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on the cover
Two SOI students, Marcel Mabson and Thomas Kipp, take their hands-on experience seriously.
When Capitol College says its students get practical learning experience, it's no joke, and the 26 students who work for the Space Operations Institute on campus are examples of this mission. SOI has been a part of Capitol for the past six years, and has grown to become one of the college's greatest testaments to its hands-on learning environment. Its partnership with NASA Goddard Space Flight Center allows students to “learn from doing” and gain real-world experience, and they don’t have to wait until they are seniors; after just one semester of good grades and a good work ethic, a freshman engineering student could be part of a team that operates, maintains and sustains a working NASA satellite.

Satellites operated by students at SOI are in extended-mode operations; they have already met their primary objectives by NASA’s terms, but are still healthy and capable of producing valuable scientific data. By allowing students to utilize “expired” satellites as learning tools, NASA cuts costs by keeping projects going longer than anticipated, while putting their dollars to work training the next generation of flight controllers and system engineers. To date, SOI has been a part of four satellite projects during its lifespan.

Currently, SOI students are working on a research and development project for the Tropical Rainfall Measurement Mission, a satellite designed to monitor and study tropical rainfall. It is the only NASA satellite of its kind, and by the end of December 2008, students hope to complete development of an up-to-date, highly secure ground system to replace the aging system currently used at GSFC. This will ensure successful TRMM operations until NASA sends up a replacement satellite.

The new system, after being presented to Goddard and SOI management, will be ready for operations in the spring of 2009 at the TRMM backup control center located on campus. Three Capitol students, Jesse Bullock, Nayessda Castro, and Zachary Dwyer, have already been certified as TRMM satellite operators, trained to send direct commands to the TRMM satellite under general supervision.
For Marcel Mabson, a typical day in the SOI lab can range from "busy" to "chaotic" in a matter of a few minutes. As the lead test engineer, it is his responsibility to ensure that the test team has everything it needs to verify test requirements. He may assist other students in running a "stress test" on a new system configuration or display page, and record the results to share with other engineers. Mabson and his peers are also responsible for developing the various review presentations for NASA and Capitol supervisors.

“My favorite part of SOI is the ability to work with NASA engineers that have experience that spans from ten to 30 years, and being able to take in and utilize their knowledge to better myself,” says Mabson. “At SOI, I am not seen just as a student; I am treated just like an engineer, as part of a greater team working toward a common goal.”

Some SOI students have earned positions at GSFC, conveniently located a few miles down the road from campus. While SOI interns don’t receive government security clearance, they undergo a national agency check, which puts them through the initial process needed to qualify for clearance later on.

“SOI has opened doors for me because I have been provided with an opportunity that many students and adults only dream about,” says Castro, a senior who interns at GSFC. “Being an SOI student has allowed me to meet and come into daily contact with great NASA engineers that I sit with side-by-side in our efforts to maintain a great satellite mission, running it as best we can.”

During the summer of 2008, SOI was put in the media spotlight in an article written by Ken Dolan, Capitol’s deputy director of space operations. Entitled “Learning by Doing: A NASA-Capitol College Partnership,” the article appeared in NASA’s ASK Magazine and highlights the work done by the first group of SOI students, who designed a new ground system to operate the Total Ozone Mapping Spectrometer (TOMS) satellite.

The initial grant from NASA, which covered TOMS work and helped jumpstart the program, had a specific purpose; to help fill the pipeline of astronautical engineers. Faced with the retirement of a large portion of its workforce, NASA and other government agencies are on the lookout for students who will graduate with the knowledge, capabilities and qualifications to
fill the positions opening up soon in the industry.

"By sending these students on to their careers with the kind of experience they get after four years, SOI is saving NASA and other companies thousands of dollars by reducing their training costs, because they are able to jump in and start working on day one," commented SOI Director Dave Wagner.

So far, 65 percent of the graduates from the SOI initiative have found work at Goddard or a company within the industry such as Honeywell, Lockheed Martin or SGT. They left Capitol with an education that allowed them to “hit the ground running,” according to Wagner.

