

# The GTRI Connector

## Tee Time!

The 1997 GTRI Spring Research Scramble Golf Tournament is planned for 9:30 a.m. May 7 at Rivers Edge Golf Course in Fayetteville. The fee is \$55 per person, and covers all tournament expenses. GTRI/Georgia Tech employees, immediate family and sponsors may play. To register, contact Cheryl Lilly at (404) 894-0721 or Rusty Embry at (770) 528-7042.

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## Truly Heads to NREL

To the Faculty and Staff of GTRI:

Four-and-a-half years ago, you welcomed me to the Georgia Tech Research Institute. During this time, I've enjoyed the honor of working with some of the world's most talented researchers, managers, support staff and students. Together, we learned how to succeed — even excel — in a rapidly changing research environment, we established new records for research awards, we set a course that will provide a bright future for this organization — and we survived the 1996 Centennial Olympic Games!

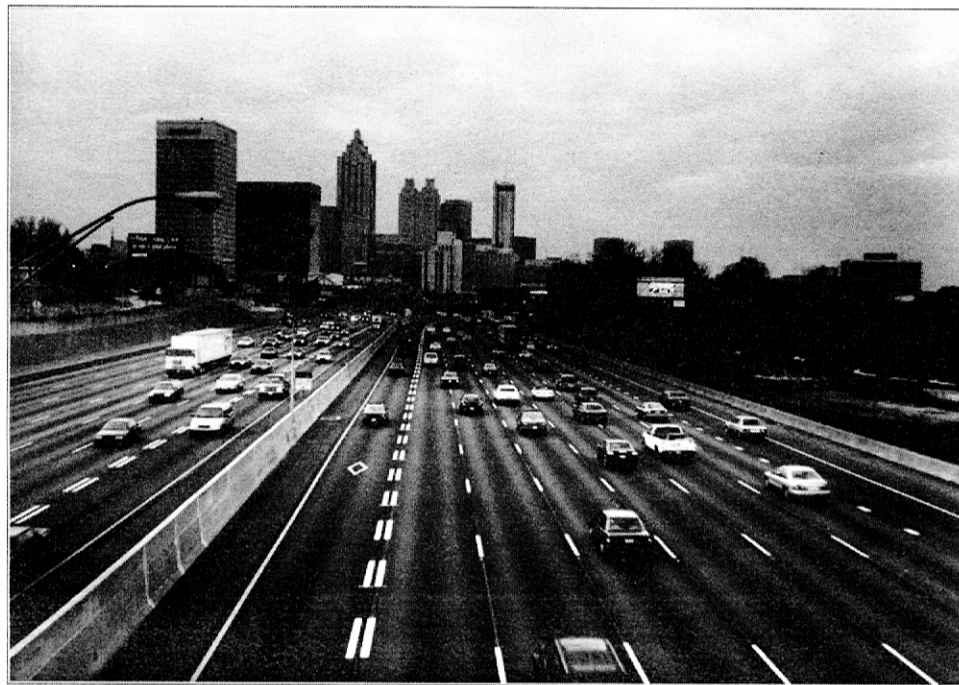
Georgia Tech has afforded me an immensely satisfying personal and professional experience. I have really loved these past four years because, as you know well, GTRI is a great place.

Throughout my career, I've had some really tremendous jobs: flying jet fighters, commanding a Space Shuttle, heading up both the Naval Space Command and our nation's space agency, and leading the Georgia Tech Research Institute. Each of these jobs has had three factors in common: They've all been important, and therefore, worth doing. They've been challenging and difficult enough to help me grow as a person. And they've all been fun.

My time as vice president of Georgia  
*Continued on page 5*



**Richard Truly**



*GTRI will coordinate and enhance the involvement of Georgia Tech and other state universities doing research in transportation, through the Georgia Transportation Institute (GTI). Look for a story about GTI in the April issue. (Photo by Lea McLees)*

## GTRI Close to OMB Decision on New Cost Structure

GTRI is only one approval away from a major change in its cost accounting structure which would be implemented July 1, 1997.

We now operate under Office of Management and Budget (OMB) Circular A-21, Cost Principles for Educational Institutions, using Allocated Project Level Costs (APLC) and Project Management Costs (PMC). GTRI has requested an exemption from A-21 with permission to transition to Federal Acquisition Regulations (FAR) Part 31.2, Contract Cost Principles and Procedures — Commercial Organizations.

All Department of Defense approvals have been received, and the final remaining authority that would issue the exemption is OMB. The approval could come at any time, as early as March.

### What's Next?

Upon approval GTRI personnel will see a flurry of FAR-related activity:

- Project directors and MAPS personnel will receive projected rates so that cost impact analyses on existing projects and current and future proposals can be calculated.
- Lab personnel will receive briefings on the rate structure.
- AIST is revamping the primary user reports ("green sheets" and other materials)

*Continued on page 7*

## Observed & Noted

PCS, formerly PPC, is making changes to enhance customer service. To find out about the changes and the services PCS offers, turn to page 3.

GTRI is growing - that means greater space

needs. To learn about what is planned, see page 3.

We continue the Lab Overview Series this month with a visit to AERO. Catch up with this lab's newest projects on page 4.

If you have a decade of electrical engineering experience, you may qualify for IEEE senior member status. Read the article on page 5 to learn more.

How can EDI help you and Georgia's small businesses?

Turn to page 6 for the latest Lunch 'n Learn report.

Research Librarian Bette Finn compiled a list of databases that are potentially useful to GTRI employees. We present a portion of that list on page 6.

Yolanda Nieves, Jeff Moore and Bob Lewallyn are among our newest employees. Meet them on page 7.

If you are ready for fun, visit the Festival Behind the Fence on

May 17. Learn more about what's planned on page 7.

Professional, personnel and personal activities fill page 8. Flip this issue over to catch up on a road race, new babies, and a letter from Vice President Al Gore!

The GTRI Connector is on line at <<<http://www.gtri.gatech.edu/connector/ctwelcom.htm>>>.

## FY 97 Funding Looking Good

Georgia Tech and GTRI are experiencing an excellent FY 97 awards year thus far. If awards continue coming in at the current rate, GTRI could exceed its FY 95 record of \$98.7 million, GTRI director Richard Truly noted recently.

Awards for FY 97 through February totalled \$69.2 million. That's 54.4 percent of the \$127.3 million in awards received by Georgia Tech to that date.

In February 1996, GTRI had recorded \$57.1 million in awards. During the record-setting FY 95, \$72.9 million in awards had come in as of February.



