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## TCO Presence in the Local Community

The Technology Commercialization Office (TCO) has a unique yet important role at Goddard Space Flight Center (GSFC). As the technology transfer arm of Goddard, TCO is a conduit between the public and private sector. Technology transfer and commercialization require expertise and resources in management, business planning, financing, market research, partnering and other business and marketplace factors critical to commercial success.

The number of licenses and partnerships with local companies reveal TCO's continued presence in the community. All partnership and licensing agreements made effective between June and December were granted to firms within Maryland. Additionally, TCO represented GSFC at a number of events that concentrated on the development and support of local small and disadvantaged businesses utilizing Goddard-developed technologies. TCO has expanded interactions with the Emerging Technology Center (ETC), Goddard's technology commercialization incubator, and Maryland's Technology Development Corporation (TEDCO). With the introduction of Strategic Management Concepts, Inc., TCO's new support service contractor, the Office continues to demonstrate its commitment to nurturing and cultivating economic development in the region.

Two firms in the Maryland area obtained licenses for Goddard technologies and one firm entered into a cooperative agreement with GSFC. A non-exclusive license for the "Segmented Cold Cathode Display Panel" was granted to the Projected Reality Corporation in August. This company will use the technology to develop a large flat screen television. Project Reality Corporation is one of the tenant companies housed at the ETC in Baltimore, MD.

IntelliTECH, Inc., a Westminster MD-based engineering firm, entered into a licensing agreement in October to provide prototyping for the "Three-Dimensional Roller Locking Sprags & Sprag Ratcheting Tool."

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## TCO Out and About

- The Technology Commercialization Office kicked off the 3rd *Goddard Technology Showcase* in June. Along with the 101 individual exhibits of key Goddard-owned technologies, the showcase offered keynote speeches and discussions by award-winning innovators like Dr. Norden Huang, Dr. Murzy Jhabvala, Mr. John Kolansinski, and Mr. Douglas Leviton.
  - Also, Goddard hosted the *New Partnerships in Medical Diagnostic Imaging* workshop in July. The event showcased some of NASA's agency sponsored technologies with applications in medical imaging and introduced potential industry partners to promising new developments in imaging technologies. Throughout the two-day event, attendees met with representatives from the NIH National Cancer Institute and the National Institute of Biomedical Imaging and Bioengineering and featured speakers from NASA's Commercial Technology Program and NASA's Earth Science Enterprise. Similar Medical Imaging events are planned during the upcoming year. For more information on medical imaging technology, visit: <http://www.nasamedicalimaging.com/>
  - In addition to hosting technology showcase events, the Technology Commercialization Office attended tradeshows to exhibit Goddard's most innovative technologies. Representatives from the office participated in the *Instrumentation and Sensors Association (ISA) Expo* where they sought leads and made contacts with prospective industry partners.
  - *Maryland Technology Partnerships for Innovation* took place at the Beltsville Agricultural Research Center on November 9, 2001. TCO chief, George Alcorn and Goddard's Center Director, Al Diaz, presented at the event, along with Senator Paul Sarbanes and representatives from the Emerging Technology Center, TEDCO, area federal labs, and local small business.
  - On December 5<sup>th</sup> and 6<sup>th</sup>, 2001, representatives of
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## An Interview with Anel Flores on the CTD Program

The Commercial Technology Development (CTD) Program offers a center-wide funding source for the development of innovative Goddard owned technologies that demonstrate the potential for successful transfer to private industry for commercialization. It allows Goddard to maintain its technological edge in research and development while promoting the transfer of cutting-edge technologies to the private sector. Applicants may apply for funding for up to two years; however, there is no guarantee that the second year's work will be funded. Once the funding is received, the innovators must follow an aggressive schedule that involves the staff of the Technology Commercialization Office (TCO), other key civil servants and private industry. Generally, the Technology Commercialization Office guides the innovators through the technology transfer and commercialization process throughout the course of the project.