“As someone who has benefited exponentially from SOI, I would recommend it and promote it to anyone,” comments Ian Howard, another GSFC intern. “As I see it, it’s one of the great things that Capitol has to offer to students, they simply need to take advantage of it and apply.”

And, SOI doesn’t just cater to astronautical engineering majors, but also to almost every other engineering discipline Capitol offers. Electrical engineering, software engineering and computer engineering majors are just as likely to be a part of the program as their space-focused counterparts.

“The experience gained through SOI is knowledge that’s not taught in any classroom and can’t be measured by any test,” says junior Jesse Bullock. “It is real world experience, working with a great diverse group of people in order to solve real world problems and keep the bird in the sky.”

Because of SOI, Capitol seniors like Castro and Howard step out of the classroom early and apply their knowledge to the real world, where they make a real impact in their chosen field. When they graduate, they will have the tools and knowledge they need to join the ranks of the prestigious field of astronautical engineering. And you can bet that for them, launching their career will be as easy as operating a satellite.

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Ian Howard, senior, astronautical engineering

**Career Influence:** Through my work on three NASA missions I have been able to specialize in Goddard-built software, GMSEC, and gain tons of contacts within the system engineering community. I have had several people ask me when I was graduating and I hope to take advantage of their interest when I graduate. I have definitely found my niche with my degree and have found what I want to do.

**Unique Experiences:** Something that I never thought I would be able to do is to master myself in a product that was made by NASA! The purpose of GMSEC is to automate a ground system in order to assist the Flight Operations Team with data recovery and ground system setup. This software has been where I excel and I am grateful that I was able to learn a thing or two about it on the ST5 mission.

Laurence Tornabene, junior, astronautical engineering

**A Day in the Life:** Typically, on a normal day of work I first check the configuration management and proceed on to ensure everyone is still on track towards the common goal; this semester it is to complete the bulk of commanding before the end of the year. If someone is straying from this goal, I help guide them towards the proper path, and help solve any problems or issues at hand.

**Career Influence:** I think, in a direct fashion, working for the SOI is the first step down my career path. By networking while still in college, I feel that I already have a good start into working in my desired field.
Capitol awarded National Science Foundation grant

Students who excel in science and technology classes now have the opportunity to show off their talents at Capitol with the added bonus of having their tuition paid in full.

In August 2008, Capitol College was awarded a $586,000 five-year grant from the National Science Foundation’s Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) program. The majority of the awarded NSF funds, along with matching funds from Capitol, have helped to establish the Capitol Scholars Program, which will provide funding and support programs for a cohort of 14 specially selected, high-ability freshmen each year for the next five years. Remaining grant funds are allocated for recruitment efforts.

Students who are selected into this prestigious program will be awarded with either full-tuition scholarships or full-ride scholarships. The CSP is filled with advantages; involved professors and mentors, unique study environments, hands-on projects and partnerships with organizations like NASA.

“Many of Capitol’s students often represent the first generation in their family to attend college. These students have great potential for success, but also require significant assistance both academically and financially to stay in college,” says Dianne Veenstra, vice president for planning and assessment. “The Capitol Scholars Program will attract and retain the high-ability students who might not have the resources to attend college or might leave college before completing a degree. This program allows them to enter the workforce as highly-educated engineers and computer scientists.”

The members of CSP will get an education that is more than just paying tuition – the program is about strengthening academic skills, engaging in engineering and computer-related extracurriculars, and planning a career path. An encouraging support system on campus will help students achieve success; they can take advantage of monthly group meetings with faculty advisors, shared classes, personal advising, mentoring from alumni and industry professionals, and career planning services.

Incoming freshman will also experience the Capitol College Institute for Student Success, a three-week, residential summer introduction to the college environment. Sophomores enjoy a one-week summer program to learn exceptional academic and leadership skills.

The Capitol Scholars Program will help to bring the region’s brightest and most motivated young minds to the Capitol campus. Completing the program will mean these students will have earned a powerful degree and will funnel into engineering careers in the Baltimore/Washington, DC region.
Capitol ranked among the nation’s “Best Buys”

This year, the votes have been counted and the verdict is in. The national editorial review team at GetEducated.com, an independent, online degree clearinghouse, designated Capitol College’s master of science degrees in electrical engineering and computer science “Best Buys” for 2008.

