

Florida Tech TODAY

A magazine for Alumni and Friends of Florida Institute of Technology FALL 2006

Pluto

Charon

Nix

Hydra



Cover Story

Max Mutchler '90 M.S.

Mutchler's Moons

In This Issue: A Natural Combination | Taking Flight
Climate Change | Waste Not, Want Not

Homecoming
Registration Inside

President's Perspective

Dear Florida Tech Alumni and Friends,

Welcome to the fall 2006 issue of *Florida Tech TODAY*. In this issue, we celebrate the accomplishments of our alumni in research observatories, boardrooms and ball fields.

Alumnus Max Mutchler '90 M.S. has spent his entire career doing research with the Hubble Space Telescope. In the past year, his team made a significant discovery in advance of the New Horizons Mission to Pluto—two new moons.

While neither moon (Nix and Hydra) was named for Mutchler, he was honored for his accomplishment with a new asteroid. Asteroid 6815 *Mutchler* is likely the first named for a Florida Tech graduate.

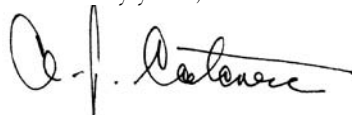
Leading a distinguished career in airport management is Florida Tech alumna Clara Bennett '91 B.S. Bennett runs the Fort Lauderdale Executive Airport, one of the busiest airports of its kind in the nation. She credits her time at Florida Tech for helping her get on the fast track. The university also holds a soft spot in her heart as the place where she met her husband.

On the playing field, Panther outfielder Jon Baksh had few equals. Now, he's moving on to professional baseball, having been drafted in the seventh round of the Major League Baseball draft. As the highest-drafted Panther in history, Baksh has the rare opportunity to play for his hometown team.

You'll find all of these stories and much more in this issue of *Florida Tech TODAY*. We highlight remarkable faculty members in biological sciences and civil engineering, and take a look at two faculty perspectives on global warming.

Finally, this issue features all you need to know about the second homecoming of 2006, as the annual event does a double-take this fall. If you missed the festivities this spring, we hope you'll be able to join us in October as we get ready to "Rock the World." I look forward to seeing you there.

Sincerely yours,



A.J. Catanese, Ph.D., FAICP
President



Florida Tech TODAY

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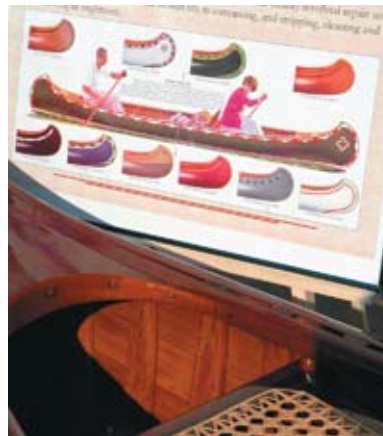
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High Tech with a Human Touch



Cover Story: Mutchler's Moons



Feature Story: A Natural Combination



Sending greetings from Atlanta are, from left: Matt Coffelt '02, Robert Sarkissian '78 and Tim Stevens '98.

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This issue's cover: Pluto's moons, Nix and Hydra, are shown in this Hubble Space Telescope photo. Credit: NASA, ESA, H. Weaver (JHU/APL), A. Stern (SwRI), and the HST Pluto Companion Search Team

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I really enjoy reading about Florida Tech and its alumni in your magazine. Especially fun was the recent article about my fellow classmates from the Jensen Beach Campus—Ken Ammon '75 and Tommy Strowd '76. I was in classes with both of them, and graduated with Tommy in 1976 with a B.S. in oceanographic technology. I also got an A.S. in environmental technology in 1976.

Keep up the good work.

*Darryl Hatheway, CFM
Senior Coastal Program Manager
URS Corporation
Gaithersburg, MD 20878*

This letter is regarding the last issue's article on Ken Ammon and Tommy Strowd of the South Florida Water Management District. The Everglades Restoration Plan is a highly scrutinized and truly innovative project that definitely benefits

Tell us what you'd like to see and give us your responses to the articles that you've read in the magazine. We'd love to hear from you. Send your comments to the editor, Jay Wilson, jowilson@fit.edu.

from their skill, knowledge and leadership. But, Ken and Tommy do not work alone. There are an army of individuals who work on the details of this massive endeavor. They include project engineers, lead scientists, project managers, etc, who keep this restoration moving at a tremendous rate, and believe it or not 27 of them are also Florida Institute of Technology graduates! I don't have the time or space to list their names here, but I wanted to give them some recognition for their hard work and perseverance. So congratulations to all the Florida Institute of Technology graduates working on restoring the Everglades, we are everywhere and we are making a difference in this world!

Thanks,

*Kathy LaMartina, class of '84
Sr. Water Resource Manager
South Florida Water Management District*



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A Look Back in History



Members of the Dive Club as they were pictured in Volume VII (1980) of the Canned Leviathan IV—Jensen Beach yearbook.

Two Founders Remembered



Homer Denius



Tom Adams

Last spring, the university lost two of the leading lights of its formative days when **Homer Denius** passed on in April and **Tom Adams** died in May. **Dr. Gordon Patterson**, humanities professor, shared remembrances of the two leaders in intra-campus e-mail messages.

He wrote of Denius, who with **George Shaw** launched Radiation, Inc., now Harris Corp.: “He threw his support behind the fledgling college. In 1959 and 1960, Denius secured temporary facilities for the school in a vacated church building on Strawberry Place off New Haven in Melbourne. The next year he allowed the college to use one of Radiation’s buildings at the former Indian River Naval Air Station, across from the Hilton [hotel on Airport Blvd.].”



Milestone for Tech Baseball

The Florida Tech baseball program had a milestone year this season. The program retired Tech’s first-ever baseball uniform numbers and only the second, third and fourth uniform numbers ever in the school’s 48-year history.

To kick off the 2006 season, Boston Red Sox pitcher **Tim Wakefield**, former baseball coach **Les Hall**, and friend and former coach **Andy Seminick** became the first baseball honorees to have their numbers retired with an unveiling ceremony of a display of their portraits and numbers of #3, #1 and #21, respectively. The exhibit will permanently hang on the outfield walls of the Andy Seminick-Les Hall Field in the F.W. Olin Sports Complex.

“Perhaps most noteworthy was Denius’ personal contribution of the funds for our first building in 1961. When **Jerry Keuper** [founding president] secured the property on Country Club, Denius sent an architect over and the plans were drawn up for what is now the John Miller president’s office building and the north portion of the quad. The student union was named for Homer Denius in 1968. For nearly 50 years, Homer Denius remained a great friend of Florida Tech. He will be missed.”

Patterson called Adams “the first public official to recognize the importance of Brevard Engineering College and, in the 1950s and 1960s, the university’s first advocate.”

He wrote, “Adams entered politics in 1956 when he was elected to the state senate. He was elected secretary of state in 1960. When Countdown College [the young college’s nickname] was threatened by powerful adversaries, Adams stepped forward. Keuper never forgot this ... In 1964, Tom Adams secured the name, ‘Florida Institute of Technology’ for the university.

“Between 1960 and 1991, Adams served Florida Tech in a number of different capacities ranging from board of trustees member to acting as vice president for university advancement ... His booming voice, rustic manner and powerful handshake were tempered with a mind conversant with Italian Renaissance political theory. Those who knew him will not forget him.” *Photos © Florida Today*

International Business Degree

A newly approved degree program, a bachelor’s degree in international business, is available to incoming students beginning fall 2006. Supporting the program are seven new courses designed to provide students with the global skills necessary for success in the borderless business world of the 21st century.

The new courses, to be taken in addition to core courses, are Cross-Cultural Management, Global Macroeconomic Issues, International Trade, Global Accounting and Tax, Global Financial Management, Business in the Western Hemisphere and an International Business Practicum/Internship.

For more information on this program, contact Florida Tech’s College of Business at (321) 674-7167 or visit <http://cob.fit.edu>.



Seymour New Trustee

Scott J. Seymour, J.D., named last spring, is the newest member of the Florida Tech board of trustees. He is corporate vice president and president of Northrop Grumman's Integrated Systems sector, an aerospace and defense systems integration organization.

A U.S. Marine Corps veteran, Seymour holds a bachelor's degree in electrical engineering from Polytechnic University in Brooklyn, N.Y., and received his law degree from Western State University College of Law in San Diego, Calif. He is a member of the American Bar Association (Section on Intellectual Property Law) and the California Bar Association, where he participates in the Volunteers in Parole program, mentoring parolees in their transition back to society.

Hamme Is New Vice Provost for Enrollment Management

Gary L. Hamme has been named vice provost for enrollment management. Hamme will administer undergraduate and graduate admissions, and financial aid functions as well as manage student retention activities.



Most recently, Hamme served as vice president for marketing and enrollment management at Embry-Riddle Aeronautical University, where he was responsible for strategic enrollment and universitywide marketing efforts. He also oversaw universitywide marketing for the university's two major locations—in Arizona and Florida.

From 2000 to 2004, Hamme was vice president for enrollment management at Fairleigh Dickinson University in New Jersey.

Vive Le France

Florida Tech won a Tournées Festival Grant to put on a festival of contemporary, critically acclaimed French films. **Carla Funk**, special projects assistant in the Office for Advancement, and **Dr. Gordon Patterson**, professor of humanities, successfully applied for the grant.

The five-film festival, held last spring was "one of the best attended community programs I have ever witnessed at Florida Tech," said Patterson. Films were shown in the original French language with English subtitles.

The Tournées Festival was sponsored by the French American Cultural Exchange. The festival is made possible with the support of the Cultural Services of the French Embassy and the French Ministry of Culture.

Plans are under way for a Tournées 2007.

Professor Releases Online Thriller

Dead River, a thriller by **Dr. Fredric Ham**, Harris Professor of Electrical Engineering, is online. The book, recently published by Pulp Bytes, is available at www.dppstore.com.



Ham, a senior member of IEEE, is also a member of the International Neural Network Society, Eta Kappa Nu, Tau Beta Pi, Phi Kappa Phi and Sigma Xi. He is the associate editor of *IEEE Transactions on Neural Networks*.

'New World Textiles' Open to Community

Florida Tech's first-ever textiles course, "History of World Textiles," is open to the community this fall. Community members pay a reduced fee of \$300 for audit credit only, which is less than half of what students will pay for the three-credit university course.

Fantasy Fabric Find Falls to Florida Tech

Ever dream of uncovering a valuable treasure in a garage sale or thrift store? A Melbourne thrift shop manager realized that fantasy. While sorting a jumble of clothing donations, she discovered a unique formal Japanese wedding kimono. Florida Tech was the fortunate recipient. The shop donated the ivory-colored silk kimono, called an

"uchikake" to display in the university's textiles collection. Dating from the 1960s, the elaborate, embroidered kimono is a design from Japan's Edo period (1600-1868). "This kimono represents the traditional Japanese bridal costume," said Carla Funk, special projects assistant, Office for Advancement.

The course, presented through the university's new Textile Art and Industry program, is taught by **Dr. Lars Jones**, assistant professor of humanities. "We will cover materials and basic production techniques as well as more complex analytical methods and techniques of connoisseurship," said Jones, an art historian.

The course begins Aug. 22. For more information, call (321) 674-8082.

Faculty Retire, Become Faculty Emeriti

Four members of the Florida Tech community, who have taught at the university for a cumulative 79 years, have retired and been given the title Faculty Emeritus.

Dr. Rong-sheng Jin, associate professor of physics and space sciences, joined the faculty in 1969. While teaching and conducting research at Florida Tech, he was a senior faculty research fellow at the Naval Oceanographic and Atmospheric Research laboratory during the summers of 1991 and 1992.

Dr. Raghendra Deshmukh, associate professor of electrical and computer engineering, joined the university in 1982 and is a consulting engineer in the state of Florida. He has taught courses in computer engineering and has been the graduate coordinator for the department of electrical and computer engineering.

Dr. Rudolph Stoeckel, professor of humanities, joined the university in 1983. A past chair of the social sciences division of the Florida Academy

of Science, he was also a member of the Renaissance Society of America, the Dante Society and the Wallace Stevens Association. Dr. Stoeckel passed away on July 15, 2006.

Joyce H. Stottler, humanities instructor since 1990, taught freshman composition and business communication. In her early years at the university, she taught English as a second language in the Academic Support Center.

DART Hits Bull's-Eye

Florida Tech has become the first university with a doctoral, or research program, to own an instrument that is revolutionizing the work of old-fashioned mass spectrometers. The DART (Direct Analysis in Real Time) enables direct detection of drugs, chemicals or explosives on surfaces, in liquids and in gases without the need for sample preparation.

What used to take hours—analyzing paper money for cocaine, clothing for gunpowder or urine for drugs, for example—can now happen on the spot.

