Supporting Hubble: Profiles

Taken from:
Hubble 2007: Science Year in Review

Produced by NASA Goddard Space Flight Center and Space Telescope Science Institute.

The full contents of this book include more Hubble science articles, an overview of the telescope, and more. The complete volume and its component sections are available for download online at:

www.hubblesite.org/hubble_discoveries/science_year_in_review
A close cropping by Hubble of showpiece galaxy M101 reveals a stunning array of details never before seen in this magnificent, face-on spiral. M101 lies in the direction of the Big Dipper and is estimated to be 25 million light-years away.
Ed was born on the Caribbean island of Aruba. As a young child, he knew he would become an electrical engineer on the day he dropped his transistor radio, and the back fell off. Seeing the tiny components inside that performed all the magic, he decided right then to pursue the field of electronics. Later, he also recalls being awakened in the middle of the night to see the first humans walk on the Moon, and marveled at the wonder of it all. He was quite certain that electronics played a big role in the effort, and concluded that he could work both in the business of space travel and electronics.

Ed's career at NASA started in 1991 when another NASA engineer attended a session of his doctoral dissertation at a robotics conference in Scottsdale, Arizona. After obtaining his Ph.D. from Yale, Ed leveraged this contact to join the robotics lab at Goddard. Within a few years, he transferred to the Hubble program, where he now works. Ed's expertise in electronics was applied to help design both the diode box controller, which is used to control Hubble's power system, and the Near Infrared Camera Multi-Object Spectrometer (NIC-MOS) cooling system, which revived the NICMOS science instrument after it lost the ability to stay cryogenically cold. Speaking of this latter effort, Ed says: “I’ve had the wonderful opportunity to see the development of a system from its initial concept through the design phase and into a fully tested system that is ready for space. Even more thrilling was seeing it fastened into the Space Shuttle for the ride into space, and watching the astronauts install it into Hubble. It’s very rewarding to know that your work now directly contributes to the advance of man’s scientific knowledge.”

Ed frequently returns to Aruba, and enjoys giving lectures to school children about Hubble and its many accomplishments. Over the years, he has had the honor of being named “1998 Aruba Man of the Year,” being inducted as a member of the Aruba Hall of Fame, and even having his kindergarten classroom named in his honor!

Outside work, Ed enjoys inline skating with his children. They usually skate together five or more hours per week. He also collects pinball machines. Of the five he owns, his pride is a 1985 Williams “Space Shuttle” machine that he personally restored. Parts of this machine were signed by such famous space luminaries as astronaut John Grunsfeld and Apollo 13 Flight Director Gene Kranz.
Elena Martin was born and raised in Forest Hills, New York, but spent every summer of her childhood visiting family in Spain. She graduated from the prestigious Bronx High School of Science, and it was by many twists of fate that she eventually ended up in the Office of Public Outreach at the Space Telescope Science Institute.

Elena began her undergraduate education at the George Washington University (GWU) in Washington, D.C., where she was the recipient of an academic scholarship. Although she had a great passion for academia, she had one other great love—music. It was during her brief stay at GWU that Elena decided to begin pursuing a career as a musician. Her classical training on the piano as a child, coupled with a great interest in vocal performance, made the choice an easy one. It was not long before she moved to Baltimore and became the lead vocalist and keyboard player for one of the premier bands in the local “Top 40” circuit.

The local music scene, however, was slowing down, and very soon Elena realized that she needed something else to fall back on. She decided to go back to school. As she completed her B.S. degree in information systems from the University of Maryland, Baltimore County, Elena was offered an internship with the PC and Mac support group at the Institute. This soon became a full-time position for her.

After eight years as a system administrator in the Information Technology Services Division, she was offered a position in the Informal Science Branch of the Office of Public Outreach. She is now the technical support lead for ViewSpace and SkyWatch, a self-updating multimedia display that can be found at over 160 different museums, planetariums, and nature centers around the world. She is proud to be involved in one of the most successful space missions in history.

