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Goddard Enters Space Act Agreement for Education Center

By John Putman

Goddard Center Director Rob Strain and Kam Ghaffarian, president of the newly formed nonprofit organization Maryland Science, Exploration, and Education Center (SEEC) at Goddard, signed a NASA Space Act Agreement on May 21 to enter into the formal planning stages for the new facility at Goddard.

The purpose of the agreement is to assess the long-term feasibility of the SEEC and to develop conceptual designs and long range plans for it.

The objectives of the SEEC include inspiring, engaging, and educating the next generation of scientists, engineers, and technologists; providing compelling experiences to increase understanding of our home planet and our place in the universe; and to create a destination of choice that showcases NASA and Goddard's current work.

The vision for the SEEC is that of a state-of-the-art venue attracting 500,000 students, educators, and visitors per year. The SEEC will be located near or on the Goddard campus to connect SEEC's visitors to Goddard's world-class people, facilities, and capabilities.

SEEC will also be a non-traditional education center, providing dynamic programs, hands-on exhibits, and interactive experiences to allow all to participate in Goddard's unique work. Students and visitors will experience the process of designing, building, testing, and launching spaceflight missions. Visitors will also access and use real-time data from more than 40 current operational missions. Once in place, SEEC is planned to be a self-sustaining, non-profit operation.

Ghaffarian called the SEEC, "a place to inspire the next engineer or scientist or even astronaut." He added, "We have a long way to go, but this is a good step." ■



Caption: Goddard Center Director Rob Strain (left) and SEEC President Kam Ghaffarian sign the Space Act Agreement.

Photo credit: Bill Hyobk

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Cover caption: A team of flight controllers monitor their data displays in the Space Telescope Operations Control Center at NASA's Goddard Space Flight Center during the fifth and final servicing mission to the *Hubble Space Telescope*.

Photo Credit: Pat Izzo

GoddardView Info

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Deadlines: News items and brief announcements for publication in the Goddard View must be received by noon of the 1st and 3rd Wednesday of the month. You may submit contributions to the editor via e-mail at john.m.putman@nasa.gov. Ideas for new stories are welcome but will be published as space allows. All submissions are subject to editing.

Goddard Celebrates 100 Hours of Astronomy

By Lynn Chandler and Anita Krishnamurthi

From Thursday, April 2 through Sunday, April 5, the universe came down to Earth as Goddard hosted and participated in numerous activities for the 100 Hours of Astronomy project. This project was literally 100 hours of around-the-clock, around-the-globe celebrations commemorating the 400th anniversary of Galileo's use of the telescope. The 100 Hours of Astronomy project is part of the International Year of Astronomy.

On Thursday and Friday, Goddard piloted several events targeting educators. The goal was to reach new audiences and introduce them to our Center and what it has to offer them.

On Thursday, two groups of informal educators toured Goddard's facilities and gathered materials at the education showcase. These educators work with students in out-of-school-time settings such as afterschool programs, summer camps, Girl Scouts, Boy Scouts, and 4-H.



Photo credit: Debora McCallum

Caption: Visitors get information about the Lunar Reconnaissance Orbiter during Goddard's celebration of 100 Hours of Astronomy.

On Friday, career counselors toured Goddard's facilities and participated in a moderated panel discussion to learn about the various careers at Goddard. The counselors were deeply appreciative of this opportunity as it allowed them to see first hand the range of jobs available at Goddard.

A teacher's night was held on Friday so area teachers could meet and mingle with NASA scientists and educators and see what resources NASA has to offer them.

The weekend events were intended for the general public. On Saturday, Goddard partnered with the Baltimore and Annapolis Trail to host a 4.6 mile Planet Walk. The Planet Walk is a scale model of the solar system with planet experts positioned at each of the planets to interact with the public and to share information about Goddard's missions.

Every Planet Walk participant received a passport to the planets and if they walked the entire solar system, they were entered into a drawing to win a telescope.

