The GTRI Connector

On the Road with GTRI

By Lea McLees, RCT

G TRI vehicles are conveying a professional image of our organization to colleagues, metro Atlantans and visitors, thanks to a fleet enhancement program.

The improvements mean more vehicles are available for work-related errands, and all the vehicles are clean, serviced and bear up-to-date GTRI logos.

"Our goal is to have the minimum number of vehicles we need to do our mission, and for all of them to be in good working order and look great," said GTRI director Richard Truly.

Support Services employees and Truly met in early 1994 to plan ways to improve the fleet, said Brenda Hill. Older vehicles were surplused as necessary; the remaining 54 on-road vehicles were either in good condition or were upgraded to good.

"We looked at running condition, safety, appearance and many other factors to meet the needs of our customers — GTRI employees," she said.

Some vehicles were assigned to labs, support groups or projects requiring hand deliveries, hauling capabilities or frequent trips; others were reserved for employees to check out as needed for work. Then policies and procedures for maintenance and check out were developed.

Brenda Hill manages the fleet, and DW Senn coordinates the needs of customers and monitors usage, mileage, service and maintenance. Types of vehicles available

for checkout include pickup trucks, cargo vans and passenger vans, he says.

"Small and full-size pickup trucks are available for checkout from building attendants at CRB, Baker, ERB, O'Keefe and Cobb County," Senn explained. "You contact the front desk, sign the vehicle out for a maximum of two hours, and then sign it back in when you return. If you need a vehicle for more than two hours, just get prior approval from Brenda or myself on campus, or from Rusty Embry at Cobb County. If all the vehicles at one location are checked out, you can check one out from another building."

Eight- and 13-passenger vans are available for special use, as well. Just submit a written request in advance to Senn or send e-mail to d.senn@gtri.gatech.edu, that includes what the van will be used for and its itinerary.

Each vehicle has a log where drivers record details including destinations, mileage and any vehicle damage noted before leaving GTRI and at any destinations along the way. The log also contains information on what to do if you have an accident in a state vehicle.

Smoking is not allowed in GTRI vehicles — and employees are asked to keep them clean and neat, and use them properly.

"Try to keep them clean and nice inside — so clean and nice that you wouldn't mind a research customer riding in them," Hill advises. "Remember to drive courteously and carefully, because in a GTRI vehicle you are an ambassador for our organization."

The fleet enhancements are just one example of how employees are making

DW Senn (front) and Rusty Johnson (inside vehicle) (SSD) inspect GTRI's 13-passenger van. The inspections are part of a fleet enhancement program that makes more vehicles available to employees to check out for work-related travel. (Photo by Lea McLees)

Observed & Noted

Researchers brought in many, many awards during September and October. *They fill page 2.*

■

In this issue we introduce you to colleagues in Fiscal Services. *Their profiles*

appear on page 3.

■

Trying to plan how to get to work during the Olympics? *Page 3 features a chart and some tips.*

■

GTRI researchers organized the

eighth annual Electronic Protection Workshop at Cobb County. *Turn to page 4 to learn who presented work there.*

■

Mark Richards (SEAL) is helping fellow researchers interested in working with the Advanced Re-

search Projects Agency (ARPA). *To learn more, see page 4.*

■

A veteran GTRI employee is leading EOEML. *Meet lab director Trent Farill on page 5.*

■

A total of 34 GTRI employees

were promoted this year. Congratulations! *Their names appear on page 5.*

■

Do you use a phone card on the job, at home or when traveling? *Learn how to protect it on page 6.*

■

Several new faces have joined the GTRI family! *Read about four new employees on page 7.*

■

And finally, the back page and part of page 7 are filled with your news. *Flip to page 8 for the latest updates.*