Elena continues her second career as a musician. On weekends, she can still be seen at various local clubs, festivals, and private events. Recently, she also had the opportunity to do some recording work.

It was at the Institute that Elena met her beloved husband, Glenn. They were married in June of 2004 and welcomed their daughter, Olivia, into the world in October of 2005. They currently reside in Westminster, Maryland. It is the cherished time spent with her family that helps to maintain sanity and balance in Elena’s life.
Steve Franka

Senior Project Engineer
Ball Aerospace & Technologies Corp.

A favorite author of Steve Franka’s once wrote, “Man, unlike anything organic or inorganic in the universe, grows beyond his work, walks up the stairs of his concepts, emerges ahead of his accomplishments.” Of course, John Steinbeck wasn’t specifically referring to the remarkable advancement human ingenuity has achieved in the field of detector technology, but he could have been. The quote also fits the path Steve has followed in his long association with the Hubble program.

Steve says two passionate high school science teachers fueled his decision to pursue a chemistry degree from the University of Arizona, where he was the number one student his senior year. He was also interested, however, in the greater mysteries of the universe, which led him to enroll at the Dallas Theological Seminary. He soon realized that he would always be both cursed and blessed by a thirst for knowledge, and left the seminary to resume full-time work in industry as a development engineer for third-generation night-vision-tube technology.

Steve joined Ball Aerospace in 1991 and was assigned the hands-on development of prototype sealed-detector technology. Since then, he has developed detectors for the Hubble Space Telescope Imaging Spectrograph, the Advanced Camera for Surveys, the Cosmic Origins Spectrograph, and the Wide Field Camera 3. “In the world of Hubble, there are a small number of detector devices, but they involve about 200 steps to turn them into a useful camera—and all the steps must be done 100 percent correctly. You go into a space program knowing there will be challenges that haven’t even been identified. So, you basically have to enjoy trying to solve the impossible.”

Steve says that knowing he has helped rewrite astronomy textbooks through his contributions to Hubble makes the extreme challenges much more rewarding. “I am proud of performing mission-critical work on Hubble, knowing our hardware is doing exactly what I said it would do.”

The multidisciplinary approach needed to work on detectors also extends into Steve’s personal life. He’s a huge fan of classic literature and poetry; knows three foreign languages (Hebrew, German, and Greek); is a member of the company’s volleyball team; teaches Bible studies through his church; and is assembling his family’s genealogical records. Those records show that all three of his children are pursuing college degrees in engineering. Clearly Steinbeck was on to something!
Jacqueline Townsend followed an unusual path to reach the Hubble program. She grew up in northern Virginia, idolizing the space program and reading science fiction novels. Because she was not a hard worker in high school, upon graduation in 1985, she did not believe her math and science abilities were sufficient to pursue a career with the space program. Her initial college studies were in psychology, but then, lacking real direction, she took a break for two years.

In her time away from school, Jackie discovered three things that changed her life. First, she needed to be challenged by her work. Second, she needed to believe her work contributed to the greater good of mankind. Third, she had never really put all her effort into something for fear of failing.

With these three insights, Jackie put herself through college studying the subject she found most interesting and challenging in high school—physics. She applied herself with passion and dedication, and earned her B.S. in physics, cum laude, from the University of Maryland.

Jackie's dream of working with the space program re-emerged during her college years. She joined the Goddard workforce in 1992 as an intern in the Materials Engineering Branch, where her work on space environmental effects led her to the Hubble team in 1997.

Jackie has held what she believes are some of the best jobs at NASA. She led the Materials Assessment Team for Servicing Mission 3A, and then became the program contamination-engineering manager. In 2005, she was selected as the instrument manager for the Wide Field Camera 3, a powerful imaging instrument scheduled for installation during the next servicing mission.

"Working as part of the Hubble team is inspirational and challenging. What could be better?" No matter the job, Jackie says she comes to work fired up every day, ready to do her very best for the hardware, fellow team members, the astronauts, and scientists—and ultimately for the greater good of mankind. "At the end of a servicing mission, when I look back on the challenges the team overcame together and the caliber of work drawn from me in the process, I am inspired and humbled to be part of it all."