Several hands-on activities were held for elementary and middle school students and their families at the Goddard Visitor Center on Saturday afternoon to help them discover the excitement of astronomy. The activities included designing exo-planets, learning about elements in the universe, how resolution impacts what we can measure, and lunar cratering.

On Saturday evening, Goddard collaborated with Anne Arundel Community College to host public lectures and a star party. Also on Saturday night, the Goddard Astronomy Club and the Astronomical Society of Greenbelt held their own star party at the new observatory at Northway Field in Greenbelt.

On Sunday, a packed auditorium listened to a concert by "The Chromatics," a unique, high-energy a cappella group. They aim to spread science through their music and music through science. Following the concert, a record number of people participated in the very popular rocket launches. The public could either launch rockets provided by Goddard or bring their own. Rocket launches are held at the Goddard Visitor Center on the first Sunday of each month and enjoyable for both the young and the young at heart.



Photo credit: Debora McCallum

Caption: A record crowd watches a rocket launch.

A workshop was held to teach the public how to tune up their telescope and teach them how to use it. They also learned tips on how to throw a Star Party. Finally, to wrap up the 100 hours of activities, the Goddard Astronomy Club hosted another star party at Northway Field. ■

Exploring “Maryland’s Place in Space” at the Baltimore Convention Center

By Amy Pruet

Thousands streamed into the Baltimore Convention Center on Saturday, May 30 for Maryland’s Place in Space, a free expo showcasing the state’s innovative work in space and technology. NASA’s Goddard Space Flight Center and the Johns Hopkins University Applied Physics Laboratory (APL) hosted the event that featured exciting robotics competitions, educational and fun activities and exhibits, captivating special guests, and much more.

“Maryland’s Place in Space provided Goddard an opportunity to reach out to a previously untapped audience in the central Maryland area,” said Michelle Jones, Event Lead from the Office of Public Affairs. “It also served as a great outlet for Goddard to come together with our partners and get the word out about what we do and how much Maryland contributes to space exploration.”

The expo covered 20,000 square feet of the convention center with over 100 exhibits and activities. The exhibits were organized into interactive, informative themes, or “pods.”

The exploration pod inspired all ages with space exploration and science activities. Critical missions in Earth science, heliophysics, planetary exploration, and astrophysics were featured including the *Lunar Reconnaissance Orbiter*, the *Hubble Space Telescope*, and the *Fermi Space Telescope*.

The technology pod introduced Maryland’s top engineers and highlighted the latest technologies related to science and research discoveries. Featured activities included a vertical wind tunnel, demonstrations of clean room gear and requirements, and an inflatable dome theater.

The green pod prompted discovery of Earth science research and Maryland’s contributions to better understanding our changing planet. Families learned through musical meteorology from Stormin’ Bob Swanson and many interactive exhibits from local organizations.



Caption: Visitors enjoy the Maryland’s Place in Space Green Pod.

“Maryland’s Place in Space was great,” said Colette Lepage, Spacecraft Systems Development and Integration Facility Operations Manager and exhibitor

in the technology pod. “It sounds redundant, but I believe it has increased the awareness of Maryland’s place in space. I don’t think people realize how much we contribute, especially in Earth science. With the climate changing and polar ice caps melting more than ever, it’s time to show what we do and how we are working to make a difference. The event was very à propos. I hope we continue to have similar events each year.”

The people pod highlighted Maryland’s extraordinary jobs in science and technology. The main stage featured presentations by NASA astronauts and special appearances by the Tuskegee Airman and Disney’s Wall*E.

“Maryland’s Place in Space went really well. I was most impressed by the number of people that attended,” said Leigh Janes, an aerospace engineer and one of the event’s leads for organizing the exhibits. “When we were choosing Goddard activities for the event, we considered the limited amount of space and looked for exhibits that not only show the cool stuff that we work on, but also why it’s important and how it affects us every day. I think kids, especially, walked away knowing more about what they can do.”

