

EXECUTIVE SUMMARY

The Office of Technology Transition (OTT) was established by the Secretary of Defense in response to 10 U.S.C. 2515 to serve as a focal point for the domestic technology transfer activities of the Department of Defense. This report, required by Section 2515 (See Appendix A), summarizes the accomplishments and highlights key technology transfer efforts throughout the Department for FY 2002 and FY 2003.

This tenth report discusses our major successes in transferring technology using methods discussed in Section B of this report. Appendix B provides the number of reported active technology transfer mechanisms by laboratory centers for FY 1998 through FY 2003. Appendix C displays specific data elements showing the trends in Cooperative Research and Development Agreements (CRADA) and Patent License Agreements (PLA), and the increase in royalty income as a result of licensing DoD developed technologies. Appendix D highlights some of the technology transfers such as “the Vein Viewer” which is a system and method for enhancing visualization of veins, arteries, and other subcutaneous natural or foreign structure in the body. Appendices E and F provide the details of the Federal Laboratory Consortium (FLC) awards to DoD activities for FY 2002 and FY 2003, respectively.

In FY 2003, DoD had 361 active patent license agreements which generated over \$9.9M in royalties. It was actively engaged in 2,134 partnerships using CRADAs with revenues in excess of \$51 million. Recognizing that the true value of CRADAs and PLAs is significantly higher than the income generated, some specific highlights are:

- The Naval Surface Warfare Center, Carderock Division, developed the combined wedge flap for improved ship powering in the range of 5 to 15%; increased top speed by nearly 1 knot, and produced annual fuel savings of \$195,000 per ship. The Navy fuel cost savings as of this date is \$29.8 million.
- A low-cost escape mask that uses microfibrous filter technology previously funded by the Missile Defense Agency is on the market.
- An Air Force Research/Laboratory Air Vehicles Directorate scientist and an independent inventor jointly developed a high efficiency forced air snow remover. To date, 138 military de-icing vehicles have been delivered to the Air Force, and 40 commercial vehicles have been delivered to the commercial airline industry.
- BiSkit, a Biological Sampling Kit, was non-exclusively licensed in April 2003 to Quicksilver Analytics, Inc. (QS) to meet the challenges presented by anthrax contaminations. It is currently in full-scale manufacturing to provide 3,000 kits for the Department of Homeland Security.

The use of Independent Research and Development (IR&D) information from the IR&D database is a tool to seek and start new research and development (R&D) partnering projects required by the DoD. Some of the activities initiated as a result of using the database are:

- In FY 2003, the U.S. Army Research and Development Command's Communications and Electronics Research and Development Center (RDECOM CERDEC) conducted 17 technical interchange meetings with private industry. One successful outcome is the establishment of a joint group between RDECOM CERDEC and General Dynamics to work Science and Technology (S&T) initiatives weekly with meetings between engineers.
- The U.S. Army Benet Labs/Watervliet Arsenal in New York and Picatinny Arsenal in New Jersey are working with local communities to establish business and technology partnership centers on site. These partnerships take advantage of laboratory and manufacturing space on military installations that might be used by small business and academia to develop capabilities, while providing on-site training for the installations.

Other programs within the OTT supporting transfer technology efforts include:

- The IR&D program has developed a database that will improve the way DoD program technology is communicated to industry. The IR&D database is accessible to DoD users. This service will identify defense needs, and will avoid duplication of contractor IR&D activities funded directly by DoD.
- The DoD Manufacturing Technology Program focuses on production and development efforts early in the design phase. It is an important link for technology inventions, to production of defense critical needs, and to ensure manufacturing of DoD weapons are affordable and deployable anywhere in the world.
- The Defense Production Act (DPA) Title III mission is to improve the overall quality of manufacturing technology products to the DoD warfighter. It provides a cost-effective method to develop and implement technology service on demand within the U.S. For FY 2003, the DPA has implemented eight projects to meet the needs of the DoD warfighter. This information is highlighted in Section E of this report.

We anticipate these focused efforts to enhance our transfer opportunities and provide increased technical capabilities available for the warfighter—the ultimate customer of DoD's technology investments.