Jackie enjoys talking to students about her unusual path to NASA, because she believes her message reaches students untouched by more straightforward stories. "I love talking to the "C" student in an underserved school about finding a passion and then pushing oneself beyond perceived limits. My story says: believe in yourself, work hard, and make a contribution. I'm proud of that."

Away from work, Jackie cherishes family time with her husband Tony, daughter Jocelyn, and son Phineas.
Because she grew up near Greenbelt, Maryland, Kathy was familiar with Goddard Space Flight Center and always thought that it would be an interesting place to work. She remembers her attention being especially drawn to the space program when John Glenn visited a neighbor, and she obtained his autograph on a Mercury space stamp envelope. Nevertheless, Kathy was trained as an elementary school teacher and taught for three years before coming to work at Goddard in January 1979—temporarily—while pursuing a master’s degree in education. She took a position in the Configuration Management Group on the Hubble project. She remembers the project’s motto at the time was “conscious expectation of the unexpected.” An irony of Kathy’s career path is that something she didn’t expect happened quite unconsciously: she began enjoying work at Goddard so much that she decided to stay.

Kathy finds that her education skills are actually quite applicable and helpful in her job. Researching, writing, grammar checking, spelling, editing, and reading skills really count when your job is documenting the configuration of the Hubble observatory.

Kathy has worked for no fewer than six different companies over the years. She has supported Hubble in the Configuration Management Office since before the initial deployment mission, through all four servicing missions.

Kathy viewed the Hubble spacecraft and its five original science instruments before launch, and she attended two Hubble Shuttle launches. She believes that seeing the hardware and launches in person helps keep her focused on the purpose of her job.

“I’m awed by the overwhelmingly beautiful pictures that Hubble has produced,” Kathy says. “As a non-scientist, I can appreciate this ‘window on the universe’ as a great sightseeing trip. Long trips, of course, also have their challenges, but it’s all part of the family experience, and in some ways, Hubble has been like family to me.”

Outside of work, Kathy enjoys singing in her church choir, ringing hand bells, acting and singing on stage in the music and drama club at Goddard, and visiting lighthouses with her husband. During one of her stage appearances, she sang a song about Hubble to the tune of “A Whole New World,” which she feels sums up what the observatory brings to us all.
Born and raised in Richmond, Virginia, Maurice spent much of his youth putting around his father’s gas station. There, he enjoyed taking things apart (but only rarely did he put them back together). His career path became clearer when, at age 7, he built the electric motor found in the Webelos Scout Handbook. The dry-cell battery he used failed to turn the armature, so he pushed the wires into an AC outlet. After recovering from the shock, he knew he wanted to learn how to control that stuff called electricity. He’d heard that electricians could do this, and so then he wanted to become one. Trips to the library adjusted his goal to becoming an electrical engineer. After that, Maurice did not alter his course until he graduated from Tufts University in electrical engineering, with honors. Later, he earned an executive masters degree in engineering from the University of Pennsylvania.

During a 27-year career with Western Electric and the AT&T companies, Maurice became known as a troubleshooter and problem solver for complex business processes. His final projects before retiring were particularly challenging: helping to build national telecommunications networks in Saudi Arabia and the United Arab Emirates (where he led the in-country team).

Upon retiring and returning to the U.S., Maurice was thrilled to join a contract to operate the NASA Goddard Visitor Center. As a youth, he read every detail about NASA chronicled in Popular Science magazine, and followed every satellite launch, beginning with the Russian Sputnik probe. Now supporting public outreach at Goddard, he has regular opportunities to share his excitement about space science and exploration, including the latest Hubble discoveries. He played a key role in bringing the “New Views of the Universe: Hubble Space Telescope” and “Science on a Sphere” exhibits to the Visitor Center. Maurice promotes Hubble outreach to other museums and science centers by managing and updating various Hubble exhibits.