Florida Tech is one of only 15 installations of the JEOL USA Inc. DART, which just became available in 2005. Purchased for \$210,000, the instrument will be used in teaching, such as organic chemistry classes, and research. It also may assist community organizations such as law enforcement in their analysis tasks.

Dr. Nasri Nesnas and **Dr. Joel Olson** will be among the first to use the DART. They will apply it to their two-year-long nanotechnology project to develop a molecular photosensor. The photosensor, based on compounds such as Vitamin A, found in mammalian retinae, is expected to be useful in the fabrication of miniscule cameras used in nanorobots for medical, military and national security operations.



Dr. Robert "Chip" Cody analyzes a lemon peel in the DART. Also pictured is Florida Tech's Dr. Nasri Nesnas, assistant professor of chemistry.



"The kimono will make a dramatic display and is a wonderful addition to our textile collection, which contains many Asian objects," she added.





Omari Sarjeant, a junior in computer and electrical engineering, displays a powered cable reel system built by his team.

Students Display Array of Technical Projects
College of Engineering students teamed up to create design projects required for a bachelor of science degree in their chosen field. Last spring, they exhibited over 100 of these projects in the annual Student Design Showcase at the Charles and Ruth Clemente Center. Florida Tech seniors conceive, design and implement their project, write a description, document the requirements and gain hands-on experience. The project simulates a real-world work environment challenge in a variety of engineering fields.

Safety Award Winners

The Falcons flight team earned first place for Safety at the National Intercollegiate Flying Association (NIFA) Safety and Flight Evaluation Conference, held in Dublin, Ohio. Additionally, the team was awarded the Red Baron Team Sportsmanship Award. This is earned by members from all teams voting on the team that displays the best sportsmanship.

“The American Airlines Safety Award is presented to the team that has demonstrated the safest practices and procedures for the past year,” said **Dr. Donna Wilt**, associate professor of aeronautics and Falcons adviser.

Jeff McDivitt, the team safety officer, said, “This is the first national safety award that the Falcons have taken home, ever. The team was extremely deserving.”

Overall, the team moved up 10 places to 17th place nationally at the conference.

Relay for Life Nets More than \$33,000 to Fight Cancer

Florida Tech volunteers raised more than \$33,000 for the American Cancer Society’s Relay for Life—about \$10,000 more than last year.

This is the second year Florida Tech faculty, staff and students joined forces to raise money to fight cancer. Students washed cars, sold luminarias and pitted fraternities and sororities against each other in friendly competitions. Faculty and staff held book sales, raffles, a breakfast, a luncheon and an ice cream social to garner funds. The culminating event, an overnight relay inside the Clemente Center, raised a high percentage of donations through relay walker sponsorships.

Sporting Affair Draws \$210,000 for Scholarships

The 14th Annual Sporting Affair grossed an estimated \$210,000 for Florida Tech athletics scholarships.

This year’s fund-raising event drew 140 golfers to the Panther Invitational Golf Tournament. In the 3rd Annual Chopper Dropper, a helicopter dropped 1,000 golf balls onto the Suntree Country Club golf course, while



Steve Lamontagne (right), director of golf operations for Suntree Country Club, measures the distance the winning ball is from the pin for the Sporting Affair’s 3rd Annual Chopper Dropper golf ball drop. Trustee Dr. Richard Baney (left) and Director of Athletics Bill Jurgens (back, center) watch as Trustee Joe Flammio assists.

more than 200 people watched and waited to see which ball landed closest to the pin. The winner, Cherri Peoples, took home \$25,000; another \$25,000 went to scholarships.

in the news

■ Laboratory Lightning

A new and surprising finding by **Dr. Joseph Dwyer** and his team, which brings the study of lightning research into the laboratory, was featured on the National Geographic Channel program, “Naked Science.” Dwyer is already noted for his discoveries related to X-ray emission from natural and triggered lightning, but he was shocked to find that laboratory-generated sparks make X-rays, too. “We know that X-rays are made in outer space—in exotic places like the center of the sun and supernovae—but we didn’t think they could be made so easily in the air,” said Dwyer.

■ Corals under Stress

Coral bleaching, adversely affecting the world’s coral reefs, is **Dr. Robert van Woesik’s** specialty. Renowned for his knowledge of this phenomena, the biological sciences professor is sought by media around the globe. He was quoted in a Reuters news service story, which appeared in newspapers around the world, and published on MSNBC.com. His expertise was featured on the NBC Nightly News, and he took part in a telepress conference held by the National Environmental Trust on the condition of Florida corals. His work also earned him participation in a UNESCO Conference in Paris that studied the paling and death of corals under stressful environmental conditions.

■ Fibs and Falsehoods

Dr. Richard Griffith, director of Florida Tech’s Industrial/Organizational Psychology program, knows all about job applicant faking and résumé padding. So noted is his work in creating a new analytical technique to model applicant response

distortion that *TIME* magazine called him for some quotes. The article, “Getting Wise to Lies,” was featured in the May 1, 2006, issue. Griffith has a book coming out on the subject this year.

In Other News

Space.com and several other publications in the United States and India announced that **Sunita Williams** ’95 M.S. would be on the July 2006 Space Shuttle *Discovery* crew enroute to the International Space Station ... Geotimes quoted College of Business **Dean David Steele** in a story on the under-collection of oil and gas royalties in the United States ... Science Daily and nearly a dozen other science-themed Web sites ran a story on Florida Tech’s new spectrometer ... The *Palm Beach Post* quoted **Dr. Alan Leonard** in a story detailing disagreement in the scientific community over biotechnology vs. bio-defense spending ... *Medical News Today* covered the grant earned by **Drs. Annie Becker** and **Frank Webbe** to help Alzheimer’s disease patients and their caregivers ... Microsoft.com quoted **Dr. Richard Ford** about the future of cell phone computing.

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Endowment gifts last forever. Donor gifts are invested, with the principal amount remaining intact and earnings used annually for purposes meeting donor wishes. The amount of annual distribution is set at an average of five percent of the three-year trailing account balance. This means an endowment balance of \$100,000 will result in \$5,000 for a scholarship or fellowship. This amount will increase as the account grows.

“Creating a scholarship or fellowship fund is a wonderful way to provide a lasting heritage for yourself or someone you love,” said Florida Tech **President Anthony J. Catanese**. “In doing so, you’ll also change the lives of countless undergraduate or graduate students.”

Donors may restrict their endowment gifts to a specialized area of interest (see pg. 11). For a minimum of \$25,000, paid over an agreed period of time, a new scholarship endowment can be established and named as the donor wishes. This offers an individual, foundation or company a chance to make an enduring statement of support for higher education while, at the same time, creating a scholarship that can honor or memorialize the donor, a family member or friend forever.

“A gift of an endowed scholarship to Florida Tech is a wise investment,” said Florida Tech Director of Development **Beverly Sanders**. “Through endowment giving, you can provide ongoing support for exceptional scientific and technological education and research. As partners, each donor and the university team up to make a better world for ourselves and our children.”

Sanders said creating an endowment involves a simple three-step process. The steps are as follows:

Call Florida Tech

First, if you’re thinking about establishing an endowed scholarship or fellowship, you should contact Sanders by phone at (321) 674-8962 or via e-mail at sandersb@fit.edu. Sanders or a member of her staff can guide you through the gift process.

Decide on an Area to Support

You should know that Florida Tech offers a variety of academic programs that you can support, so a member of the development staff will help match you with one that meets your needs and interests. Go to the development Web site at www.fit.edu/support for a complete listing of possibilities.

Finalize the Endowment

After deciding upon an area to support, work with your development representative to create an agreement that outlines how the fund should be used, the name of the fund and how the payments for the fund will be organized over time. Once this memorandum of understanding has been signed, you can make the initial gift that will officially establish your scholarship fund. Funds will only be released from the endowment once it reaches the \$25,000 level.

Once you have completed these three steps, you’ll have an opportunity to return to campus to meet the beneficiary of your scholarship or fellowship each year. In addition, the Office of Development will keep you apprised each year of the fund’s progress.

Florida Institute of Technology's \$41 million university endowment includes more than 100 scholarship, fellowship and faculty chair funds. A named endowment fund must contain \$25,000 or more. Many of these funds now approach or exceed seven figures. You are invited to create a new endowment fund or contribute to an existing fund. The following list shows the wide variety of scholarships, fellowships and chairs already a part of Florida Tech's endowment. To view the complete list, visit our Web site at www.fit.edu/support.

Brevard Scholars Program Endowment

- Dr. Kerry Bruce Clark Memorial Scholarship
- David L. and Theresa G. Clayton Graduate Fellowship in Marine and Environmental Systems
- Dettmer Family Scholarship
- John Thomas and Martha Hartley Scholarship
- International Aerospace Lightning Conference Scholarship
- Link Foundation Ocean Engineering Graduate Fellowship
- Bill Morris Advance Flight Scholarship
- Christopher Sherman Neese Memorial Scholarship
- Dr. Walter M. Nunn Jr. Scholarship for Electrical Engineering Students Solely in the Field of Electromagnetics
- Dr. Carol L. Philpot Family Psychology Graduate Fellowship
- Dr. James G. Potter Scholarship in Physics/Space Sciences

Each February, Florida Tech hosts a reception for endowment donors and the students who benefit from their generosity. On this special occasion, donors get a chance to know the students whose lives they have changed. Donors involved in the event range from corporations to individuals. The Florida Tech students use the opportunity to express sincere appreciation.



Four Boeing Company Scholars celebrated their awards at the February reception. Meeting with Boeing Company representative Tim LaMunyon (third from left) were, from left, scholars Amit Patel, Elizabeth Ann Diaz, President Anthony J. Catanese, Valerie Ann Bastien, College of Engineering Dean Thomas Waite and Scott M. Leithem.

Meeting with Dianne Rhodes was the recipient of the Chadley M. Rhodes Memorial Scholarship Sean Gavin. Gavin is an aviation management with flight major from Goshen, N.Y.



Speaking eloquently to the gathering was Britney Pennington, the Herman Kessler Moore M.D. Scholar.



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from the FTAA President

From the desk of Association President Jim Downey '74

We heard you!

Thank you to all alumni who took the time to fill out the association's recent online survey. With more than 60 questions (see responses by going to www.fit.edu/alumni), the survey covered chapter events and activities, membership, membership benefits, the alumni magazine and the university's golden anniversary. Almost seven and one-half percent of the online community responded and that's twice the expected response rate for this type of survey. Alumni provided answers that will help guide the association board of directors' future direction for these important initiatives. Among the 443 respondents were 50-plus alumni living overseas.

What'd we learn? Communicate more: improve the alumni magazine in some areas (look for the changes); the board of directors is on the right path to reflect the wishes of alumni for events and activities for the university's 50th anniversary in '08-'09; and, the loyalty of our alumni is unsurpassed.

Our next major initiative is to increase the number of alumni who have the association's affinity card. Go to www.fit.edu/alumni/services/index.html to get your card today. Having been with MBNA for the previous 17 years prior to 2004, the board of directors changed to US Bank as its provider. That done, our task is to get this new card into as many hands as possible. Nationally, alumni associations rely on the income generated by guarantees or royalties from an affinity card to provide the core income to operate. Your alumni association is no different and strongly encourages you to discontinue the MBNA card if you have one and apply for this new card. For those of you not carrying the official Florida Tech Prowling Panther credit card, please consider this option. There's no annual fee. You can pay off your balance each month and incur no interest charges and VISA cards are accepted where others are not. Besides, it's always impressive to flash the Prowling Panther.

A brand new homecoming is in store as we move to a mid-October timeframe. You will see details of special events in this issue of the magazine, and I hope this fall time change accords you less expensive air fare, more flexibility in flight arrangements and more housing availability at less cost. Special entertainment is going to spice up the banquet too!

The paid membership program is entering its fourth year, and I hope you take advantage of the growing list of member benefits available. This is another revenue stream helping your association to add programming and improve the quality of existing activities. By now, you should have received our invitation to join and make a difference. You may also join online by going to www.merchantamerica.com/fit/echopay.

Finally, thanks to all of you in meeting the mission of the university. Your alumni association provides student internships and jobs for grads, circulates résumés, enthusiastically recommends our alma mater to prospective students, works college admissions fairs, hosts alumni events and activities, mentors and much more. Go Panthers!

Alumni Have Their Say in Spring Survey

An alumni survey conducted in spring 2006 brought a return of over seven percent, or, answers from 443 respondents. "We think that's pretty fantastic," said **Ken Droscher**, executive director of the alumni association and assistant vice president for advancement.

"We were very happy to learn, for example, that almost 29 percent of alumni had been on campus in the past year and almost 27 percent had been here in the past five years. Considering the great number of international alumni, that's outstanding."

