

The GTRI Connector

Jumping July!

GTRI recorded its best July awards figures in history this year, bringing in \$8,908,000 during July 1996.

Vol. 12 • No. 9

Published Monthly for the Georgia Tech Research Institute Family

August 1996

Our Olympic Experiences

By Lea McLees, RCT

Famous People We Met

Bob Lang (RSD) met the head of the U.S. Secret Service, Eljay Bowron, when Bowron was with President Clinton in the Olympic Village.

On July 19, **Vicki Ainslie** and **Eliesh Lane** (EOEML) had an unplanned opportunity to hear President and Mrs. Clinton address the U.S. Olympic team in the GT Center for the Arts. They thought they had bad seats -- but then past and present Olympians (Bruce Jenner, Kristy Yamaguchi, Billy Mills, Mark Spitz, and Rayford Johnson, to name a few) entered the theater from the door right beside them! The Clintons and daughter Chelsea entered through the same door, all within hand-shaking distance of Vicki and Eliesh.

"We were so surprised to be so close to the President, we just stood there snapping pictures and staring in amazement!" they said.

Kirk Mahan (EOEML) and his wife attended the third day of the Team Three-Day Equestrian event. After the United States' silver medal performance and presentation of the medals, Kirk met the team, got their autographs on his ticket stub, and had his picture taken with them.

Matthew Malok (EOEML) got the autograph and a photo of Penny Heym, an



John Pyles (ITL), pictured at the Air Force Base in Aviano, Italy, was one of a team of employees that completed an emergency request for a sponsor -- and shipped equipment overnight to Europe -- at a critical time during the Olympics. F-16 pilot Maj. Bobby Sanford holds the result: a FalconView laptop with the latest software and imagery. Read about this and other GTRI Olympic experiences on pages 4 and 5. (Photo courtesy John Pyles)

Olympic swimming gold medalist from South Africa.

New Friends We Made

Fred Wright (ELSYS) and his family hosted two boxing coaches from Poland for two weeks through the AT&T Family to Family program.

"This was a wonderful opportunity," Fred said. "We had our horizons expanded and our Olympic experience was significantly deepened and enhanced. Learning to communicate with people who knew almost no English and adjusting our lives to different customs stretched us in some very healthy ways...I would highly recommend the experience to people in Sidney."

Tom Autrey (ELSYS) began July 1996 waiting for "four people from England" to arrive to rent his Cobb Co. townhome -- and he ended the month with four new friends!

Tony and Pam Hall came to watch their son Daniel, play on the British Field Hockey Team, and brought along their older son David and Daniel's girlfriend, Jo. Tom's parents, Ray and Phila Autrey of East Cobb, showed the Halls the sights while Tom started his GTRI workdays at 4 a.m.

Before the Games were over, Tom and his parents treated their English guests to a patio party featuring Southern food -- David and Jo were ready for Southern citizenship after that feast, Tom says!

Continued on page 3

Observed & Noted

Computer driving you crazy? AIST can help. Meet some AIST colleagues on page 2.

■
ELSYS appreciates SST's daily assistance. Read

about the thank-you luncheon the lab gave SST on page 3.

■
Two of our research groups have new names. To find out, which ones, turn

to page 3.

■
Your colleagues sent in pictures of their Olympic adventures, the Village, and meetings with famous people.

Take a look at pages 4 and 5.

■
At least nine of us completed degrees in the spring. Find out who deserves a hearty congratulations on page 6.

■
You can help CEISMC assist children and their teachers. See our second and final installment on CEISMC on page 6.

■
Everyone's been hard at work since our June-July issue. Allow extra time to get the latest professional, personnel and personal news, which fills pages 7 and 8.

News & Notes

Meet the Administrative Information Systems Team

By Joey Goddard, OCA

The Administrative Information Systems Team (AIST), managed by Tom Brown, develops and maintains GTRI's information technology infrastructure. AIST has concentrated its efforts in four areas:

- Supporting GTRI's hardware needs, which includes networking and business computers.

- Supporting GTRI's software needs. To this end, AIST assists in writing software applications to help increase productivity and reduce costs, such as the Human Resources Information Systems database.

- Providing technical support to assist in managing data systems and distributing resources throughout GTRI.

- Providing training for GTRI employees.

"All of our work is worthless if people are given the tools and not shown how to use them," said Brown. "A big part of our mission is to empower those people we are working for by providing systems and training."

This month we will meet the management and administrative staff of AIST, as well as members of the PC architecture

and networking group and field service. The PC architecture and networking group is responsible for designing and installing networks, standardizing PC architecture, and promoting remote connectivity. Field service makes sure that GTRI's business and administrative PC computer systems are running smoothly by solving any problems that arise.

Tom Brown, manager of AIST, has been a part of the Tech campus for 36 years. He started here as freshman in 1960 and went on to earn a bachelor's, a master's and a Ph.D. in physics. In 1973, he began working for GTRI as a research scientist and in 1976 became manager of GTRI's U.S. Department of Energy Solar Thermal Test Facility on campus.



Tom Brown

Through this experience with the test facility, Tom became interested in project management and how administrative processes could be improved using various tools and software. He received funding for a project to study information technology and its effect on business administration; This project ultimately developed into what is now AIST. As manager, his main goal is to make sure that GTRI's administrative information technology infrastructure fully supports its research mission.

Tom and his wife, Donna, an administrative coordinator in Civil Engineering, just celebrated their 30th wedding anniversary. They have three daughters, Yvonne, Michele

and Laura, all of whom have played collegiate fast-pitch women's softball. Laura, a senior management major at Tech, just completed her final season as a pitcher for the Jackets. Tom, who has spent much of his free time in the past 14 years coaching fast-pitch softball, says that he now plans to devote more of his time to working on his neglected yard — he has already dug up the pitching mound in the front yard and replaced it with grass!

Ellen Barrett, an administrative assistant, has been with AIST since 1994 and has been working in GTRI since 1987. Before she came to GTRI, she was a medical secretary at Emory University.



Ellen Barrett

Ellen performs all the administrative functions for the department. Some of her duties include record keeping, processing timesheets, word processing and supporting GTRI's computer account administration.

