

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE POLICY DIRECTIVE 61-3**

**20 MAY 2013**



**Scientific/Research, and Development**

**DOMESTIC TECHNOLOGY TRANSFER**

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This directive establishes policies for managing and executing the Air Force Technology Transfer Program. It applies to all Air Force military and civilian personnel, members of the Air Force Reserves, members of the Air National Guard, and other individuals or organizations as required by binding agreement or obligation with the Department of the Air Force. This policy directive implements DoD Directive 5535.3, *DoD Domestic Technology Transfer Program*, DoD Instruction 5535.8, *DoD Technology Transfer Program*; DoD Instruction 5535.10, *Coordination of DoD Efforts to Identify, Evaluate, and Transfer DoD Technology Items, Equipment, and Services to Federal, State, and Local First Responders*, DoD Instruction 5535.11, *Availability of Samples, Drawings, Information, Equipment, Materials, and Certain Services to Non-DoD Persons and Entities*, and other federal technology transfer legislation and policies referenced herein. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force records disposition schedule (RDS) maintained in the Air Force Records Information System (AFRIMS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847s from the field through the appropriate functional chain of command. After coordination with SAF/AQR, this publication may be supplemented by Air Force organizations having technology transfer responsibilities.

## ***SUMMARY OF CHANGES***

This document is substantially revised and must be completely reviewed. It updates Air Force policy to provide greater clarity concerning the roles and responsibilities of all Air Force organizations directly involved in the management of the Air Force Technology Transfer Program.

**1. National Security Objectives.** Air Force technology transfer activities are key components in the Air Force pursuit of the Department of Defense's (DoD) national security mission. Pursuing the national security mission requires the best possible use of national scientific and technical capabilities and a strong industrial base to meet the Air Force's needs. Consequently, Air Force technology transfer activities shall leverage the DoD's research and development (R&D) investment to enhance the effectiveness of DoD forces and systems, promote the economic competitiveness of industry, and boost the productivity of state and local governments.

**2. Air Force Technology Transfer Activities.** Air Force technology transfer activities promote the best possible use of national scientific and technical capabilities by improving the quality of the defense laboratories, increasing their ability to effectively and efficiently perform their designated missions, and by using their taxpayer-funded infrastructure to support private sector activities in the areas of air, space, and cyberspace. This includes, when in the interest of national defense, providing samples, drawings, government equipment, and other information or items to the private sector so that it may engage in critical research behind the development of military or commercial technology in these areas. Such activities not only promote research and development within the private sector, thereby enhancing its productive capabilities, they also promote an industrial base that can sustain the Air Force's military technology superiority.

**3. Department of Defense's National Security Mission.** As a part of pursuing DoD's national security mission, Air Force technology transfer activities will support the Department of Homeland Security (DHS) and other federal, state, and local agencies to combat threats to the homeland, improve public safety, and develop new capacities and capabilities, including those related to antiterrorism. Air Force technology transfer activities do this in part by identifying, evaluating, deploying, and transferring to these entities relevant technology items, equipment, and services, and through the exchange of lessons learned. Such activities do not include the transfer of classified technology, sensitive or controlled equipment, or items restricted to federal use.

**4. Policy.** It is Air Force policy that all Air Force laboratories and/or technical activities, as well as all acquisition programs, promote and engage in Air Force technology transfer activities with DoD and other federal agency laboratories and research centers, state and local governments, colleges and universities, private persons, and private industry.

4.1. Promoting Air Force technology transfer activities requires Air Force laboratories and/or technical activities to use one or more technology transfer mechanisms so that the public and private sectors can benefit from the use of Air Force facilities, personnel, and resources.

4.1.1. Technology transfer mechanisms include cooperative research and development agreements (CRADA), commercial test agreements (CTA), and education partnership agreements (EPA), and shall be used consistent with DoD and Air Force instructions and as authorized by law.

4.1.2. Additional technology transfer mechanisms can include grants, cooperative agreements, other transactions, and small business innovation research (SBIR) and small business technology transfer (STTR) awards, when authorized by law.

4.2. Promoting Air Force technology transfer activities requires Air Force laboratories and/or technical activities to protect and license inventions and other intellectual property arising from federally supported R&D.

4.2.1. Protection of intellectual property can be an essential prerequisite to promoting the transfer, licensing, and exchange of federally funded technology. Consequently, Air Force laboratories and/or technical activities shall pursue domestic patenting to the maximum extent practicable and foreign patenting as warranted.