Maurice lives just blocks away from his boyhood home in Richmond. He is a leader in the men’s ministry of his church, as well as its scouting program. He also supports a local elementary school with weekly visits and various activities that recently led to its acceptance as a NASA Explorers School.

All of Maurice’s friends have been touched by his enthusiasm for Hubble and NASA. He and his wife have traveled extensively. They are the proud parents of two sons and a daughter. At this point, in his words, they are “truly enjoying life.”
Kate Brand is an observational astrophysicist who studies galaxies and quasars, and how they evolve with time. She is finishing her first year as a Giacconi fellow at the Space Telescope Science Institute in Baltimore, Maryland. This prestigious, three-year fellowship is named in honor of the first director of the Institute, Riccardo Giacconi.

Kate grew up near Cambridge in the United Kingdom. She realized that she wanted to study astrophysics when she took an introductory course in it at school. Because the teacher wasn’t very good, she realized that she really must love the subject to have enjoyed the course. She decided to pursue a degree in physics, with focus in astrophysics, at Birmingham University.

After completing a Ph.D. in astrophysics at Oxford University, she moved across the pond and spent three years in a postdoctoral position at the National Optical Astronomy Observatory in Tucson, Arizona. This position provided her with the skills and experience she needed to embark on her current fellowship, which allows her to spend 100% of her time on research. “The great thing about having a fellowship,” she says, “is having the freedom to be able to follow your interests and pursue the most exciting science that comes along.”

Kate’s research focuses on understanding the growth of supermassive black holes, and how they relate to the development of the galaxies in which they reside. Because they are complicated beasts and emit light over a large range of wavelengths, to get a full picture of their growth, it is necessary to study large samples of supermassive black holes and observe them across the electromagnetic spectrum. Kate conducts statistical studies of thousands of galaxies in large imaging surveys, using data from all three of NASA’s great space observatories: Hubble (optical), Chandra (x-ray), and Spitzer (infrared).

Kate is grateful that her career enables her to travel far and wide. As well as observing on some of the largest optical telescopes in the world—Hawaii and La Palma—conferences have taken her to New Zealand, China, Europe, and South America. She always tries to fit in a few days to explore these places before she heads home. When she is not working or traveling, Kate enjoys hiking, camping, making pottery, and spending time with family and friends. She misses English chocolate.
Tom Batta was born and raised in the soccer bastion of Cameroon. He came to the United States to pursue further education at the State University of New York (SUNY) College at Buffalo, where he graduated magna cum laude in economics in 1984. He then undertook graduate studies at Morgan State University, earning his Masters of Business Administration in finance in 1986. After graduation, Tom began working as a staff accountant for the American Registry of Pathology at the Armed Forces Institute of Pathology in Washington, D.C. After three years of commuting between Baltimore and Washington—with too little evening time for his family and favorite TV shows—something had to give!

The Space Telescope Science Institute was much in the news after the launch of Hubble in April 1990. Aware it was located in Baltimore and hearing it was a great place to work, a job advertisement made it inviting to apply for a job. In August 1990, Tom accepted a position as budget analyst. In this capacity, he managed the Institute’s annual budget, prepared financial reports to NASA, and worked on the staffing plan—a great way to get to know all the names at the Institute. He also developed the variance report, comparing actual and planned expenditures. The Institute was constantly in motion in Hubble’s early days, which to a resource planner means running estimates all the time.

Tom switched to a role in grants administration in the summer of 1992. NASA authorizes the Institute to award research funds to Hubble investigators selected by peer review. Following the recommendations of a financial review committee, the director approves the funding for each program. In a given cycle, funding is approved for support of about 240 programs, typically delivered by more than 600 grants to individual colleges, universities, and other grantee organizations. Tom is part of the team of seasoned technocrats who pioneered the Institute’s fully automated, streamlined approach to the grants process.

Grant work requires close liaison with astronomers working on their research, and maintaining good working relationships with personnel at grantee institutions, as well as the Institute staff. Tom enjoys contact with the staff at all levels, and takes satisfaction and pleasure at how the diversity of skills contributes to making science an interesting experience for anyone with a non-scientific background.