As this year's coordinator of the CTD Program, Anel Flores discusses the significance of the program for NASA, the criteria used in choosing awardees, and the benefits for innovators and TCO. According to Anel, the program "is an excellent mechanism that enables Goddard technologists to apply for funding to further develop GSFC-owned technology for transfer and commercialization by private industry."

The proposals selected for funding are chosen based on market potential, maturity of the technology, commercial readiness level, intellectual property rights to be generated for the government, anticipated societal impact, partnership potential, project schedule, budget, and funding availability.

Last year, fifty percent of the applicants received funding for their proposals. According to Anel, "Proposals that do not meet the criteria might be too early in the development stages to be considered for the program at this time or possess little or no commercial potential."

TCO encourages technologists who submitted rejected proposals to continue to dialogue with the Office, especially if the proposal was turned down because of the maturity level of the project. TCO will still process new and existing technologies reported.

The CTD Program allows TCO to reach out to Goddard technologists formerly unfamiliar with the office. The program represents a new innovative way of conducting business within Goddard.

## TCO WELCOMES SMCI



Strategic Management Concepts, Inc. (SMCI), a minority owned management and technical services firm based in Prince George's County, MD, is the newest contractor on board with the TCO.

"We are pleased to have been selected for this procurement opportunity," said Kevin Grant, SMCI President and CEO. "SMCI is looking forward to working with NASA to benefit its pursuit of a commercial technology mission that is consistent with its commitment to enhance U.S. economic security."

As the successful vendor, SMCI presented a thorough understanding of the requirements of the Scope of Work and a project management model that will seek out new ways to support the daily operations of the TCO. SMCI will serve to support the TCO in the design and implementation of initiatives aimed at facilitating technology transfer, the commercialization of NASA technologies and Small Business Innovation Research (SBIR) activities. Selected for its outstanding track record in developing corporate partnerships, SMCI will work to provide engineering and technology management support to the total commercialization effort.

The following is a list of SMCI's employees working at the Technology Commercialization Office and their respective core area:

- Jose Alberto Alvarez; IT
- Nuria Alvarez; Marketing
- William Bibik; Customer Service
- Peter Gray; SBIR
- Abdul Ibrahim; IT
- Kim Lembo; Marketing
- Daria Ma; SBIR
- Deandra Raymond; IT/Marketing
- Don Vargo; Engineering Support
- Lisa Wilderson; Marketing
- Dele Young; Project Leader

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Swales Aerospace, based in Beltsville, MD, entered into a Cooperative Agreement with Goddard in August to develop the "Acousto-Optic Imaging Spectropolarimetry." The agreement provides for the cost-sharing development of a non-invasive technique to detect cancerous moles.

### Upcoming Awards



Goddard Director Al Diaz presenting Dr. Norden Huang with the 2001 R&D 100 award. Dr. Huang received the 2001 R&D 100 award on October 4, 2001 at a banquet at Chicago's Museum of Science & Industry.

- The Office of Patent Counsel is now accepting nominations for NASA's 2001 Invention of the Year award. The deadline for submission is January 4, 2002. For more information on this award please visit <http://patents.gsfc.nasa.gov/>.
- Also, submissions for the R&D 100 (see above picture) and the Innovations in Government awards will commence in January 2002. For more information on these awards, please send an email to Dale Hithon at the following address: [Dale.L.Hithon.1@gsfc.nasa.gov](mailto:Dale.L.Hithon.1@gsfc.nasa.gov).

### Technology Commercialization Highlights

#### June 2001- December 2001

• New Technologies Reported	103
• Patents Issued	6
• Applications Filed	12
- Non-Provisional Applications	3
- Provisional Applications	9
• Industry Licenses	2
• Industry Partnerships	1

### Office of Patent Counsel Highlights

The Office of Patent Counsel is now accepting nominations for NASA's 2001 Invention of the Year Awards. The deadline for submission is January 4, 2002. For more information on this award please visit <http://patents.gsfc.nasa.gov>.