## SELECTED JANUARY/FEBRUARY 1997 AWARDS

Title	PI/Laboratory	Sponsor	Funded Amount
Georgia Transportation Institute	Cassanova, R. (AERO)	Ga. Dept. of Transportation	\$ 300,000
Modeling of Air-Cooled & Water-Cooled Test Cells	Ahuja, K. (AERO)	Armour Cape & Pond	238,000
Depend. of Jet Mixing Noise and Internal Noise...	Ahuja, K. (AERO)	NASA	100,000
MH-60G Structural Integrity Modifications	Crawford, C. (AERO)	U.S. Air Force	49,618
Tech. Supp. to DARPA Elect. Tech. Office	Eagar, W. (ARL)	Systems Planning Corp.	50,000
EC Test & Eval. Infrastruct. Improvement & Modernization	Eagar, W. (ARL)	U.S. Air Force	800,028
Consult. for On-Board ECM Upgrade Design...	Flowers, C. (ELSYS)	Northrop Grumman	40,000
Pulse Density Support	Mayhew, B. (ELSYS)	SAIC	80,000
Generic ECM Model "Test Case" Application	Schuett, L. (ELSYS)	SAIC	120,000
Human Factor Computer-Aided Design-Tool...	Folds, D. (ELSYS)	U.S. Dept. of Transportation	400,000
Dev. Meth. for Analyz. How Op. Factors & Conds...	Blankenship, S. (ELSYS)	VRC Corp.	88,450
SIIRCM/CMWS Sim. Upgrades Verification Train. & Supp.	Mullikin, A. (EOEML)	CAS Inc.	3,638,204
IO Sensor Design for Influenza A Assay	Campbell, D. (EOEML)	Photonic Sensor Systems Inc.	107,703
Fighter Verification & Validation	Owens, W. (EOEML)	BDM Corp.	195,973
Flight Mission Simulator/Digital (FMS/D) Develop.	Frost, M. (HRO)	U.S. Army	398,513
Corps SAM/MEADS Functional Analysis Support	Dalton, J. (HRO)	U.S. Army	99,578
Systems Engineering Support to Comanche PMO	Grover, J. (ITTL)	RAIL Co.	232,108
Design & Prototype of...Ga. Juvenile Court Automation...	Sills, L. (ITTL)	Ga. Courts Authority	70,261
Mod. to Extend Ground-Mounted Seeker Test Plan	Roberts, R. (SDL)	Electronic Warfare Assoc.	20,788
Low Freq., UWB, Synthetic-Aperture Radar (ASR)...	Tripp, V. (SEAL)	Millimeter Wave Tech. Inc.	32,967
Eng. Support Services for F-15 Radar & Avionics	Morris, G. (SEAL)	U.S. Air Force	980,000
Naval Radar Electronic Protection Assessment Analysis	Morris, G. (SEAL)	U.S. Air Force	165,000
BCIS Tech Base Support	Vandermeer, W. (SEAL)	FiberTek Inc.	150,000
Tri-Service Elect. Protection Assess. Analysis Description...	Morris, G. (SEAL)	U.S. Air Force	1,860,000
Elect. Protection Assess. Analysis Tech. Development	Morris, G. (SEAL)	U.S. Air Force	260,600
Design, Analysis, and Test Support	Daher, J. (SEAL)	Mission Research Corp.	65,000
Construction & Installation of a Focused Beam Boom...	Hopkins, E. (STL)	U.S. Army	99,831
Determination of Body Surface Currents from Local Meas.	Kesler, M. (STL)	U.S. Navy	150,000
Vulnerability Analysis Program	Rice, R. (STL)	U.S. Dept. of Defense	784,351
Workshops & Documents	Meadors, J. (STL)	U.S. Dept. of Defense	1,000,000
AFT Fuselage & Tail Pylon Struct. Flight Loads...	Crawford, C. (AERO)	Raytheon E-Systems	450,187
Human Factors in Adv. Traff. Mgmt. Sys. (ATMS) Design...	Kelly, J. (ELSYS)	U.S. Dept. of Transportation	218,589
Test & Integ. Support for C130J Avionics	Bordelon, J. (ELSYS)	Lockheed Aeronaut Sys. Co. -- Ga.	61,120
B-1B Def. Sys. Upgrade Prog. Comp. Pre-EMD Phase	Masse, A. (ELSYS)	Boeing Aerospace Co.	128,321
Foreign Comp. Test Effort for the Air National Guard	Viney, L. (ELSYS)	U. S. Air Force	207,500
Fungal Metabol. Byprod. as Measure of Biocide...	Bayer, C. (EOEML)	Ctr. for Indoor Air Research	152,437
Laminated Matrix Composites	Lackey, W. (EOEML)	Knolls Atomic Power Lab	74,895
Continine & Nicotine Metabol. Byprod. in Bio. Fluids	Bayer, C. (EOEML)	Ctr. for Indoor Air Research	83,924
E-Smart System for In-situ Detect. of Env. Contam.	Combes, R. (EOEML)	Photonic Sensor Systems Inc.	281,473
Prop. to Fabricate a Proof-of Prin. PH/Temp. Sensor	Campbell, D. (EOEML)	Photonic Sensor Systems Inc.	20,000
Tactical Threat Engmt. & Countermeas. Sim. Systems	Mullikin, A. (EOEML)	U.S. Army	75,000
FORSCOM G4-R&D Support	Parker, D. (HRO)	U.S. Army	87,300
Software Engineering Maintenance	Pyles, J. (ITTL)	U.S. Air Force	399,963
Transceiver Susceptibility Analysis	Moss, R. (ITTL)	U.S. Army	105,000
Target Track Radar Antenna Support	Muzio, A. (SDL)	U.S. Army	101,028
XM-15S Simulator	Camp, S. (SDL)	U.S. Army	1,843,822
Adv. Airborne Intercept. Sim. (AAIS)	Roberts, R. (SDL)	Northrop Grumman	250,000
Tech & Eng. Supp. for Initial Design of LMRS Prog.	Tate, D. (SEAL)	Rockwell Intl.	200,000
Dev. & Analys. of Innov. MMW Smoke Mats.	Perry, B. IV (SEAL)	U.S. Army	48,475
Non-Cooperative Target Identification (NCTI) Technology	Cohen, M. (SEAL)	U.S. Air Force	427,000
Conformal Ap. Vel. Sonar (CAVES) Concept Eval. & Test.	Caille, G. (SEAL)	U.S. Navy	2,413,000
Radar Hardware Development Analysis	Belcher, M. (SEAL)	U.S. Army	521,417
BCIS EMID Support	VanderMeer, W. (SEAL)	FiberTek Inc.	148,000
Radar Config. Assessment for Enhanced Firefinder	Holm, W. (SEAL)	FiberTek Inc.	102,924
Practical AECM Capability Enhancements (PACE)	Harkness, L. (SEAL)	MTL Inc.	125,053
Actively Controlled Infrared Percolating Surfaces	Kemper, P. (STL)	U.S. Navy	150,000
Modeling, Design, Simulations & Measurements	Moore, R. (STL)	McDonnell Douglas Corp.	224,936
IRCM Concept Analysis	DiMarco, J. (STL)	Boeing Aerospace Co.	50,000

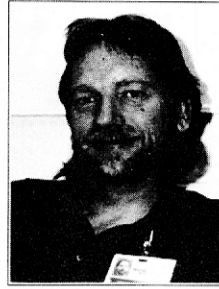
## Meet the Facilities Services Team

This month we will finish meeting members of the Facilities Services Team (FST), managed by Brenda Hill. FST is responsible for keeping everything in GTRI running smoothly. This group handles routine maintenance in GTRI buildings, as well as construction, painting, moving, and tracking and maintaining GTRI vehicles.