SELECTED SEPTEMBER/OCTOBER 1995 AWARDS

Title	PI/Laboratory	Sponsor	Funded Amount
Electronic Combat Integrated Test (ECIT) Infrastructure & Generic Test...	McDougal, G. (ELSYS)	CTA Inc.	$376,066
AFSOC C-130 Integrated Electronic Warfare System	Brook, J. (ELSYS)	Air Force	1,500,000
ATMS/ATIS Simulation	Kelly, M. (ELSYS)	U. S. Dept. of Transportation	800,000
ALR-69 RWR Off Block Cycle Updates	Cole, C. (ELSYS)	Air Force	85,000
Electronic Warfare Techniques Analysis	Lilly, L. (ELSYS)	Air Force	2,600,000
F-16 Integrated EC Suite/Modular Reconn. POD Flight Test Support	McDougal, G. (ELSYS)	Air Force	532,000
Phase 2 Counter-PGM Red Team Support of GPS/INS Testing	McDougal, G. (ELSYS)	Air Force	608,407
Threat Simulator Linking Activities	McDougal, G. (ELSYS)	Air Force	568,407
EWMS and Modular Reconnaissance POD Foreign Comparative Test Program	Tibbitts, T. (ELSYS)	Air Force	248,000
Advanced EO Model for Aerial Targeting II	Kreiss, W. (EOEML)	Air Force	236,916
Measurement of Sulfur Oxidation Products & Their Role in Homogeneous Nucleation	Eisele, F. (EOEML)	NASA	109,906
Powdered Phosphor Deposition Process Development for Field Emission Flat...	Summers, C. (EOEML)	Texas Instruments	890,974
Computer Model Development, Verification & Validation	Hyde, R. (EOEML)	Entek Inc.	143,267
FY 96 7(C)1 Consultation Cooperative Agreement	Middendorf, P. (EOEML)	U. S. Dept. of Labor	886,000
Tunnel Electroluminescent Device: New Concept for Low Voltage, High Efficiency	Wagner, B. (EOEML)	David Sarnoff Research Ctr.	77,000
Optic Talon	Wilson, B. (ITL)	Army	183,799
Evaluation of Computer Based Training Systems	Pennywitt, K. (ITL)	Army	130,320
Falcon View Enhancements	Pyles, J. (ITL)	Army	491,000
EWVA of Hunter Unmanned Aerial Vehicle - Data Links... Del. Order 5	Harvey, B. (ITL)	Army	99,942
Phased-Array Antenna Support	Muzio, A. (SDL)	Army	71,202
Waveform Simulator FY95 Operations Supp. Contin.	Kerr, R. (SDL)	Lincoln Laboratory	199,442
Conceptual Design & Eval. of Low-Cost Phased Array Aircraft & Weather...	Mitchell, M. (SEAL)	U. S. Dept. of Transportation	290,000
Motorist Safety-Warning System Using Radar Detectors	Greneker, E. (SEAL)	Radar Corp.	108,715
ICTUS Nickel Antenna Model Development	Adams, J. (SEAL)	Dynetics Inc.	159,257
Sniper/Mortar Detection and Location Study	Alexander, N. (SEAL)	Army	128,758
GPS Radiosonde Analysis	Sjoberg, E. (SEAL)	U. S. Dept. of Commerce	129,954
SOF E3 Program - FY 94/95	Millard, D. (SEAL)	Air Force	71,000
Impact of Advances in Enabling Technologies on Future Weapon Systems...	Pringle, L. (STL)	U. S. Government	423,542
Completion & Installation of a Focused Beam Boom Arch. System	Friederich, P. (STL)	Navy	50,020
B-1B Defensive System IDECM Architecture Study	Masse, A. (ELSYS)	Rockwell International	364,000
ALR-69 RWR System Deficiencies Correction	Cole, C. (ELSYS)	Air Force	584,082
ECM System Model Development & Testing	Rogers, W. (ELSYS)	Dynetics Inc.	160,000
ALR-46 Radar Warning Receiver Class IV Modification Pro.	Corbett, L. (ELSYS)	Air Force	440,000
APG-63 Radar Data Processor Analysis	Lareau, N. (ELSYS)	Lawrence Assoc. Inc.	781,672
ASSPM ECM Effectiveness Support	Mayhew, B. (ELSYS)	Texas Instruments	60,000
ECIT Infrastructure & Generic Test Capability - Rev. 1	McDougal, G. (ELSYS)	CTA Inc.	100,000
High Contrast Azimuth Indicator Development	Willis, M. (ELSYS)	Air Force	300,000
Extended Range Detection Log Video Amplifier for AM-6639 Advanced Crystal ...	Mack, D. (ELSYS)	Air Force	650,000
ECO-Diagnosis: An Environmental Benchmarking Software Tool for Smaller...	Tschirhart, R. (EOEML)	U. S. Dept. of Commerce	290,067
Application of Pollution Prevention Techniques to Reduce Indoor Air Emissions	Bayer, C. (EOEML)	Environmental Protection Agency	138,500
Measurement of OH,H2S04, MSA DMSO & DMS02 on the NASA P-3B Aircraft	Eisele, F. (EOEML)	NASA	272,000
Musculoskeletal Disorders Among VDT Operators: Yr. 2	Ortiz, D. (EOEML)	Emory University	75,657
Development of Low VOC Aircraft Topcoat Process	Paris, H. (EOEML)	Delta Air Lines	111,273
Regional Lead Training Project	Ainslie, V. (EOEML)	Environmental Protection Agency	130,002
Formaldehyde and Ambient VOC Emission from Paint and Biocides	Bayer, C. (EOEML)	Troy Chemical Corp.	50,561
Phosphor Technology	Summers, C. (EOEML)	U. S. Dept. of Defense	2,000,000
Advanced EO Model for Aerial Targeting II (AEM-AT II)	Kreiss, W. (EOEML)	Air Force	95,086
Impact Study Instrumentation	Kerr, R. (SDL)	Lincoln Laboratory	152,398
ECCM Assessment Analysis	Morris, G. (SEAL)	Air Force	1,870,000
Mobcap Apex for #1 Evaluation	Adams, J. (SEAL)	Dynetics Inc.	49,998
Radar ECCM Flight Test Demonstration and Vulnerability Assessment Program	Morris, G. (SEAL)	Air Force	132,500
Workshops & Documents	Meadors, J. (STL)	U. S. Dept. of Defense	312,179

Meet Fiscal Services

GTRI's Fiscal Services Department, managed by Barbara Walsh, comprises two areas: the Financial Analysis and Research Accounting groups.

This month we'll meet the manager of Fiscal Services and our colleagues in Financial Analysis, managed by Dennis Crain. This group provides GTRI executives with the financial data that helps them prepare the organization's budget. The Financial Analysis group also manages GTRI's cost-recovery system, which monitors indirect costs such as overhead for plant, administration and contract development. A third major duty is providing documentation and training to aid GTRI's compliance with federal cost-recovery regulations.

Barbara Walsh, manager of fiscal services, has been with GTRI since 1980, when it was the Engineering Experiment Station (EES). As a student, she did not plan to go into a financial field. She majored in French at Oberlin College and came to Atlanta by chance. She spent several years as a restaurant manager, where she developed the financial skills that led her to pursue an accounting-major curriculum and then an MBA at Georgia State University. About halfway through her program Barbara joined EES as administrative coordinator, assisting associate director Howard Dean with financial projections among other duties. Barbara earned her MBA in 1982 and became a certified public accountant (CPA) 1983. She later was hired as a Research Associate II. In 1988, she was selected for a joint appointment under which she worked in the president's

Barbara Walsh   *Dennis Crain*

office as budgetary assistant to Patrick Crecine. She then worked for four years under another joint appointment as executive assistant to Tech's vice president of planning, business and finance, before returning full-time to GTRI in 1993. Barbara and husband John live in DeKalb County with their dog Wild Song, a retired racing greyhound. Among her hobbies are reading, conducting a business-book study group and photographing sea birds.

