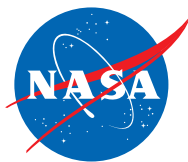


# THE INNOVATION CATALYST



APRIL 2023

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## TECH TRANSFER TIP

with Agreement Manager Erin Majerowicz:

Engagement activities can help innovators get their technology out in front of even more people for potential licensing and partnership opportunities! This can be done in the form of a webinar, a feature article, or even a short video demonstration. Interested in learning more on how to do this? Reach out to the Strategic Partnership Office at [techtransfer@gsfc.nasa.gov](mailto:techtransfer@gsfc.nasa.gov).



## »»» UPCOMING EVENTS:



- INNOVATOR HOUR  
TUESDAY, MAY 09, 2023  
1:00 - 2:00 P.M.
- COFFEE BREAK  
Feat. SPO's Darryl Mitchell on Royalties  
WEDNESDAY, MAY 17, 2023  
1:00 - 2:00 P.M.

# Technology Transfer... It's the Law

You have surely heard of technology transfer, but do you really know what it is? And did you know that technology transfer is a legal requirement when you are performing work for NASA or other federal laboratories? Although there are many definitions, the National Institute of Standards and Technology (NIST), the governing body for the federal Technology Transfer Program, describes technology transfer (commonly referred to as "T2") as, "a way to describe the overall cycle of bringing knowledge and technologies to society through actions such as commercialization and publication. From the drawing board to the laboratory table, federal scientists and engineers are producing novel technologies all the time. These novel technologies with commercial potential, rather than sit on the shelf, need to be brought to the attention of those who can develop it for the market."

The federal T2 program dates back to 1980 when the Stevenson-Wydler Technology Innovation Act became law. This Act was the first of a series of legislation to define and promote technology transfer. This law mandates federal laboratories to actively participate in T2 efforts and establishes specific funding for T2 activities. The law also calls for establishing an Office of Research and Technology Applications (ORTA) or Technology Transfer Office in each federal laboratory. Darryl Mitchell, Chief of the Strategic Partnerships Office (SPO), Code 102, leads the ORTA or Technology Transfer Office (TTO) for Goddard. After the introduction of the Stevenson-Wydler Technology Innovation Act, a series of additional laws came into effect such as the Bayh-Dole Act, the Federal Technology Transfer Act, and the Small Business Research and Development Enhancement Act. To comply with the requirements associated with these Acts, NASA introduced NASA Procedural Requirements (NPR) 7500.2 – NASA Technology Transfer Requirements in 2014.

Today, NASA's Space Technology Mission Directorate manages the agency's T2 program to comply with the current requirements of NPR 7500.2A, which came into effect in 2022. In summary, NPR 7500.2A mandates the reporting of innovations, inventions, and discoveries while performing work under NASA contracts, grants, or cooperative agreements in support of NASA missions, programs, and projects. This requirement applies to NASA civil servants, contractors, and grantees. SPO is tasked with collecting these disclosures through a formalized set of processes, procedures, and systems that begin with the completion of a New Technology Report (NTR). To promote the completion of NTRs, SPO conducts a variety of marketing communications and in-reach campaigns. These initiatives include routine distribution of publications such as the SPO monthly newsletter (*The Innovation Catalyst*) and quarterly magazine (*The Spark*). Other in-reach activities (i.e., monthly Innovator Hour, bi-monthly Coffee Break series, and Roadshows) provide a forum for interaction and collaboration between Goddard engineers, scientists, and innovators with SPO Technology Managers (TMs). Read the article, "SPO is on the Road Again," for additional details pertaining to SPO-sponsored Roadshow events. TMs serve as liaison to the various Goddard organizations to promote the completion of NTRs and serve as a trusted T2 program resource for innovators. SPO's TMs include Hossin Abdeldayem ([hossin.a.abdeldayem@nasa.gov](mailto:hossin.a.abdeldayem@nasa.gov)), Dennis Small ([dennis.a.small@nasa.gov](mailto:dennis.a.small@nasa.gov)), Joshua Levine ([joshua.h.levine@nasa.gov](mailto:joshua.h.levine@nasa.gov)), and Viva Miller ([viva.l.miller@nasa.gov](mailto:viva.l.miller@nasa.gov)).