Ellen attended Arizona State University, where she majored in education. She moved to Atlanta in 1976 when husband Timothy, a microbiologist, began working for the Centers for Disease Control. Although she now lives in Tucker, Ellen grew up in Arizona and still has family there. She and Timothy have two children: Andrew, 4, and Laura, 2. Between working and caring for her children, Ellen says she doesn't have much free time. She spends most of it working around the house.

SELECTED JUNE 1996 AWARDS

Title	PI/Laboratory	Sponsor	Funded Amount
Engineering, Technical & Testing Services for Hydrogen Bus Demonstration Project	Handley, J. (AERO)	ERDA	\$ 806,307
Digital RF Memory (ORFM) Test & Evaluation System (DTES) System Design	West, P. (ELSYS)	Amherst Systems Inc.	33,331
RSST Modifications	Strike, T. (ELSYS)	Air Force	50,000
Implementation of Adams II Tech. in the WRALC EWAISF	Zobel, R. (ELSYS)	Air Force	200,000
ALR-69 System Documentation for FMS	Sands, J. (ELSYS)	Air Force	25,000
C-130J Computer Model Dev., Verification & Validation	Hyde, R. (EOEML)	BDM Corp.	235,000
Low VOC Aircraft Coating Process	Paris, H. (EOEML)	Delta Air Lines	255,790
IO Sensor Design for Cone Penetrometer Applications	Chen, J. (EOEML)	Photonic Sensor Systems Inc.	35,000
Safety and Health Consultation Program	Middendorf, P. (EOEML)	U.S. Dept. of Labor	29,000
Flight Mission Simulator/Digital (FMS) Development	Frost, M. (HRO)	Army	260,170
Simulation & Analysis in Support of ADSAM	Dalton, J. (HRO)	Army	74,983
Survey of State of Georgia Juvenile Court Sys. Automation	Sills, L. (ITL)	Georgia Courts Authority	64,792
Computer Needs Assessment and System Implementation	Witten, M. (ITL)	Georgia Courts Authority	459,992
Instrumentation Radar Antenna Procurement	Camp, S. (SDL)	Army	480,000
XM-15S Simulator	Camp, S. (SDL)	Army	2,324,932
Advanced Airborne Interceptor Simulator (AAIS)	Roberts, R. (SDL)	Northrop Grumman	2,828,600
Technical Support for Firefinder Systems	Vandermeer, W. (SEAL)	Questech Inc.	93,177
Sprint Spectrum PCS Antenna Evaluation	Mitchell, B. (SEAL)	Sprint Spectrum	29,530
ECCM Assessment Analysis	Morris, G. (SEAL)	Air Force	201,866
Electronic Protection Assessment Analysis Technique Dev.	Morris, G. (SEAL)	Air Force	341,081
Engineering Support Services for F-15 Radar & Avionics	Morris, G. (SEAL)	Air Force	3,897,802
Evaluation of Portable Telephone Antenna	Tripp, V. (SEAL)	Rangestar	21,000
ARC-222 Antenna Propagation Study	Acree, D. (SEAL)	Blackhawk Management	33,096
Investigation of ECM Vulnerability for Foreign Missile	Adams, J. (SEAL)	Dynetics Inc.	21,332
Electronic Systems FME/FSA	Cotton, R. (SEAL)	Navy	95,000
Non-Cooperative Target Identification (NCTI) Technology	Cohen, M. (SEAL)	Air Force	423,000
Workshops & Documents	Meadors, J. (STL)	U.S. Dept. of Defense	971,000

Olympics

From page 1

Rick Maier Sr. (Dayton Field Office) and his son, Rick Maier Jr., traveled to Atlanta for cycling events — specifically, the men's road race. Rick Jr. races for the Huffy-sponsored cycling team, and he has raced on the U.S. team, as well. The Maiers stayed with Bob Trebits' (SEAL) family.

The Maiers biked to the race in Buckhead and intercepted the racers at different locations. Rick Sr. used his fluent German to interpret for his son and two Olympic mountain bikers from Austria who had competed the day before. They exchanged addresses and training techniques stories, and were eventually joined by a cyclist from Poland and one from Slovakia. Rick Sr. bought everyone lunch.

"By the end of the race, which lasted five hours, Rick Jr. had traded cycling jerseys with them and had them all sign the Olympic jersey he wore as a torch bearer through Cleveland, Ohio on his bike," Rick Sr. said.

Wish it Had Been Fireworks

Diane Smith (EOEML) had an unnerving Olympic experience early July 27 at her intown Atlanta home:

"A few minutes after 1 a.m. I awakened and went to my kitchen for a glass of water. No sooner did I lie down again when I heard a noise so loud and thunderous it shook my windows. Believing it to be fireworks and knowing it would probably keep me awake for the next hour or so, I listened for the next one.

"Nothing was heard, and I finally drifted off to sleep. Only when I awakened and turned on my radio Saturday morning did I discover in horror that what I heard was the ill-fated explosion in Centennial Park that killed two innocent people."

Inspiring Moments

Todd Deterding (EOEML) went to the Opening Ceremonies with a good friend.

"We had no tickets for the ceremony, just a feeling that we should be there," he said. "A lot of people were on the streets surrounding the stadium...it was a street festival! Through the fences and from a considerable distance we saw the parade of nations and the torch go by on its way into the stadium. A fellow watching the ceremony on a pocket TV told us Muhammed Ali was lighting the torch. The energy of the crowd was increasing as the pulley made its way to the caldron.

"After the fireworks, my friend and I [headed back] to the Georgia State MARTA station talking about how cool it was to be there and how it didn't cost us \$600. Walking back over the interstate on Capitol, I caught sight of someone I recognized. I wasn't sure, however, until I heard him speak. Then I was positive. It was Bishop



ELSYS Thanks SST for Continued Service

By Lisa Mullikin, RCT

ELSYS director Bud Sears presented Martha Farley of the Supply Services Team (SST) with an appreciation certificate at a buffet luncheon in June. The award recognized Supply Services' "outstanding quality of service and sustained excellence throughout the years."