Respondents were asked to rate some of the survey statements from 1 to 5, with a 1 to indicate a strong positive

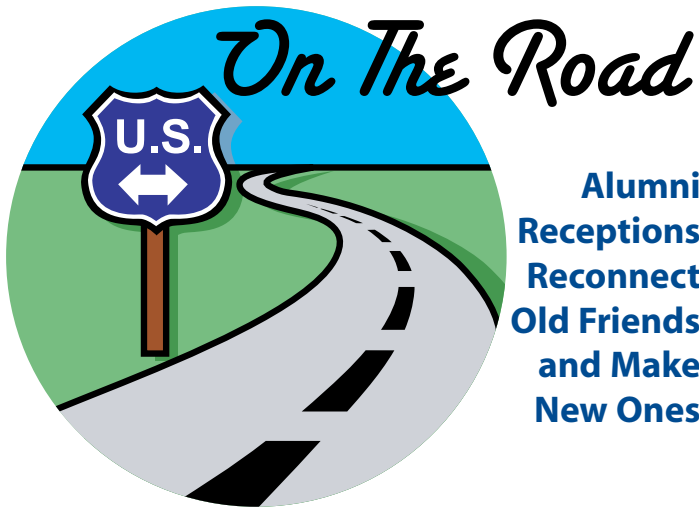
feeling and a 5 to indicate a strong negative. In response to the statement, "I like to feel a continuing part of the university family as an alumnus," 20 percent marked 1, 28 percent marked a 2 and 24 percent marked 3.

Generally, responses indicated that most feel an affinity to the university and that alumni loyalty in most cases rests with Florida Tech, rather than another university an alumni may have attended. There was an interest in improving alumni membership benefits to include adding health insurance as well as discounts to on-campus dining and department stores.

Regarding *Florida Tech TODAY*, 60 percent indicated that no improvements are needed, 48 percent wished to increase news of long-term university plans and 56 percent noted that no improvements were needed in campus research or specific college coverage. Results also showed a desire to increase alumni news and profiles as well as Class Notes items.

Would alumni recommend Florida Tech to a prospective student? Over 96 percent said "yes."

For more complete details on survey results, visit www.fit.edu/alumni. Click on "Alumni Survey Results 2006."



**Alumni
Receptions
Reconnect
Old Friends
and Make
New Ones**

Bucks County



At the Central Bucks South High School in Warrington, Pa., alumni came to tell prospective students about Florida Tech. Out spreading the word were, from left, Garry Miller '70, Jonathan Zung '86 and George Poidomani '73.

Atlanta



From left College of Aeronautics alumni, Matt Coffelt '02, Robert Sarkissian '78, Zeke Losch '00, Jenny English '02, Bruce Cohen '02, Allison Swint '03, John Ryan '93, Tim Stevens '98, Mike Antalfy '01, College of Aeronautics staff member Ann Bergonzoni, Fin Bonset '99 M.S., Kevin Rosato, Jason Terreri '01 and Cara Terreri. Cara gave birth to Hugh Evan, a healthy, 8-lb. baby, on June 5.



The alumni association gathering at the Atlanta Airport Hilton was timed for festivities surrounding the opening of the fifth runway at Hartsfield/Jackson International Airport. Joining hands in alumni spirit are, from left, Jenny English '02, Allison Swint '03 and alumnus Kevin Rosato.

Boston



Alumni Association Director Ken Droscher was very pleased with the attendance at the "Beantown" reception in April. It was held at Boston's Marriott Long Wharf.



Dallas



Dallas-Ft. Worth, Texas, alumni enjoy some R&R at Love Field's Air and Space Museum amid aviation history memorabilia.



Trustee Henry Heflich '73 is surrounded by prospective students and their families.

DC



The D.C. Metropolitan Area Alumni Chapter never misses hosting an annual summer picnic reception. This year, as in many years past, it was at Lake Accotink Park, Springfield, Va. Pretty Lydia, with proud dad Russ Davis '83, smiles engagingly.



Larry Pollack '85 holds a plaque presented to him by the alumni association for his countless volunteer hours supporting his chapter. With him are Kent Duffy '98, left, and Todd West '95. The trio is the core of the Washington, D.C., metro chapter leadership.

NYC



New York City's alumni reception boasted the most impressive attendance of any last spring, with more than 50 mingling at the W New York Hotel on Lexington Ave. President Anthony J. Catanese and the university's senior management team filled in alumni and guests on the latest campus news.



Fraternally Speaking

By Sara Mayer, Assistant Director for Student Activities

As each year ends, we recognize fraternities and sororities for excellence in their chapters and for individual achievement. A faculty and staff committee makes the selections, based on nominations, and makes the awards at the annual Student Leader Awards Banquet. We congratulate the following individuals and chapters.

- Faculty Member of the Year* Mary Mullins, Phi Sigma Sigma
- Chapter Adviser of the Year* Ed Gula, Pi Kappa Alpha
- New Member of the Year* Matt Hopkins, Chi Phi
- Best Supporting Member* Clay Danielson, Pi Kappa Alpha
- Living the Ritual Award* Will Rodgers, Pi Kappa Alpha
- Fraternity Man of the Year* Jeff Megivern, Pi Kappa Alpha
- Sorority Woman of the Year* Heather Sommers, Gamma Phi Beta
- Partnership Award* Phi Sigma Sigma Headquarters
- Agency Award* Holmes Regional Medical Center
- President's Cup* Brittany Hyde, Phi Sigma Sigma

Chapter Awards

- House Corporation Board of the Year* Pi Kappa Alpha
- Advisory Board of the Year* Phi Sigma Sigma
- Recruitment and Retention Award* Alpha Tau Omega, Pi Kappa Alpha
- Scholarship Award—Spring 2005* Gamma Phi Beta
- Fall 2005* Gamma Phi Beta
- New Member Class Scholarship Award—Fall 2005* Lambda Chi Alpha
- Academic Progress Award* Chi Phi
- Community Service Award* Phi Sigma Sigma
- Philanthropy Award* Phi Sigma Sigma
- Campus Service Award* Pi Kappa Alpha
- Educational Programming Award* None Applied
- Educational Program of the Year Award* None Applied
- Alumni Relations Award* Pi Kappa Alpha
- Alumni Event Award* Pi Kappa Alpha
- Campus Involvement Award* Phi Sigma Sigma
- Progress Award* Phi Sigma Sigma
- Chapter of the Year* Pi Kappa Alpha



Join today and stay connected!

When you join your alumni association, you help provide scholarships, assist in the funding of upper division capstone projects, honor distinguished alumni and much more.

Join online – visit www.fit.edu/alumni, click on FTAA membership, go to the Alumni Association paragraph and click on join today!

Life members and proud sponsors of the alumni association – Dale Dettmer '71 M.S. and Ken Revay '82.



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"Surf the Stars"
homecoming '06



Thanks to all who attended.

Harry Weber: University Pioneer

In 1966, founding Florida Tech president **Jerome Keuper** convinced **Harry Weber** to take a pay cut, leave his job as chief scientist, RCA Test Project, and become head of the electrical engineering department at Brevard Engineering College.

Keuper, who had a remarkable ability to attract the ideal candidates for the top posts of his infant university, could not have selected a more qualified, dedicated or resourceful faculty member.

Aware that one of his initial responsibilities would be to guide the college through the accreditation process, Weber was instrumental in bringing Andy Revay on board. The men, formerly top students at the University of Pittsburgh, had been office mates and were experienced with the engineering accreditation process.

They succeeded in securing accreditation for the electrical engineering program from the Engineering Council for Professional Development (now known as Accreditation Board for Engineering and Technology). “We knew how to organize it,” said Weber. “We didn’t get it the first time, but we got it the second time.”

“One of the things that helped us get accreditation was my grant for college

science improvement from the National Science Foundation for \$250,000,” said Weber. “That was a lot of money at that time. Along with the grant came a special privilege of getting first crack at government surplus property. After government agencies said they didn’t want something, people with grants got the next chance.

“Government figures are government figures, but at one time we had acquired \$14M worth of government surplus property under that grant. We got computers, signal generators, undergraduate oscilloscopes and all kinds of oceanographic equipment because the government at that time was very much interested in oceanographic systems. We got a tractor and trailer to use for undergraduate oceanography. It became a portable undergraduate ocean lab, and it gave us an opening to a lot of things.

“We set up a network at the college and had lists circulated to all the departments. I actually hired a person to do nothing but look for surplus equipment for us. We really took advantage.

“I made stickers and put them on every piece of equipment we got under this grant—antennas, our first dome for the telescope, an optical dome from

here. Those were the classrooms we had over by the gym. We put air conditioning systems in them, put them on concrete blocks and we had them for years. They are gone now.

“These were the types of things that people did to get things going.”

Weber continued to reflect, “When I came on campus we only had a chem lab and a physics laboratory. They had just erected the EE lab. I think we had close to 200 students in the evening graduate program and about 100 undergraduate students. I had roughly a department of 325 students with two full-time faculty members. The rest was adjunct faculty.

“I have always been grateful to Radiation, Inc. (later Harris Corp.) people for their support of the EE program. Carmen Palermo, Al Sissom, Ron Totty—they were really great guys, smart, energetic and, oh, so helpful. Florida Tech would never have been able to survive if it weren’t for the adjunct faculty.”

In 1968, two years after he arrived, Weber was given additional responsibilities. Continuing as department head, he additionally assumed the role of dean of the graduate school. In 1971, he relinquished his role as department head and became dean, science and engineering.

By 1980, Weber was named associate vice president for academic affairs and dean, graduate studies and research. “Most all of the Melbourne academic units reported to me at that time,” Weber said with a modest grin, summing up his responsibilities at Florida Tech during that period.

“Let me tell you what my most significant contribution to the university was,” he continued. “I was a person who believed in laboratory experience. Whether it’s in chemistry, physics, space sciences or EE, I believe that students have to have very strong laboratory experience to be good scientists or good engineers.

“I envisioned Florida Tech as more of an applications university, as opposed to a theoretical university, and I think that’s the way it evolved. It has evolved into people out in the field doing things, whether it is engineering or scientific work,” he said.

Joan Bixby



Alumni Endorsement Grant

At Florida Tech, your endorsement counts! The deserving student(s) you refer will receive a \$1,000 grant, renewable annually for up to four years, toward their tuition for full-time undergraduate study on the Melbourne campus. You may recommend as many students as you wish.

Florida Tech Legacy Grant

Sons and daughters of Florida Tech alumni, enrolling in a full-time undergraduate program at Florida Tech, are eligible for a \$2500 grant on top of the alumni endorsement grant. This award is renewable for up to four years.

These awards are given in addition to any merit scholarship earned by the student. For more information and the appropriate forms, go to: www.fit.edu/alumni/services/index or www.fit.edu/ugrad/financial_aid/scholarships

AD-217-406

A simple form that takes 5 minutes to complete can be worth more than \$4,000 to a worthy student.



Florida Institute of Technology

the Cape. I put stickers that said ‘college improvement program’ so that when the inspectors came down here they could see that we were using this.

“Another interesting story was that under the surplus property program there were four barracks at the Cape. We didn’t have enough classrooms. These buildings were approximately 20 feet wide by 50 feet long. They had excellent lumber in them—good construction. So I convinced **Dale Simcox** (maintenance manager) to get a truck and haul them down

Dad Vail Success

Florida Tech took home a silver in the Men's Freshman/Novice Heavyweight Eight and a bronze in the Women's Varsity Heavyweight Eight at the 68th annual Dad Vail Regatta in Philadelphia. Loyal alumni, as usual, came to the banks of the Schuylkill River to cheer on the rowers.



A little chilly on this May day, President Anthony J. Catanese joins Russ Ballagh '74, left, and Terry Applebee '73 to watch the races.



Under the tent, located close to the finish line, is a large Florida Tech contingent of race onlookers. From left, at bottom in ball cap, is Dean of University College Clifford Bragdon; standing in white shirt is Senior Vice President for Advancement Thomas Fox; next to him is Mike Dubois '78, '87 MBA; in dark jacket behind Dubois is Trustee Joe Caruso '73; in back is Dean of the College of Engineering Thomas Waite; in profile is Trustee Erik Joh; and in front of him, looking toward the camera is George Poidomani '73.

Southwest Rowers

Al Showcases and Bruce Schwab '83, both pilots for Southwest Airlines, flew together recently. "For old times' sake," said Schwab, "we brought along our crew jerseys for a 'photo op.'" Showcases and Schwab rowed in the same Junior Varsity 8 boat to take the gold at Dad Vail in 1982. Schwab captured another gold medal at Dad Vail later in the Lightweight 8. "My jersey fit just fine," said Schwab. "Al said his was a little tight."



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Taking Flight:

Clara Bennett '91 is on Top of the World in Fort Lauderdale

It may be a groan-inducing cliché, but it's still correct to say **Clara Bennett's** life took off while she was still a student at Florida Tech. Bennett, who earned a bachelor's degree in aviation management in 1991, earned her wings professionally and personally on the Melbourne campus.

Bennett, now the airport manager at Fort Lauderdale Executive Airport, believes the Florida Tech degree is still an important part of her success.