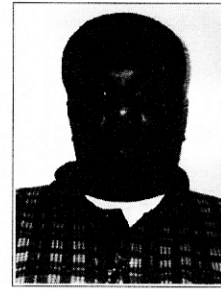
**Greg Slagle** has been a maintenance and construction worker with FST for more than a year. Some of Greg's duties include construction in existing structures to accommodate lab and office changes, fixing electrical problems and preventive maintenance work. He came to GTRI after working in hotel maintenance and in remodeling. Before that he worked as a bartender for six years.

Greg is a graduate of Pebble Brook High School in Mableton. He and his wife, Rita, a labor and delivery nurse, live in Mableton, in a log house that Greg built by himself. He considers the house an ongoing project and still works on it whenever he gets a chance. Greg has three children: Jenny, 19, Tad, 16, and Melissa, 10. Greg holds a second degree black belt in karate and enjoys lifting weights when not working. He also likes to scuba dive in his free time.

**Edward Smedley**, a maintenance and construction worker, has been with FST for 1 1/2 years. Edward does "a little of everything," from building rooms to delivering furniture to painting to repairs. He handles basic maintenance for all GTRI buildings. A licensed cosmetologist, Edward worked as a barber for six years before coming to GTRI. Before that, he spent four years in the Navy. Edward grew up in Anniston, Ala.,



Greg Slagle



Edward Smedley

where his mother and brother still live. He attended Rets Technical School in Birmingham, Ala., and Ayers Trade School in Atlanta. Edward and his wife, Debbie, live with their two sons Justin, 8, and Jeremy, 3, in East Point. Debbie owns a craft business and keeps Edward busy helping her when he's not working. He also spends his time playing with his sons and has set up a number of model trains for them. And whenever he gets the chance, Edward enjoys sitting down with a good book.

## News & Notes

## PPC Undergoing Changes to Better Serve Customers

By Toni Mills, OIT

The Printing and Photographic Center (PPC) is taking on a new name and new services. PPC is now **OIT Printing and Copying Services (PCS)**. PCS moved under the leadership of the Office of Information Technology (OIT) on July 1.

In addition to the name change, PCS is changing its lineup of services offered. PCS will absorb all of OIT's laser printing functions. Laser printing equipment currently maintained in OIT's machine room will move to PCS' 811 Marietta Street facilities, where some upgrades are planned — including the addition of new laser printing equipment. The new printers will en-

able PCS to provide print-on-demand services beginning in fiscal year 1998.

PCS will continue to provide free pickup and delivery service on campus, as well as a wide variety of printing services including desktop publishing; black-and-white and color copying; single and multi-color offset printing; and various types of binding and finishing services. However, effective immediately, PCS will no longer provide photography services, such as black-and-white and color film processing, slide making and passport photos.

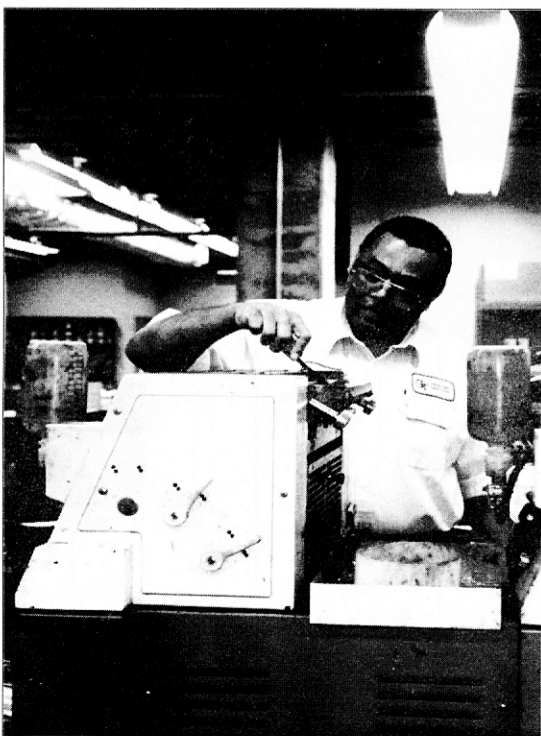
PCS continues to be the only organized reproduction facility on the Georgia Tech campus, processing more than 6,000 orders annually. While PCS transitions to its new name and additional services, the facility encourages all Georgia Tech departments to call or stop by for any printing or copying needs.

Doing business with PCS is fast and easy. No bids or purchase orders are necessary — all you need is your MSA account number.

In addition to its Marietta Street location, PCS operates a satellite facility, the **Research Copy Center (RCC)**, located in the Centennial Research Building. RCC's primary function is to support the research reports and proposals process. However, orders for copying services from any campus unit can be processed by RCC.

PCS is also accessible via the World Wide Web at <<[http://sheba.ppc.gatech.edu/ppc\\_home.html](http://sheba.ppc.gatech.edu/ppc_home.html)>>. Customers can view price lists, submit requests for quotes and place orders for business cards online. PCS is currently working to expand its online ordering capability.

For more information on PCS' services, you may call (404) 894-8610.



## GTRI Plans for Space Needs

By Lea McLees, RCT

The success of GTRI research programs has resulted in an ongoing challenge: Finding appropriate space for growing labs on campus, at Cobb County and in Arlington, Va.

"With each new researcher has come the need for office space and research infrastructure, to include additional support from GTRI's Research Support and Finance organization," GTRI director Richard Truly said recently.

And GTRI isn't the only growing campus organization. A bioengineering/bio-science complex is slated for construction at the corner of Atlantic and Ferst on the Research Area II property, and plans are being considered to relocate and consolidate manufacturing activities in the Manufacturing Research Center (MARC).

Representatives from all over GTRI are studying the space issue and developing solutions. Among them are Jim Cox (SDL), leading the space study for Cobb County Research facility, and Jimmy Woody, (SEAL), leading the space study for ERB.

Support Services, led by Evan Chastain, is assisting with planning — particularly Brenda Hill, Carl Baxter, and Rusty Embry. Joe Brooks (SSD) is providing CAD support for floor plans.

Following is the latest information on how GTRI plans to meet its space-related challenges.

### Addressing CRB, Research Area II and MARC

PST has moved to a different location on the first floor of CRB, freeing its former first-floor space for Ricky Moore's STL group. This area is contiguous to the high bay space STL uses.