"We've had really good service from them for a long time," Sears said. "They consistently deliver within the rules. They

do their dead-level best to make sure we get our supplies on time so we can deliver our products."

ELSYS organized the luncheon to publicly recognize and honor Supply Services for its continued support. In addition to ELSYS and Supply Services staff, ELSYS invited all service groups heads and the senior administration.

"The luncheon was a wonderful gesture of appreciation for the service SST provides to ELSYS," Farley said. "We especially enjoyed having the opportunity to meet face-to-face the lab personnel we work with. We're all very pleased that our customers recognize the effort and level of service SST provides, and we're delighted with the special way the lab chose to show their appreciation."

Desmond Tutu, the 1984 Nobel Peace Prize Winner!

"He was walking with his wife or sister and two other tall South Africans. No motorcade. No police escort. No corporate-sponsored shuttle bus. Nervously, I shook his hand and asked him how he liked Atlanta and the ceremony, how long he was here for, and what events he was going to see ... small talk stuff.

"He was very polite and generous with his time. The whole way home my friend and I were beside ourselves. We could not believe who we had met, and the circumstances of the encounter. We came up from behind to shake hands with and talk to a man whose place in world history and importance in world politics can not be overstated....We weren't in line with a hundred other people, nor did we have to buy anything. A real and honest encounter with greatness ..."

Chuck Chapman (SDL) worked with the group putting on the Opening and Closing Ceremonies. He was the "lead" for the athletes of Greece during the opening. As lead, Chuck was host to Greece's athletes in Atlanta-Fulton County Stadium and guided them on the walk to the Olympic Stadium —

Continued on page 4

Focus on Research

Support Services members were recognized for all their hard work at a June luncheon hosted by ELSYS colleagues. (Photo by Rick Robinson)

Two GTRI Research Groups Renamed

By Lisa Mullikin, RCT

GTRI has changed the names of two research groups to reflect growth in the two labs. The Arlington Research Group (ARG) is now the Arlington Research Laboratory (ARL) and the Aerospace Sciences Laboratory has been renamed the Aerospace and Transportation Laboratory (AERO).

The Arlington Lab provides test and evaluation (T&E) support to U.S. Air Force Headquarters. Arlington's research has grown significantly since it split away from its parent lab, ELSYS, about a year ago. Ed Eagar's title will be changed to reflect his role as director of the new lab.

Since 1992, GTRI's Aerospace Sciences Lab has moved from a sponsor base of more than 60 percent Department of Defense research to today's majority of advanced transportation research. This growth, which is acknowledged in the name change, came about through Bob Cassanova's leadership of a multi-lab initiative to increase sponsored advanced transportation research. The initiative also contributed to the expected establishment of the interdisciplinary Georgia Transportation Institute at Georgia Tech.

Focus on Folks

A. Georgia Tech employees leave for Baltimore's National Aquarium -- just kidding! They hope this bus will go to a satellite parking lot. Some of the initial routes were so long that employees wished for a toothbrush and a change of clothes! (Photo by Lea McLees)

B. Sheree Collins (EOEML), a volunteer driver, checks in at the Olympic Motorpool. (Photo courtesy Sheree Collins)

C. Tom Autrey (ELSYS), third from left, entertained his British friends with a Southern feast. (Photo courtesy Tom Autrey)

D. Eliesh Lane (EOEML) shot this photo of President and Mrs. Clinton visiting the Olympic Village.

Olympics From page 3

there the athletes followed another volunteer carrying the "Greece" sign and began the parade of nations.

"This was quite an honor for me, because Greece is traditionally the first team to march into the stadium during the ceremonies," Chuck said. "It was so neat to see all the native costumes of the various countries. One very memorable moment came when a "wave" got started [in Atlanta-Fulton County Stadium]. It was incredible to see people from many different nations, wearing everything from grass skirts to turbans, all doing the wave together."

Chuck also helped envoys for each team rejoin the athletes, once the athletes had marched onto the field, and helped athletes get back to their buses after the ceremony.

Chuck's wife, Carol, attended the Opening Ceremonies and brought home the audience participation kit with the flashlight and other props used during the evening for special effects.

"It also included the official program for the ceremonies, and I was thrilled to see my name was listed in the program with the other volunteers!" Chuck said. "Imagine all those dignitaries flipping through their programs and seeing my name!"

Claudia Huff (EOEML) shares the following experience of her 12-year-old nephew and baseball player Austin Huff Robison of Vicksburg, Mich. Austin and his parents visited her during

the Olympics.

"His experiences of the Olympics enrich my life, because his family wouldn't even have been here if it weren't for this 'world celebration' we were hosting," she said.

From Austin: "My most memorable Olympic experience was probably when I was at the Judo competition in the GWCC (Georgia World Congress Center). Being there with all of the people from other countries and listening to all the different languages was lots of fun. This was important to me because it was a once in a lifetime experience. Another memorable Olympic experience was at the Centennial Olympic Park. What I remember most was getting soaked in the fountain and trading pins with people from around the world. Some of the people I traded with were from Russia and Sweden. I'll remember this and all of my Olympic experiences always."

Taking Care of Business

Cooperation and determination across GTRI ensured that ITL researchers were able to fill an emergency request from a sponsor at a critical time during the Games. A completely new high resolution imagery product had to be incorporated into the FalconView software, which is being used to plan peace-keeping flights in Croatia and Bosnia-Herzegovina, said **John Pyles (ITL)**.

"Through a Herculean effort involving several people — **Rob Gue, Dave Pope and Jay Smith** (all of ITL) — we

were able to get the software and a desktop system ready to ship," John said. "Then came the hard part."

After the early July bomb scare in the Olympic Village, Federal Express pickup on campus was shut down — the same day that ITL researchers were to overnight their equipment to the Air Force Base in Aviano, Italy.

"Luckily, with the help of **Brenda Hill (SSD)**, we were able to arrange a special after-hours FedEx pickup at the gate, and the system went out on time," John said. "I flew to Aviano on July 4 and configured the new systems. After a lot of traveling I was able to make it back to Atlanta in time for opening ceremonies."