"I believe the degree has a lot of recognition in the industry and is valued by those in leadership positions at airports around the country," said Bennett. "Florida Tech alumni look out for each other in the aviation industry—the networking opportunities are amazing."

While still a student at Florida Tech, she heard her true calling when she developed a keen interest in noise abatement. Her studies as an undergraduate led to an internship in the field and later, her first job.

"I rose through the ranks (to my current position) as a noise officer. One very important part of my education was to do an internship in a noise office for the Greater Orlando Aviation Authority at the Orlando International Airport (OIA)," said Bennett. "It was a great place to get my first training because that office touches on the social and political aspects of running an airport as well as the technical and legal ones."

Even though she now runs the entire show in her current position,

noise abatement and addressing community concerns is still a big part of Bennett's job.

"The most challenging aspect of my position here is ensuring that the negative aspects of airport operations are minimized because of the concerns of the community. As an urban airport, we're completely surrounded by neighborhoods, so we have to go the extra mile to balance the needs of the aviation industry with the residential needs of the people living near the airport," she said.

Bennett believes that student pilots can quickly learn how important their actions as individuals will be for airport-neighborhood relations.

"Training is the right time to instill in future pilots the sense that they are flying over someone's home and small adjustments in the way they fly make a big difference," she said.

As the manager of one of the busiest general aviation airports in the country, Bennett confesses there is no such thing as a typical day for her. In addition to addressing neighborhood concerns, she divides her time between real estate management (the airport's 47 different leases, including fixed-base operations and an extensive industrial park), cutting through red tape and working hand-in-hand with Fort Lauderdale's City Hall.

And while 15 years of experience has served her well, she acknowledges that the course work at Florida Tech gave her a strong foundation for her future career.



Clara Bennett '91

"The curriculum itself was very solid," said Bennett. "The courses gave me a strong foundation in the management and business end of the operation as well as technical aviation aspects. Airport management, airport design and aviation law courses all served me well after graduation. Even in my first job, I had a strong understanding of some of the macro-issues that affected OIA."

While her time at Florida Tech gave Bennett the tools she needed to build a strong career, her life away from the classroom was equally uplifting. While at



Florida Tech, she met her husband of 15 years, Bill. The couple has two boys, Nicholas, 10, and Mitchell, 6 (pictured above).

"The most amazing, most important, most wonderful part of my time at Florida Tech was meeting Bill," said Bennett. "We met during spring orientation week before my freshman year and have been together ever since. Even if my career had gone a different way, I would always have been grateful to Florida Tech for my family. It's safe to say I will always have a soft spot for the university."

Jay Wilson



Thursday, October 12

- 1 p.m. **Alumni Association board meeting**
—Hartley Room—all welcome
- 5:30–7 p.m. **Welcoming reception**—Rathskeller
- 7 p.m. **College of Aeronautics**—Hospitality reception—On Tap
- 7–9 p.m. **Talent Show**—Gleason Performing Arts Center
—nominal admission fee (donation to charity)

Friday, October 13

- Alumni classroom presentations—various locations
- 8 a.m. ***Alumni & friends Golf Tournament**
—The Majors Golf Club
- 11 a.m.–2 p.m. **Office Decorating**
- 1–3 p.m. **George Skurla College of Aeronautics Awards Luncheon**
Crowne Plaza—Melbourne Oceanfront
Department receptions
- 3:30–5:30 p.m. **Wacky Wars**—Southgate field—alumni teams invited
- 5 p.m. **Casual row**—boathouse
- 6:30–7:30 p.m. **Banquet reception**—2nd floor lobby Denius Student Center
- 7:30–10 p.m. **Alumni Association Banquet**—Hartley Room

Saturday, October 14

- Aviation Day**, flight competition with prizes—barbecue to follow—open to aviation community
- 9 a.m. **Alumni crew races**—boathouse
- 11 a.m. **Homecoming Parade**—begins at University Park Elementary School and ends at Panther Plaza
- Following Parade **Community barbecue**—Panther Plaza
—free admission
- 1 p.m. **Softball field dedication**
- 2 p.m. **Alumni soccer game**—Rick Stottler Field
- 4 p.m. **Women's volleyball match vs.**
Armstrong Atlantic State University
- 7:30 p.m. **An Evening of Comedy Entertainment**
—Gleason Performing Arts Center
- TBA **Crew dinner**
- 8 p.m. **Hangar Party**—Melbourne International Airport
- 9:30 p.m.–1:30 a.m. **Homecoming dance**—All welcome
—Clemente Center—small gym
- TBA **"Midnight Madness"**—Clemente Center—main gym

Fall 2006 Homecoming will "Rock t

Some changes from past homecoming celebrations are in the works!

This year, banquet guests will be treated to entertainment by "Rock the World!" entertainers—pop star impersonators from across the decades.

Other activities include:

Additional activities by the College of Aeronautics, Caribbean alumni, the Department of Athletics and College Player alumni

For a complete schedule of activities and information for college, department and other groups, please contact the following:

Athletics – Gloria Beckwith – (321) 674-8032 or Gloria@fit.edu

Caribbean Students Association – Weyni Clacken '01 – (917) 343-8359 or Weyni.clacken@gs.com; Greg Tuckett '00 – (407) 356-3162 or Gregory.tuckett@lmco.com

College of Aeronautics/FITSA – Milo Zonka '95 – (321) 863-1812 or milo@zonka.org

College of Psychology – Dr. Juanita Baker – (321) 674-8104 or bakerj@fit.edu

College Players – Sara Parent Fieberg '01 – sfieberg@fit.edu

Student Activities – Kasey Drennen – (321) 674-8080 or kdrennen@fit.edu



The 2006 alumni award winners gather after the banquet. From left: George Poidomani '73, Past Alumni President Award; President Anthony J. Catanese; Catharina Haynes '83, Outstanding Achievement Award; Trustee Emeritus G. Denton Clark, Lifetime Service Award; Sarah Dunsford '00, Outstanding Chapter Award; Joy Bryant '89 M.S., '93 M.B.A., Outstanding Achievement Award; Rachel Power '98, GOLD Award; Don Woodruff '86, Outstanding Service Award; and Travis Proctor '98, GOLD Award.

HOMECOMING

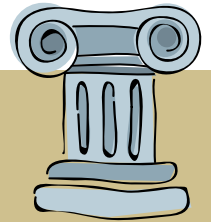
he World!" Oct. 11-14, on campus.

Look for a new golf tournament on Friday and an alumni banquet moved to Friday evening.

The alumni association board of directors meeting has moved to Thursday afternoon—all alumni are welcome—leaving Friday as a good day for alumni to lecture in a class of their choice.



Alumni who would like to become guest speakers should contact Cindy Dwyer Pratt at cindwyer13@yahoo.com.



Fall '06 Homecoming Registration Form

To register by credit card or check (payable to Florida Tech Alumni Association), fill out the appropriate information and remit to:
Florida Institute of Technology, Office of Alumni Affairs,
150 West University Boulevard, Melbourne, FL 32901

You may also register online at www.merchantamerica.com/fit/echopay

Name _____
Address _____
City _____ State _____ ZIP _____
Phone _____ E-mail _____

Friday, October 13 6:30-7:30 p.m.

Banquet Reception in 2nd Floor Lobby Denius Student Center

Attendees ___ @ no charge

Homecoming Banquet in the Hartley Room – Buffet Service 7:30 p.m.

Attendees ___ @ \$35 each = \$ _____

Check enclosed

Credit Card: Visa MasterCard American Express Discover

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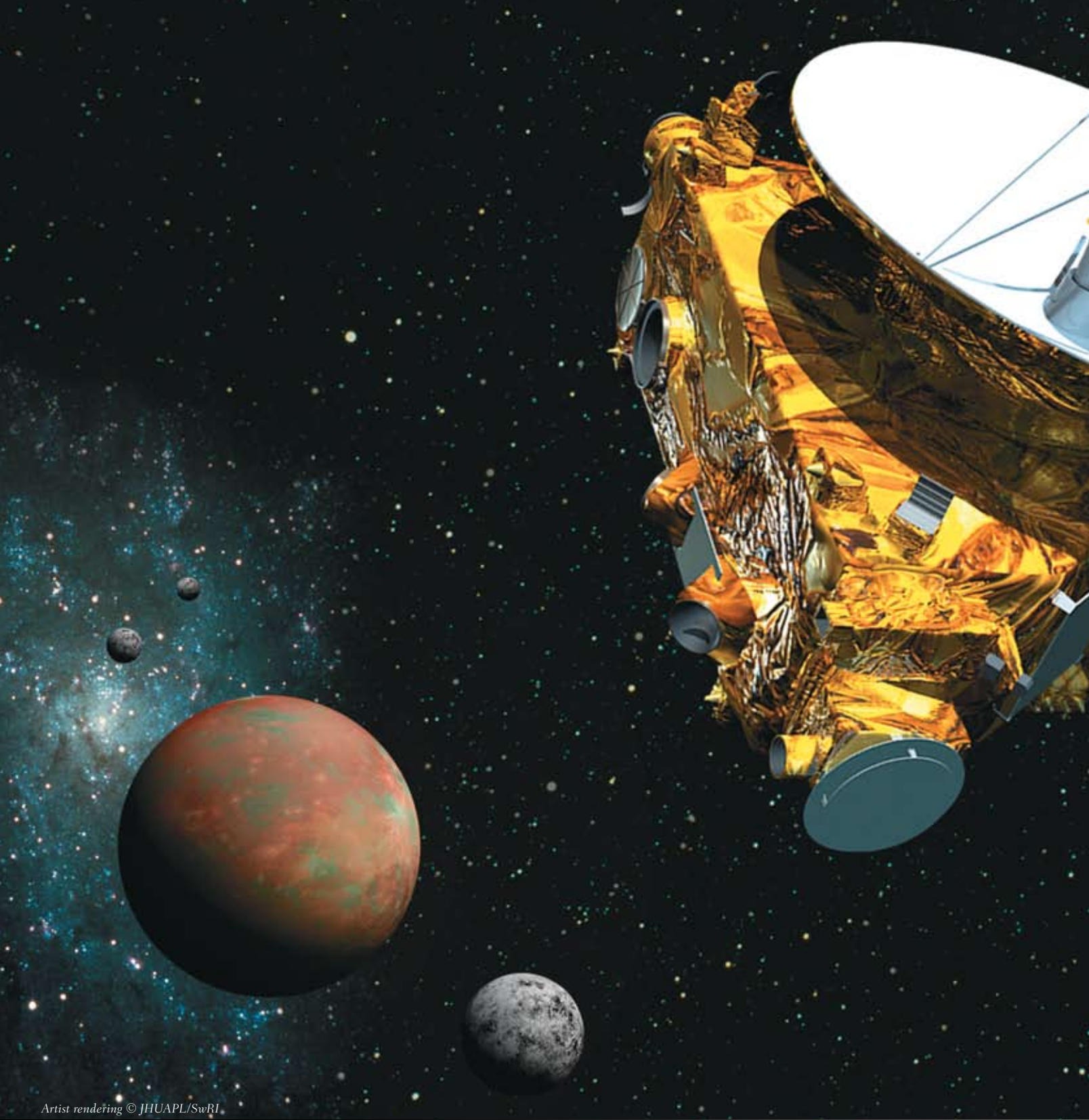
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Mitchler's Mo



oons



*"As a scientist,
you live for these
moments."*

Max Mutchler '90 M.S.



"As a scientist, you live for these moments,"
says **Max Mutchler** '90 M.S.

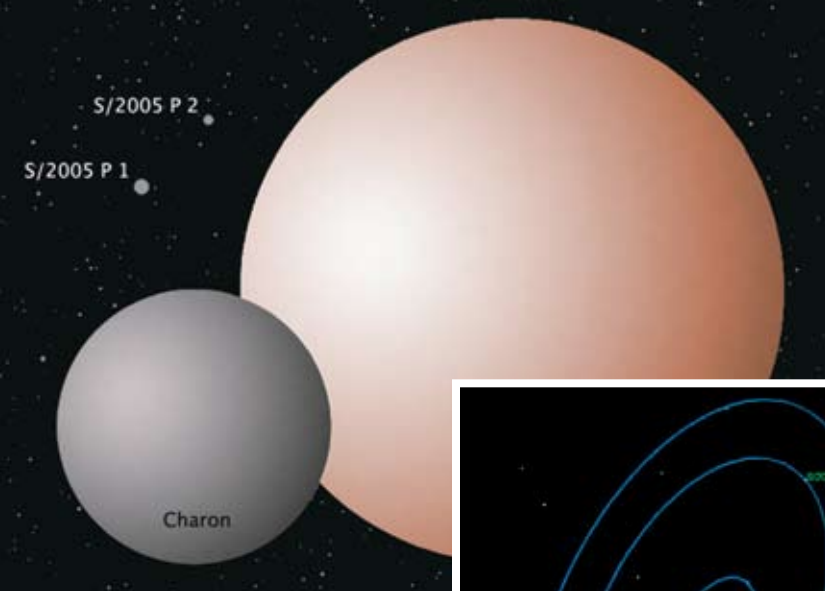
Mutchler's moment came on the evening of June 15, 2005, when the Hubble Space Telescope (HST) astronomer was working late at the Space Telescope Science Institute in Baltimore, Md. He was calibrating and reducing raw data from the telescope, which orbits the Earth 380 miles above us.