In addition to a packed ballroom of activities, the expo included a full-scale “For Inspiration and Recognition of Science and Technology” (FIRST) robotics competition. Throughout the day, 16 teams from Maryland high schools showed off the complex robots that they built for the 2009 regional and national competitions.

“It was amazing to have the 16 Maryland high school teams pull together for Maryland’s Place in Space,” said Rob Thate, Program Manager for FIRST Robotics at Goddard. “Our goal through the robotics competitions is to have everyone, whether they are a student or an adult, walk away with a sense of understanding that they have so much potential within them and that they can affect the future of our country. There is such inspiration when kids make the connection between dry textbook material and real world application. Robotics does this. It’s a mystery, but it works.”

Maryland’s Place in Space revealed the tremendous impact and leadership that organizations such as NASA Goddard, Johns Hopkins Applied Physics Lab, the Space Telescope Science Institute, the National Oceanic and Atmospheric Administration, and the University of Maryland, as well as their industry partners, have in the aerospace industry.

Maryland’s Place in Space was sponsored in part by Alliant Techsystems, Inc. (ATK); Ball Aerospace & Technologies, Inc.; Lockheed Martin Corporation; Northrop Grumman Corporation; Orbital Sciences Corporation; Science Applications International Corporation; United Space Alliance (USA); Universities Space Research Association; and was made possible by Goddard partnering with the American Astronautical Society and APL. ■

Photo credit: Bill Hrybyk

“Maryland’s Place in Space” Gallery

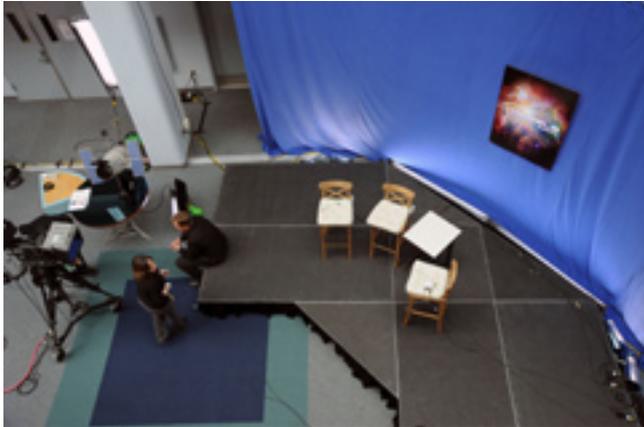
Photos by Bill Hrybyk



Goddard's Behind the Scenes Contributions to the *Hubble* Servicing Mission

By Susan Hendrix

This last servicing mission to the *Hubble Space Telescope* launched on May 12. The success of the mission required the selfless efforts of hundreds of NASA employees. Twenty-four companies—about half of these headquartered right here in Maryland—committed teams that labored for more than three years to bring this world-class telescope to the apex of its capabilities.



Caption: A crew awaits the start of a Hubble press conference in Building 28. Many Goddard employees supported media coverage of the historic mission.

Photo credit: Debora McCallum

The *Hubble* team was composed of scientists and engineers, many of whom have dedicated most of their careers to *Hubble*. There were project managers and technicians who meticulously tested each piece of hardware and each instrument to ensure mission success. There were also many administrative personnel who handled hundreds of travel orders and vouchers to enable the constant flow of personnel back and forth to Kennedy and Johnson Space Centers prior to launch.

There was a team for every aspect of mission preparation and a Goddard facility that made it happen. Each piece of hardware was tested in the thermal vacuum chamber to simulate the extreme temperature changes that occur in space.

Each repair and upgrade successfully accomplished by the astronauts was enabled by special tools designed and built by the Crew Aids and Tools Team here at Goddard.

A Goddard team designed a state-of-the-art, all-composite, super lightweight interchangeable carrier that allowed the new Wide Field Camera 3 science instrument to be carried aboard the Shuttle and installed on *Hubble*.