Our Volunteers

Sheree Collins (EOEML) and **Tom Collins (ELSYS)** volunteered as VIP drivers during the Olympics, working out of the Village motorpool based in the MRDC building. They drove IOC representatives and National Olympic Committee representatives, Chefs de Mission (delegation heads), and Bid Committee members from at least 15 countries and met athletes and coaches from at least 12 countries. Their remaining passengers were journalists, sports federation members, government officials, corporate executives and family members. Most of the trips were between venues, hotels, and the Village, but there were also some shopping and dinner excursions.

A few of the visitors were quiet, Sheree and Tom said, perhaps not con-



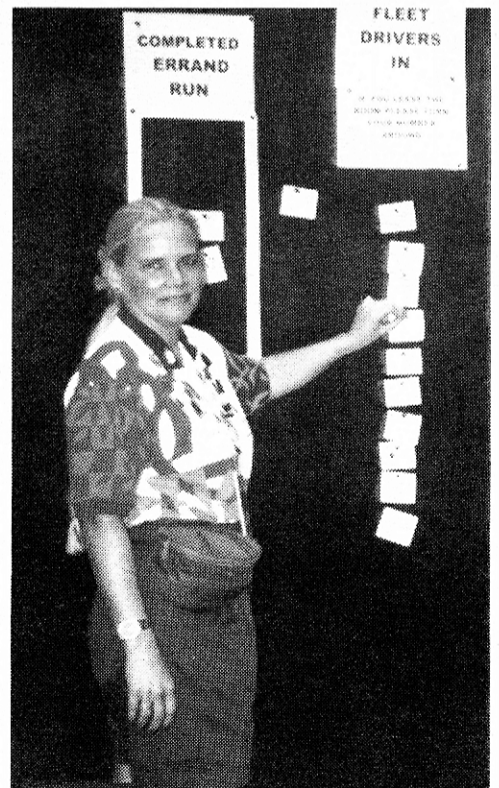
A



C



D



B

Focus on Folks

fidant in their ability to speak English, but virtually all of the rest were outwardly friendly and seemed genuinely pleased with Atlanta and the Games.

Sheree was able to spend time with the athletes at the Hootie and the Blowfish concert and the "Eraser" showing, both held at Bobby Dodd Stadium. One of her most interesting trips involved dropping off an Indian journalist at his lodging in a boarded-up building well off the beaten path.

Tom attended a barbeque honoring the Tajikistan delegation at a private residence, as well as a complimentary dinner for the Gambian delegation at the American Roadhouse restaurant. Tom and Sheree said they made some new friends among the volunteers, and they would definitely do it again. In fact, they're putting in some time with the Paralympics, too.

As a driver for the Olympics, **Sheron Meyers** (EOEML) transported people from East Africa, Holland, France, Belgium and the United States. Her passengers were handball officials, wrestling officials, horse owners, International Olympic Committee (IOC) members and others. She'll also be driving for the Paralympics, assigned to a Chef de Mission.

Michael Gray (EOEML) worked as loader at the weightlifting competition. "When a new weight was announced

for the next lifter, I was one of the guys who got up on the competition platform and put the new weight amount on the bar," he said. "To help us do our jobs more quickly, we were seated about five feet to the side of the platform—the best seats in the house!"

Michael will remember most vividly watching the "wildcard" lifters compete. Although they had not lifted enough to qualify for the Olympics, they had petitioned the IOC for an invitation to Atlanta.

"There were lifters from countries such as Fiji, Cook Islands, Tonga and Seychelles," Michael said. "...They were overjoyed (and somewhat overwhelmed) by the experience... they got treated as well as the world champion lifters, but they seemed to appreciate everything a bit more.

"Imagine coming from a country of 15,000 or so people, without good training facilities, and walking into the Olympic training site to find 40 brand new training platforms," he explained. "Then imagine coming into the competition venue to see the 40 x40-foot lifting platform, backed by the largest scoreboard of all the Olympic venues, and surrounded by seats for 5,000 spectators. I'm sure these guys got the most out of their stay."

Our Observations

Sharon Mattson (MAPS) was a member of the Olympic Motorpool. Among

the visitors she drove around town: a boxer from Barbados, an official from Trinidad and Tobago, Australian reporters and the men's judo team from Spain. Her thoughts:

1) "It was amazing how the foreign officials and athletes could always bridge that 'language barrier' through pin-trading."

2) "Just wearing my volunteer uniform made me a 'walking information center' for visitors."

3) "It was interesting getting the athlete's perspectives on differences between Atlanta's Olympics experience vs. previous Olympic experiences."

Mitchell Cole's (SDL) U.S. volleyball team played in Omni practice runs for Olympic officials, scorekeepers, announcers, floor sweepers and others.

"It was a simulation of real games so they could practice the intro music, announcing the teams, and realistic game play situations," Mitchell said.

"...We simulated the actual teams and were given their actual player names. It was a rush to be on the Olympic court playing volleyball and to hear our plays announced on the loudspeakers."

During the Paralympics Mitchell will run the volleyball scoreboard in Alexander Memorial Coliseum. He has played with some of the Paralympics team members through the years, and expected his participation to be extremely rewarding!