His task was to "clean up" and inspect some images taken a month earlier, as requested by space scientist Hal Weaver of the New Horizons project, NASA's Pluto-Kuiper Belt Mission. Weaver is co-leader of a large team that had been searching for potential additional moons of the smallest planet in our solar system, Pluto.

continued on page 26

Hal Weaver (left) and Max Mutchler gave their first public lecture on the new moons January 3, 2006, at the Space Telescope Science Institute.





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continued from page 25

Mutchler is an expert on the operation of HST's main camera and the images it produces.

He advises other astronomers on complex Hubble observing strategies and data reductions, commonly referred to as "dithering" and "drizzling."

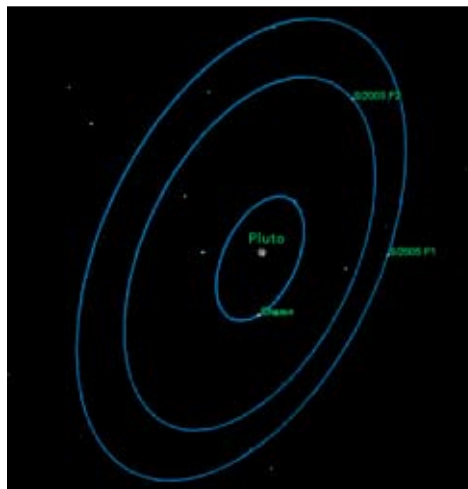
"Even before I finished aligning and drizzling the images that night, my eyes caught these two 'blips,'" says Mutchler. The two faint satellites seemed to be moving around Pluto in the same direction as Charon, Pluto's moon, which was discovered in 1978.

Mutchler's one day of work sparked the discovery process of a search begun at least as early as 1990. New Horizons principle investigator and discovery team co-leader Alan Stern of the Southwest Research Institute in Boulder, Colo., had long suspected that other, smaller, moons orbited the solar system's smallest planet.

Mutchler and Weaver put the Pluto discovery aside. They were concentrating on Hubble images of 2005's Deep Impact probe smashing into Comet 9P/Tempel 1. But, their thoughts soon returned to Pluto when the findings of another researcher sent them back to their data on the potential moons.

On Aug. 18, astronomer Andrew Steffl at the Southwest Research Institute in Boulder, Colo., working for Stern, reported finding two faint satellites orbiting Pluto. Before the month was out, the elated Weaver and Stern compared notes. They were convinced that the satellites were real.

Scientists are nothing if not patient. The discovery team embarked on the validation process,



"Even before I finished aligning and drizzling the images that night, my eyes caught these two blips."

—Max Mutchler

submitting a new Hubble proposal to follow up and verify the apparent discovery. Although the confirming Hubble observations did not occur until February 2006, the scientists felt confident enough to make the public announcement on Oct. 31, 2005: Pluto is a quadruple system.

"There is always that balance. Announce too early and risk being wrong. But, wait too long and someone else may scoop you," says Mutchler.

Mutchler presented the discovery observations at the January 2006 meeting of the American Astronomical Society in Washington, D.C., and the team published two papers in the journal *Nature*. Their two moons graced the cover on Feb. 23, 2006.

The little moons, temporarily nicknamed "Baltimore" and "Boulder" by the discovery team, are important for their potential to shed light on the creation of the Pluto-Charon pair. An initial finding is that, like Charon, the much smaller moons lie in nearly circular orbits in almost the same plane as the bigger moon.

This, scientists say, is proof that the three moons joined Pluto from the same collision event, rather than from a gravitational "capture" which can bring moons into a planet's orbit.

The discovery is unquestionably a highlight of Mutchler's 16-year career at the institute as a Hubble expert. Hubble, in fact, has been his career because his timing is as keen as his powers of analysis.

While still finishing a Florida Tech master's degree in space sciences, he "certainly felt lucky" to be hired at the institute two weeks before the launch of the Hubble Space Telescope. It was launched by Space Shuttle Discovery in April 1990.

And, thanks to Florida Tech's proximity to Kennedy Space Center, he could watch the launch in person. His work, though, was off to a bleak start.

"Of course, at first Hubble optics were flawed, and it looked like the mission was doomed," Mutchler recalls. "But, thanks to the space shuttle servicing missions, it has been a spectacular come-back story."

Many of his Florida Tech classmates, he says, have “amazing careers.” Several continued on to earn Ph.D.s. “I thought about going on, but quickly got into the work here and have enjoyed it. I’ve fashioned a hybrid career as a non-Ph.D astronomer.”

Also active in public outreach, he regularly gives presentations to school children and the public on many HST projects. In fact, for the first time in 16 years, he returned to the Florida Tech campus to visit and lecture. He spoke on the newly discovered moons in January 2006, when he was in the area for New Horizons’ flawless Pluto probe launch. The expedition, an extreme exercise in delayed gratification, will not arrive at Pluto until 2015.

Dr. Terry Oswalt, vice provost for research and space sciences professor, was a mentor of Mutchler’s and often sends students to him for demonstrations of Hubble’s mighty cameras. He caught up with him on campus and found him unchanged—in a good way.



At the New Horizons launch, Mutchler describes the discovery of the new moons to the daughter and widow of Clyde Tombaugh, who discovered Pluto in 1930.

“He is as enthusiastic about astronomy now as he was when he was our student,” says Oswalt. “That enthusiasm really comes across during his talks.”

Mutchler returns the compliment to Oswalt and other Florida Tech faculty.

“It was a great experience there. I had a lot of dedicated professors and made some wonderful friends. The department certainly takes care of its students, and **Jim Gering** does a great job managing the graduate teaching assistants.”

Professor **Hamid Rassoul**, who made Mutchler his teaching assistant at Florida Tech, also taught

him in the planetary atmospheres and orbital mechanics courses, recalling that he earned “A’s.” Rassoul remembers other positive memories.

“Throughout his time at Florida Tech, Max always demonstrated ardent dedication to learning and hard work. He had a superb ability to extract and integrate information to solve problems. I think that his skill in physics, particularly in mathematical physics and numerical methods, impressed me most. And, he was especially good to his students. It is a great feeling of accomplishment to see our investment in this promising young man become so highly rewarding.”

When Mutchler brings his work home, it’s in a fun, instructive way. With a small telescope set up in the back yard of his Baltimore home, he shares his enjoyment of stargazing. Joining him are daughter Sierra, 10, and son Sawyer, 7, as well as his wife Julie, and neighbors. Julie was a humanities adjunct professor at Florida Tech during their years in Melbourne.

At the institute, he is involved in a wide range of science projects. For one, he’s part of the Hubble Heritage Project team. The team’s work produces a breathtaking photo of outer space each month.

He is also processing some extraordinary views of Comet 73P/Schwassmann-Wachmann 3. This is a rapidly disintegrating comet approaching the sun. Hubble images have brought into focus many more fragments than ground-based observers are able to detect. Mutchler calls these fragments “deep-freeze relics of the early solar system.”

Mutchler and the rest of the discovery team also enjoyed the task of proposing official names for their two new moons. They became familiar with the Greco-Roman mythology surrounding Pluto and Charon, and Mutchler consulted with a classics professor.

The International Astronomical Union in June 2006 formally approved his team’s proposed names of “Nix” and “Hydra.” The names contain the hidden initials “N” and “H” for the New Horizons mission, which was the impetus for the discovery observations with Hubble.

“No, we can’t have a ‘Mutchler’s Moon,’” he laughs, but asteroid “6815 Mutchler” was recently named in honor of his role in the discovery of Nix and Hydra.



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Karen Rhine

A Natural Combination

Ask Dr. Michael Grace what he's doing after work, and he'll probably tell you, "having fun with a few snakes or tortoises." And what does he have planned for the next day in the lab? More fun with snakes and tortoises!

In a perfect example of life imitating art, or in this case, research, Grace has discovered the secret to true happiness—uniting work time and play time in a symmetrical yin-yang balance.

"There's no clear line between work and non-work, or work and home life," he explains. "It all kind of merges into one."

Grace, associate professor of biological sciences, studies the neurobiology of animal behavior, specifically sensory systems. His research focuses on three general areas: vision, nonvisual photoreception to control biological rhythms and infrared imaging systems in snakes.

On the day of our meeting, he was feverishly working on a grant proposal involving sea turtles. His team is studying the development of vision—how the vision system changes from hatchling to adulthood—in the turtles.

Not only is this project exciting in terms of quenching the intellectual curiosity of biologists, but it may also have important implications for conservation.

"Understanding how vision works means that you can understand how human impacts influence these animals," he explains. "With the sea turtles, you could better design effective beach-front lighting legislation. What kind of lights are acceptable vs. not acceptable? What are hatchlings capable of seeing and how do different wavelengths—different colors—of light affect their behavior?"

His enthusiasm is unmistakable.

"It's pretty fun," he adds, giddily. "You get to work with neat animals and get paid to play



Dr. Michael Grace and an 18-foot-long cedar and mahogany canoe after complete restoration.

with snakes and turtles and fish. It doesn't get much better than that!"

His general love of the outdoors also lead to his secret "addiction"—antique wooden boats.

How It All Began

Since boyhood, Grace has been an avid outdoorsman. Growing up in central Georgia near the Oconee National Forest, he gained an early appreciation for nature and its many wonders. He also developed an early fascination with canoes, earning his first Boy Scout merit badge in canoeing.

Later, between completing his undergraduate degree and beginning his graduate studies, Grace worked on a research project in the Georgia swamps.

"I lived by myself in this little cabin on stilts in the swamps of this remote area of Georgia. My job was to travel up and down the river collecting samples and analyzing them, so I was out boating all the time."

Occasionally, a postdoctoral student who was also performing research would come down to the river in his family's old wooden canvas canoe.

"It was made of cedar and had a canvas cover on the outside to make it waterproof," Grace recalls. "It was the most gorgeous thing I had ever seen. I just fell in love with it, and I said, 'I want one of those.'"

From Pastime to Passion

After years of searching, unsuccessfully, for a canoe similar to his first love, he decided to build his



Canbrake rattlesnake (*Crotalus horridus*) in Grace's laboratory. The two holes in the face are infrared-sensing pit organs.

own. Self-taught in the art of woodworking, his project was a success and sparked his desire to start another. He acquired his second specimen after placing an ad—WANTED: Old Wooden Canoe—in the local newspaper.

Since then, his collection has grown to more than 30 antique boats, ranging in year from about 1870 to 1930. He travels to antique boat shows all over the Southeast and has won a number of awards. Most recently, his 1916 17-foot Old Town Canoe Company mahogany-trimmed canoe earned Best of Show Overall from among 100 antique boats of various makes, including motorboats.

Grace says he enjoys the boat shows not so much for the competitive factor but for the positive feedback he receives on his work. The shows also expand his hobby from a solitary quest to a family affair. In addition to accepting canoe displays in her living room, den, patio and garage, Grace's wife Tanya and their 7-year-old son River enjoy traveling to shows with him. River is also becoming an expert on the family's menagerie of exotic pets and may likely follow in his father's footsteps to teaching.

And if snake charmer, restoration artist, researcher and family man weren't enough, Grace is also an accomplished photographer, capturing his many passions on film. He eloquently sums up the interconnectedness of his many talents by saying: "The nice thing about all my interests is that they work together. I love what I do here at Florida Tech, and I love the outdoors. These old canoes, they're made of natural materials, they get you out there to the best places. I always have a camera with me. And a lot of the time, I'm out there looking for snakes or turtles or butterflies. So it all works together pretty well."

Christena Callahan

clockwise from right:

A freshly restored canoe from the Old Town Canoe Company (Old Town, Maine) on a Brevard County lake.

A pair of Yankee-model canoes, one from the 1930s and one from the 1950s, restored by Grace.