Outside of work, Tom enjoys traveling, spending time with his family, and watching soccer with a passion. He also likes to spend time with friends and fellow members at the annual conferences of the National Council of University Research Administrators, and the Society of Research Administrators.
Jim Reis serves as the ground system manager for Hubble. As such, he oversees the workforce of civil servants and contractor employees that continuously maintain the system’s first-rate performance and security. The Hubble ground system encompasses a wide diversity of facilities, computer equipment, and networking infrastructure. When changes to the spacecraft occur, such as the installation of new science instruments, the ground system—designed to be highly flexible—must also change. Jim’s team ensures that all ground system elements remain capable of supporting the telescope through the planned and unplanned changes over the life of the mission.

Jim’s father promoted his early interest in computers, programming, and higher education. With such encouragement, Jim received a bachelor’s degree from the University of Pittsburgh and a master’s degree from the Johns Hopkins University, both in computer science.

While finishing school, Jim was a programmer for Corporation Information Systems, Inc. He worked at U.S. Steel’s Irvin Plant, a finishing mill in West Mifflin, Pennsylvania, where steel slabs are rolled into sheet-steel products. Jim helped to automate the mill facilities and gained skills for process-control programming, process monitoring, and plant operations.

Jim met a NASA recruiter and agreed to come to Goddard for follow-up interviews and a tour. Jim and NASA were both impressed with what they saw, and at NASA’s invitation, Jim decided to relocate to Maryland and join the space program.

Jim and his wife Amy live in Bowie, Maryland with their children, Leah and Keith. He and his wife were both born in Pittsburgh, Pennsylvania. Jim is proud, and feels blessed, to come from a hard-working and loving family. He says that strong family values and a strong work ethic continue to guide his actions, both at home and at work.

Jim is fond of public service and hard work. He promotes both, noting “In our society, self-worth is based more on how often one is served than on how much one serves. For me, it is an incredible experience and privilege to work on, and serve, one of NASA’s flagship missions.”
Heather Knutson is a fourth-year doctoral candidate in astronomy at Harvard University, and the recipient of a National Science Foundation Graduate Research Fellowship.

Heather studies planets outside the Solar System, focusing on an exotic class of planets known as “hot Jupiters.” These are gas-giant planets—like our Jupiter and Saturn—but they orbit very close to their parent stars. In her research, Heather focuses on eclipsing systems, which are oriented so that once in every orbit, the planet moves across the face of the star, blocking part of the star’s light. Heather uses the Hubble Space Telescope to make measurements of these eclipses to gain information about the sizes of the planets and the compositions of their atmospheres.

Heather grew up on an army base on the island of Kwajalein, part of a small coral atoll located about halfway between Hawaii and Australia. The relatively isolated location near the equator made this island ideal for stargazing, and as a child, Heather often made trips to the edge of the island with a red flashlight and a book of constellations. Although at the time, she never expected to become an astronomer, her recent trips to Hawaii to observe on Mauna Kea have brought back many fond memories of these earlier tropical nights.

In 2004, Heather earned a B.S. in physics from the Johns Hopkins University in Baltimore, Maryland, graduating with both departmental and university honors. While still an undergraduate, she worked part-time as an intern at the Space Telescope Science Institute, which is located a conveniently short walk away from the buildings where Heather had most of her classes. It took several years of college physics classes, a couple of summer internships, and the dedicated people responsible for running Hubble to convince Heather to pursue a career in the field. Also, she says, “The posters for conferences in Cancun that I saw posted on the bulletin boards at the Institute didn’t hurt, either. Between observing in Hawaii and attending conferences from Japan to Greece, I’ve had some really wonderful opportunities to see the world and meet other astronomers from a variety of countries.”

Outside of astronomy, Heather enjoys playing ultimate Frisbee and volunteering through Boston Cares. Although she doesn’t have a yard at the moment, she also enjoys gardening, and many of the projects for which she volunteers are focused on improving outdoor spaces, such as public parks and gardens.
Shirley Duhaney was born and raised in Saginaw, Michigan. She graduated from Saginaw High School and received a B.S. in computer science at Central Michigan University in Mt. Pleasant, Michigan. She has worked at Goddard since 1992 and has been a part of the Hubble family since 1996.