Dennis Crain, who oversees Financial Analysis, has been with GTRI for 10 years. He began his career here in a computer service-related department and then transferred to a fiscal position eight years ago. He holds an undergraduate degree in business administration with a major in accounting from Georgia State, and he is a CPA. A veteran of the Coast Guard, Dennis worked in computers with Western Union for four years before joining GTRI. He and his wife of seven years, Jeanne, live in Decatur. In his spare time, Dennis pursues astronomy and kayaking, and he's a member of the Georgia Canoeing Association. His favorite river: the Chattooga, on the South Carolina border.

Rebecca Bennett, a Cost Accountant II, has been with GTRI for a year and a quarter. Before coming to Tech, she spent three years with Arthur Andersen and Co., a large accounting firm, and six years with an Andersen client company. Rebecca works with Barbara Walsh and Dennis

Rebecca Bennett   *Pat Anderson*

Crain in preparing projections for management, and she also spends a good deal of time working with Department of Defense auditors who review GTRI project finances. She grew up in Woodbury, Ga., and holds a bachelor of business administration degree in accounting from Wesleyan College in Macon. Rebecca and husband Jeff live in Atlanta's Brookhaven area, where in off hours she likes to jog and enjoys cooking, gardening and interior design.

Pat Anderson, who is an Accountant I, joined GTRI's old Systems Engineering Lab more than six years ago. After about 18 months, she transferred to the Fiscal Services area. Pat works on the monthly management reports that are sent to lab directors and others, and on the financial analysis reports that go to GTRI executives. She is currently studying for a bachelor's degree in business administration at Clayton State College. Pat hails from Akron, Ohio, and came to Atlanta when her husband Keith was transferred here. She and Keith have been married 12 years; they live in Riverdale, and they have three boys, ages 7, 9 and 12. Most of Pat's spare-time activities involve being a "team mom." "My off time is spent at football games, baseball games and practices," she says cheerfully.

Olympic Update on Commuting and Traffic Projections

Things are moving fast — only seven months until the Olympic torch is lighted. Here's a roundup of the latest information on Olympic transportation prospects as presented during a recent Administrative Network meeting.

★ Peak spectator travel times are expected to center on three daily Olympic-event periods. Avoid commuting during peak periods.

AVOID:

• Morning peak travel from 7:30 a.m. to 9:30 a.m.
• Afternoon peak travel from 1:30 p.m. to 3 p.m.
• Evening peak travel from 4:30 p.m. to 8 p.m.
(Evening events will typically be large, and are likely to involve the heaviest traffic.)

★ To avoid peak travel times, you might want to travel early and arrive at work by about 7 a.m., leaving by 4 p.m. to avoid the evening rush. Alternatively, you might drive in between the morning and afternoon events, then plan to stay

at work until 8 p.m. It appears certain that 4 p.m. to 8 p.m. definitely will not be a good time to travel. More than 200,000 spectators will be en route to the evening events then.

★ Remember that GTRI employees will need to choose among the following options for getting to campus:

1. FREE MARTA PASS:
• This involves riding the MARTA train to work, either from home or from MARTA satellite parking lots in the suburbs.

2. DRIVE TO CAMPUS:
• This means driving private cars to

Midtown and parking at the designated Georgia Tech satellite parking lots near the campus.

3. WALK OR BIKE TO CAMPUS.

★ As reported earlier, Tenth Street will indeed be limited access, mostly for busses and official Olympic vehicles. However, official GT/GTRI vehicles will be allowed access to Tenth Street for unloading of equipment and supplies.

★ Tech Parkway and North Avenue between Luckie and I-75/85 will be closed to public traffic.

(Chart courtesy Bill Miller)

Typical Day in the Olympic Ring*
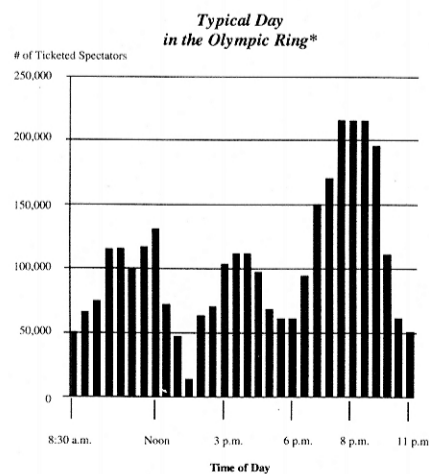
*Reflects most recent analysis. Estimate will continue to be updated as information is obtained from ticket sales. To avoid peak spectator rush hours, travel during hours when bars are highest.

SOURCE: Atlanta Committee for the Olympic Games

Congratulations, Shackelford Graduate Fellows!

The following graduate research assistants are Shackelford Graduate Fellows for Fall 1995. The 18 students were chosen based on their high standards of excellence and scholarship.

The students receive support for three quarters, with costs shared by Dr. Helen Grenga of Graduate Studies, in return for work on GTRI projects. Many of the continuing students have moved to other sources of funding after gaining experience through the graduate fellows program.

The program, in existence since at least 1984, was named for Robert G. Shackelford in 1994. Shackelford, who was GTRI's executive associate director at his death in late 1993, served Georgia Tech for 34 years. He earned three degrees from Tech, worked on a variety of research programs and authored more than 44 major reports and publications.

Name	Lab	School
William Anderson	EOEML	ME
Eric Black	ITL	ECE
Timothy Brosnan	EOEML	ECE
Bernice Coomes	EOEML	Physics
Louis Desetto	EOEML	CS
Robert Foster	ITL	CS
Brian Gardner	AERO	ME
Scott Goldblatt	SEAL	ME
Michael Gross	EOEML	ECE
David Hartman	ITL	ECE
Michael King	ITL	ECE
Patrick McPherson	AERO	AE
Arthur Redfern	ELSYS	ECE
Robert Rutherford	EOEML	ME
Sunil Shukla	ITL	ECE
Gregory Vanwiggeren	STL	Physics
Jenny White	EOEML	Physics
Judith Winter	EOEML	CS

Tom Horton (ITL), Jim Cofer (APO) and Richard Odom (APO) staffed a GTRI "Technology Showcase" booth at Colony Square as part of October's High Tech Month in Georgia. High Tech Month, sponsored by the Atlanta-based Business and Technology Alliance, is a concerted effort to build greater understanding, participation and support for Georgia's high-tech community. By participating in the Technology Showcase, GTRI demonstrated current industrial research and contacted new potential customers. (Photo by Lea McLees)

Eighth Annual EP Workshop Held at GTRI

The Sensors and Electromagnetic Applications Lab (SEAL) hosted the Eighth Annual Electronic Protection (EP) Workshop at the Cobb County Research Facility on November 14 and 15. Guy Morris, GTRI's EP program manager, was chairperson for the event. Molly Gary coordinated the workshop, conducted under sponsorship of the Radar Branch of Wright Laboratory with Frederick D. Moorefield, Jr. serving as the technical monitor.