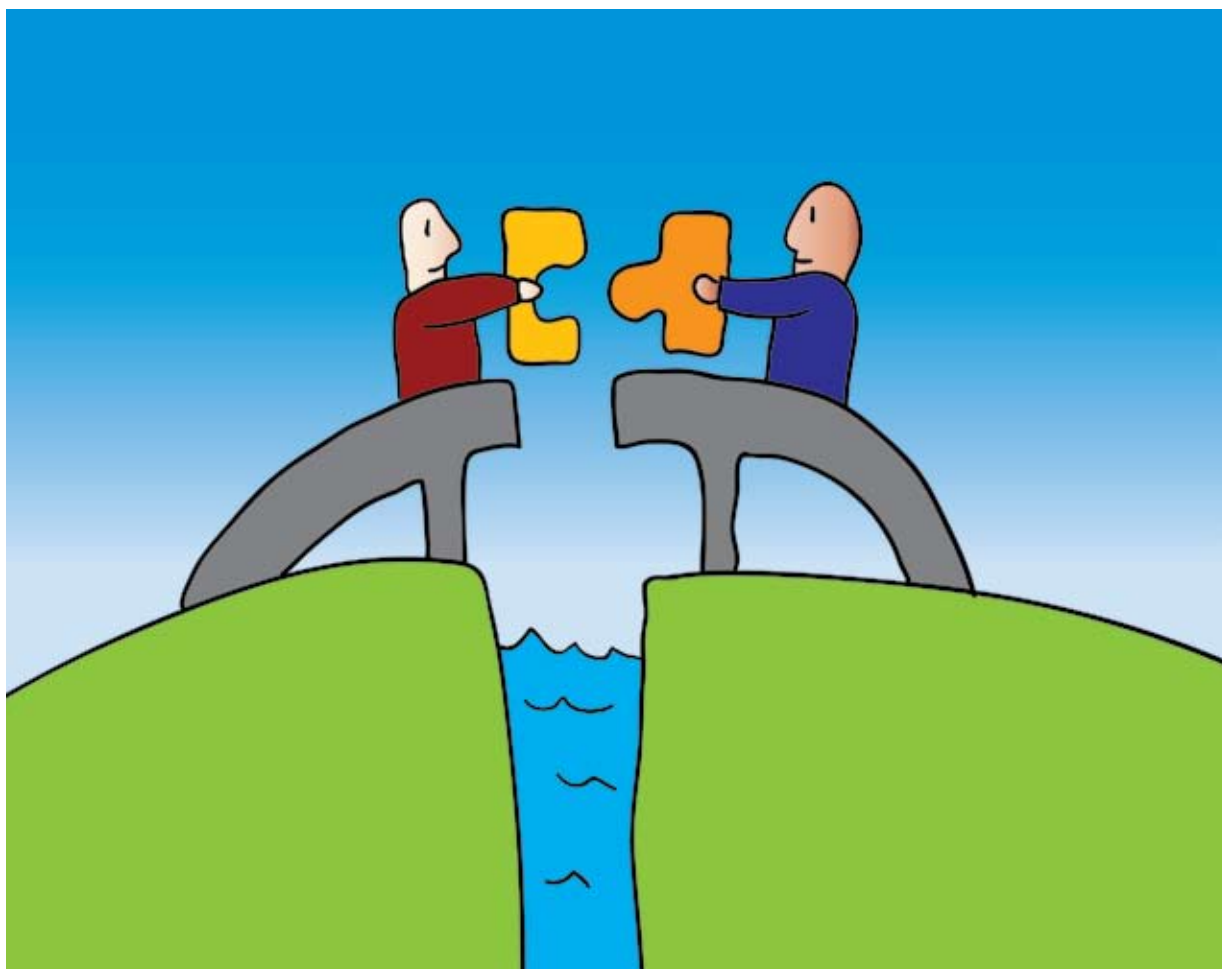
The typical state of an antique wooden canoe before restoration.



Visitors to an antique boat show admire a historic Dan Herald Patent Double Cedar canoe, built in 1873 in Ontario, Canada. This model represents the pinnacle of the canoe-builder's art and won Herald numerous awards including a medal from the Chicago Columbian Exposition of 1893.

Catch Dr. Michael Grace at his next show:
Georgetown Wooden Boat Show
Georgetown, S.C.
Saturday, Oct. 21

At last year's show, he won Most Historic with his circa 1873 15-foot Dan Herald Patent Double Cedar canoe.



Point– Counterpoint:

Florida Tech Professors Debate Climate Change

The recent release of the movie, “An Inconvenient Truth” featuring former Vice President Al Gore, prompted two Florida Tech professors to discuss their views on climate change.

*The discussion between **Dr. Mark Bush**, professor of biological sciences, and **Dr. George Maul**, professor of oceanography and head of the department of marine and environmental systems was moderated by **Melinda Millsap**, University Communications.*

Over the past decade, Bush and his students have provided the first high-resolution fossil pollen records from the lowland Neotropics. These records allow reconstruction of past climate change to monitor the coming and going of ice ages, the prehistoric

intensity of El Niño and other climate phenomena. These observations contribute to the current debate on global climate change and species conservation.

Maul's research includes quantifying the impact of climate and global change on society, establishing operational forecasts of coastal ocean circulation, developing an integrated global sea-level/weather network for climate studies and sustained economic development, designing the Intra-Americas Sea Tsunami Warning System, and satellite altimetry.

The debate opened with a discussion about the accuracy of available data and whether it indicates global warming.

Bush: What we've got now is about six gigatons of carbon being produced each year by human efforts, and the biggest part is burning fossil fuels. The question is, "Have we already seen an impact from releasing this much CO₂, methane and nitrous oxide into the atmosphere, or is that not going to happen or is it waiting to happen?"

Maul: What worries me is the very best records don't give you agreements. The devil is in the details. Are we really measuring the global temperature or are we measuring local temperatures influencing it?

Bush: I understand there are problems with the numbers. If you go back earlier into the century, the data are strong that sea surface temperatures have risen.

Maul: Sea and land surface temperature records both should be very good records, and the averages are the same, but the correlation between them is essentially zero. Why is that? I'm very concerned that we are not looking at those details, and by not addressing them, they are just swept under the rug. I'm afraid we might be doing that for certain political reasons, and I get uncomfortable with that scenario.

Bush: There's clearly a trend in other data. If you look at the migration of birds, it is two weeks earlier than it used to be. We've seen these trends in animals since the 1600s.

Maul: Well that's true. We see some glaciers receding. We see some places with sea surface temperatures we think are rising. However, these changes may not be directly attributable to global CO₂ emissions. The models are also of concern to me. Most of the models have primarily looked at CO₂ as a sole forcing agent. When they add the effects of other pollutants, such as sulfates, the models begin to get better. Sea-level rise is the same sort of thing,

with improving measurements from satellites. But ultimately, we have to compare those measurements to something in historical records, and that's tide gauges. When you look at the records of tide gauges, some are rising, some are falling. Most of it is land motion. I just think the uncertainty is so large.

Bush: The increase of global CO₂ atmospheric content is not disputed, and if you look at the history of climate, there is an inextricable link between CO₂ concentration and temperature. For the last 400,000 years, the curves from temperature and CO₂ move together, with CO₂ ranging from 180 to 280 part per million, but now we've jumped it up to 370 parts per million and expect no response.

Maul: I agree with that. However, I would go back and look at those records and argue the case, "Is the CO₂ causing the temperature to change or is the temperature causing the CO₂ to change?" The records are not final enough to know the lags and leads.

Bush: Dealing with inter-annual variation and its total range is only 4 parts per million. These are small changes and would not produce an instantaneous response due to lags in ocean and atmospheric circulation. There's a huge question, "How long is that lag time? Is it 1,000 years or is it 10 years?"

Maul: I think there are other issues you bring up that we really have to scratch our heads about, such as changing animal behavior. I think it's important evidence that says something's changing. It just doesn't necessarily have a cause and effect yet, in my judgment.

Bush: We're doing a study right now in the Galapagos. If you're going to find something which hasn't been impacted by humans too badly, that's a fairly good place to go. What we've discovered that was immediately surprising was the hockey stick trend of temperature change is apparent, which we weren't expecting to see at all.

Maul: Oh you mean the sudden rise? This'll be an interesting study.

Bush: I'm accepting those (CO₂ and temperature) data as being fundamentally solid, and then I'm looking at other trends, which are biological and don't rely on looking at those data—things like the movement of animals. We can see those things changing, migratory animals that are moving between the Caribbean or South America and North America, and they're surely being influenced by climate change.



“Can we curb our destructive habit to make this a place where our children want to be?”

—Dr. Mark Bush, biological sciences (left)

Maul: Are there any evolutionary issues associated with that? If evolution is going on, how much of it is driven by environmental change? How much is driven by random genetic variation?

Bush: Both. Obviously, you've got random variations, but as you warm the system, you eliminate several genotypes. (J.) Alan Pounds, a specialist in frogs, published a paper about the amphibian decline. The population is crashing, and it's been tied to a particular fungus. He's saying it's actually bacterial infection that is making it vulnerable to fungus. The bacteria are responding to keeping temperatures warm. The data set is from Costa Rica where he's looking at sea surface temperature offshore, then correlating it with this decline in frogs and they match together.

A new worrying aspect of climate change is bacterial diseases. We're 95 percent the same as frogs—DNA-wise. If their bacteria are attacking them, then there's no reason that our bacteria shouldn't start evolving faster to attack us. So, there are these warning signs out there, and it doesn't matter whether we're causing the climate change or not. It's just an observation based on changing climate.

Millsap: Will there ever be a consensus about climate change? Is there a way for the public to know

what to do or are we just reacting to what people are saying?

Bush: I think you've got a lot of voices that are politicized out there. There are only three countries that haven't signed onto the Kyoto protocol—the U.S., Britain and Australia. They all have an ulterior interest in not doing so, and so they have an ulterior interest in finding out there's no global warming.

Maul: Well, I think there's another reason. I personally don't think we should sign the Kyoto protocol. Not because of the question of warming or not, but the fact that China and India, in particular, are exempt. That is not a level playing field.

Bush: So it's an economic issue.

Maul: Yes, rather than a scientific issue.

Bush: Rather than going with it, being open and saying the Kyoto protocol is a bad protocol because of the economics of it, what they're doing is attacking the science. The science is good. No one is arguing the climate is changing, and if you've got this much CO₂, it's a smoking gun. If it hasn't already hit us, it will. It's very difficult to see how you can change atmospheric CO₂, and not induce those changes.

Maul: Well, that's true if it's the only thing we're putting into the atmosphere. But, of course, we're putting other stuff into the atmosphere too, which is what makes the debate more interesting and complicated. I agree if we do nothing but pump a lot of CO₂ into the atmosphere and nothing else goes in, you're going to get warming. But it's the other stuff causing other changes in the atmosphere.

Bush: We're creating this chemical soup in the atmosphere, and you can either rely on being a good chef and keeping that soup just right—which is completely beyond our capability—or you start to say, “OK,” and as President Bush said, “we're addicted to oil and we need to change.”

Maul: He's right about the comment about being addicted to oil. I think a larger question is energy. We need to provide energy for modern civilization. If you're making energy, no matter how you make it, you're making excess heat. We can change tomorrow, get away from the CO₂ as an exhaust and go totally nuclear. Then we would have the energy, but we still would make extra heat. Even if you take a solar panel to produce energy, you're making heat. That's the other thing that needs to be discussed, and I don't see anybody talking about that.

Bush: I think you're absolutely right, and it would be very interesting to see what our heat signature is, without any kind of atmospheric change.

Maul: That's part of what's going to happen with population growth. We expect hundreds of millions of people to be living in the coastal zone in the next 20 years or so. That puts more people at risk for coastal hazards, but still all those people want energy. They all want air-conditioning and laptops just like you and I do. We're going to produce more heat to make that happen, no matter how we create it.

Bush: That raises another concern. You will have more intense storms because you've got a warmer ocean. If you analyze the frequency of storms in the North Atlantic, including hurricanes, there's no trend. So the key is not just the number of storms, but their intensity, which will increase as our oceans warm.

You have to do something radical and it's going to be painful. And that's why it's political, because you can't wait 50 years. There's no easy pill for this one because we are so wed to fossil fuels. For us to get away from that society and move to something else continues to make this problem worse.

Maul: I think the issue is just energy. Fossil fuel is certainly the major way we produce energy today, but France, for example, produces most of its power from nuclear systems. It's not politically attractive in this country, and it's probably not going to change. Ultimately, you're still stuck with the second law of thermodynamics. You're still producing more energy, and it's producing more heat.

Bush: I think it's a very interesting argument. If you had a relatively clean atmosphere, wouldn't your blackbody radiation at night take most of that heat out?

Maul: You mean without CO₂?

Bush: Well, if you've got your CO₂ levels back down to a somewhat respectable level. Or, even if you stabilize them where they are today, wouldn't your blackbody radiation at night dissipate most of that heat?

Maul: I think it's more complicated than that because it involves clouds and cloud systems. We don't know if the extra heat is going to create more stratus form clouds or cumulus form clouds. That's going to change how the radiation leaves the planet. Cloud formations can depend on the amount of particulates in the atmosphere. More dust in the



“Is the CO₂ causing the temperature to change or is the temperature causing the CO₂ to change?”

—Dr. George Maul, oceanography (right)

atmosphere results in more condensation nuclei. I think you can't expect the night radiation to solve it because it's more than that.