These new awards are based on a review of regionally accredited, competing universities offering online degree and distance-learning options nationwide. Capitol’s electrical engineering master’s degree program is ranked 22nd on the website’s Top 28 Ranked Best Buy Online/Distance Engineering Degrees, and the computer science program is ranked 20th on the website’s list of the Top 30 Best Buy Masters in Computer Science and Information Technology. In addition to computer science, Capitol’s master of science in information assurance was also listed as an honorable mention candidate on the latter list.

“A ‘Best Buy’ designation indicates that the degree program has been reviewed and judged to offer a high quality distance degree to a national audience at tuition rates well below the national average,” stated a company representative.

A GetEducated.com press release reflecting on the rankings mentioned that while MIT and Stanford are top names in distance learning for engineers, they also rank as the top two most expensive distance learning institutions, charging a whopping $86,000 and $57,000 respectively for an MS in engineering. Just as all that glitters is not gold, not all that’s “Ivy League” is a “Best Buy.”

Comparatively, the news release identified Capitol as the “only private college that made the Best Buy distinction among the online colleges on the ranking list.” Coming in at only $16,200 for an online masters degree in electrical engineering, $15,390 for computer science, and $18,468 for information assurance, the distinction highlights Capitol as the first of its kind to offer both affordability and excellence in online education.

Graduate students aren’t the only ones benefiting from lower tuition rates at Capitol. Undergraduate students are still benefiting from a tuition freeze, which stopped tuition from rising this year, cuts in business and information management tuition by nearly half for this year, and a tuition lock, which keeps tuition costs the same for all four years they attend school.

GetEducated.com is a consumer watchdog and advocacy group that rates, ranks and verifies the cost, quality and credibility of online colleges and universities. Their mission is to educate, advocate and protect consumers. They are the only advocacy group in the USA dedicated exclusively to assisting online students in analyzing and comparing online colleges and universities.
Career Day prepares students for the future

Every year, Capitol presents a Career Day to students, giving them time off from the daily grind to prepare themselves for their lives after college. This year’s keynote, Marty Hill from Booz Allen Hamilton, gave students insight into the application and interview process, and spoke to some of the latest news in the information technology industry.

“Make yourself interesting,” advises Hill. “Have something to say that lets the employer know that you have thought beyond the basic curriculum. Don’t be afraid to show your personality and creativity.”

Students attended presentations designed for their specific year. Freshman students enjoyed “Speaking for Change” with Tip Fallon, which focused on goal setting and the drive to achieve. Sophomores and juniors met with several representatives from student work programs within the federal government. Both groups attended “In Search of Diamonds,” presented by Jim Watson PE, President of Watson Associates.

Seniors were treated to a special etiquette luncheon, during which Michelle Pollard Patrick from National Protocol, Ltd. lectured on the intricacies of dining etiquette and the importance of “soft skills” in the modern business world.

Capitol makes Prince George’s County gorgeous

For the first time this October, Capitol College participated in the 6th Annual Gorgeous Prince George’s Day event, part of the county’s Livable Communities Initiative. The LCI is PG County’s strategic plan that guides, supports and assists the government, residents and businesses in creating and implementing principles that will result in a healthy, safe and litter-free environment.

“For our annual Gorgeous Prince George’s Day event, we have planted some 155,170 trees, shrubs and flowers, establishing PG County as a leader in promoting healthy and green neighborhoods,” wrote County Executive Jack Johnson.

During the event, students and staff worked together to plant new flora on the campus, including 100 daffodil bulbs and 20 crape myrtle trees. Organizations and individuals around the county planted an assortment of willow oaks, red maples, daffodils and cherry laurel.

PG County science departments utilize campus

This year, Capitol will provide its campus as the host site for PG County’s many middle school and high school science teachers and science department chairs for professional development and other meetings of the mind.