4.2.2. Air Force laboratories and/or technical activities shall license or assign, as appropriate, federally funded inventions and intellectual property using patent license agreements (PLA) and assignment agreements (AA) as a part of promoting technology transfer.

4.3. Promoting Air Force technology transfer activities requires Air Force laboratories and/or technical activities to form appropriate technology transfer relationships with the public and private sector using partnership intermediary agreements (PIA), memoranda of agreement (MOA), memoranda of understanding (MOU), and other agreements when consistent with the mission and to the extent authorized by law.

4.4. Promoting Air Force technology transfer activities requires Air Force laboratories and/or technical activities to adopt personnel policies reflecting the critical importance of technology transfer and designate, staff, and develop qualified technology transfer personnel.

4.4.1. Each Air Force laboratory and/or technical activity shall establish an Office of Research and Technology Applications (ORTA) consisting of one full-time manager and additional staff support.

4.4.2. Consistent with mission responsibilities, technology transfer is the responsibility of all Air Force science and engineering professionals. Air Force laboratories and/or technical activities shall adopt and implement personnel policies to reflect this responsibility.

## **5. Responsibilities.**

5.1. The Assistant Secretary of the Air Force (Acquisition) (SAF/AQ) is responsible for implementing the policies contained herein and is delegated the following authorities, which may be re-delegated in writing:

5.1.1. Authority relating to coordinating Air Force technology transfer activities that support first responders pursuant to DoDI 5535.10.

5.1.2. Authority relating to making available samples, drawings, government equipment, and other information or items to the private sector pursuant to DoDI 5535.11.

**6. See attachment 1 for references and supporting information.**

Michael B. Donley  
Secretary of the Air Force

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

- 10 U.S.C. § 2194, *The Education Partnership Act*, 5 January 1999
- 10 U.S.C. § 2358, *Research and Development Projects*, 23 September 1996
- 10 U.S.C. § 2371, *Research Projects: Transactions Other than Contracts and Grants*, 24 November 2003
- 10 U.S.C. § 2514, *Encouragement of Technology Transfer*, 23 September 1996
- 10 U.S.C. § 2539b, *Authority to Sell*, 5 January 1999
- 15 U.S.C. § 638, *Research and Development*, 28 October 2009
- 15 U.S.C. § 3706, *Grants and Cooperative Agreements*, 23 August 1988
- 15 U.S.C. § 3710, *Utilization of Federal Technology*, 5 January 1999
- 15 U.S.C. § 3710a, *Cooperative Research and Development Agreements*, 1 November 2000
- 15 U.S.C. § 3715, *Use of Partnership Intermediaries*, 1 November 2000
- 35 U.S.C. § 202, *Disposition of Rights*, 16 September 2011
- 35 U.S.C. § 207, *Domestic and Foreign Protection of Federally Owned Inventions*, 1 November 2000
- 35 U.S.C. § 209, *Licensing Federally Owned Inventions*, 1 November 2000
- DoD Instruction 4000.19, *Interservice and Intragovernmental Support*, 9 August 1995
- DoD Directive 5535.3, *Department of Defense Domestic Technology Transfer Program*, 21 May 1999
- DoD Instruction 5535.8, *DoD Technology Transfer Program*, 14 May 1999
- DoD Instruction 5535.10, *Coordination of DoD Efforts to Identify, Evaluate, and Transfer DoD Technology Items, Equipment, and Services to Federal, State, and Local First Responders*, 24 November 2009
- DoD Instruction 5535.11, *Availability of Samples, Drawings, Information, Equipment, Materials, and Certain Services to Non-DoD Persons and Entities*, 19 March 2012
- DoD Regulation 3210.6-R, *Department of Defense Grant and Agreement Regulations*, 13 April 1998
- AFI 25-201, *Support Agreement Procedures*, 28 January 2008
- AFI 64-201, *Small Business Programs*, 1 January 1997
- Air Force Manual 33-363, *Management of Records*, 1 March 2008
- Adopted Forms***
- Air Force Form 847, *Recommendation for Change of Publication*

*Abbreviations and Acronyms*

**AA**—assignment agreement

**AFI**—Air Force Instruction

**AFPD**—Air Force Policy Directive

**CRADA**—cooperative research and development agreement

**CTA**—commercial test agreement

**DoD**—Department of Defense

**DHS**—Department of Homeland Security

**EPA**—education partnership agreement

**MOA**—memoranda of agreement

**MOU**—memoranda of understanding

**OPR**—office of primary responsibility

**ORTA**—Office of Research and Technology Applications

**PLA**—patent license agreements

**R&D**—research and development

**SAF/AQR**—Office of the Deputy Assistant Secretary for Acquisition (Science, Technology and Engineering)

**SBIR**—small business innovation research

**STTR**—small business technology transfer

**T&E**—test and evaluation

*Terms*

**Air Force Technology Transfer Integrated Planning Team**—This is a working level group whose membership includes all Air Force technology transfer managers, each participating command's technology transfer manager, the Air Force program management team, and various support personnel (including, but not limited to, legal, public affairs, financial management, contracting, etc.) The group meets annually and works together to resolve common problems, share best practices and lessons learned, and initiate program and process improvements.