**NASA TECHNOLOGY  
TRANSFER PROGRAM**





2019 Commercialization Training Camp at GSFC, Photo Credit: Samantha Kilgore/GSFC

# Commercialization Training Mini-Camp Introduced Players to Tech Transfer, NASA's Patent Portfolio



In February, technology transfer representatives from NASA's Goddard Space Flight Center, Johnson Space Center, Kennedy Space Center, and Glenn Research Center held the first online Commercialization Training mini-Camp of 2023 as part of their ongoing partnership and series with the players associations for professional athletes. Participants included players and staff from the NFL Players Association, National Basketball Retired Players Association, and Women's National Basketball Players Association.

"The event was originally planned as an in-person training camp over several days," said Erin Majerowicz, SPO's agreement manager. "But the NASA steering committee pivoted to make this session shorter and remotely accessible, which allowed us to engage with members from multiple players associations."

The two-hour mini-camp focused on the basics of technology transfer and featured presentations from Kennedy Space Center's Trent Smith and Glenn Research Center's Jeanne King. Attendees got an introduction to mining NASA's patent portfolio for "technology that's right for tech infusion." The virtual session also gave players in attendance a high-level overview of some of NASA's iconic spinoff success stories, success stories coming out of past training camps, and thoughts about when and how to license a NASA technology.

"We showed them the patent portfolio and how to find technology options," Majerowicz said. "We also described how to make an assessment of each technology to determine if it's a good fit for their company, whether it's an existing company or a new startup company."

Majerowicz reports that there are plans to continue offering the Commercialization Training Camps in various formats, both in-person and online. They are now looking at ways to streamline the event to make the unique NASA tech transfer content more accessible to players who may want less time on the road. They are also thinking about ways to extend similar technology transfer outreach opportunities to other communities as well. The training camps are one of the many ways that the Strategic Partnerships Office can help Goddard innovators market their technology innovations.

"Although it was a short virtual session, we taught about the high-level pieces of what tech transfer is and wet their whistles to learn more about commercialization," Majerowicz says. "We're eager to continue our partnership with the players associations and excited to be part of the tech infusion process and entrepreneurial story for the players."

# Getting to Know SPO

## ***CHIEF DARRYL MITCHELL ON PATH FROM ENGINEERING TO TECH TRANSFER***

**D**arryl Mitchell, chief of Goddard's Strategic Partnership Office (SPO), has spent over two decades working in the technology transfer arena. But he got his start at Goddard in 1989 working as an electromagnetic compatibility and magnetics engineer in what is now the Environmental Test Engineering and Integration Branch (Code 549). For several years, while working on his master's in applied physics at Johns Hopkins University, he ran Goddard's Spacecraft Magnetic Test Facility, located on one of Goddard's satellite campuses in Greenbelt, MD.

In May 1995, with his master's behind him, Mitchell thought he might like to try something new. He was exploring various options on the engineering side when he noticed an advertisement for the organization now known as SPO. He hadn't interacted much with the office himself at the time. But his office happened to be next door to James Kerley, a Goddard innovator with a passion for technology transfer. Kerley is credited for establishing Goddard's reputation as a center for technology development and innovation. (In his honor, SPO now grants Goddard's most exceptional innovator each year with the James Kerley Award.)

Mitchell was curious about what other organizations in the commercial sector were doing. He got the idea to leverage his engineering and physics background and pursued a new direction in intellectual property and business. In December 1996, he became a SPO technology manager, getting his first experience working on partnership agreements and licensing.

"I was one of several brought on," he says. "They were expanding the office to include more people with science and engineering backgrounds. There were several new people and we banded together as a team. We worked on developing many of the practices we have today."

Mitchell found he enjoyed the variety of projects, the people, and the technologies so much that he stayed and moved up the ranks. He became SPO chief in 2019 after former Chief Nona Cheeks retired. To this day, Mitchell is inspired by the variety of the work and uniqueness of projects at SPO.



Darryl Mitchell, Chief - Strategic Partnerships Office, Photo Credit: Samantha Kilgore/GSFC

“To some extent, you’re limited only by your own creativity and vision.”



"It's unlike working anywhere else," he says. "To some extent, you're limited only by your own creativity and vision. There's a lot of flexibility and room for innovation in how you do your job. It's also really exciting when you can see where your work has potential to really impact people's lives in various ways, whether it's economic impacts, creating jobs, or improving quality of life. To me, it's just a very rewarding and exciting thing to be part of the bigger picture and giving back to society in that sense."

Tech transfer at Goddard generally has its challenges, he says. One of the big ones is that the applications in the commercial sector of technologies originally developed with NASA missions in mind often aren't immediately obvious. "A lot of the technology applications we develop don't have immediately recognizable commercial equivalents," he says. "Sometimes it takes some real mental stretching to figure out how this might show benefit in a commercial setting."