Several of the *Hubble* engineers became certified in scuba to be able to dive with the *Hubble* astronauts during underwater training sessions at Johnson Space Center's Neutral Buoyancy Lab, providing invaluable feedback and quick tweaks to some of the tools the crew needed for the mission. Seamstresses, hired for their attention to detail, meticulously measured, cut, and carefully sewed custom-made thermal blankets for *Hubble's* instruments and hardware in a basement facility at Goddard.

During the servicing mission, a team of about 90 engineers controlled and monitored *Hubble*. They conducted simulations at their console for months beforehand to ensure they could handle every possible contingency that may arise, and a few did during this mission.

Then there was the team that produced Web shorts and articles prior to launch, and posted timely stories and images during the mission, allowing millions around the world to experience the mission from their homes, offices, and just about anywhere else.

There are simply too many names to mention and just as many good deeds that went unnoticed, but the teams' efforts resulted in a drastically improved *Hubble*, one that will soon look even deeper into the past and provide astronomers and the public with spectacular results for years to come. ■



Caption: U.S. Senator Barbara Mikulski speaks with two Space Telescope Operations Control Center (STOCC) flight team members at the Mechanical Systems console in the STOCC. Bill Nilsson (left foreground) and Carlton Miller (right foreground) were part of the orbit team of flight controllers that oversaw deployment of the Hubble Space Telescope from Shuttle Atlantis on Tuesday, May 19, 2009.

Photo credit: Pat Izzo

Up On the Roof—Goddard’s New Building Roof Features

By Rob Gutro

“Up On the Roof” was a hit song by James Taylor in the 1980s. It’s also a good place to see some interesting features of Goddard’s new Exploration Sciences Building (ESB). The “green” roof houses an observation platform, exhaust fans and stacks, and a silane gas (a noncorrosive, colorless, toxic gas) vent.

The exhaust stacks and fans were designed with the help of a specialty wind consultant using wind data from local weather stations. The consultant modeled the Goddard campus and the ESB building to determine that emissions from the exhaust stacks would not present any hazards to building occupants or people on the roof. Not only were the exhaust systems well engineered, but they will also serve to aesthetically express the building’s laboratory-oriented purpose.

Because NASA scientists love to gaze into the heavens, and they have plenty of experiments where they require full and unobstructed views of the sky, the Exploration Sciences Building has a large roof platform for that purpose. The roof platform was created to access full-sky coverage. The roof and the platform can be accessed by the main stairway and will have a crane hoist to lift the hardware to the platform. The roof platform is 62 feet by 20 feet.

The roof also provides a vent for the silane (SiH₄) gas used in the nucleation/dust chemistry lab. Most people have never heard of silane gas unless they’re working in a laboratory or manufacturing. Silane gas is pyrophoric, meaning the gas bursts into flames upon contact with the air.



Photo credit: Daniel Baxter

Caption: The silane gas vent on the roof of the Exploration Sciences Building.

Currently, silane gas is used in Goddard’s Building 2. The pipes the gas would travel through are all very carefully inspected and pressure tested to ensure they’re not leaking. Of course, if they were leaking and any silane gas escaped, it would flame up and be immediately noticed.

Silane gas has a number of industrial and medical applications. Silane gas uses include water repellents, masonry protection, control of graffiti, sealants, and applying polycrystalline silicon layers on silicon wafers when manufacturing semiconductors.



Photo credit: Daniel Baxter

Caption: Exploration Sciences Building roof with exhaust systems.

Although known as a “green” roof, the roof of the ESB will actually be a brilliant white to reflect the Sun’s heat. Having a “green,” or environmentally friendly, roof is a U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) compliant feature and was one of the many features that will help the building achieve its “gold” certification. The USGBC is a 501(c)(3) nonprofit community of leaders working to make green buildings available to everyone within a generation. The LEED Green Building Rating System is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.