E. The Olympic Torch travels down 10th Street near CRB. (Photo by Tom Collins)

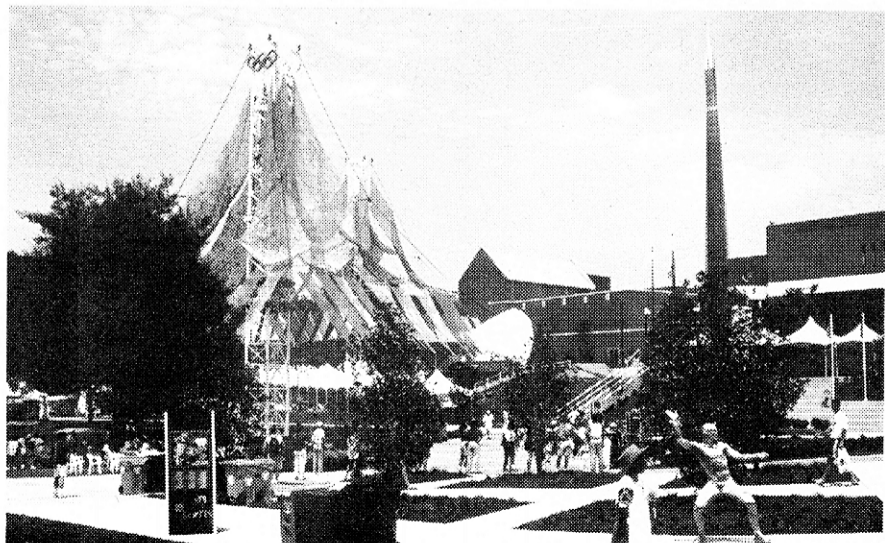


E



F

F. Bob Lang (RSD) met Eljay Bowron, the head of the U.S. Secret Service. (Photo courtesy Tom Lang)



G

G. Bob Schwerzel (EOEML) shot this Village picture of a festively decorated Georgia Tech.



H

H. Tom Collins (ELSYS), a volunteer driver, gets ready to drive an ACOG vehicle. (Photo courtesy Tom Collins)

News & Notes

GTRI Graduates

Congratulations to the following GTRI employees who recently completed degrees!

- **Robert Stoker** (AERO) received his doctoral degree in aerospace engineering from Georgia Tech. Rob completed his graduate research in the AERO lab under Krishan Ahuja, and joined the acoustics group at Boeing in Seattle this month.
- **Beverly A. Hutchinson** (SEAL) completed a master's degree in Computer Science from Georgia Tech in May. A research associate in SEAL/RSD, she will continue working for GTRI as a manager of the Technical Support Group and handling other project work.
- **Kevin Torres** (ELSYS) earned a master's degree from Georgia Tech in May. A research engineer in the Systems Integration Branch, Kevin works on hybrid microelectronics engineering for DC, analog and RF systems. Torres will continue his work in ELSYS.

brid microelectronics engineering for DC, analog and RF systems. Torres will continue his work in ELSYS.

- **Karen Leigh Crutchfield** (APO) earned a bachelor's degree in mechanical engineering from Georgia Tech in May. Karen will leave the Advanced Program Office to pursue a master's in biomedical engineering at Catholic University.
- **Stephen Douglass Pearson** (EOEML) completed a master's in physics from Georgia Tech. He graduated in May after completing research in EOEML with adviser Chris Summers. Stephen will work with Andersen Consulting.
- **Diana Patricia Estrada** (EOEML) finished a master's degree in civil engineering from Georgia Tech. Diana was a GRA in EOEML. She graduated in May after receiving the OMED Award for the best GPA.
- **Hicham M. Menkara** (EOEML) received a Ph.D. in physics from Georgia Tech in May. His dissertation topic was "A Comprehensive Analysis of the Physical Properties

of Advanced GaAs/AlGaAs Junctions." Chris Summers advised his research. Hicham will work temporarily as a post doc in EOEML while earning a master's in management from Georgia Tech in September.

- **Wusheng Tong** (EOEML) completed a doctorate in physics in May from Georgia Tech. His dissertation topic was "Chemical Beam Epitaxial Growth of ZnS: Growth Kinetics and Novel Electroluminescent Structures." Chris Summers was his adviser. He will continue to work in EOEML as a research scientist.
- **Gintas Jazbutis** (ITL) completed a Ph.D. at Georgia Tech with a thesis titled "A Systematic Approach to Assessing and Extending Graphical Models of Manufacturing." Gintas has worked with ITL and with the Electronics Commerce Resource Center. He plans to move to Seattle to work with SDRC working on computer-aided product and process development software.

Second and final installment of CEISMC series.

CEISMC: Helping Students and Teachers

by Joey Goddard, OCA

All of CEISMC's student programs are designed to make learning fun. K*I*D*S Club (Kids Interested in Discovering Science), for example, offers a year-round membership to fourth, fifth, and sixth grade students to foster their interest in science and math. Members receive a monthly newsletter, which also is available on the Internet, and are invited to attend hands-on workshops and demonstrations on campus. Also, SummerScape and TREMORS (Talent Resource in Engineering, Mathematics and Opportunities in Research Science) are summer camps where middle and high school students can participate in research experiments and discovery experiences.

CEISMC also offers several programs to attract women to careers involving math, science and technology. One such program is Futurescape, which invites female middle and high school students to attend seminars led by women working in medicine, engineering, mathematics, science and business.

Another program, Integrating Gender Equity and Reform (InGEAR) involves a consortium of educators from around Georgia, whose goal is to improve the math and science abilities of female students by improving the skills of kindergarten through 12th grade math and science teachers.

"One of the ways to do this is to look at ways course content and presentation discourages female participation," Bertrand said.

The components of the program include an institutional self study, professional development workshops, tools for use in teacher preparation classes and a prototype teacher preparation program.

CEISMC is part of the Southeastern Consortium for Minorities in Engineering (SECME), which was established to in-

crease the number of minorities in engineering, the sciences and mathematics. Universities and businesses work with local schools to recognize outstanding minority students, enhance curriculum and support teacher development, Bertrand said. Through this program, students are exposed to career opportunities in engineering and mathematics.

The Georgia Industrial Fellowships for Teachers (GIFT) program is a way for teachers to apply their knowledge in the contemporary workplace. Teachers are matched with industry for summer internships; they work with an industry mentor to get "real-world" exposure to take back to the classroom.

"Most of the teachers who participated in the GIFT program have discovered how vital computer skills are, whether or not the student is planning on going to college. This is a strong message to take back to their students," Bertrand said.

Teachers receive a stipend for their work and attend follow-up programs during the year. "The companies that participate feel very good about the work that the teacher/interns do and the teachers find the experience very positive," Bertrand continued.

The CEISMC staff is made up of about a dozen people with various backgrounds.

"Some are former teachers, some have a science or math background, and some are Ph.D.'s who are interested in educational development," Bertrand explained.