"And STL is turning over lab space on

*Senior press operator Robert Allen checks the ink as an ITEK two-color offset press prints brochures. (Photo by Lea McLees)*

Continued on page 6

## Focus on Research

**Rob Michelson (AERO) works on a Traffic Surveillance Drone Prototype. (Photo by Joey Goddard)**

### Lab Overview Series

## AERO: Aeronautics and Advanced Transportation, Acoustics and Aerodynamics

By Joey Goddard, OCA

The Aerospace and Transportation Laboratory (AERO) focuses on research in areas relevant to air and ground transportation.

"We have three main areas of research," explained Bob Cassanova, lab director. "Aeronautical systems, advanced transportation systems, and acoustics and aerodynamics."

Lab personnel are continuing to build national and international reputations in several areas. Their work in powered lift technology, acoustics, aerodynamic and aeroelasticity modeling is unique among research institutions.

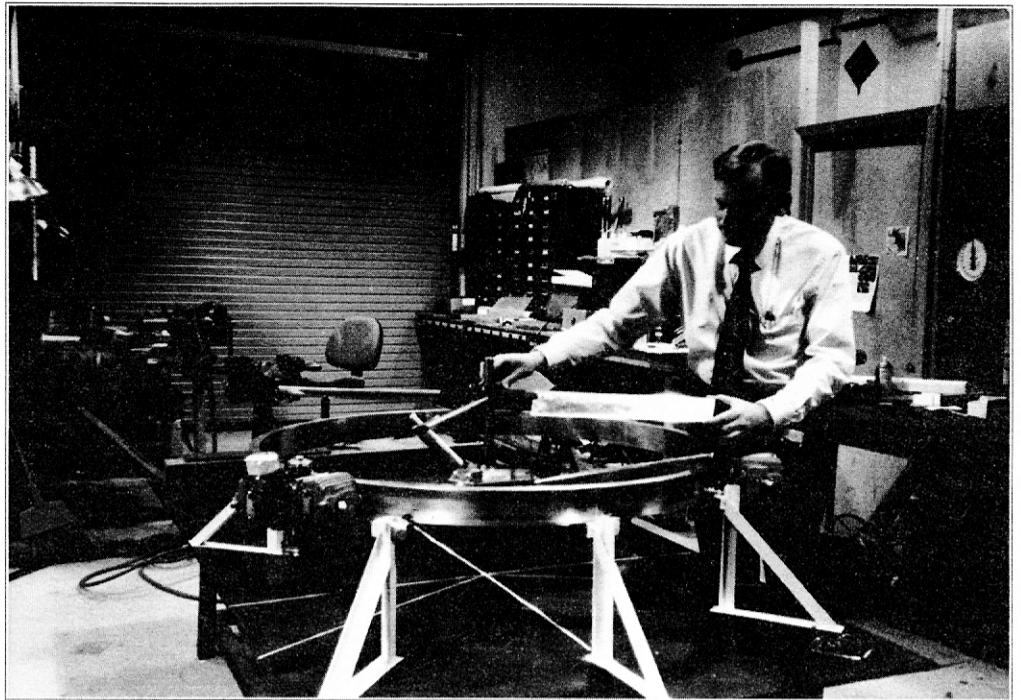
Charles Crawford leads a division focused on the modification and development of helicopters, tiltrotors and tiltwings. Marilyn Smith continues to receive special recognition from her sponsors and the American Institute of Aeronautics and Astronautics (AIAA) for her achievements in computational aeroelasticity. Bob Englar is not only an internationally recognized researcher in circulation control wings, but is highly sought after for his research in racing hydroplane and Formula 1 race car aerodynamics. Krish Ahuja's research in acoustics and related areas continues to diversify, and has been key to GTRI's reputation in aeroacoustics research.

The AERO lab is a leader in the study of aeronautical systems engineering. Through partnerships with the U.S. Air Force, NASA and private industry, AERO researchers provide expertise in aircraft design, structural integrity analysis, flight performance and testing and powered lift technology.

A new area of research for AERO is the development of a Health Usage Monitoring System (HUMS). This technology can be used to conduct safety and diagnostic tests on complex vehicles such as airplanes and helicopters. Tests are performed automatically to monitor areas prone to fatigue.

"A concern is that vehicles under a lot of stress might need to modify maintenance and replacement schedules," Cassanova said.

Acoustics research is an area where researchers are trying to mitigate the impact of technology on the environment. "Acoustics research applies not only to the noise made by big jets," explained Cassanova. "We are looking for ways to make autotobiles and industrial products quieter." The lab recently helped



design an anechoic wind tunnel that reduces unwanted background noise to help determine aerodynamic and propulsion generated noise.

Breakthroughs are also being made in micro air vehicle development. The Microflyer Program is a collaboration of researchers from AERO, ELSYS, EOEML and the schools of Mechanical and Electrical and Computer Engineering, which are working to design aircraft smaller than a model plane.

"The application of the microflyer will vary, depending on size," Michelson explained. "The sizes range from the size of a small bird, about six inches, to the head of a pin."

Michelson is now at work on a reciprocal chemical muscle that will cause wing flapping similar to that of an insect for use in developing bug-sized microflyers.

"These machines will be extremely useful because they will be able to fly indoors where it is typically difficult to fly autonomously," he said.

Another development in autonomous flight is the Traffic Surveillance Drone, a rotorcraft vehicle small enough to fit in the back of a pickup truck. The drone is guided by GPS and provides live video and two-way audio communication.

"The drone is much cheaper to operate than a manned helicopter," said Michelson, "and it can fly in weather that would otherwise be unflyable."

The lab also is experimenting with new applications of some existing technology. "Research into pneumatic flow control and omothopters, or flapping wings, is being applied to both microflyers and aircraft," Cassanova added.

The AERO laboratory was responsible for creating the newly established Georgia Transportation Institute (GTI). The Institute is a clearinghouse for transportation research in the State of Georgia. "GTI will bring together experts in transportation research from around the state to establish partnerships with anyone who needs our expertise," Cassanova explained.

Cassanova is the acting head of GTI while a nationwide search for a director is underway. Eventually the Institute will be transferred to the Office of Interdisciplinary Programs (OIP). Cassanova is optimistic that GTI will increase opportunities

in transportation research for Georgia Tech and GTRI.

"Our research in advanced transportation systems research has received a great deal of attention lately because of the Olympics," Cassanova continued.

The lab, in partnership with the Federal Aviation Administration (FAA), participated in a field test of Operation Helistar during the 1996 Centennial Olympic Games. The test involved helicopters guided by a unique global positioning system (GPS) transporting cargo to 12 heliports in and around the city. The GPS allows data-link messages to be sent from the ground to the aircraft.

"Using GPS, the pilot and ground control could follow the flight more closely. They both knew where the helicopter was at all times, could make more informed decisions about rerouting and could communicate through the datalink," Cassanova said.