Even if you don’t want to set up an all-sky viewing experiment or feel the Sun’s bright reflectance, the roof is still an interesting place. It even provides a nice view looking north into the fields of the U.S. Department of Agriculture’s Beltsville Agricultural Research Center. ■

Goddard Employee Treks Everest

By Elizabeth M. Jarrell

To celebrate their tenth wedding anniversary, Goddard optical engineer Dr. Patrick Thompson surprised his wife Anita with a Mt. Everest South Base Camp Trek scheduled for April 18–May 5, 2009. She was thrilled. Then again, she was born and raised in Kashmir, India.

The trip was organized by Sabrina Singh Gilmore, an astronaut trainer and spacewalk flight controller at NASA's Johnson Space Center. Thirteen of the 25 participants were NASA employees or contractors. The oldest member of the group was French Brigadier General Jean-Loup Chretien, who is both a former astronaut and a former cosmonaut. The base camp's purpose was to support the summit attempt by Scott Parazynski, a recently retired astronaut. "It was, by far, the most challenging physical experience I've ever attempted," Thompson declared.

They were each only allowed to pack approximately 45 pounds total to take up the trail. As his special item, Thompson took his MP3 player loaded with his favorite music. His wife's special item was the book "Three Cups of Tea," which is about a trek in Kashmir and proved to be the hit of the trip among her fellow trekkers.



Caption: Patrick Thompson and his wife Anita at Dingboche Village about halfway to Everest base camp. Thompson is playing a bamboo flute for the children while taking a break.

Kathmandu is an odd mixture of modern and ancient life. "These people don't have clean water to drink, but you can always find an Internet café," said Thompson. Their supplies were moved up the mountain by yak, which are prone to sudden fits of nastiness and do not like sharing the two-foot wide, steel and rope bridges high across overpasses.

Before beginning the trek, the Thompsons and others visited the PA Nepal Orphanage in Kathmandu. Thompson gave the science teachers optics kits for making telescopes and rainbow spectrometers hoping to inspire some of the children. "Looking at the stars made me aspire to become an optical engineer and astronaut," said Thompson.

They hiked and climbed 6 to 10 hours every day. "Each morning started before sunrise with a call to pack our yak packs." Coming down the mountain



Caption: The sunrise reflects off peaks at Tengboche monastery.

was harder than climbing up. His most spiritual moment occurred during an overnight stay at a Buddhist monastery about halfway up the trail where he was awakened by the sound of the monks blowing conch shells and banging metal gongs at sunrise.

Meals consisted of potatoes and cabbage. "On special days, we got an omelet for breakfast," said Thompson. He did not bring his usual beef jerky in deference to Hindu and Buddhist religious beliefs. "I couldn't wait to get a deluxe cheeseburger and apple pie," he said. He also brought dried fruit, nuts, and chocolate. The culinary highlight of the trip was the fried Snickers party.

They generally slept in rustic, covered structures called tea houses. "Every tea house had a central room with a locked glass cabinet stocked with high-end liquor and Pringles chips." Thompson thinks everyone craved Pringles chips because "they are crunchy and reminded everyone of home." They drank chai or fruit tea in the evenings. "It is very quiet. You only hear yak bells, the wind, and your own breath," said Thompson. "One hour after sunset, it becomes extremely cold and blustery." He continued, "The weather changes on an hourly basis. Temperatures can drop from 80 to 40 degrees Fahrenheit in one hour."



Caption: Everest south base camp, Nepal.

Goddard Employee Treks Everest

Continued from Page 8

The base camp is at 17,500 feet and is almost two-thirds of the way to the summit from sea level. The actual summit is approximately 29,000 feet above sea level, which is the cruising altitude of many aircraft. "You can hardly throw a rock without hitting the highest mountain in the world," Thompson joked. The base camp is on the Khumbu Glacier next to the Khumba Icefall, a frozen waterfall with house-size boulders of ice prone to breaking and falling without warning.