**Assignment agreement (AA)**—A conveyance or transfer of patent rights with one or more of the following parties: (1) a collaborative party per 15 U.S.C. § 3710a(b); (2) a nonprofit organization, small business firm, or non-federal inventor, per 35 U.S.C. § 202(e); or (3) a federal agency per 35 U.S.C. § 207(a)(4).

**Commercial test agreement (CTA)**—An agreement under 10 U.S.C. § 2539b between any person or entity and one or more federal laboratories and/or technical activities for the purpose of providing to the person or entity, at a prescribed fee, services to test materials, equipment, models, computer software, and other items. NOTE: The use of major range test facility bases is

governed exclusively by DoD Directive 3200.11, *The Major Range and Test Facility Base*, as amended to implement 10 U.S.C. § 2681.

**Cooperative agreements**—An agreement authorized generally for research and development purposes by 10 U.S.C. § 2358 and specifically for technology transfer by 15 U.S.C. § 3706. A cooperative agreement is described in 31 U.S.C. § 6305 as invoking substantial agency involvement and as principally having a public purpose. Cooperative agreements are governed by DoD 3210.6-R, *Department of Defense Grant and Agreement Regulations*.

**Cooperative research and development agreement (CRADA)**—An agreement authorized by 15 U.S.C. § 3710a and existing between one or more federal laboratories and/or technical activities and one or more non-federal parties. Under a CRADA, the government laboratories and/or technical activities may provide personnel, services, facilities, equipment, or other resources with or without reimbursement (but not funds to the non-federal parties). CRADAs are instruments that may be used in all aspects of a product and/or system life cycle where research, development, test, and evaluation (RDT&E) activities occur. The non-federal parties may provide funds, personnel, services, facilities, equipment, or other resources toward the conduct of specified research and development efforts that are consistent with the missions of the laboratory and/or technical activity. The CRADA parties shall share in the intellectual property developed under the effort. The term CRADA does not include a grant, cooperative agreement, or procurement contract as described in 31 U.S.C. §§ 6303, 6304, and 6305.

**Education partnership agreement (EPA)**—An agreement under 10 U.S.C. § 2194 between educational institutions and an Air Force scientific and engineering activity for the purpose of encouraging and enhancing study in scientific disciplines at all levels of education. The educational institutions referred to in the preceding sentence are local educational agencies, colleges, universities, and any other nonprofit institutions that are dedicated to improving science, mathematics, and engineering education. Under such a partnership agreement, the director of an Air Force scientific and engineering activity may provide assistance to the educational institution by – (1) loaning defense laboratory equipment to the institution; (2) transferring to the institution defense laboratory equipment determined by the director to be surplus; (3) making laboratory personnel available to teach science courses or to assist in the development of science courses and materials for the institution; (4) involving faculty and students of the institution in defense laboratory research projects; (5) cooperating with the institution in developing a program under which students may be given academic credit for work on defense laboratory research projects; and (6) providing academic and career advice and assistance to students of the institution.

**Grants**— An agreement authorized generally for research and development purposes by 10 U.S.C. § 2358 and specifically for technology transfer by 15 U.S.C. § 3706. A grant is described in 31 U.S.C. § 6304 as principally having a public purpose. Grants are governed by DoD 3210.6-R, *Department of Defense Grant and Agreement Regulations*.

**Memorandum of agreement (MOA)**—A memorandum that, as described in DoD Instruction 4000.19, *Interservice and Intragovernmental Support*, and AFI 25-201, *Support Agreements Procedures*, sets forth general areas of conditional agreement between two or more parties – what one party does depends on what the other party does (e.g., one party agrees to provide support if the other party provides the materials).

**Memorandum of understanding (MOU)**—A memorandum that, as described in DoD Instruction 4000.19, *Interservice and Intragovernmental Support*, and AFI 25-201, sets forth general areas of understanding between two or more parties – explains what each party plans to do; however, what each party does is not dependent on what the other party does (e.g., does not require reimbursement or other support from receiver).