Similar systems could be used in automobiles to provide real-time data on vehicle performance. Sensors and a GPS system attached to the vehicle could send messages to a stationary receiver, or to a vehicle system or driver, allowing real time performance adjustments as they are needed.

Researchers in AERO are also hard at work helping to alleviate traffic problems through their involvement with Intelligent Transportation Systems (ITS).

"ITS incorporates several different areas including traffic management, traveler information, commercial vehicle, and advanced vehicle control systems," explained Bill Youngblood.

Youngblood has just completed a study of two traveler information systems.

"One, the traveler kiosk system, allows travelers to obtain information on weather and road conditions, public transportation, and air travel at 150 locations around the state," he said. "The other is an in-vehicle system that performs similar functions from inside of a car."

Youngblood is currently working on a project sponsored by the Georgia Department of Transportation and the Federal Highway Administration developing a strategic deployment plan for ITS for the State of Georgia.

In another ITS-related project, Wade Gamto is studying issues related to commercial vehicle operation.

"The objective of this research is to

*Continued on page 5*

## Potential IEEE Senior Members Sought

By **Lea McLees, RCT**

If you have a decade of experience in electrical engineering, you may be among the estimated 30 to 40 GTRI employees who qualify for IEEE senior member status.

And if you decide to apply for senior status, experienced fellow GTRI researchers can help you with the application process, said Bruce Harvey (ITTL), a member of GTRI's Professional External Awards/Honors Committee. He is coordinating IEEE senior member applications.

"People can contact me to get the application packet, and if they want the committee to review their applications, they can just let me know," Harvey said. "The committee also can help candidates identify senior fellows in the Atlanta area for references."

Any IEEE member who meets the criteria for promotion to senior/principal research scientist/engineer likely meets

the criteria for advancement to senior member. The application is easy to complete — particularly for those who've just been promoted to senior research engineer, Harvey says.

"You can just boil down your GTRI promotion packet and you'll have the IEEE application filled out," he says.

To be considered for IEEE senior member, you must be an engineer, scientist, educator, technical executive or member of an IEEE designated field who has:

- at least 10 years of active professional practice, with five or more years significant performance
- accomplishments in engineering, publications, management, education or professional contributions.

The IEEE Admission and Advancement Committee meets regularly throughout the year, so applicants do not have to meet a deadline. Newly selected senior members who are already IEEE members will not see a dues increase.

The application, which covers only the front and back of one page, requires:

- education information
- at least three references who are IEEE Fellows or senior members
- a half-page review of your professional experience over ten years

• a short description of significant work

• a list of professional awards and any other professional society affiliations.

Senior member status offers recognition of accomplishment by peers, professional advancement and personal satisfaction, Harvey noted. Senior members receive a certificate, and a letter announcing their status can be sent to their employers from the president of IEEE.

GTRI's Professional and External Awards/Honors Committee, led by **Don Clark** (SEAL), is charged with compiling criteria for professional awards and honors, identifying qualified GTRI staff members, encouraging them to apply, and helping them prepare nomination papers. Members include **Krish Ahuja** (AERO), **Hugh Denny** (retired, SEAL), **Caitlin Flowers** (ELSYS), **Gary Gimmestad** (EOEML), **Mike Harris** (EOEML), **Bruce Harvey** (ITTL), **Guy Morris** (SEAL), **Henry Paris** (EOEML), **Janice Porter** (Administration), **Jagjeet Sidhu** (STL) and **Jim Wiltse** (retired, EOEML).

For more information on applying for IEEE senior membership, contact Bruce Harvey at [bruce.harvey@gtri.gatech.edu](mailto:bruce.harvey@gtri.gatech.edu) or (404) 894-5597.

Truly

From page 1

Tech and director of GTRI has certainly been worthwhile, challenging, fun and much more. But a new opportunity has presented itself that also meets those three criteria I set for myself. I'm very excited about the challenge I've accepted, to become director of the National Renewable Energy Laboratory (NREL) in Golden, Col.

As one of the U.S. Department of Energy's national laboratories, NREL is the nation's leading laboratory for renewable energy and technology — and for the challenge of making full use of solar, wind, biomass and other renewable sources which will play an important role for centuries to come. GTRI shares some of these interests, and the two organizations have worked together in the past.

Though it is a Department of Energy facility, NREL is operated under contract with the Midwest Research Institute, which is home-based in Kansas City. I'll therefore also hold the title of senior vice-president for MRI.

Ed Reedy, director of Research Operations, will assume the responsibilities of acting director of GTRI. During our time together, I have developed tremendous respect for Ed, and know his integrity and leadership will continue to serve GTRI well. A national search will begin under the direction of Jean-Lou Chameau, Georgia Tech's vice provost for research.

In all sincerity, I must tell you that I have thoroughly enjoyed these past four-and-a-half years. I know that I am a better person for having spent this time with you, and it's my sincere hope that you and GTRI are also better for this time we've worked together.

If I could look back at a few accomplishments that we've made together, stra-

tegic planning would be a good place to begin. Talking among ourselves about where this organization could go and how high we should set the bar has been a valuable experience. We have tried to be open and involve everyone in the process. As a result, we have a dynamic strategic plan that will serve as a road map to GTRI's future.

Another important area of growth has been in our relationship with Georgia Tech. GTRI is an integral part of Georgia Tech, and you've helped to make that more real than it's ever been. GTRI is immensely important in bringing Georgia Tech opportunities it wouldn't otherwise have. Likewise, being part of Georgia Tech is essential to making GTRI the unique place it is.

Over the past four years, we've put into place some new management systems that help GTRI better manage our money, better communicate with one another and better track what we do. We've raised our visibility on this campus, in the state and throughout the world.

If there's one area where I wish we could have done more, it would be in making Georgia Tech's and GTRI's culture more supportive and trusting. Continuing to strive for openness of debate, inclusion in decisions, and simply communicating openly and candidly with one another will make our campus a better place.

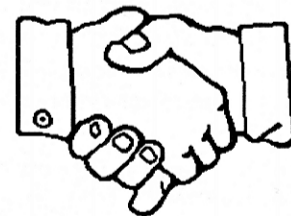
As I leave here, I'll be ending my second four-year tour at Georgia Tech. The first began on a 1955 September day for a 17-year-old student from Mississippi, and the highlight of that stint was meeting Cody on a blind date. Those years in Atlanta led us to a wonderful life in the Navy and NASA before bringing us back to the campus. We don't know everything that the Rocky Mountains hold in store for us, but there's no doubt it will be

worthwhile, challenging and fun!

The Georgia Tech I saw when I returned here in 1992 was so much better and stronger than the one I left in 1959. I trust that the next time I pass this way, I'll see a Georgia Tech and a GTRI that are even better and stronger than they are now.