Photo provided by Patrick Thompson

Caption: The Thompsons at Everest Base Camp at 17,500 feet. Discovery Channel tents and Khumbu Ice Fall in background.

"It's like a tent city at base camp. There is a bakery, hospital, helicopter pad, and enclaves of international contingencies. Even the Discovery Channel is there." Upon arriving at base camp, Thompson presented Parazynski with bag of his favorite macadamia nuts. While at base camp, several of the group, together with Parazynski, later contacted two astronauts aboard the *International Space Station*.

Sunrise at the base camp is spectacular. "Because the mountains are so tall, you only see tiny spots of sunlight reflected off surrounding peaks and glaciers, which keep moving," explained Thompson. "You never see the full sunrise, just fiery gold iridescence from the tallest pinnacles."



Photo credit: Anita Thompson

Caption: Thompson sits atop a yak in the Himalayan Mountains.

Thompson's only regret is that he "didn't have enough time to see the sights and smell the flowers." His biggest unpleasant surprise was the ubiquitous dust as fine as talcum powder created by the yaks and people grinding down the granite. In fact, Thompson suffered an allergic reaction to this fine dust, which infiltrated his lungs. He compared the Mt. Everest dust to the Moon dust that proved problematic to the *Apollo* Moon walkers. Neither Thompson nor his wife suffered altitude sickness.

Thompson learned two life lessons from his trek. "I learned we must be very careful concerning what adventures we commit ourselves to." He also learned that, "matters of life and death balance on a razor's edge." Although the rewards were enormous, he was reminded about the risk of losing his life, or someone else losing theirs, on a daily basis. They passed by many memorials for Sherpas who had died en route to the summit. Thompson explained that, as opposed to mere porters, Sherpas are a particular ethnic class who believe it is a very holy experience to trek Mt. Everest because they revere the mountain. They also saw "stupas," or alters with colorful prayer flags and boulders inscribed with mantras or prayers to the mountains. The local people believe that the mountains and the Earth are alive.



Photo credit: Anita Thompson

Caption: Thompson and NASA Everest Trek Team at a Buddhist "stupa" and memorials for deceased Sherpas and climbers.

Parazynski reached the summit of Mt. Everest on May 19th, after Thompson returned home, but while he was still on Kathmandu time. As for his next trip, he plans to go to Tahiti, "for cocktails and massages!"

Further information about Thompson's Mt. Everest adventure can be found at <http://2009everesttrek.blogspot.com>. ■

Evening Celebration Lights Up Baltimore Convention Center

By Robert Garner

Following “Maryland’s Place in Space” on May 30, a ballroom at the Baltimore Convention Center was transformed into a glorious dining room with a dance floor and a stage. The stunning setting welcomed hundreds of past and present Goddard employees to celebrate at a special dinner to mark the Center’s 50th anniversary.



Caption: The ballroom right before the guests arrived.

The evening began with light hors d’oeuvres and a sit-down dinner. The meal was accompanied by a slide show of Goddard and NASA photographs, and some brief presentations.



Caption: Guests enjoy hors d’oeuvres before entering the ballroom.

The event was both a reflection on the Center’s 50 years of accomplishments and a celebration of discoveries and breakthroughs being made now. In his opening remarks, Goddard Center Director Rob Strain noted, “At the same time, we look forward to a promising new era of discovery, exploring new worlds, seeking answers to new questions, and learning more about our very own planet.”



Caption: Guests clamor to get a close up look at Patti LaBelle.

After the delicious meal and plenty of conversation, Miss Patti LaBelle took the stage to thunderous applause. Her performance, which included “Lady Marmalade,” drew guests out of their seats and almost right up to the stage. She concluded her portion of the event with a rendition of “Happy Birthday” to the Goddard Space Flight Center.