## Technology Transfer



Mitchell pointed to one example in which a star-mapping algorithm originally developed at Goddard for the Hubble telescope was later developed and modified to recognize the specific spot patterns associated with individual whale sharks, an endangered species. The unique spot patterns on whale sharks are used by marine biologists much like human fingerprints. But examining and matching those patterns up is difficult to do. The star-mapping algorithm enabled citizen scientists across the globe to submit many thousands of encounters with whale sharks simply by uploading their vacation photos to a website.

"In hindsight, it may seem obvious, but in the beginning thinking a star-mapping algorithm would apply to tracking whale sharks using spots on their bodies to characterize individuals in order to eliminate physical tagging—it's not an obvious leap," Mitchell says. "It takes time and creativity to identify those applications and then find the right person, organization, and resources to work with that vision and make it happen."

Mitchell says SPO is now in a rebuilding mode as Goddard has welcomed many new people recently. They're also focusing considerable attention on ways to improve the processing of software for release. The goal is to make software release more transparent, efficient, and flexible. Overall, he notes that it's an interesting and exciting time for tech transfer and partnerships at NASA, as the agency is focusing more attention on strategic collaborations with outside entities to achieve its goals.

"As a tech manager and now as chief, I'm always pushing the SPO staff to come up with innovative new ways to do business," he says. "It's not a successful strategy to keep doing the same approach over and over for umpteen years. You always have to look for new angles or new approaches to tap into new opportunities. For example, we're doing things like working with professional athletes through their players associations to leverage that network. We're always looking for ways to be more creative and strategic to enable future successes."

# SPO is “On the Road Again...”

The Strategic Partnerships Office (SPO) performs a variety of essential functions, such as managing Goddard’s Technology Transfer (T2), Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR), and Partnerships programs. To meet the needs of the T2 program, SPO performs a variety of marketing communications and in-reach activities that bring awareness to the requirements of NASA Procedural Requirements (NPR) 7500.2A – NASA Technology Transfer Requirements (Read the article titled, Technology Transfer...It’s the Law to learn more). Among SPO’s many in-reach initiatives is a communication campaign known as “Roadshows.”

Roadshow events serve as an essential means to meet with Goddard innovators and disseminate critical T2 program information. These interactive and informative sessions provide pertinent details relating to the T2 program, including how to instructions and rewards and recognitions for engineers and scientists for their innovative discoveries and inventions. Additionally,



Code 670 Roadshow 2023 in Building 21, Photo Credit: NASA / GSFC

Roadshow events provide a forum to introduce SPO and its staff to the Goddard community and to describe the essential role that SPO serves in supporting the T2 program. More importantly, Roadshow events afford Goddard innovators the ability to interact with SPO staff in real-time, with questions and answers throughout the session.

Prior to the COVID-19 pandemic, when most Goddard personnel were sent home to work, SPO collaborated with directorate, division, and branch points of contact to coordinate and schedule Roadshow events. During the pandemic, conducting Roadshow events, including virtual ones, proved more challenging. Now, with many returning to onsite work, SPO is re-introducing in-person and/or hybrid (in-person and virtual) Roadshow events. Recently, SPO conducted a Roadshow event for the Heliophysics Science Division (Code 670) in the Goddard Library. Coming soon are Roadshow events for Code 800 (April 19th) and Code 550 (April 25th). Have not had the opportunity to attend a Roadshow yet? Don’t miss out. Be on the lookout for an upcoming SPO Roadshow for your organization or contact Cherisse Cobrand at [cherisse.l.cobrand@nasa.gov](mailto:cherisse.l.cobrand@nasa.gov) to get your team on the schedule.



**STRATEGIC**  
PARTNERSHIPS OFFICE

THE STRATEGIC PARTNERSHIPS OFFICE (SPO) PRESENTS

# INNOVATOR HOUR

Have questions about protecting your innovation?

Want to learn more about how to submit New Technology Reports?

Have general questions about technology transfer and partnerships?

Sign up for a one-on-one 20-minute timeslot with a SPO representative.

Meetings will be held virtually via Microsoft Teams.

**NEXT SESSION: TUESDAY, MAY 09, 2023**  
**1:00-2:00 P.M.**

#### Available Timeslots

1:00-1:20 P.M.

1:20-1:40 P.M.

1:40-2:00 P.M.

#### How to Sign Up

To register for the upcoming session and secure your timeslot,  
[complete the registration form.](#)