“As a child, I used to watch a lot of space movies,” she recollects. “I also vividly remember watching the countdown and launch of Apollo 11 on the television in my school classroom. This significant moment sparked a vision and a dream in me, that one day I would work for NASA. In reality, I had no idea how this might happen.”

Shirley attended college to pursue chemistry. Two years along, she changed her major to computer science to better utilize her skills in programming and mathematics.

With her new skill set, she became a software engineer and held various positions in the aerospace field before joining the Hubble project as a member of the Flight Software Test Team. Her current responsibilities include leading the team that tests each delivery of Hubble’s flight software. She also supports Hubble servicing missions and any other on-orbit test activities.

“The Hubble project has been the true delight of my career, because it has inspired and challenged me the most. It really is like a dream come true, knowing that I am directly contributing to the fields of science and technology, which so captured my imagination early in life. People are familiar with Hubble and enjoy the outstandingly beautiful images it produces each year,” she says. “I enjoy these, but also love working with the Hubble team members, who are outstanding themselves.”

In her spare time, Shirley is a track coach for the Special Olympics Track & Field Team in Howard County, Maryland. She is a member of the spiritual dance team at her church, and an active participant in a number of other church ministry teams dedicated to helping others. She also enjoys cooking, sewing, home improvement projects, and traveling.
Helmut Jenkner grew up in Vienna, Austria. During his early high-school years, a nearby public observatory helped channel his interest in science into astronomy. After graduating from high school, Helmut performed his mandatory service in the Austrian army for over a year, and in 1968, he enrolled at the University of Vienna to study mathematics and astronomy. When offered a teaching assistant position, he switched his major to astronomy. In 1974, Helmut received a doctoral degree in astronomy and mathematics from the University of Vienna. In recognition of his achieving the highest grades on the exams, Helmut was honored by a special graduation ceremony—promotio sub auspiciis presidentis rei publicae—wherein the president of Austria personally handed him his degree.

Except for a year as a postdoctoral fellow at the Ohio State University in Columbus, Helmut spent seven years as an assistant professor at the Institute for Astronomy in Vienna, specializing in data analysis, data acquisition, and instrument control, while teaching courses ranging from stellar atmospheres to magneto-hydrodynamics and active galaxies.

Helmut came to the Institute for one month as a consultant in the fall of 1982. This led, just a few months later, to his permanent move to Baltimore, Maryland as a staff member of the European Space Agency. His first assignment was as the chief systems analyst of the guide-star selection system. His task was to develop the software system that would select a pair of guide stars for every pointing of Hubble and generate an all-sky catalog of about 20 million objects—about 100 times larger than any other catalog of its kind at the time. Helmut saw the guide star catalog to completion in time for the launch of Hubble. The set of three publications that describe this catalog was later designated one of 54 “selected fundamental papers published this [20th] century in The Astronomical Journal and The Astrophysical Journal.” NASA’s Goddard Space Flight Center also recognized this work by a Group Achievement Award in 1993.

Over the years, Helmut has held several management positions at the Institute in areas related to instruments, calibration, science support, and operations. Since 2002, he has served as deputy head of the Hubble Mission Office, which is responsible for maximizing the science return from Hubble through the Institute activities directly related to the conduct of the Hubble program. Most recently, Helmut led the initial phases of the ambitious legacy archive project, which develops a state-of-the-art archive and retrieval system, and should enable entirely new types of scientific research based on Hubble data.