Thank you for a great four-and-a-half years and many lasting friendships. I leave you my best wishes for what I know will be a happy and prosperous time ahead for you and for GTRI.

— Richard Truly



AERO

From page 4

develop a standard credentialing system for commercial vehicles for 12 states including Georgia. The system would be based on a uniform set of size and weight requirements for commercial vehicles," said Cassanova.

In the coming year the lab will be venturing into a new area with research into fast-charging lead acid batteries, and a battery research lab is in the works.

"We believe we will be working more with private industry as our areas of expertise continue to grow," said Cassanova. "While we will maintain our relationships with our current sponsors, we will also be exploring new partnerships with other federal and state agencies."

# News & Notes

## Lunch 'n Learn

### EDI Links Small Businesses with Georgia Tech Researchers

By Eliesh O. Lane, EOEML

Jeff Lebow could easily be called the "Clark Howard" of Georgia Tech's Economic Development Institute (EDI).

A senior research engineer, Lebow coordinates opportunities for Georgia Tech faculty to provide technical assistance to Georgia companies — and like consumer advisor Clark Howard of WSB radio, he always seems to know exactly where to find just the right person to meet a company's needs.

Lebow recently presented an overview of EDI programs to members from

EOEML's Safety, Health, and Environmental Technology Division's (SHETD). Through its 18 field offices, EDI provides technical assistance to both existing companies in Georgia and those wishing to establish businesses in Georgia. EDI also coordinates all of Georgia Tech's economic development activities.

Through Lebow's work, access to campus resources is enhanced and simplified for companies needing specific assistance. Acting as a "technical translator," Lebow often helps companies define their problems and communicate them clearly to obtain more effective assistance.

The assistance process is simple. Smaller companies may contact any of EDI's 18 statewide regional offices. If necessary, the field office will contact Lebow, who is located on campus. Lebow then identifies the appropriate faculty member, either from GTRI or from one of the schools and colleges, and "connects" the two parties.

Typically, technical assistance to a company requires only a few days of a faculty member's time. In return for assisting the

company, Lebow's program provides specific resources for the faculty member. This often is an ideal opportunity for faculty members and graduate students to develop long-term relationships with companies and secure follow-on opportunities for research and development.

Lebow has been fortunate identifying these linkages. Generally, faculty members are happy to provide their assistance or, if they are over-committed, names of other faculty members who may be available. Expertise is typically provided in the form of marketing, human resources, training, international standards, energy conservation and strategic planning help — all of which can aid companies, especially smaller firms, in improving their competitiveness.

For more information on Jeff Lebow's work you may call (404) 894-2272 or send e-mail to [jeff.lebow@edi.gatech.edu](mailto:jeff.lebow@edi.gatech.edu). For more information about the Lunch 'n Learn program, you may call Eliesh Lane at (404) 894-8044 or send e-mail to [eliesh.lane@gtri.gatech.edu](mailto:eliesh.lane@gtri.gatech.edu).

## Space

From page 3

the fifth floor to ELSYS for a new cockpit mock-up that will be used for research led by Dennis Folds," Chastain said.

APO, now housed on the second and fourth floors, is consolidating on the third floor. The former APO space on the fourth floor will be assigned to ELSYS. Some office changes are planned for the second floor, and Chastain will move to that area, as well. His fifth floor office will go to STL, as will three additional fifth floor rooms.

"The conceptual picture here is that the labs in CRB need more space to grow their research," Chastain noted. "However, with the move of GTRI Accounting (see next section), that leaves limited room for lab growth. So some of these moves will be temporary, because we must make room in the near future for the labs to grow."

Research Area II is the future home of Georgia Tech's planned bioengineering/bioscience complex. As a result, GTRI Accounting, the Mail Distribution Team and several GTRI research programs currently housed there will need new homes.

The Mail Distribution Team will move to an area of O'Keefe that is currently used for storage, but will be upgraded to a work space. Accounting will move to a newly leased space on the third floor of CRB before the end of May and close-out time.

"The plan right now for the plasma torch research (managed by the College of Architecture but supported by GTRI researchers) is to move it into a new building planned for the Georgia Tech Foundation property on 14th Street," Chastain noted.

Planning for a 14th Street facility is ongoing to include representatives from the College of Engineering, GTRI, the College of Architecture and Georgia Tech facilities developing the requirements, Trent Farill (EOEML) said, noting a target completion date of late fall 1997.

Because plans are being developed to relocate and consolidate manufacturing activities in MARC, relocation options for the Food Industry programs are currently being considered.

### Growth Plans for ERB and Cobb County

ITTL is growing into some available space in ERB. At the same time, Dave Millard's SEAL group in ERB will move to the Cobb County Research Facility — with the exception of a portion of the medical device electromagnetic environmental effects testing program, which will remain in ERB due to unique project sponsor requirements.

"Consolidation of SEAL activities at CCRF would not only better utilize the CCRF space, on which GTRI is paying annual lease costs well in excess of \$1 million, but would free up additional campus space within the ERB," Truly said. "That will provide the longer-term potential to accommodate ITTL research growth plus accommodation for RSF support units which must remain on the main campus."

## Library Databases Available

Following is a portion of a list of selected databases that may be of interest to GTRI faculty and staff. These databases can be accessed via the Georgia Tech Library's Home Page, located at the web address <<<http://www.library.gatech.edu>>>, under the heading "Databases." In addition to being grouped alphabetically, databases are also grouped by access category — GTEL, Gateway, Galileo and CD-ROM (Library's LAN only).

You may e-mail Bette Finn, GTRI research librarian, at [bette.finn@library.gatech.edu](mailto:bette.finn@library.gatech.edu), or call her at (404) 894-1790, for informational assistance such as citation verification, searches in any of the databases available through the Library's Home Page, and searches in hundreds of databases offered through commercial vendors. Fee-based vendors include the Defense Technology Information Center for classified or limited distribution reports, Knight Ridder's Dialog, STN (chemistry, etc.), NASA/RECON and others.

•••••

### Beilstein and Gmelin \*\*New\*\*

The Georgia Tech Library now offers access to CrossFire, the interface to the online versions of *Beilstein's Handbook of Organic Chemistry* and *Gmelin's Handbook of Inorganic Chemistry*. The license agreement allows use of the CrossFire system anywhere on the Georgia Tech campus with an ethernet address. The URL for Crossfire instructions is <<<http://www.library.gatech.edu/xfire.html>>>.

Look for the rest of the database list in the April issue.

## GTRI Greetings

Welcome to some of our newest employees!

