined by the Technology Transfer Awards Committee.

d. After the first year of the Technology Transfer Award presentations, these procedures will be formalized, published, and used as the committee standards for rating and evaluating future nominations.

e. The Technology Transfer Awards Committee shall be given 2 days to meet, evaluate nominations, and select award recipients by the last day of February.

f. Selections and the rationale supporting each selection must be completed and forwarded to the Administrator, by the Office of Research and Technology Applications, through the Director, FAA Technical Center, by March 15.

15. PRESENTATION OF AWARDS. Awards will be presented during March or at a time and place selected by the Technology Transfer Awards Committee and approved by the Administrator or his/her designee.

a. The awards presentation and ceremony shall be coordinated by the Technology Transfer Program Manager in the Office of Research and Technology Applications.

b. Appropriate agency plaques will accompany cash awards.

c. After the awards ceremony has been held, all nominated individuals shall receive standardized plaques. Presentation of the plaques shall be coordinated by the offices of the respective associate administrators.

16. REPORTING. As specified in the Technology Transfer Act, the Director, FAA Technical Center, will prepare an annual report for the Administrator to provide to Congress on technology transfer, as part of the annual budget submission. The report shall include summaries of the amount of royalties and other income received and expenditures made including inventor awards.



David R. Hinson
Administrator



TECHNOLOGY TRANSFER AWARD NOMINATION FORM

Please type or print.

1. Name of nominee(s) _____
2. Location/Office: _____
3. Award Category: _____
4. Nominator/Org: _____
5. Concurrence: _____

Date: _____ Title: _____

6. Award Citation:
(50 words or less)

7. Narrative justification: Attach a one-page narrative justification, approximately 250 words. Discuss the following:

- a. Primary accomplishment of the nominee(s)
- b. Technology/method related to technology transfer
- c. Clients or primary beneficiaries of the technology transfer
- d. Benefits to the client and FAA

This form is available through the Office of
Research and Technology Applications
FAA Technical Center