Despite federal budget difficulty with the lack of a signed continuing resolution during this time, the workshop was well-attended. A total of 97 people representing military, civil service, industry and university organizations heard 24 technical presentations in four topical areas -- the Threat Environment, EP Techniques, Synthetic Aperture Radar (SAR) Electronic Attack (EA) and SAR EP, and Testing/Simulations/Database.

Technical presenters/contributors from Georgia Tech were Chris Barnes, Molly Gary, Brian Hudson, Rick Maier, Guy Morris, Aram Partizian, Sam Piper, Joe Prevish, and Otto Rausch, all of SEAL; Neil Lareau (ELSYS); and Rusty Roberts (SDL).

Georgia Tech RESEARCH INSTITUTE

GTRI a better workplace, Truly says.

"We all deserve the best working conditions possible," he said. "You don't necessarily need to wait on the boss to see a need for improvement and suggest it — sometimes it's easy to suggest and accomplish things in your own area. If it's complicated and you need the whole organization behind it, then share your idea so it can go forward."

To check out a GTRI vehicle, you must have a valid driver's license and must have taken a defensive driving course within three years of the date you check out the vehicle. For a schedule of classes or to sign up for a four-hour course, contact George Watkins (RSD) at 894-8068. A six-hour course for which some insurance companies may offer discounts is offered by Randal Hawley (POD) through Tech's Office of Human Resources, as well— call 894-3850.

New Initiatives Named for Coming Year

GTRI's new initiatives for FY 96 are:
Learning Technologies, (formerly Education Technology) led by Claudia Huff (EOEML);
Law Enforcement, led by Tom Horton (ITL);
Modeling and Simulation, led by Terry Hilderbrand (ITL); and,
Secure Information Systems, led by Myron Cramer (ITL).

The newly re-named Learning Technologies group is funded to incorporate technology into the learning process for government, industry, and K-12 education.

ARPA/GIT Interaction

Mark Richards (SEAL) recently returned from a two-year Intergovernmental Personnel Assignment with the Advanced Research Projects Agency (ARPA). Mark is spending part of his time this year increasing interaction between ARPA and Georgia Tech. If you have any questions about ARPA and how it works, you may call him at 528-7759 or send e-mail to mark.richards @gtri.gatech.edu.

Farill Named New Director of EOEML

By Rick Robinson, RCT

A new director has been chosen for the Electro-Optics, Environment and Materials Laboratory (EOEML), and it's a name familiar to GTRI: Trent G. Farill, a 15-year GTRI veteran, has been named to succeed Don Wilmot in the top EOEML job.

Before the late-September decision, Farill had been serving as the lab's acting director. Prior to that, he had served as associate laboratory director since 1993. Farill has been a senior research engineer since 1980. He also worked as division chief, associate division chief and project director, and previously served as a laboratory director before GTRI's 1993 reorganization.

"I'm very pleased to have been selected for what I think is one of the most important jobs at GTRI," said Farill. Lab directors, he noted, must make "the significant decisions affecting everybody's lives. ... This is where the rubber meets the road."

He said that the lab's "highest priority" must be "the customer. ... I'd like to see us all together as a team working to exceed the customers' expectation." Under his administration, he added, he will promote better understanding of the importance of the administrative side of research.
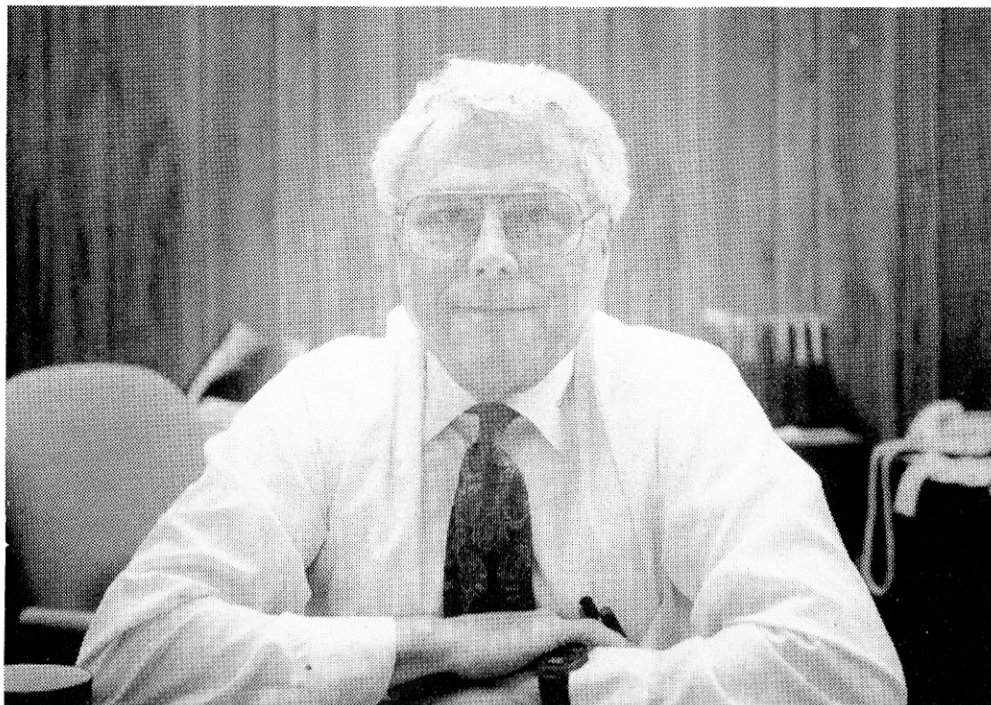
The new director sees several areas as key to EOEML's mission. The lab, he said, must continue its role of "making a major contribution to the national defense in our modeling and simulations effort." EOEML is also making important contributions in such other areas as display technology, a field where successful research projects at GTRI "will certainly make major changes in the industry of this country, and could very well bring new industry into Georgia."