Since June 2001 the following GSFC patents have issued:

- Holographic Circle-to-Point Converter
- Adhesive Bubble Removal Technique and Fixture for Fiber Optic Applications
- Two-Dimensional Empirical Mode Decomposition and Hilbert Spectral Analysis for Image Processing
- Low Loss Pole Configuration for Multi-Pole Homopolar Magnetic Bearings
- Global Positioning System Satellite Selection Method
- Confused-In-Space Stellar Attitude Acquisition Using Multiple Star Trackers

### TCO ANNOUNCEMENTS

- The 2001 edition of Spinoff is now available! To receive a copy, please email your request to Bill Bibik, at: [wbibik@staac-mail.gsfc.nasa.gov](mailto:wbibik@staac-mail.gsfc.nasa.gov).
- We are continuing to update the TCO's website Calendar of Events. Please direct inquiries or suggestions to Kimberly Lembo, at: [klembo@staac-mail.gsfc.nasa.gov](mailto:klembo@staac-mail.gsfc.nasa.gov).

### Upcoming Events

February 23-28, 2002

*SPIE - International Society of Optical Engineering  
Medical Imaging Conference*  
San Diego, CA

March 18-21, 2002

*National Design Engineering Show (NDES)*  
Chicago, IL

For information on these events, please email Calvin Mitchell at [Calvin.D.Mitchell.1@gsfc.nasa.gov](mailto:Calvin.D.Mitchell.1@gsfc.nasa.gov)

## Potential SBIR/STTR Technology To Support War on Terrorism

Private sector involvement in the SBIR/STTR program may serve to energize the war on terrorism. A number of technology development efforts emanating from the SBIR/STTR Program can potentially provide leverage in this endeavor.

“GaN-Based High Temperature Ultraviolet Photodetectors” developed by Emcore Corporation of Somerset, NJ, have implicated potential government and/or science applications in airborne missile threat warning and in biological agent detection.

Also useful for chemical/biological agent detection is “the Tunable Laser for Ground-Based and Airborne Submillimeter Radiometers” developed by DeMaria Electro-Optics Systems, Inc., of Bloomfield, CT.

An “Infrared Spectral Imaging Radiometer (SIR)” developed by Space Instruments, Inc., of Encinitas, CA, has possible application in intelligence gathering.

Additionally, the “Laser Search and Rescue Tool” developed by Sensytech, Inc., of Ann Arbor, MI, shortens the rescue time, enhances the survival rate and reduces the cost of conducting a search and rescue mission. Furthermore, the system is capable of detecting a one-foot square marker from an altitude of 4,000 feet and offers real time data processing for automatic target detection.

## TCO Out and About

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TCO attended the Maryland Technology Showcase at the Baltimore Convention Center. Representatives of TCO were present at both the ribbon-cutting ceremony on December 5<sup>th</sup> and the session on *Nanotechnology Research in Maryland* on December 6<sup>th</sup>.

- On December 7, 2001, William F. Gasko, PhD., of the Center for Technology Commercialization (CTC), NASA’s Northeast Regional Technology Transfer Center, managed by GSFC’s TCO, represented the Office at the *2001 Annual Recognition Day: Brewing Innovation* event at Akzo-Nobel Chemicals Research facility in Dobbs Ferry, NY. Dr. Gasko presented to over 250 scientists and engineers from Corporate Research at Akzo-Nobel about NASA specific technologies and ways that Akzo-Nobel could work with NASA.

## TALK TO US! WE’RE LISTENING

We want to hear about your technology innovations! Report all new technology from projects for possible patent, commercialization, and/or partnering by downloading NASA Form 1679 from the TCO website.

### Contact Information:

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We welcome your ideas and suggestions for topics in upcoming newsletters. Send them to Kimberly Lembo, Lead Staff for the *Goddard Tech Times* at:

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