### Ten Good Things We Know About Yolanda Nieves

1. Yolanda has worked as a Program Coordinator II for the Personnel Support Team (PST) since November.
2. Yolanda is responsible for recruiting, hiring and the ongoing administrative maintenance of all student applicants in GTRI.
3. Before coming to work at GTRI, she worked at the Medical College of Georgia (MCG) in Augusta, Ga.
4. Yolanda has a bachelor's degree in psychology from Northwestern University in Evanston, Ill.
5. She also attended Augusta State College in Augusta, Ga., where she earned a master's degree in counseling education.
6. While in graduate school, Yolanda interned as a counselor in training at the Augusta Child Advocacy Center and the Veterans' Administration.
7. She plans to start working on a Ph.D. next year.
8. A native of Chicago, Ill., Yolanda now lives in Union City.
9. In her free time, Yolanda likes to do aerobics and also enjoys traveling.
10. One of her favorite hobbies is painting. She uses a mixed medium and acrylic to create her mostly abstract works.

### Ten Good Things We Know About Jeff Moore

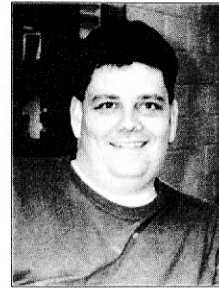
1. Jeff began work as a graduate research assistant in the Electro-Optics, Environ-

ment and Materials Laboratory (EOEML) in April.

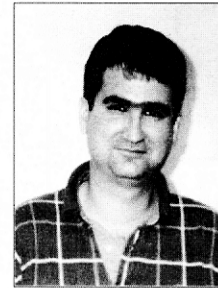
2. In October, he became a Research Scientist I for the Opto-Electronic Technologies Branch of EOEML.
3. Jeff is helping develop chemical sensors for detecting trace chemicals in various environments. These sensors can be used in everything from process control to environmental monitoring applications.
4. He is a graduate of the University of North Carolina in Asheville, where he earned a bachelor's degree in chemistry.
5. Jeff completed his master's degree in analytical chemistry from Tech last summer. He hopes to complete his Ph.D. by Fall 1998.
6. While an undergraduate, Jeff earned money for school by working in the sporting goods department of Sears.
7. His wife, Allison, is a Ph.D. candidate in the School of Chemistry and Biochemistry.
8. The two live in Smyrna with their cat, Patches.
9. In his free time, Jeff teaches freshman chemistry at Kennesaw University.
10. Jeff enjoys playing racquetball and softball and walks three-and-a-half miles every day during his lunch hour.



Yolanda Nieves



Jeff Moore



Bob Lewallyn

### Ten Good Things We Know About Bob Lewallyn

1. Bob is a Research Engineer I in the Environmental Engineering Branch of the Electro-Optics, Environment and Materials Laboratory (EOEML).
2. His work includes research for improv-

ing various wastewater treatment processes and reducing energy and water consumption at industrial facilities.

3. Before coming GTRI in September, Bob spent five years designing equipment for subsea oil and natural gas production at FMC Corp. in Houston, Texas.
4. A Tech graduate, Bob has bachelor's degrees in engineering science/mechanics and mechanical engineering.
5. While attending Tech, he worked as a student assistant in EOEML for two years.
6. He also earned a master's degree in mechanical engineering from the University of Houston by going to evening classes while working full time.
7. Bob grew up in Rockdale County and attended Heritage High School in Conyers, Ga.
8. Bob and his wife, Carla, have two cats named Sasha and Nena. Both are strays that Bob took in while living in Texas. Bob believes that cats are the smartest and most beautiful living things on Earth; consequently, Sasha and Nena both enjoy a substantially higher standard of living than either Bob or Carla.
9. In his free time, Bob is an amateur radio operator. His call sign is KC5PPV.
10. Some of Bob's other pastimes include collecting stamps, reading and power boating.

## Focus on Folks

## Festival Behind the Fence — You're Invited!

Mark your calendars for a fun-filled Saturday in May — you're invited to the May 17 Festival Behind the Fence (FBtF).

The festival was organized to promote diversity in a fun and competitive atmosphere — and you don't have to be a student to attend, says Meredith Moore, vice president of Georgia Tech's Residence Hall Association (RHA).

"Families, students, administrators associated with Georgia Tech can come on out," Moore says. "They'll find activities for all ages, music, low-cost, delicious food and time to relax with friends."

GTRI groups can field male, female or co-ed teams to compete in any of 30 events. Families can participate, as well. Feeling a little impish? Visit the dunk tank and try your luck at drenching a favorite professor or administrator.

The event is sponsored by RHA, Tech's hall councils, Student Foundation, Student Government Association and many corporations.

For more details visit the FBtF website at <<<http://fbtf.gt.ed.net/~btf>>>, or contact Moore at [gt2408a@prism.gatech.edu](mailto:gt2408a@prism.gatech.edu),

### Festival Behind the Fence Schedule May 17, 1997

#### noon-6 p.m.:

- Carnival rides /games including moonwalk, dunk tank with numerous professors and administrators, orbitron, pedestal joust, and pop-a-shot basketball.
  - \*Hamburgers, cheeseburgers, chips and FBtF tumblers with drink of choice under \$2.
  - Free caricature drawings, a palm reader, a tarot card reader
  - Free tie-dye and spin art your FBtF T-shirt, live Tech bands, live cultural entertainment from several Tech cultural organizations. Mara Davis from Z-93.
- #### 1-6 p.m.:
- Volleyball tournament
  - Organizational competitions — 30 games from watermelon-seed-spitting contests to darts.

Field a five-person team for a \$20 registration fee, which includes free T-shirts for team members, game day programs, tumblers, and other goodies. \$200 prize to top team in each division — male, female and co-ed. Top three teams in each division win a plaque.

#### Games and prize table

25 cents per game. Also win prize tickets for stuffed animals and more.

#### 6 p.m.-midnight:

##### •Concert Culture Jam

At Under the Couch. West Campus streets closed. Rap, Spanish-speaking music.

#### 8 p.m.

- Competition winners announced.
- Ten culture booths offering international foods for small fee.
- Concert T-shirts and band souvenirs available.

## FARS

From page 1

in a Web-based, on-line application for GTRI personnel.

- The time-reporting process, particularly for monthly-paid personnel, will be drastically revised and training provided during May and June.

- New activity descriptions will be provided, and new sets of accounts set up in the laboratories for the new types of

expenditures.

- OCA is developing a paragraph to be included in proposals to give sponsors a "heads-up" that this change has been requested.

All FAR-related information and updates will be posted on a FAR implementation Website as soon as the materials are final and available. Look for fliers and e-mail announcements of this site's address soon!

# Focus on Folks

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This publication is printed in part on recycled paper.

## Professional Activities

### Sensors & Electromagnetic Applications Laboratory

**Glenn Hopkins** is the 1997 chairperson of the IEEE Atlanta Section Chapter of the Antennas and Propagation and the Microwave Theory and Techniques Societies. During the last two years, Glenn has served the chapter as the technical program chairperson and secretary.

### Signature Technology Laboratory

**Paul H. Harms, J. Alan Roden, James G. Maloney, Morris Kesler** and **Eric Kuster** presented an invited paper, "Numerical Analysis of Periodic Structure Using the Split Field Update Algorithm," during the 13th Review of Progress in Applied Computational Electromagnetic 1997 ACES Symposium, March 17-21.