Farill also stressed EOEML's important work in real-time chemical sensing, with its applications in medical, industrial and environmental-quality areas, and he cited the major support that the lab gives to Georgia's poultry and food-processing industries.

Trent Farill goes back a long way at Georgia Tech. He graduated from Tech in 1958 with a bachelor's degree in electrical engineering. He earned a master's in EE some 10 years later. He also holds an MBA from Georgia State University.

After graduating from Tech, Farill spent 20 years in the Army in a number of aviation and avionics-related posts. He also served as an operations officer in a Radio Research Unit in Vietnam in 1967-68.

Farill said that as lab director he will take every aspect of EOEML's mission "very seriously" — including not only research, but public service and education. He pointed to business assistance functions such as consultation on issues ranging from poultry processing technology to environmental challenges, as well as conducting continuing education courses on subjects including environmental and occupational health and safety issues.

Trent Farill lives in Marietta with his wife of 39 years, Mary Burr Farill. They have a daughter, Kay; a son, Kelly; and three grandchildren. The Farills also have a home on Lake Thurmond, an important getaway for the EOEML director.

"I try to spend as much spare time as possible on the lake," he said.

Farill believes in nurturing EOEML's good relationship with Georgia Tech's academic departments. Among other elements of that relationship, EOEML has typically some 80 students working on laboratory projects at any one time.

EOEML, he said, "is clearly the most diverse lab in terms of both technology and the background of individuals." He added that he will work to see the lab continue to provide "those opportunities that brought these varied individuals here in the first place."

Trent Farill, EOEML's new director, is a 15-year GTRI veteran. The lab's highest priority must be its customers, he says. (Photo by Lea McLees)

More 100 Percent Tips

In the September issue, several researchers told us how they achieve 100 percent on-time deliverables. Dinal Andreasen (SDL) offered some tips and commendations for fellow employees that we had to hold because of time and space considerations. Here they are!

"The secrets to 100 percent on-time deliverables are:

1) Have great support from MAPS (Lisa McDonald and Judy Fitzpatrick).

2) Have management encouragement (Charles Wilson always has a friendly reminder of upcoming deliverables well in advance of the due date).

3) Have great administrative support (Cathy Sands consistently prepares the cover sheet and gets all the required signatures in time).

4) Accept that you have deliverables, which are not difficult to write, and just do them.

5) Have a program where the deliverables so far have been small monthly reports."

GTRI Employees Promoted

Congratulations to our colleagues who were promoted this year!

Name	Unit	New Title
Roderick Beard	STL	SRE
John DiMarco	STL	SRE
Norman Ellingson	STL	PRA
Robert Englar	AERO	PRE
Jeffrey Evans	ITL	REII
Lee Evans	ELSYS	REII
Timothy Floyd	ELSYS	SRE
Carol Foley	EOEML	SRS
Douglas Friend	AERO	REII
Michael Gray	SEAL	REII
Steven Hays	EOEML	SRA
Mark Hodges	EOEML	SRA
Daniel Howard	ITL	SRE
Richard Ingle	ELSYS	PRS
Burt Jennings	SDL	SRE
Todd Johnson	SDL	REII
Kirk Mahan	EOEML	REII
James Maloney	STL	SRE
Martin Mannion	SEAL	SRE
Douglas Martin	SDL	SRE
Brian Mayhew	ELSYS	SRE
Thomas McElwain	STL	REII
Mark Mitchell	SEAL	SRE
Lacey Moore	SEAL	SRE
Andrew Muzio	SDL	SRS
William Myles	SDL	REII
Nicholas Pomponio	ELSYS	SRE
Ronald Prado	ELSYS	REII
Bobby Ray	EOEML	RSII
Andrew Slack	ELSYS	REII
Benjamin Slocumb	ELSYS	SRE
Keith Vaughn	STL	REII
Martha Willis	SEAL	SRE
Robert Zimmer	STL	REII

WE DID IT!

Quick Work Tips

Phone Cards: Don't Let Thieves Get Your Number

by Rick Robinson, RCT

Telephone calling-card fraud is big business — that means GTRI employees and others should use caution and common sense to protect their cards. Here's an update on some traditional and novel phone-card scams and how you can thwart them.

• BellSouth warns that an increasing number of thieves are posing as tourists and videotaping victims, zooming in on your fingers as you punch in a card number. Criminals can steal hundreds of numbers this way, and those to whom they sell the stolen card numbers have up to several weeks before someone — you or the phone company — catches on. Numerous crooks have even developed the ability to read your fingers over your shoulder — a practice insiders call "shoulder surfing."

To lower your risk when calling, look for suspicious people nearby; block the view of your hands with your body, and don't leave your card lying by the phone. If you have to say your card number to an operator or someone else, do so softly. When possible, use card-reader telephones, where you "swipe" your card through a slot rather than punching in numbers.

Don't make the mistake of thinking it can't happen to you. BellSouth spokeswoman Pam Arledge had her long-distance calling card number stolen recently. It was apparently "shoulder-surfed" at a large airport.

Luckily, two days later Arledge received a call from a phone company control center that monitors fraudulent call activity. These folks have computers that flag unusual calling patterns. The control center asked Arledge if she had made $800 worth of overseas calls in the past two days; apparently the thief had sold her card number more than once. Her shocked denial resulted in a swift end to the bogus calls.