Following her performance, the crowd danced to music provided by DJ Scientific, otherwise known as Mark Branch, a Goddard engineer. Guests also mingled just outside the ballroom and had their pictures taken by Zweig Photography.

The event was sponsored by the American Astronautical Society, with the cost supplemented by ticket sales to employees and guests.

For more information about the Center’s anniversary, and to learn more about Dr. Robert Goddard, visit: <http://www.nasa.gov/centers/goddard/50th>. ■



Caption: Guests pose with souvenirs from the evening.

Evening Celebration Gallery

Photos by Bill Hrybyk



Employee Spotlight: Mike McClare

By Christina Coleman

Judging from the sepia-colored picture tacked to Michael McClare's cubicle wall, it wasn't evident that the young, bushy-haired rocker in flared jeans would someday become an integral part of the documentation of the *Hubble Space Telescope* (HST). The grainy photo is a far cry from the high definition videos that he produces today.

"I used a lot of hairspray," McClare jokingly said. McClare is now the Senior Television Producer at Goddard Space Flight Center working on HST, the *James Webb Space Telescope*, and astrophysics. "I thought that playing in the band was going to be my career."

As with many aspiring musicians, McClare's mother urged him to have a backup plan and attend college. Mother is always right. McClare recently won second place for Videographer of the Year from the NASA Digital Television Working Group for his short, "Chamber of Horrors," which documents the test facilities at Goddard used to test *Hubble* components in preparation of Servicing Mission 4. The space hardware must endure harsh environmental testing to make sure that it is safe to use and can survive in the vacuum of space.

McClare also won third place for documenting astronaut training to service *Hubble*, which he recorded at the Natural Buoyancy Lab at NASA's Johnson Space Flight Center. Because most of the documentation is taped in standard definition television for the sole purpose of educating the engineers about *Hubble Space Telescope*, McClare said he wanted to do a high definition video. "I always knew it could be spectacular," McClare said.

The award almost didn't happen. "The NASA Digital Television Working Group wasn't really keen on giving a group award," McClare said, "but I wrote a convincing letter of how you couldn't do the job without other people in the loop." The job actually required a camera operator in the water and a few other divers from NASA's Johnson Space Center's Neutral Buoyancy Laboratory to maneuver the equipment so that it would not interfere with the astronaut training. In the end, McClare got the award along with Steve Blair, Bill Brassard, John Stubblefield, Chapman Mannschreck, and Mark Hubbard.

"Every person had a key role in getting the great pictures that we achieved," said McClare.

McClare said he is happy to have gotten the awards, although he points to a yellow sticky note with the words "Try harder" stuck to his first second place Videographer of the Year award that he won in 2004.

"Next year I'll just have a much bigger Post-it!" he said.

"The awards are justified because I think he's the best videographer at NASA," said Pat Kennedy, Goddard Television Production Manager, who hired McClare back in 1997. "He is creative, but he's also open to suggestion. He is very good at explaining science to the public and he's just a very good visual artist," Kennedy added.

In the meantime, McClare keeps busy with working on HST and freelancing, which he says is necessary to prevent "stifling of creativity." Right now he is working with the PBS program *Nova* on producing a HST video. He also spends a lot of time doing handy-work at home with his wife and two kids, Nick, 9, and Allison, 11.

McClare's main goal is to make sure that people enjoy learning about the science he documents. "I want to make sure I get the accurate information, and that the person watching it is having fun learning about it," he said. "I work with some of the greatest minds in engineering and I'm in awe at what they can accomplish. I love trying to get their story out to the American public," he added.

Transmitting information about the launch phase simulator centrifuge and electromagnetic inference testing hasn't subdued his wild side. "I just bought a Harley two years ago. It's the best escape."

Not to say that he doesn't enjoy his job. "This is like the best job ever... except when I feel like it's not," he said with a smile. ■



Caption: Mike McClare shooting astronaut training at the Neutral Bouyancy Lab at Johnson Space Center.

Photo credit: NASA