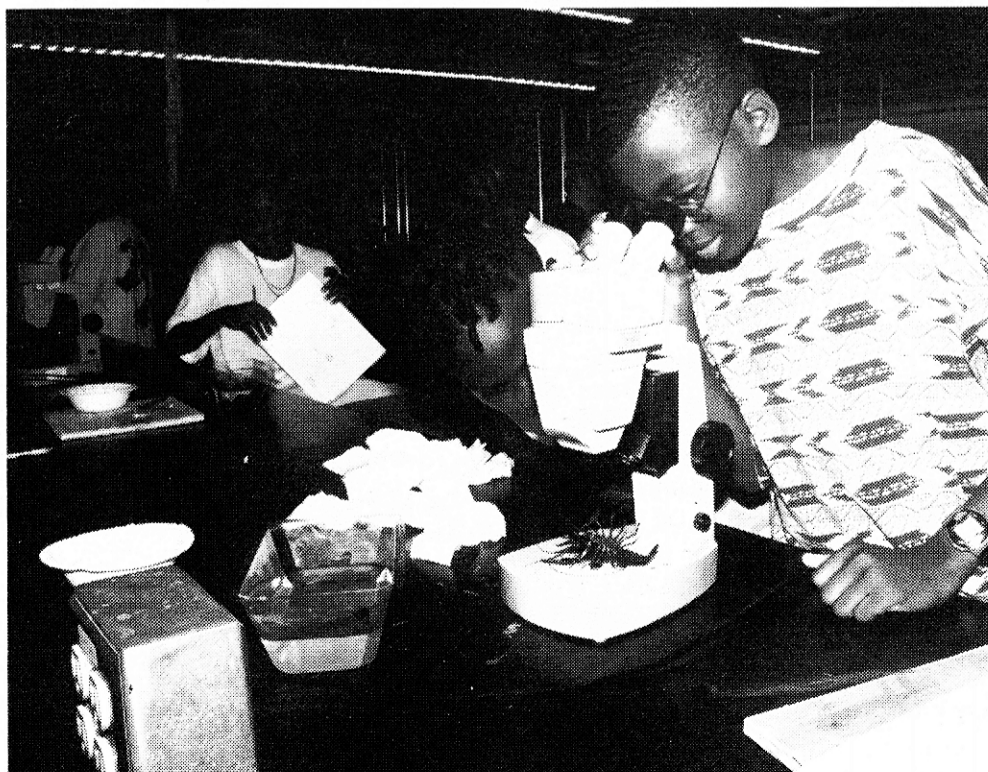
The center draws heavily on Georgia Tech faculty and staff as resources for many of their programs, and volunteers are always needed, he noted.

"No matter what your educational background or area of interest, we can always use people to help with our programs," Bertrand said.

If you would like to volunteer to help with a CEISMC program, please contact the center at 404-894-0777.

If you would like to receive the first article in this series, call Lea McLees at 894-4259.

Students participating in CEISMC's SummerScape program get a zoomy view of a sea creature. (Photo courtesy CEISMC)





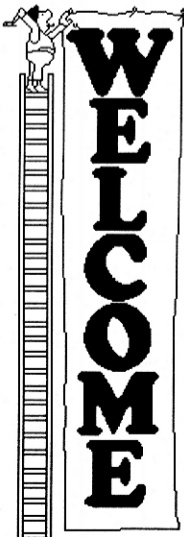
Casey Brown

GTRI Greetings

Welcome to one of our newest employees!

Ten Good Things We Know About Casey Brown

1. Casey is a research engineer in the Systems Development Lab (SDL).
2. He started work as a contractor in January and was hired permanently by GTRI in April.
3. He works on the Advanced Airborne Interceptor Simulator Project designing software to simulate threat radar.
4. Before coming to GTRI, Casey was an engineer at Lockheed.
5. Casey graduated from Tech in 1994 with a bachelor's degree in Aerospace Engineering.
6. He is currently pursuing master's degrees in business administration and information systems from Georgia State University (GSU).
7. His fiancée, Susan Carcione, is a research engineer in AERO. Their wedding is planned for next May in Marietta.
8. The two live in Vinings with their cats, Jake and Ginger.
9. Casey's hobbies include working out and playing all kinds of sports. He is an avid outdoorsman who enjoys kayaking and camping.
10. In his spare time, Casey is a raft guide for ORGT. He will lead his next rafting trip with ORGT in the fall where he will brave the class five and six rapids of the Gaulley River in Tennessee.



Personnel

From page 7

Brian Ray, Kysha Rowe, Robert Schaefer, Juan Smith, Thomas Taris, Chadwick Terry, and Christopher Zoeller (EOEML); **Rose Brundage, John May, James Schelle, Eric Schumacher, Suzanne Snider, William Stone, Elizabeth Walker and Bryan Zimmerman** (STL); **Edward Chen, William Cochran, Gregory Davis, Charles Earwood, Harry Haas, Judy Homiller, Matthew Homiller, Andrew Kates, Stephen Kogon, Emily Warlick, and Martha Willis** (SEAL); **Brian Barclay, Gina Bisaha, Kedric Combs, David Hartman, Kristy Payant, Michael Pinkerton, David Pope, David Rodriguez, Shukla Sunil, and Jun Ying** (ITL); **Edwin Clarke, Jason Kozakis, Stuart Lester, Gregory Martin, Kimberly Martin, James Page, and Clinton Parker** (ELSYS); **Brian Hill, Thomas Moreland, Stacy Poper, Gail Tucker and Barbara Tyler** (SSD); **Nathan Chandler and D. Roberts** (AIST); **Karen Crutchfield** (APO); **Bruce Kerkemeyer and Joe Parks** (SDL); **Timothy Hamel and Michael Kehoe** (AERO) are moving on.

Transfers

David Camp transferred from SEAL to RSD effective June 12.

Jean Sands transferred from ITL to ELSYS effective June 1.

Matthew Malok transferred from EOEML's Training Programs Office to its Safety, Health, and Ergonomics Branch.

Personal Notes

Cradle Roll

Peggy and **Joe Hurst** (SDL) welcomed a son, Philip Sanford, on July 10.

Tony White (AIST) welcomed his first grandchild, Kevin Johnson Stevens, on June 29.