Like any other honest person victimized by card-number theft, Arledge didn't have to pay. In such fraudulent-use cases, phone companies investigate, and unless they find the card holder actually made the calls, no charges are billed. BellSouth says telephones are never disconnected during an active investigation, no matter how huge a bill thieves may have rung up.

• Arledge's story leads to another important point: Be on guard when someone claiming to be from a phone company calls and starts asking for your calling cards or your personal identification numbers (PINs). It's almost certainly a scam artist trying to get your number.

"No telephone company would do that," says AT&T spokeswoman Nancy Smith. "We already have that information."

Some crooks have been claiming to represent the Federal Communications Commission or other government agencies. Some may cite a phony badge number or other ID.

Bad guys also sometimes try to get phone customers to accept third-party-billed calls. Some even claim to represent law enforcement agencies, and they ask the customer to accept third-party calls in order to help track down phone-charge fraud.

"We're seeing more and more" scam-artists posing as police or phone company employees, says Larry Kepfer, manager, fraud control, BellSouth Telecommunications. He points out that if law enforcement did need a calling card number, they would obtain it from the phone company via a court order.

• Of course, never write your PIN on your calling card. If you fear you won't remember your PIN, try devising an acronym that matches it ("4266" becomes "hamm," for instance) or at the very least write the PIN down somewhere other than on your card. Never show your telephone calling cards as identification.

Also, be aware that numerous calling cards, including AT&T's, arrive with your PIN embossed right onto the card. A phone call to AT&T will get you a new card without the PIN on it.

Incidentally, AT&T advises customers that having the same PIN for both your local calling card and your long distance calling card(s) is a bad idea. For complex reasons, it can result in your paying higher phone fees.

• Remember, too, that crooks can monitor cellular phone transmissions and grab card numbers, warns BellSouth's Kepfer. Cordless phones are also vulnerable. "At our card center we never give our PINs to someone who is using either a cordless or a cellular phone," he says.

But Dave Daniels, head of Corporate Fraud Management for AirTouch Cellular, says few calling-card numbers are plucked from the air. He says there are easier ways for crooks to get them, such as stolen cards, shoulder surfing, or even hotels (where your number can wind up in the computer after you place a card call).

• Under some circumstances, such as interstate calls, crooks can charge calls to your phone without even having your card number. This happened recently to one GTRI employee when Atlanta-area chiselers charged interstate calls to the employee's home phone through an AT&T operator. The solution: have Southern Bell block all non-calling-card billing to a given phone number. There's a $12 fee, but Southern Bell says the block is honored by "almost all" long-distance phone companies.

• And if you lose your wallet or purse, one of your first calls should be to the phone company to cancel your calling card(s). Moreover, if you don't receive a newly ordered card within 10 to 14 days, cancel it and get one with a new PIN.

GTRI Accounting welcomed the holidays with a beautiful Christmas tree full of history. The ornaments decorating the tree's branches have been collected over the years by members of the department. Seated: Abbie Hendricks. Standing, left to right: Tracy Woods, Betty Moss, Billy Atcheson, Gedney Vining, Stephanie Sodipo and Dwayne Williams. (Photo by Lea McLees)

'Tis the Season....

...for bundling up in coats and scarves!

As you brave the winter cold, make sure your GTRI access badge is visible -- upon arriving at work, and as you come and go during the day.

A visible badge makes entering your building quick and efficient, and helps your colleagues in Research Security keep you safe.

GTRI Greetings

Welcome to some of our newest employees!

Amy Brown   *John Doane*

Lori Metcalf   *Alan O'Quinn*

Ten Good Things We Know About Amy Brown

1. Amy started classes as a Georgia Tech graduate student in civil engineering in September 1994.
2. Her goal is to earn a doctorate in the field of water resources and hydraulics.
3. Amy's job objective is to work as an environmental consultant.
4. In June she began work as a graduate research assistant at EOEML, working on the Technical Outreach Services for Communities and the Hazardous Substances Resource Center programs.
5. She has been preparing information on remediation processes for EPA and other regulatory agencies, as well as health information on hazardous waste sites in the Southeast and the central Southwest.
6. In 1993, Amy received a bachelor's degree in civil engineering from the University of Virginia (UVA).
7. At UVA she graduated with honors, was a member of the Tau Beta Pi national engineering honor society, and received the Chairman's Award in civil engineering.
8. Before coming to Tech, Amy worked for an engineering firm in Newport News, Va., for a year.
9. She grew up in Fairfax County, Va., where her family still lives.
10. Amy currently lives in Marietta, and she has family here, too: her older sister lives and works in the Atlanta area.

Ten Good Things We Know About John Doane

1. He began work as a Research Engineer I with GTRI in June in SEAL's Undersea Research Program Office (URPO).
2. His field is laser acoustics, specifically laser Doppler vibrometry (LDV), which uses lasers to detect minute amounts of surface motion.
3. He received his degree from Georgia Tech in mechanical engineering in 1992, working extensively in laser acoustics research as an undergraduate.
4. He is currently working on a Tech master's degree using LDV for non-destructive testing of manufactured parts.
5. He was born and raised in Huntsville, Ala., where his father worked as a professor of electrical engineering at the University of Alabama.
6. Family influence surely played a part, but John says it was his high school
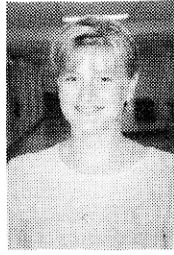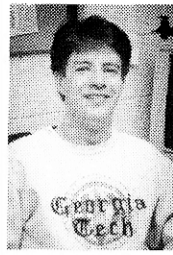
physics teacher who really got him fired up about science and engineering.
7. He is a man of many interests. He has a strong avocational interest in film and video, and has been actively involved in helping produce videos for URPO.
8. John and his brother, who lives in Norcross, are both pilots, and they keep a family-owned plane at a metro-area airport.
9. He is gone from his house in Smyrna too much to have a housepet, he says — but he is the adoptive parent of a dolphin, which was being mistreated but has been nursed back to health at the Dolphin Research Center in Florida.
10. John has even gone swimming with dolphins in Florida — a logical pastime for an engineer in Tech's Undersea Research Program.