**Jim Maloney, Morris Kesler** and **Glenn Smith** presented an invited paper, "Generalization of PML to Cylindrical Geometries," at the Applied Computational Electromagnetic Society Meeting in Monterey, Calif. during March.

### Electro-Optics, Environment and Materials Laboratory

**Bob Schwerzel** attended the Western Regional Methamphetamine Conference, organized by the White House Office of National Drug Control Policy, in San Francisco, Calif. on Jan. 13. He discussed GTRI's work on integrated-optic sensors with several high-ranking officials in the drug enforcement community.

**Kirk Mahan** conducted a presentation on Safety and Health Program Management for the Georgia Electrical Industry Council's annual meeting in February.

**Steve Hays** and **Kirk Mahan** presented an OSHA Overview and Safety Awareness seminar for YKK Corporation in Dublin, Ga. in February.

**Bob Schwerzel** served as the technical program chair for the First International Conference on Emerging Technologies for Micro Air Vehicles, sponsored by Georgia Tech and held here Feb. 19-20. **Sam Blankenship** (ELSYS) and **Joy Laskar** (ECE) were co-chairpersons for the conference, and **Tom Collins** (ELSYS) served as arrangements chairperson. The conference was attended by more than 65 people from across the country, as well as by key program managers from DARPA and DARO.

**Leigh McElvaney** won the Award of Excellence from the Society for Technical Communication for the handbook "Understanding the Small Quantity Generator Hazardous Waste Rules."

**Lou Circeo** (ARCH), **Bob Newsom** and **John Pierson** attended the USAF/SAME Prime BEEF Readiness Symposium in Albuquerque, N.M., held Feb. 24-26. A Georgia Tech booth was set up and a presentation

was made on "Development of an Air Force Base Waste Processing System" during sessions I and II of the symposium panel discussions for water and waste.

On January 11 **Vicki Ainslie, Eliesh Lane** and **Myrtle Turner** conducted a community outreach one-day Lead-Based Paint Awareness Training Program at Atlanta City Hall East for the Greater Atlanta Community Corps, Inc. (GACC) volunteers. The training reflected information contained in the Georgia Tech "Lead Poisoning in Housing — What is It and What Can I Do About It?" information packet for homeowners. GACC volunteers educate middle and high school students on what to do if their homes contain lead, as well as other environmental issues/concerns. Ainslie and Turner conducted annual refresher training (Lead-Based Paint Supervision Update) for Robins Air Force Base in Warner Robins, Ga., on Mar. 5, and another refresher (Advanced Asbestos Supervision) on Mar. 6.

On Feb. 20, **Roc Tschirhart** made a presentation at the "Executive Introduction to ISO 14000," sponsored by the Mississippi Power Co. in Hattiesburg, Miss.

The Communication and Training Technology Branch has won distinguished technical communication and merit awards in the "Information/Reference" category from the Atlanta Chapter of the Society for Technical Communication. The distinguished technical communication award is the top award in its category, and was awarded for the web site for the EPA Hazardous Substance Research Centers. The merit award is for the in-situ capping of contaminated sediments web site for EPA. The entries were judged by the Lone Star chapter of the STC.

### Electronic Systems Laboratory

In March 1997, **Caitlin Flowers** attended the 1997 Adaptive Sensor Array Processing Workshop at MIT/Lincoln Laboratories in Lexington, Mass., and presented the invited paper entitled, "Coherent Technology Application to Hot Clutter." The talk was co-authored by **Tom Pratt** (ELSYS) and **Mary Ann Ingram** (ECE).

## Personnel News

### New Hires

ITTL welcomes **Santiago Becerra**, GRA; **Matthew Hicks**, Student Temporary; **David O'Brien**, GRA; and **John Old**, GRA. EOEML welcomes **Bryan Black**, RE II; GRA; and **Harish Kotbagi**, GRA. ARL welcomes **Joseph Eash**, PRE; and **Malcolm Hyson**, Computer Services Specialist IV. SEAL welcomes **Amy Fleming**, Office Automation Systems Coordinator; and **Jeremy Hutcherson**, Student Assistant. ELSYS welcomes **Mark Johnson**, Student Temporary; **Dan Kroboth**, Student Assistant; **Brian Long**, Student Temporary; **Chad Lord**, RE I; **Jonathan Martin**, Student Temporary; **Todd Stokes**, Student Temporary; **Adam Tichelaar**, Student Temporary; and **Christopher Turner**, Student

Assistant. HRO welcomes **Lora Moy**, Student Temporary; and **Mitchell Trimble**, Student Temporary. FSD welcomes **Mitchell Ramsey**, Accounting Manager I. VPDIR welcomes **Andreas Sanchez**, Student Temporary. SDL welcomes **Michael Seymour**, GRA; **Wilbur W. McMichael, Jr.**, Tech Temps; and **William Koehler**, Tech Temps. RCT welcomes **Suzanne Suddath**, GRA. STL welcomes **Deborah Hightower**, Admin. Secretary; and **J. Doug Hill**, PRE.

### Moving On

**Charlotte Batson** (PST); **William Carter** (SEAL); **Stephanie Babbitt, Johanna Ciesel, Fan Fei** and **Sean Thomas** (EOEML); **Jeffrey Moss** (ITTL); **Susan Sears** (ELSYS); and **Robert Werka** (HRO) are moving on.

### New Responsibilities

**Ray Kangas** (RSD) has been named self-assessment coordinator for his department.

### Way to Go!

**Ron Smith** (ARL) was recently commended to **Ed Eagar** (ARL) in a letter from Vice President Al Gore. Gore expressed his and President Bill Clinton's appreciation for the splendid service Ron provided to the White House Commission on Aviation Safety and Security. We're proud of you, Ron!

## Personal Notes

### Our Sympathy

...to **Kirk Mahan** (EOEML) whose grandmother died in February.

### Cradle Roll

Laura and **J. Alan Roden** (STL) welcomed a daughter, Elizabeth Lauren Roden, on Jan. 5.

**Joe Parks**, former SDL lab director, welcomed a granddaughter, Rachel Frances Parks, on Feb. 28.

### After Hours

**Jerry Lett** (MAPS) completed the 1997 U.S. Navy Blue Angel Marathon on Feb. 22 in three hours, 58 minutes.

### In Our Thoughts

**Dan Walmsley** (AIST) is recovering from injuries sustained in an automobile accident. Our best wishes and thoughts go out to Dan for a speedy and thorough recovery!

## Thank You to Our Georgia Tech Friends

**Jan Dietz** and her family express their sincere appreciation to all at Georgia Tech for the many kindnesses extended to them upon the loss of Jan's son, Scott. Your sympathy, prayers and graciousness during this time of sadness have been a great comfort.