**Laboratory and/or technical activity**—For this policy directive, that phrase is defined broadly in accordance with 15 U.S.C. § 3710a(d)(2) and includes the following:

—A facility or group of facilities owned, leased, or otherwise used by the Air Force, a substantial purpose of which is the performance of research, development, or engineering—including test and evaluation—by employees of the Air Force.

—Use of this broad definition is deliberate. That definition is not confined to those Air Force components that are formally titled “laboratories.” The intent of that definition is to encompass the wide range of organizations and arrangements that function as laboratories and/or technical activities in Air Force research, development, and engineering programs. It shall include laboratories and/or technical activities and reference more diverse arrangements that shall provide a virtual laboratory capability. For example, an Air Force component may have a virtual lab involving a management function accomplished in an Air Force activity, plus a dispersed set of research activities to be accomplished by a variety of organizations outside of the sponsoring and/or managing activity. Those capabilities are included in test, logistics, and product centers; depots; arsenals; program offices; and all Air Force offices providing for RDT&E. This is consistent with 15 U.S.C. § 3710a(d)(2)(A) which uses such encompassing terms as “facility.” This broad definition is in accordance with new DoD practices.

—While the definition cited in 15 U.S.C. § 3710a(d)(2) occurs in a section of the United States Code dealing with CRADAs, DoD guidance has applied it to all technology transfer activities, not just those involving CRADAs. The broad definition applies to all citations of laboratories and/or technical activities in this policy directive.

**Office of Research and Technology Applications (ORTA)**—The office required by 15 U.S.C. § 3710(b) to oversee the Air Force Technology Transfer Program at an Air Force laboratory and/or technical activity. Normally, an ORTA comprises individuals with expertise in marketing, public relations, intellectual property, patent law, and scientific and technical information.

**Other transactions**—Transactions authorized for the Department of Defense under 10 U.S.C. § 2371 and that are other than contracts, grants, or cooperative agreements. Other transactions are flexible agreements used to accomplish various purposes. Other transactions for research are cost sharing agreements that support basic, applied, and advanced research.

**Partnership intermediary agreement (PIA)**—A memorandum of understanding or contract pursuant to 15 U.S.C. § 3715 with a partnership intermediary that provides for the partnership intermediary to perform services for the Air Force that increase the likelihood of success in the conduct of cooperative or joint activities of the Air Force with small businesses.

**Patent license agreement (PLA)**—An exclusive, partially exclusive, or non-exclusive right to use, make, have made, or sell products and processes incorporating a federally owned invention and authorized by 35 U.S.C. §§ 207 and 209.

**Small Business Innovation Research (SBIR) Program**— An award made pursuant to the program authorized by 15 U.S.C. § 638 with the statutory purpose to strengthen the role of innovative small businesses in federally funded R&D. Specific program purposes are to: (1) stimulate technological innovation; (2) use small business to meet federal R&D needs; (3) foster and encourage participation by socially and economically disadvantaged small businesses, and by small businesses that are 51 percent owned and controlled by women, in technological innovation; and (4) increase private sector commercialization of innovations derived from federal R&D, thereby increasing competition, productivity, and economic growth. Responsibilities for small business programs are described in AFI 64-201, *Small Business Programs*.

**Small business technology transfer (STTR) award**—An award made pursuant to the program authorized by 15 U.S.C. § 638 with the statutory purpose to stimulate a partnership of ideas and technologies between innovative small businesses and research institutions through federally funded R&D. By providing awards to small businesses for cooperative R&D efforts with research institutions, the STTR program assists the small business and research communities by commercializing innovative technologies.

**Technology transfer**— The process by which knowledge, expertise, facilities, equipment, or other resources developed in one place or for one purpose are provided for use in another place or for another purpose to fulfill actual or potential public or domestic needs. Technology transfer are generally encouraged by 10 U.S.C. § 2514 and includes the following activities:

***Spin-off***—Activities that demonstrate the commercial viability of a technology being developed or already developed by DoD for national security purposes. The primary purpose of these activities shall be to promote and make available existing DoD-owned or -developed technologies and technical infrastructure to a broad spectrum of non-DoD applications.

***Spin-on***—Activities that demonstrate a commercial or non-DoD-developed technology's national security potential. The primary purpose of these activities shall be to incorporate the innovative technology into military systems to meet mission needs at a lower acquisition cost by taking advantage of the economies of scale through purchase from a larger industrial base.

***Dual-use***—Activities in which both DoD laboratories and/or technical activities work with industry and/or academia to develop technology mutually beneficial to both organizations.