Millsap: So, you're saying it's just going to keep getting warmer?

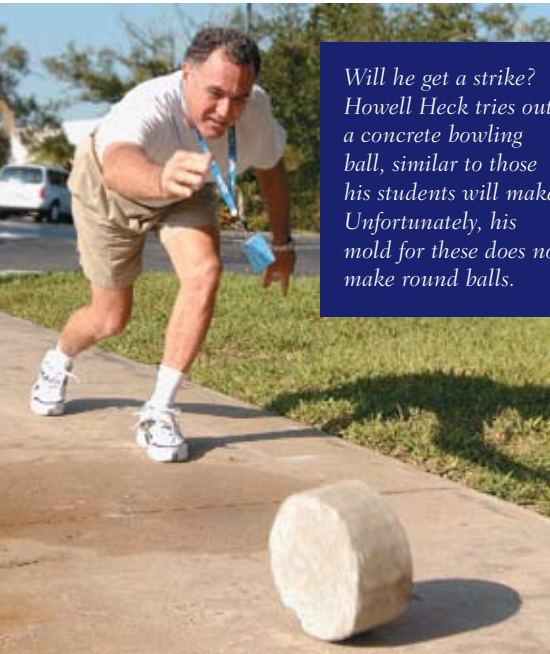
Bush: Climate's a tricky thing because it's not linear, and that's the biggest problem with all these models, they expect it to be linear. What we see is like a see-saw. You can keep working the see-saw to a certain point, but suddenly it tips without warning; climate is inherently unstable. Best case scenario is it will be relatively benign—it'll keep getting a bit warmer and a bit stormier.

On the other hand, you can have a doomsday scenario. The tipping into an ice age is unlikely, I think. But tipping into some other state that we haven't seen before is entirely possible. For example, what happens if Mexico has a massive drought? As a nation, they decide to come across the border, because they can't live there anymore.

Maul: It's interesting. I think we've seen these sorts of things happen in the past. Mass migrations have occurred, and they will occur again in the future. For me, it's always a matter of when and if these things are going to occur.

Professor Wastes Not, Wants Not

Heck is his name and waste is his game. Managing solid waste, that is.



Will he get a strike? Howell Heck tries out a concrete bowling ball, similar to those his students will make. Unfortunately, his mold for these does not make round balls.

Celebrating 25 years at Florida Tech this fall, **Dr. Howell Heck**, associate professor of civil engineering, is knee-deep in contaminants, landfills, demolition, recycling, reuse and waste reduction. When not teaching and conducting funded research—when not publishing, presenting and applying for new grants—he pursues work on an innovative recycling/waste reduction program that helps Habitat for Humanity.

In the summer, Heck squeezes in time for ocean fishing and scuba diving. This isn't surprising for someone who grew up near lakes and rivers in Arkansas and whose family owned a houseboat.

But, even over the busy three-month respite, he is still thinking about how to reach young people. He doesn't think there is a great enough awareness of the career opportunities in civil engineering.

"Most students don't know what civil engineering is, but it is one of the oldest branches of engineering," says Heck. "Just drive down the road and anytime you see construction you know that there's a civil engineer involved in the process."

Simply put, civil engineers work with development, designing and supervising development projects. They also cope with many of the planet's serious problems by designing solutions to hazardous waste disposal, polluted waterways, crowded airports and congested highways.

Heck focuses on waste reuse and recycling. "You reuse by taking something discarded and giving it new life in the same form—a recapped tire, for example. When you recycle, you create something completely new from the waste material, such as crumb rubber used in playgrounds," Heck explains.

Most recently, he teamed up with other faculty to create the equivalent of lemonade from lemons in two projects.

Under a Florida Department of Transportation grant, he and **Dr. Paul Cosentino**, civil engineering professor, are researching how reclaimed asphalt pavement (RAP) can be used to build and improve roadways. After milling, the RAP can go into many phases of highway construction. Its use frees up landfill space, provides necessary construction material and saves disposal costs. The two scientists are still testing how various additives can make the RAP stronger and more efficient.

Heck continues to collaborate on separating landfill gas with **Dr. Manolis Tomadakis**, associate professor of chemical engineering. They are trying a new way—pressure swing absorption—to separate the various gases in landfills into pure streams of each component gas. This makes recovered gases more valuable and easier to use.

His pet project is his work for Habitat for Humanity. This project generates income by reducing waste and recycling, through a Brevard County Solid Waste Management grant of about \$100,000. The money,

in part, funds graduate student **Deepak Chandra**.

"Deepak and I are diverting a lot of the construction and demolition waste that would go into our landfills. We take it instead to Habitat's ReStore in Melbourne," says Heck. "We're finding better ways to collect the material, store it and to transport it from construction and demolition sites."

Heck helps young people understand how projects like this one can help build a better world through the "hands-on" Camp Dream Builders.

He spends much of the summer planning then presenting Camp Dream Builders. These one-week programs in July introduce high school and middle school students to the perhaps, un-sexy, yet underexposed and challenging world of civil engineering. The popular camps are a means to showcase opportunities and engender interest in a career field currently suffering a severe shortage.

"We try to encourage the students to eventually study civil engineering by exposing them to designing and building things," says Heck. Son of a mechanical engineer, he has built things his entire life. In the age of video games, he knows that this doesn't happen so much today.

He recalls how "one female camper told him that in his camp she used a screwdriver for the first time."

Teaching Camp Dream Builders, Heck says, is an example of the flexibility he and fellow faculty are permitted in the College of Engineering.

"I started out here 25 years ago focusing more on water and waste water treatment. Now almost all my research is in solid waste.

"Faculty here are free to team up with others and pursue their own interests as they develop," he says. "I think, compared to other engineering schools, we have a lot of freedom and a lot of say in the direction of our departments. This could be why I've been here so long."

Karen Rhine



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College of Engineering

Dr. William Allen presented “Detecting Intrusions by Their Effect on the Fractal Dimension of Network Traffic” at the IEEE Topical Conference on Cybersecurity in Daytona Beach, Fla. He co-wrote the paper with **Dr. Gerald Marin**.

Dr. Carmo D’Cruz presented “Taking Engineering Entrepreneurship Education to the Next Level with Systems Engineering Entrepreneurship at Florida Tech” during the National Collegiate Inventors and Innovators Alliance (NCIIA) 10th Annual Meeting in Portland, Ore. The paper was co-written by D’Cruz, **Dr. Muzaffar Shaikh** and **Dr. Wade Shaw**.

Dr. Lee Harris was invited to join a special task committee of the Coasts, Oceans, Ports and Rivers Institute (COPRI).

The department of marine and environmental systems (DMES) hosted 50 high school students from a magnet school program in Ames, Iowa, that focuses on marine systems. The experience was led by **Dr. Elizabeth Irlandi**.

Dr. Samuel Kozaitis and **Dr. Venton Kępuska** presented four papers at SPIE’s Annual Defense and Security Symposium in Orlando, Fla. Two of the papers, co-written with colleagues and students, were: “Wake-Up-Word Speech Recognition Application for First Responder Communication Enhancement” and “Communications Protocol for RF-based Indoor Wireless Localization Systems” with **Dr. Mohammad Mehdi Shahsavari**, **Dr. Chang Wen Chen**, doctoral student **Tamas Kaska** and undergraduate student **Maria Pinzone**. SPIE is the International Society for Optical Engineering.

Dr. Jean-Paul Pinelli, who led the engineering team that created the Florida Public Hurricane Loss Projection Model, presented at a news conference in Miami, Fla.

Dr. Maria Pozo de Fernandez presented “Training, Attracting and Retaining Chemical Engineers of the Future” at the National Consortium for Specialized Secondary Schools of Mathematics, Science and Technology conference in San Antonio, Texas.

Dr. Marius Silaghi presented “Nogood-based Asynchronous Distributed Optimization (ADOPT-ng)” at the 5th International Joint Conference on Autonomous Agents and Multiagent Systems at the Future University-Hakodate in Japan.

Doctoral student **Gaurav Tandon**, with **Dr. Phillip Chan** and **Dr. Dibasis Mitra**, co-wrote the chapter, “Data Cleaning and Enriched Representations for Anomaly Detection in System Calls.” It will be published by Springer Publishing Company in *Machine Learning and Data Mining for Computer Security: Methods and Applications*.

Dr. Scott Tilley will present “Redesigning Legacy Applications for the Web with UWAT+.”

Case Study” at the 28th International Conference on Software Engineering in Shanghai, China. Papers by **Dr. Manolis M. Tomadakis** were accepted for presentation at the Spring National Meeting of the AIChE (American Institute of Chemical Engineers) in Orlando, Fla. They include “Prediction of Gas Diffusion Layer Transport Properties and Their Effect on the Performance of PEM Fuel Cells,” co-written by graduate student **Katie Pentas**.

College of Psychology and Liberal Arts

Dean Mary Beth Kenkel presented “Challenges to Women in Leadership” at the Annual Conference of the National Council of School and Programs of Professional Psychology in Las Vegas, Nev.

Three papers by **Dr. Patrick Converse** were accepted for publication in books. They include “Forcing Choices in Personality Measurement: Benefits and Limitations” to be published in *A Closer Examination of Applicant Faking Behavior*.

Among the papers by **Dr. Richard Griffith** to be published in future journals is “Do Applicants Fake? An Examination of the Frequency of Applicant Faking Behavior.” It will appear in *Personnel Review*.

Dr. Radhika Krishnamurthy organized and chaired a symposium on the Personality Assessment Inventory-Adolescent and chaired a paper session on MMPI investigations at the annual meeting of the Society for Personality Assessment in San Diego, Calif.

Dr. Gordon Patterson received the President’s Award from the Florida Mosquito Control Association for his contributions to mosquito control.

Dr. Erin Richard’s paper, “Examination of Situational and Attitudinal Moderators of Hesitation and Performance Relation,” was published in *Personnel Psychology*.

Two papers by **Dr. Frank Webbe** and **Dr. Thomas Peake** were published in *Archives of Clinical Neuropsychology*. One was “Evaluating the Construct Validity of a Dementia Screening Battery: A Follow-Up Study.”

Dr. David Wilder, with graduate students **Julie Atwell** and **Byron Wine**, had a manuscript accepted for publication in the journal *Behavioral Interventions*. The manuscript describes a study that evaluated a treatment for noncompliance among preschool children.

College of Science

Debra Blenis and **Dr. Cecilia Knoll** presented papers at the National Consortium for Specialized Secondary Schools of Mathematics, Science and Technology’s annual conference in San Antonio, Texas. Blenis presented “Stress Management for Teachers” and Knoll presented “Using a Computer Algebra System, Mathematica, in Mathematics Courses.”

Dr. Mark Bush presented “Climate Change and Biodiversity Response: View from a Hotspot” at Texas A&M University.

A paper by **Dr. Michael Grace** and doctoral candidate **Scott Taylor** was accepted for publication in *Contributions in Marine Sciences*. The paper is “Development of Retinal Architecture in the Elopomorph Species *Megalops atlanticus*, *Elops saurus* and *Albula vulpes* (Elopomorpha: Teleostei).”

Dr. Junda Lin co-wrote two papers that were accepted for publication. One, for *Marine Biology*, is “Effects of Density and Simulated Recruitment and Mortality on Sex Change in a Protandric Simultaneous Hermaphroditic Shrimp, *Lysmata wurdemanni*.”

Dr. Ramon Lopez presented the 2006 George C. Benson Memorial Lecture at Miami University in Ohio.

Dr. Terry Oswalt was appointed to a three-year term on the George Van Biesbroeck Prize Committee of the American Astronomical Society.

Dr. Robert van Woesik gave a seminar titled “Mechanisms Forcing Coral Population Changes” at the Institute of Marine Science in Zanzibar, Tanzania.

College of Business

Drs. Judith Barlow, Barbara Pierce and Deborah Carstens and **Dean David Steele** presented “Effectively Integrating Technology in a Business School Curriculum” at the International Conference on Industry, Engineering and Management Systems in Cocoa Beach, Fla.

Dr. LuAnn Bean and **Dr. David Hott** co-wrote “An Internal Audit Focus on Privacy Policies” that was published in *Internal Auditing*.

Donn Miller-Kermani presented “Web Accessibility of Electronic Government Resources for Small Businesses” during the 2006 International Conference on IEMS.

College of Aeronautics

Dr. John Deaton published “+Gz Acceleration Loss of Consciousness: Time Course of Performance Deficits with Repeated Experience” in the journal *Human Factors*.

University College

Dr. Clifford Bragdon presented “Advanced Simulation Technology Applied to Passenger Terminal Safety and Security” at the International Passenger Terminal Expo 2006 in Paris, France ... **Dr. Dennis Kulonda** and Bragdon wrote “Technopolis Creation—A Survey of Best Practices,” which was accepted for presentation at the Conference on Industry, Engineering and Management Systems in Cocoa Beach, Fla.