Capitol has and will continue to offer its campus as host to many organizations including IEEE, the Maryland InfraGard Chapter, government agencies, local homeowners associations and the annual Patuxent Wildlife Art Show.

Signing ceremony marks another articulation agreement

Executives and members of academic departments from Capitol College and the Community College of Baltimore County attended a signing ceremony in early October to pen the second articulation agreement between the colleges.
Former Capitol president remembered

A few days after his 85th birthday, former Capitol College president and US General, Harold R. “Johnny” Johnson, passed away on August 29, 2008 at the Johns Hopkins University Sidney Kimmel Comprehensive Cancer Center in Baltimore, Md. due to acute myeloid leukemia. He was buried on November 10, 2008 with full military honors at Arlington National Cemetery.

Johnson was a career military man, a private business man and entrepreneur, a visionary and a pioneer who came from humble beginnings. After graduating high school, he worked as a technician at Consolidated Aircraft Company before entering the US Army Air Corps as an Aviation Cadet. During his time in the Army, Johnson completed two degrees and participated in no less than 29 combat missions against Nazi Germany, including the famous Battle of Bremen. As General Johnson, he also took part in the Vietnam and Korean wars and received many awards and decorations.

The end of Johnson’s military career in 1970 also marked the completion of his transition to the private sector, where he both served in the White House and was successful in the telecommunications industry as an executive at Fairchild Corporation, Western Union Telegraph Company and American Satellite. In 1999 he founded his own technologies strategy consulting company, Vitalink Communications.

From 1976 to 1977, Harold Johnson served as the president of Capitol College, lending his extensive knowledge of satellite technology and telecommunications to a college that specialized in those industries at the time. He also served as a member of the board of trustees from 1972 to 1977.

Johnson’s survivors include his wife of 64 years, Maria Baciu Johnson of Potomac, four children, six grandchildren and two great-grandchildren. His daughter, Candace, has set up a scholarship at Capitol in his name.

The agreement, which follows a previous collaboration regarding the electrical engineering degree, will facilitate the transfer of CCBC students who graduate with an associate of applied science degree in network technology to Capitol’s bachelor of science degree in information assurance.

CCBC’s president, Dr. Sandra Kurtinitis, commended Capitol’s initiatives and extended CCBC as a willing partner. “We have many partnerships downward towards high schools,” said Kurtinitis. “We will relish this opportunity to articulate upwards with colleges like Capitol who can continue to provide the ingredients in our own mission; affordability, accessibility and quality.”
'50 Jack L. Stoll, AAS, works as a senior reliability engineer at Tektronix, Inc. During his career he has been a reliability consultant for Intel and several other electronic companies and is a current member of IEEE. He lives with his wife, Marjorie, in Portland, Ore.

'60 Joseph R. Greenwood, AAS, retired in 1989 from his career as a member of the technical staff at the NASA Jet Propulsion Laboratory in Pasadena, Calif. Greenwood has also been a member of IEEE and he and his wife, Mary, reside in Barboursville, Va.

'82 John R. Martin, BS, received an MBA from Hood College and works as the Director of Program Management at DRS Signal Solutions, Inc. Martin lives with his wife, Angela, in Walkersville, Md.

'98 Kevin L. Gottsman, BS, his wife, Akemi, and their four-year-old daughter are expecting to add a second baby girl to their family in February of 2009. Gottsman is a technical solution architect at IBM and has previously earned a second degree in industrial technology from Purdue University. The Gottsmans currently reside in Plainfield, Ill.

'98 Christopher D. Bevard, BS, a former member of the Alpha Chi and Tau Alpha fraternities, received his master’s degree in electrical engineering from Capitol College in 2006. He works as the lead electrical engineer for AAI Corporation and resides in Cockeysville, Md., with his wife, Kim.

'03 Ken Kassing, BS, lives in Elkridge, Md., and is currently the chief software engineer at Patton Electronics. He is a member of IEEE, the Alpha Chi fraternity and other professional organizations.

'03 Terry R. Mollett, MS, currently serves as the Director of User Services at Dickinson College, and is an adjunct faculty member at Elizabethtown College and the University of Maryland. He resides with his wife, Kathy, in Fayetteville, Pa.