Howard Knouse (SDL) welcomed a grandchild, Tyler Lane Dilbeck, on June 2.

Way to Go!

Co-op **Benjamin C. Buchanan** (SEAL) received the Henry Ford II Scholar Award. Jane Weyant, College of Engineering assistant dean, presented the award.

Mechanical designer **Tedd Toler** (SDL) was this year's recipient of the Lucent Technologies Award at Southern College of Technology. This prestigious honor was presented at the June 4 awards ceremony by Willard White III of Lucent Technologies (formerly AT&T Bell Laboratories). **Britt Pierce**, Mechanical Engineering Technology (MET) Department Head at Southern Tech, told our colleague **Dave Price** (SDL) that this award is given annually to the outstanding ME senior, based upon academic achievement. Dr. Pierce said that the MET department is very proud of Tedd and that he was very

happy to see Tedd receive this award.

The award consists of an attractive plaque and monetary award.

Homer Cochran and **Doug Devine** (SDL) were presented with the "Team Eglin Award" by the 46th Test Wing at Eglin AFB. They received the award in June in recognition of their contribution to efficient and timely completion of the Live Fire project, conducted at Eglin AFB, and the positive results obtained by the project.

A paper entitled "The Fabrication of High Thermal Conductivity Carbon/Carbon Composites by Forced Flow-Thermal Gradient CVI," written by **John Jay Lewis**, a student of **Jack Lackey**, was selected as one of the winning papers in the 1996 Georgia Tech Student Paper Competition sponsored by SAIC. In recognition of the paper, Lackey and Lewis were invited to attend a banquet and awards ceremony on May 30 at the Holiday Inn Crowne Plaza Ravinia in Dunwoody.

Helping Our Community

Vickie Fennell (Baker MAPS) and **Terry Tibbitts** (ELSYS) participated in the Paulding County chapter of the American Cancer Society's Relay for Life on May 17 and 18. The 24-hour relay earned in excess of \$115,000.

Suzette Willingham, Program Coordinator, and **Matthew Malok**, Program Coordinator Supervisor from the Training Programs Office, recently registered participants for Christmas in April, a program designed to help inner city elderly and disabled homeowners with property renovations. Suzette and Matthew participated as members of the Society of Governmental Meeting Professionals who joined other Atlanta organizations in this worthwhile endeavor. **Myrtle Turner-Sippio** and her daughter, Jennifer, **LaVerne Spearman** (GTRI Supply Services), and **Gloamy Lee Sang** (GTRI Resesearch Security) volunteered as part of the labor force.

Our Extended Family

Robert (Bob) Lilly, son of retiree **Lloyd L. Lilly**, recently completed his Doctor of Chiropractic degree from Life College. Bob was the valedictorian for his class of 187 graduates. Bob participated in the co-op program at Georgia Tech, and continued to work in the Electromagnetics Laboratory (now EOEML) for several years after graduation in 1985.

Our Sympathy

...to GTRI retiree **Carroll Garrett**, whose wife died in May.

...to **Dani Wilson** (STL), whose wife died on August 3.

...to **Sharon Neu** (ELSYS), whose granddaughter died June 28. Sharon's grandmother died July 23.

...to **Barbara Call** (EOEML), whose father and mother-in-law died in June.

**Focus
on
Folks**

Focus on Folks

Professional Activities

Aerospace and Transportation Laboratory

Bob Englar has been discussing the development of advanced aerodynamic devices to improve car handling and performance with two NASCAR racing teams, including an on-site visit to one of their headquarters with **Jean-Lou Chameau**, Tech's Vice Provost for Research and Graduate Studies.

Marilyn Smith attended the 27th AIAA Fluid Dynamics Conference in New Orleans, La., June 17-20. She was a session chairperson of one of the CFD Algorithm Development Sessions. She is a member of the Fluid Dynamics Technical Committee and attended that meeting, as well as substituted for **Robert Englar** (AERO), who is a member of the Applied Aerodynamics Technical Committee. She also taught AE 6023 (Hypersonic Flow) in the School of Aerospace Engineering as part of the GTRI/OIP Teaching Fellowships.

Rob Funk was elected member of the Aerodynamics Technical Committee of the American Helicopter Society.

Sherry Travis, an administrative assistant in the AERO Lab, took part in the helicopter noise measurements for the FAA and recommends that all administrative assistants at GTRI be exposed to what the researchers do.

Signatures Technology Laboratory SDL's employees presented two papers at the AMEREM 96 Conference in Albuquerque, N.M. during May: **Jim Maloney** and **Glen Smith** (ECE) "Design of TEM Horns: Time Domain Performance," an invited paper; and **Morris Kesler**, **Jim Maloney**, **Eric Kuster**, **Paul Friederich** and **B. Shirley**, "RCS Determination from Localized Short-Pulse Scattering Measurements: Theory and Experiment."

Lisa Lust (STL) and **J. Kakalios** (Univ. of Minnesota) had "Telegraph Noise as a Probe of Microscopic Hydrogen Motion in Amorphous Silicon" published in Physical Review Letters.

Electro-Optics, Environment and Materials Laboratory

Steve Hays and **Kirk Mahan** were invited speakers at the Georgia Society of Professional Engineers annual conference. They presented a one-day OSHA Awareness and Compliance Update seminar for the group.

Myrtle Turner-Sippio conducted a presentation of the OSHA Lead in Construction Standard for the construction safety course at Southern Tech on May 30.

Gary Gimmestad, **Mikhail Belen'kii**, and **Jenny White** attended the International Symposium on Optical Science, Engineering and Instrumentation, held in Denver, Col., Aug. 4-9. They presented two technical papers on new laser techniques for sensing optical turbulence in the atmosphere, along with a poster paper on a new laser wind sensor, co-authored by Dave Roberts.

Kirk Mahan recently passed the Board of Certified Safety Professionals Comprehensive Practice Examination. This certifies Kirk as a safety professional (CSP).