Helmut is the co-editor of two conference proceedings, and has translated three popular science books from German to English—one about the Roentgen Satellite (ROSAT), the German x-ray satellite, and two about Hubble. He is also the author of about 80 scientific and technical articles. In his spare time, Helmut enjoys classical music and playing piano. He also likes a good game of bridge, and cooks with great passion. Good weather may find him on a golf course, rowing his skiff, or sailing his catamaran.
From an early age, Dave enjoyed building and tinkering with things, whether it was model kits, bicycles, or even (to his parent’s dismay) fixtures and hardware around the house. When the first computer appeared in his high school library—containing only the programming language Basic—he saw tinkering around with software as a natural extension of his interests. He asked for a work-study period at his first opportunity, and for an entire semester spent an hour or more a day writing programs, some of which were used to help automate tasks within the school. This newfound interest led him to pursue a bachelor’s degree in computer science from the University of Maryland, Baltimore County.

Jean and Joe Ryan, who both worked on Hubble, were friends of the family. Their enthusiasm communicated to Dave how rewarding it could be to work on this historic mission. When he later learned of a Hubble job opening, Dave jumped at the chance. He was convinced that he would be working on something he could be proud of—a mission with an impact that would last for generations.

Shortly after Dave joined the project in September of 1995, Hubble’s picture of the Eagle Nebula (“pillars of creation”) was released and immediately captured the public’s imagination. Family, friends, relatives—basically any one who knew where Dave worked—would ask him about the stunning image. The public’s excitement reverberated deeply in Dave as well, and he was inspired to take up amateur astronomy. He now delights in personally showing friends what the universe looks like. Even his modest-sized telescope gets a good look at the Eagle Nebula.

The favorite parts of Dave’s job are preparing the ground network for servicing missions, and then actually assisting during the missions. Because he interacts with people from all areas of the project, he gets an overall view of the planning that makes these complex missions happen. He also enjoys working behind the scenes, administrating the Hubble network, known as HSTNet. If Dave can make things work better, or save time for network users, he feels a sense of accomplishment from contributing to the productivity of the mission.

Dave tinkers at home on his high-performance jet skis and his new Jeep. He is also an avid volleyball player, and enjoys boating on the Chesapeake Bay and its tributaries, both to fish and just to relax.
Not having a particular interest in science or astronomy growing up, Sandy never envisioned herself supporting space science missions at NASA. When she arrived at Goddard in 1986, she considered it an introduction to the world of procurement, but figured she wouldn’t stay long. After all, she hadn’t retained much of her science schooling, and felt a bit out of place.

As a procurement manager, Sandy has the authority by law to commit NASA contractually with its industrial partners, and hence, is responsible for officially buying high-dollar goods and services for various spacecraft projects at Goddard Space Flight Center. In most cases, the satellites and the instruments those spacecraft carry are unique designs. This fact, coupled with the constantly changing landscape of budgets, mission objectives, contract laws, and NASA procurement goals, results in each project requiring a tailored procurement approach. “There’s always a new challenge coming across my desk,” she says. “This gives me a real opportunity to be creative on the business side to support the creativity on the science side.”

Sandy takes pride in being a good steward of the taxpayers’ dollars, and increasingly enjoys seeing the “really cool” hardware needed for a mission, and how it operates. “I work with some great engineers,” she comments. “They explain to me in layman’s terms what their hardware must accomplish, and armed with that knowledge, I work to ensure the contractual terms that can get it for them. I can’t say that I have a hand in designing the hardware, but I do have a hand in acquiring it.”

Sandy has actually worked on the Hubble program twice. In 1995 and 1996, she served as the contracting officer for the Space Telescope Science Institute contract. After gaining experience in a number of other Goddard settings, she returned in 2002, promoted to the role of procurement manager. “There were many new faces, but there were also some familiar ones in different positions, much like me!”

One thing that struck her as the same, however, was the cooperation that drives the members of the Hubble project. “Given the size of the project, I’ve seen remarkable teamwork in action, as each part of the program contributes its expertise. A collection of varied disciplines is needed for good results. As unlikely as it first seemed, I now see that non-science types like me really do play a valuable role in the overall organization. My procurement work is an integral part of the greater team effort needed for a successful mission.”

Sandy is a graduate of James Madison University with a degree in political science. Outside of Goddard, she enjoys watching movies, reading all types of books—fiction and non-fiction—and playing the piano.