'03 Michael L. Johnson, BS, is a member of IEEE and works as a quality assurance engineer at Valador, Inc. He lives in Centreville, Va.

'03 Laura Dugan, BS, is currently the senior marketing and communications specialist at the Iowa Foundation for Medical Care. She has earned her master’s degree from Towson University in professional writing and will present a paper on the movie Enchanted at the Mid-Atlantic Popular and American Culture Association Conference in Niagara Falls, Canada, in late October. She resides in Columbia, Md.

'03 Danny J. Hartwell, MS, and his wife, Valerie, live in Leonardtown, Md. He is currently working as a program manager for the Department of Defense.

'05 David C. Wylie, MS, is an Army Reservist and works as an associate at Booz Allen Hamilton. He completed his command of the 426th Civil Affairs Battalion in March 2008 and was promoted to Colonel. He is now serving as G3 for the 358th Civil Affairs Brigade.

'05 C. Jeffery Bowen, MS, is a senior practice lead and senior manager at Deloitte and Touche in Irving, Texas, and currently attends Texas Tech University where he is studying for a PhD in technical writing. Bowen is a strong supporter and member of several organizations including the Human Rights Campaign, the Make-A-Wish Foundation, D.A.R.E., Big Brothers and Big Sisters and the Troy Aikman Foundation, among others. He is a member of IEEE and the Alpha Chi fraternity and lives in Dallas, Texas.

'05 Eric S. Wilson, BS, earned his master’s degree from Capitol College in 2007. He currently works as an information assurance specialist at the Defense Information Systems Agency and resides in Washington, DC.

'07 Jack D. Vance, MS, is a computer forensic analyst for the FBI. He and his wife, Bonnie, live in Stafford, Va.

'08 Paul D. Keser, MS, works as an information security officer at Stanford University. He has certifications in both CISSP and ISSA, and resides in San Francisco, Calif., with his wife Yvonne.

Let your classmates know what you’ve been doing. New job? Degree? Award?

Submit your class note on our website at www.capitol-college.edu under the Alumni & Friends section or mail it to Capitol College, Office of Advancement and Alumni Relations, 11301 Springfield Road, Laurel, MD 20708.

Each issue of Capitol Chronicle, including class notes, is posted on Capitol College’s website.
James Bubeck has been promoted to the position of Network and Administrative Support Manager. Bubeck will work with administrative and academic computing team members to manage, maintain, backup and build servers and networks for the college.

Deputy Director Ken Dolan, has been elected to the 2009 Board of Directors of the Maryland Space Business Roundtable and has been elected Secretary of the Board.

Allen Exner has accepted the position of Director of Academic Computing. Exner (BSEET 1989) has been working as Capitol’s Network and Administrative Support Manager since 2005. In his new position he will actively pursue emerging technologies relevant to lab, classroom and online computing environments.

Vice President Vic Maconachy, PhD, was a member of a panel discussion this October at the National Secureworld Conference, focusing on the issue of workforce readiness in information assurance.

Professor Michael Rockler presented a paper entitled “Abraham Lincoln as a Practitioner of Invitational Politics” at the International Alliance for Invitational Education in Chicago, Ill., in September.

Grant Vargo’s promotion to Computer Services Manager was to be featured in this issue of the Chronicle. Sadly, he passed away due to injuries sustained in a car accident on November 18, 2008. Grant came to Capitol as an undergraduate student in the fall of 1998. He was a scholarship student, earning the Anthony and Anna Carozza Foundation and William G. McGowan Charitable Fund scholarships. He was also a student employee and a member of the prestigious Alpha Chi Honor Society. After earning his BS in management of information technology in 2003, graduating cum laude, Grant became an active member of the alumni community and eventually joined the IT staff at Capitol in 2006.

Grant’s family and friends knew that he loved the college, and his presence here was always positive and uplifting. The Capitol family will miss Grant’s friendly face in the halls and shares the sadness of those who loved him. In his memory, the Grant Vargo Memorial Scholarship Fund has been established to support the college he loved so dearly.