Mary Collins, Orlando Site, received acceptance of her dissertation, “Harnessing Pygmalion in Reverse: The Effect of Older Workers’ Expectations on their Younger Supervisors’ Leadership Behavior.”



Baksh Goes to Blue Jays

Baseball Player Makes Panther History as Seventh Round Draft Choice



Three years ago, Florida Tech's head baseball coach **Paul Knight** signed two players from Mississauga, Ontario—shortstop **Steven Condotta** and outfielder **Jonathan Baksh**. Both players proved to be outstanding student-athletes on and off the field. Condotta will finish his four-year campaign next year as the top returnee batting a .377, while Baksh moves on to join the Toronto Blue Jays after a stellar junior year, batting .469.

For the past three years, both players topped the team in hitting, while also leading in the classroom. Condotta was named the 2006 Florida Tech Baseball Scholar-Athlete of the Year, while Baksh was named the 2006 Florida Tech Male Scholar-Athlete of the Year. In addition to being three-year scholar-athletes, both men have also been honored as All-Sunshine State Conference players and SSC Commissioner's Honor Roll members for their entire three-year campaigns. Condotta, a business management major, holds a 3.8 GPA, and Baksh, an accounting major, maintains a 3.5 GPA.

Baksh is the first player drafted during Coach Knight's career at Florida Tech. Former coach **Les Hall**, a member of the SSC and Florida Tech Halls of Fame, had eight players join the professional ranks.

"It's a great opportunity for him," Knight said of Baksh. "He deserves it. He's worked hard for it. I think he'll do great."

Baksh enters an elite group of players drafted from Florida Tech, joining Panther greats like **Tim Wakefield** who was the first Panther to be drafted in 1988 by the Pittsburgh Pirates. While both players were drafted coming out of their junior seasons, Baksh is the highest round draft choice for the Panthers—chosen in the seventh round this spring. Wakefield, who now wears a 2004 World Series ring pitching for the Boston Red Sox, was an eighth-round pick. Fellow pitcher and Florida Tech Hall of Fame member and SSC Baseball Silver Anniversary team member **Tom Finney** was another of the now nine players to either be signed or drafted by a major league team.

"I was just ecstatic. That's what I was hoping for. You couldn't have asked for anything better than that," stated Baksh after hearing he was picked in the seventh round. Baksh

had decided if he didn't go in the first 10 rounds, he would definitely return for his senior campaign at Florida Tech. Despite the tough loss for the Panthers, the Florida Tech athletics department is extremely happy for Jon.

Baksh, who grew up roughly 15 minutes from Toronto, attended his



(left) Jonathan Baksh;
(below left) Baksh
traded Panther crimson
for Toronto blue in
June.

(below) Steven
Condotta;
(right) Condotta
returns next season
as the 2006 Baseball
Scholar-Athlete of
the Year.



first Blue Jays game as a teenager. After wrapping up his junior year, he had a chance to work out for Toronto at the Rogers Centre. Now with the Blue Jays, his family and friends can help cheer on their hometown hero.

Jon, the 2005 Sunshine State Conference Player of the Year, was chosen All-SSC first team for the second consecutive year. Tampa's Lee Cruz, who was named the NCAA Division II Player of the Year, edged Baksh this season for the 2006 SSC Player of the

Year honors, as the Spartans won the NCAA Division II National Championship this season. Despite losing out on the repeat, Baksh did win the 2006 SSC batting title and finished fifth in the nation among all D-II players.

While wearing the crimson and gray, Baksh was also named to the NCAA II All-South Conference first team in 2005 and 2006, 2006 American Baseball Coaches Association/Rawlings Division II All-American second team, 2006 National College Baseball Writers Association (NCBWA) All-American first team and 2005 NCBWA All-American third team.

Baksh is the only Sunshine State Conference player, other than three Tampa players, to be named ABCA All-American. Other honors earned this year include SSC Player of the Week and Commissioner's List of Outstanding Achievement honors

for the months of February, March, April and May.

He finished off the 2006 year with 100 hits, 67 runs, 21 doubles, four triples, nine home runs, a .732 slugging percentage and 18 stolen bases. For his career, Jon's stats included 583 at bats, 137 runs, 240 hits, 46 doubles, 10 triples, 12 home runs, 138 RBI, a .587 slugging percentage, 60 stolen bases and a .412 batting average.

For his three-year effort at Tech, Baksh broke into the Panther record book, topping all players for career and single season batting average, single season hits and single season runs scored. Baksh also achieved second in career hits, career stolen bases and single season doubles, along with fourth in career doubles and single season RBI for the Tech record book.

Christa Parulis-Kaye

1971

Harold McGinnis '73 M.S. is vice president, planning and environmental services for CROY-MSE, LLC in Marietta, Ga. He and wife Patricia are parents to daughters Erika, Alicia and Rachael. Harry teaches college part time and serves on dissertation committees in the doctoral studies program at Argosy University-Atlanta. His contact is hkmcginnis@comcast.net.

1972

Lee (Stone) Benner is the coastal impact assistance program coordinator at Minerals Management Service in Herndon, Va.

1973

Fred Henderson is manager of application systems at Ingersoll Rand Climate Control Technologies in Bridgeton, Mo. He has been married to Pamela for 34 years, and they have four daughters and three grandsons. Pam teaches quilting; Fred is an avid NASCAR race fan/die-cast collector with over 300 pieces in his collection.

John Kenney '78 M.S. is an engineering manager at Northrop Grumman, NASA Johnson Space Center in Nassua Bay, Texas.

1975

Marianne (Grove) Kudrick is now retired and loving life, her husband, 11 cats and two dogs. She can be reached at maryann@kidrick.com.

1977

Ross Youngs is CEO of Univenture, Inc., and UniKeep, LLC, in Marysville, Ohio. His company has three manufacturing plants located in Ohio, Nevada and Dublin, Ireland.

1978

Gary Petrae, a captain in the NOAA Corps, has assumed command of the Ronald H. Brown, the largest ship in the NOAA (National Oceanic and Atmospheric Administration) fleet. The vessel carries one of only three ship-mounted Doppler radar systems in the world.

William Denault is a federal civilian at Marine Corps Air Station, Cherry Point, N.C. The Jensen Beach campus grad lives with wife Sara and two daughters in Morehead City, N.C. Classmates may contact him at billdenault@hotmail.com.

1979

Dennis Nolan, M.S., is an executive specialist of Aramco, located in Abqaiq, Saudi Arabia, where he has lived with his family for 13 years. He can be reached at dennis.nolan@aramco.com.

1980

Kevin Jarvis has been promoted to vice president/program manager, Aegis Destroyer program, at Northrop Grumman Ship Systems, Pascagoula, Miss. He is responsible for managing all aspects of the DDG program

for the company, where he has worked for 25 years.

1983

Michael Ramos '85 M.S. is Prior of the Immaculate Heart of Mary's Hermitage in West Melbourne, Fla. He can be contacted at mramos5@cfl.rr.com.

Bruce Schwab (Lt. Col. Ret.) is now flying for Southwest Airlines, having spent over 20 years as a U.S. Air Force pilot. He was a combat veteran in Desert Storm and Iraqi Freedom prior to retiring in 2003. His contact is f16bs737@earthlink.com.

1984

Constance (Roy) Storer, M.B.A., retired from the U.S. Army Reserve in December 2005 after 27 years of service as help desk lead at the Army Enlisted Records and Evaluation Center in Indianapolis, Ind.

Anders Bergmann is a Lt. Col. in the U.S. Air Force and served in Iraq as director of the Personal Security Coordination Center, Multi-National Force. His duty there was to ensure safety and security of the top five Iraqi government leaders. His wife, Linda, resides in Cocoa Beach, Fla., with sons Colin and Anders Christopher, who attends the University of Florida. An e-mail contact is anders.bergmann@afotec.af.mil.

1986

James Fitzpatrick returned in October 2005 from a four-year assignment at Ramstein Air Base in Germany. He is the deputy commander of the 56th civil engineer squadron at Luke AFB in Arizona, which is the largest F-16 fighter training base in the world. James serves as the squadron's senior civilian official and staff adviser in support of civil engineering functions and obligations.

1989

Tim Ling was married to Sue Yeo in December 2005. He is the environmental manager for Plaskolite, Inc. in Columbus, Ohio, and can be reached at twill@infinet.com. Tim serves as the chair of the Florida Tech civil engineering advisory committee.



1994

Craig Coleman is library media specialist at Mundy's Mill Middle School in Jonesboro, Ga. He was named the school's Teacher of the Year in May 2006, where he has been employed for five years. This fall, he begins the specialist degree program at the University of West Georgia.

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1995

Ali Saleh Al Rakaf, M.S., is the Defense Attaché for the Royal Embassy of Saudi Arabia, Armed Forces Office in Washington, D.C.

Marshal Perlman is a project manager with Panasonic Avionics Corporation in Lake Forest, Calif. His responsibilities include development of next-generation cabin electronics and communication systems for many of the world's airlines.

1996

Jeffrey Jackson, M.S., was awarded the NASA Exceptional Achievement Medal at a ceremony in Washington, D.C. He serves as a contracting officer at NASA's Marshall Space Flight Center in Huntsville, Ala., where he resides with his wife Melanie and their two children.

David Rudy is a software staff engineer for Sun Microsystems in Burlington, Mass. He serves as a lead for the two first eco-responsible servers announced by the company that exceed the performance of competing machines while using a fraction of the power and space.

1999

Vanessa (Greenbaum) DeVary and husband Mark live in Sachse, Texas, with their children Lauren and Evan. She can be reached at mvdevary@verizon.net.

Stan Dobbs, M.B.A., is director, aviation supply chain operations and management for the Naval Air Station in Lemoore, Calif. This is the master jet training base for the U.S. Navy's F-18 fighter.

Justin and Jill (Seigle) Meyer welcomed Jackson Timothy in July 2005. They reside in Kansas City, Mo., where Justin is manager of air service development for the Kansas City Aviation Department.

2001

Jason Terreri and wife, Cara, announce the birth of their first child, H. Evan, who arrived on June 5. Jason is an airport planner for Hartsfield-Jackson Atlanta International Airport. Classmates and friends can reach him at Jason.Terreri@atlanta-airport.com.



2002

John MacHarrie is stationed in Wiesbaden, Germany. He recently deployed to Afghanistan, where he was the detachment commander for all U.S. Army fixed wing assets in that country. He may be contacted at jmacharrie@hotmail.com



2004

Beth McMillan was selected to receive the Captain Harry D. Vernon, Jr. Scholarship and the Circle of Friends Scholarship for research and thesis work at the University of Miami, Rosenstiel School of Marine and Atmospheric Science. She was a member of the class of 2006, Marine Affairs and Policy.

Noureen (Idrees) Asad and husband Ahsan are parents to Yusuf, born June 2005. She attends Florida Southern University College of Medicine. The family resides in Boca Raton, Fla. Her email is noureenidrees@hotmail.com.

2005

Fernando Garcia Bermudez has been awarded a National Science Foundation research fellowship for his graduate studies.

in memoriam

Robert M. Armstrong '77 M.S. died of cancer in December 2005. He was retired from a 26-year career with the U.S. Air Force. At that time, he joined Northrop Grumman and worked on the B-2 bomber. He is survived by his widow, Carol, of McAlester, Okla.

John L. Anderson '73 M.S., '75 M.B.A., passed away in May 2006 in Pueblo, Colo. He is survived by his wife of 42 years, Loretta, his son Thomas '90 B.S., his daughter Leslie and four grandchildren.

Brook Simmons '89 passed away in January 2006. He was employed as a mechanical engineer at the Naval Sea Systems Command in Washington, D.C., for 16 years. His survivors include parents, Col. Robert L. and Gloria Simmons of Arlington, Va., and a sister.

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October

11-14 – First-ever Fall Homecoming
 18 – Alumni Reception, Denver, CO, Hyatt Regency Denver at Colorado Convention Center

November

17 – Alumni Reception, North Brevard 6–8 p.m., Cocoa Beach Pier

December

1 – Alumni Reception, South Brevard 6–8 p.m., Hartley Room
 9 – Alumni Reception, Orlando, Gaylord Palms Resort & Convention Center

2007

January

19 – Alumni Reception, Miami, Loews Miami Beach Hotel

February

4 – Alumni Reception, Washington, D.C., 3–5 p.m. – site TBA
 8–12 – Alumni and Friends Cruise to the Bahamas (see pg. 43)

March

3–12 – South African Safari and Tour (see pg. 43)

April

20–28 – Wonders of the Galapagos: Voyage of Discovery (see pg. 43)

May

8 – Alumni Reception, Chicago
 11–13 – Alumni Reception, Philadelphia, Dad Vail Regatta
 Contact the Alumni Office for more information on these events.

ONGOING EVENTS | HELD ON CAMPUS UNLESS OTHERWISE NOTED

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