On June 12 **Wendy Jones** gave a presentation describing Georgia Tech's services in occupational safety and health at a meeting of the Northeast Georgia Safety Association. Approximately 25 people attended this meeting, held in Toccoa, Ga. The presentation included information on Georgia Tech's continuing education courses in safety and health, the 7(c)(1) On-Site Consultation Program, and safety and health assistance through individual contracts.

Charlene Bayer was issued a patent for her "Air Cleaner Having a Three Dimensional Visco-Elastic Matrix of Material."

Jack Lackey was issued a patent for his "Rapid Process for the Preparation of Diamond Articles."

Lisa Detter-Hoskin was recently invited by several professional organizations to give a talk entitled "The Georgia Tech Fibrous Waste Utilization Center of Excellence." Among these organizations were the Industrial Pollution Prevention Conference at the Gwinnett Civic Center in February; the International Society of Industrial Fabric Manufacturers Association at the Sheraton Colony Square Hotel in May; and the Carpet and Rug Institute's Carpet Recycling Symposium in Dalton, Ga. in June.

Vickie Ainslie, **Eliesh Lane**, and **Myrtle Turner-Sippio** presented a "Lead Abatement and Project Design for Supervisors and Contractors" course to Keesler Air Force Base in Biloxi, Miss., July 15-19.

New Responsibilities

Gerald Smith will serve as interim director of SDL until the new director search is complete.

Claudia Huff (EOEML) is coordinating contract development interaction between Georgia Tech and historically black colleges and universities and minority institutions (HBCU/MI).



Personnel News

New Hires

AERO welcomes **Brian Akins**, Student Assistant; **Michael Ashton**, Student Assistant; **John Barnett**, Student Assistant; **Marcie Benne**, Graduate Research Assistant; **Michael Burnette**, Student Assistant; **Corey Chapman**, Graduate Assistant; **Yashan Dand**, Student Assistant; **Dave Nihar**, Student Assistant; **Benjamin Entrekkin**, Student Assistant; **George Etheridge**, Graduate Research Assistant; **Thomas Green**, Student Assistant; **Donnie Hayes**, Student Assistant; **Piavazelle Jerome**, Sr. Admin. Secretary; **Thomas Kimberly**, Student Assistant; **Timothy King**, Student Assistant; **Shayne Kondor**, Research Engineer I; **Mignon Kuehmstedt**, Student Assistant; **Channing Lewis**, Student Assistant; **Sheridan Lewis**, Student Assistant; **John Malluck**, Student Assistant; **Girish Misra**, Graduate Assistant; **Garett Riemersma**, Student Assistant; **Matthew Roberts**, Student Assistant; **David Scruggs**, Graduate Research Assistant; **Chang-Yul Song**, Graduate Assistant; **David Spampinato**, Student Assistant; **Jason Van Nest**, Student Assistant; **Milton Whitley**, Student Assistant; and **Jabari Young**, Student Assistant. IITL welcomes **Tanah Barchichat**, Student Assistant; **Harold Breaux**, Sr. Research Scientist; **Giorgio Casinovi**, Sr. Research Engineer; **Lester Davis**, Student Assistant; **David Roberts**, Research Scientist II; **William Simcoe**, Student Assistant; and **Nathan Smith**, Student Assistant. EOEML welcomes **Robert Coleman**, Graduate Temporary; **Veronica Escobar**, Graduate Assistant; **Jerry Hicks**, Student Assistant; **Michael Knotts**, Fellow; **Jairo Linares**, Graduate Assistant; **Timothy Lovett**, Student Assistant; **Patrick Manigault**, Graduate Temporary; **Ann O'Neill**, Research Associate II; **Brian Parise**, Student Assistant; **Juan Velez**, Student Assistant; **Anthony Wasilewski**, Research Engineer I; and **Mark Yohannan**, Student Assistant. SDL welcomes **Stephan Fuss**, Research Engineer I; and **Mark Juliano**, Research Engineer I. STL welcomes **Amy Hatcher**, Student Assistant; **Anne Leavitt**, Office Automation Specialist. HRO welcomes **Daniel Parker**, Sr. Research Associate. SSD welcomes **Stefanie Sherwood**, Student Assistant. ARG welcomes **Ronnie Smith**, Sr. Research Scientist. ELSYS welcomes **Joel Agcaoili**, Student Assistant, **David Eison**, Student Assistant, **Stuart Lester**, Student Assistant; **Gregory Martin**, Student Assistant; and **James Wesolowski**, Student Assistant. SEAL welcomes **Milton Kapa**, Student Assistant. AIST welcomes **Kevin Sykora**, Student Assistant.

Moving On

Amy Brown, **Christopher Chritton**, **Robert Coleman**, **Louis Desetto**, **Veronica Escobar**, **Jessica Granell**, **Dayna Hamm**, **Nelse Hansen**, **Jeffrey Heidler**, **Stuart Jacobsen**, **William Kreiss**, **Myint Kyi**, **John Lewis**, **Timothy Lovett**, **Kristina McAlvin**, **Juan Velez**, **Tonia Morris**, **Ashesh Parikh**, **Elliott Pickering**,

Continued on page 7

The GTRI Connector
Vol. 12 No. 9 August 1996

Published by the Research Communications Office, Centennial Research Building, Georgia Institute of Technology, Atlanta, GA 30332. Georgia Tech is a unit of the University System of Georgia. The deadline for submitting copy is the first Tuesday of each month.

EDITOR
Lea McLees, RCT
894-4259

GRAPHIC DESIGN
Charlotte Doughty, RCT
894-6965

EDITORIAL REVIEW
Charles Brown, RSF
894-3516

ASSOCIATE EDITORS
Miriam Crenshaw, ERB
894-3523
Ann Duneheew, ELSYS
894-3592
Carey Floyd, Cobb 1
528-7070
Delora Gould, SSD
894-3408
Maggi Harrison, Cobb 2
528-7826
Lee Hughey, AIST
894-9621
Joanna King, Baker
853-0460
Diane Smith, O'Keefe
894-0024
Janice Porter, VPDIR
894-3401
Melanie Price, SEAL
528-7915
Jennifer Tate, RSD
528-7808
Gail Tucker, RSF
894-3500



This publication is printed in part on recycled paper.