Ten Good Things We Know About Lori Metcalf

1. She joined the Signatures Technology Lab in June as secretary.
2. She handles most of the administrative work for the lab's System Observables Division, including making travel arrangements for the 15 or so engineers in the division, maintaining the calendar, scheduling, filing and reception.
3. Lori came to Tech in September 1992 as a freshman in aerospace, but subsequently decided she was "more of a people person."
4. She moved to management studies for a time, and then decided to take some time off to "step back and get some real-world experience." She plans to resume school "after the Olympics."
5. Lori grew up "a Navy brat": her father currently is the U.S. Naval Academy band director, her brother is an Annapolis grad based in Norfolk, and her mother works for the Pentagon.
6. She has, as a result, "lived all over the place." Though her parents today live in Bowie, Md., she went to high school in Springfield, Va.
7. In high school, she was not only a school photographer, but also a manager of boys varsity basketball.
8. Her after-hours hobby seems to be more jobs. She often works as a mer-

chandiser in various Atlanta theaters.
9. "I like to keep busy," she says. "And I do want to save for school."
10. Lori lives in Marietta with a roommate; her toy poodle, Koko, and a large number of squeaky toys.

Ten Good Things We Know About Alan O'Quinn

1. He began working as a student for GTRI in February last year, and started as a Research Engineer I with EOEML in June 1995.
2. He works in the Threat Analysis Counter Measures Branch.
3. His field is circuit modeling, in particular hardware analysis of existing hardware.
4. In March 1995 he received a bachelor's in electrical engineering from Georgia Tech. While at Tech he was on the Freshman Council and worked with the EE outreach program to area schools.
5. He is already working on a Tech master's degree part time.
6. Alan grew up on a farm in Adel, a small town in south Georgia.
7. It was a character-building childhood: He had to do chores after school as well as homework.
8. His father is a Tech graduate — industrial engineering '67 — and both his older brothers are Tech grads in M.E.
9. Alan is single — and engaged — and currently lives in Lithia Springs.
10. He likes athletics and the outdoors, especially camping and fishing.

Personal Notes

Cradle Roll

Marsha Barton (MAPS) welcomed a grandson, Alex Becker, on Oct. 5.

Brenda and **Robert Howard** (SEAL) welcomed triplets on August 2: Christopher, Rachel and Sarah.

Belinda and **Frank Sawyer** (SEAL) welcomed a daughter, Elizabeth Nichole, on October 9.

Linda and **Lee Hughey** (AIST) welcomed their third grandchild, Andrew Bryant May, on Oct. 13.

Joe and **Kay Lindsey** (SDL) welcomed a daughter, Mary Elizabeth, on Nov. 5. Mary Elizabeth's grandfather is **Trent Farill** (EOEML).

Wedding Bells

Sharon Tabor (SEAL) married Reeder Lyons on August 5.

Happy Holidays!

Focus on Folks

Professional Activities

Information Technology & Telecommunications Laboratory

Ron Bohlander was elected to the Board of Directors of the Society of Manufacturing Engineers. He will serve a two-year term starting in January.

Electro-Optics, Environmental & Materials Laboratory

Bob Schmitter and **Myrtle Turner-Sippio** presented a "Supervision of Asbestos Abatement Projects" course and workshop at Fort Knox, Oct. 16-20. The U.S. Army Department of Public Works, Fort Knox, Ky., sponsored the course.

Steve Hays was a guest lecturer in the "Management of the Construction Firm" course (CNST 650) at Southern Tech on Oct. 17. He spoke on "Effective Safety Programs." He was also an invited speaker on contractor safety at Georgia-Pacific Corporation's Pulp and Paper Division's Safety Management meeting in Jackson, Miss. on Sept. 20.

Paul Schlumper gave a presentation on International Standards Activity in Environmental and Occupational Safety and Health at the Augusta Quality Fest '95 on Oct. 30.

Mike Lowish was the featured author in September's issue of *Compliance Magazine*, addressing "Fire Prevention Plans." He is also featured in the issue's "Ask the Experts" section, which addresses issues regarding safety ANSI and UL approval of safety equipment.

Lamar Carney, **John Nemeth**, **Bob Newsom**, **Lou Circeo** (Arch/CRC), **Mike Saunders** (CEE), **Paul Mayne** (CEE), **Jim Mulholland** (CEE) and **Jamie Beaver** (CEE-GRA) were presenters, moderators and exhibitors at the International Symposium on Environmental Technologies - Plasma Systems and Applications held Oct. 8-11 at the Atlanta Omni/CNN Conference Center. Nemeth and Newsom were members of the symposium organizing and scientific committees. The symposium addressed all aspects of research developments and applications of plasma arc technology and thermal processing: implementation, vitrification, waste handling, off-gas treatment, materials characterization, recovery processes and environmental remediation. The symposium is sponsored by the Georgia Institute of Technology and the University of Bordeaux I, France. This second symposium on the subject included more than 200 attendees representing 14 countries. Newsom and Circeo are co-authors of a poster presentation at the symposium titled "Plasma Pyrolysis Vitrification (PPV) Technology Demonstration Program as Applied to the Defense National Stockpile of Thorium Nitrate" with Oak Ridge Laboratory, Plasma Technology Corp., Science Ventures, Inc., and the Moscow Academy of Chemical Engineering.

Art Wickman spoke to the Greater Hall County Chamber of Commerce at their Oct. 4 Environmental Conference in Gainesville, Ga. He explained the responsibilities of business and building owners under OSHA's 1994 Asbestos Standard.

Bill Kreiss attended a two-day meeting of the Underwriters Laboratory (UL) Quality Advisory Council at the Holiday Inn Crown Plaza at Research Triangle Park, N.C., Oct. 17 and 18. UL is the largest registrar of quality systems, and Bill is a member of the council. The meeting addressed worldwide registration for the ISO 9000, QS 9000 and the upcoming ISO 14000 Environmental Management Systems standards, as well as audit conformance, accreditation and new business areas.

Christopher J. Summers served on the program committee and chaired the session on "Doping Issues in Vapor-Phase Growth" at the 1995 U.S. Workshop on the Physics and Chemistry of Mercury Cadmium Telluride and other IR Materials, Oct. 10-12 in Baltimore, Md.

Wu-Sheng Tong presented a paper at the Fifth International Conference on Chemical Beam Epitaxy and Related Growth Techniques in La Jolla, Calif. Aug. 13-17, entitled "Kinetics of Chemical Beam Epitaxy for High Quality ZnS Film Growth." Co-authors were **B. K. Wagner**, **T. K. Tran**, **W. Ogle**, **W. Park** and **C. J. Summers**.

Hicham Menkara presented a paper at the Materials for Optoelectronics International Conference hosted by Sheffield Hallam University in Manchester, England, Aug. 19-26, addressing "Effect of Variations in the Doping Profile on the Properties of Doped Multiple Quantum Well Avalanche Photodiodes." Co-authors were **B. K. Wagner** and **C. J. Summers**.

Christopher Summers and **Brent Wagner** presented four papers at the Seventh International Conference on II-VI Compounds and Devices in Edinburgh, Scotland, Aug. 13-18: "Growth and Characterization of HgCdTe Heterostructures by Metalorganic Molecular Beam Epitaxy," coauthored by **A. Parikh**, **S. D. Pearson**, **T. K. Tran**, **R. N. Bicknell**, **R. G. Benz**, **B. K. Wagner**, **P. Schafer** and **C. J. Summers**; "Photoluminescence Properties of ZnS Epilayers Grown by Metalorganic Molecular Beam Epitaxy," authored by **C. J. Summers**, **W. Tong**, **T. K. Tran**, **J. W. Tomm**, **W. Ogle**, **W. Park** and **B. K.Wagner**; "Strong Room Temperature Excitonic Resonance in CdTe:l," coauthored by Wagner, A. Parikh and C. J. Summers; and "Properties of Hg0.7Cd0.3Te/CdTe Superlattices with Seminconducting Wells," co-authored by T. K. Tran, A. Parikh, T. Kelz, J. W. Tomm, W. Hoerstel, P. Schafer, B. K. Wagner, S. D. Pearson, R. N. Bicknell-Tassius and C. J. Summers.

Tuyen K. Tran presented a paper at the 1995 U.S. Workshop on The Physics and Chemistry of Mercury Cadmium Telluride and other Related IR Materials in Baltimore, Md., Oct. 10-12. "Magnetoluminescence Properties of Hg1-xCdxTe Epitaxial

Layers and Superlattice Structures Grown by Metalorganic Molecular Beam Epitaxy," was co-authored by A. Parikh, B. K. Wagner, R. G. Benz II, C. J. Summers, T. Kelz, J. W. Tomm, W. Hoerstel and U. Muller.

Ashesh Parikh presented a paper at the 1995 U. S. Workshop on The Physics and Chemistry of Mercury Cadmium Telluride and other Related TR Materials in Baltimore, Md., Oct. 10-12, entitled "Analysis of Iodine Incorporation in CdTe and HgCdTe." Co-authors were **S. D. Pearson**, **B. K. Wagner** and **C. J. Summers**.

Sensors and Electromagnetic Applications Laboratory

Guy Morris was invited to participate as a Red Team member for the Information Systems Office of the Advanced Research Projects Office (ARPA). The team will review current and planned programs to determine how an adversary can defeat or negate sensor and automatic recognition technology.

Electronics Systems Laboratory

Myron Cramer and **Jennifer Tate** (RSD) attended the 18th National Information Systems Security Conference Oct. 10-13 in Baltimore, Md.

Personnel News

New Hires

ITL welcomes **Selim Akkoc**, Student Assistant; **Eric Black**, GRA; **Michael King**, GRA; and **Michael Pinkerton**, GRA. EOEML welcomes **William Anderson**, GRA; **Vicky Cook**, Student Assistant; **Louis Desetto**, GRA; **Dayna Dunbar**, Student Assistant; **Todd Jackson**, Student Assistant; **Robert Rutherford**, GRA; **Jonathan Strickland**, Student Assistant; **Jenny White**, GRA; and **Judith Winter**, GRA. SSD welcomes **Greg Seagle**, Maintenance/Construction Worker I; **Natalie Bates**, Student Assistant; and **Isha Raval**, Student Assistant. RSF welcomes **Samantha Crain**, Student Assistant. STL welcomes **Andrew Frits**, Student Assistant. SEAL welcomes **Scott Goldblatt**, GRA. RCT welcomes **Kathryn Holwill**, Student Assistant. HRO welcomes **Nathaniel Jones**, Student Assistant and **Anthony You**, Student Assistant. AERO welcomes Patrick McPherson, GRA. ELSYS welcomes **Christopher Murray**, Student Assistant; **Arthur Redfern**, GRA; and **James Sawyer**, GRA. MAPS welcomes **Jeanique Riche**, Student Assistant. SDL welcomes **Grant Farrington**, ET II.

Moving On

Amy Bynum and **Mark Waxmonsky** (ELSYS); **Michael Colella**, **Jason Green**, **Sally Hamlin**, **Guillermo Villalobos** and **Michael Hunter** (EOEML); **Amy Cosby** and **Jay Goldstein** (SEAL); **Jeffery Dugger**, **Antonio Gentile**, **Jay Katz**, **Paul Nguyen**, **Janis Roberts** and **Eyal Schwartz** (ITL); **Nehal Gajjar** (AERO); **Ely Shih** (AIST); and **Joe Bradley** (SDL) are moving on.