GTRI One of Five Winners in Quality Competition

GTRI is one of five "Georgia Tech Quality Champions" named in mid-August as part of Tech’s goal to further Continuous Quality Improvement practices on campus.

The College of Engineering, the School of Management, the Office of Human Resources, the Office of Minority Educational Development and GTRI were chosen from 10 applicants based on proposals submitted to Georgia Tech’s Quality Council. The council wanted to identify units on campus that have a strong commitment to Continuous Quality Improvement (CQI), said Tim Gilmour, Vice President for Strategic Planning and coordinator of CQI at Georgia Tech.

"We were looking for pace-setters who want to take on CQI in a comprehensive way, and who want to serve as models in coming years," Gilmour said. "We expect that these units will work with other units in the future and we’ll see some real quality success." The August 11 awards are part of a larger strategy to incorporate CQI into Georgia

Continued on page 3

Observed & Noted

Meet the directors of GTRI’s eight new research laboratories. Turn to page 2 to read their profiles.

Interested in the latest contract development activities? A new feature lists selected new contracts. The list appears on page 2.

Overhead rates have become a matter of great concern and confusion in the past several years. To learn more about GTRI’s rate structure, read the story on page 3.

With new laboratories comes a whole new set of acronyms to learn. The list is on page 3.

Georgia Tech is part of a team that will manage Sandia National Laboratories in Albuquerque, New Mexico, and several GTRI people played important roles in winning this new opportunity. Read about this new opportunity on page 4.

Computer support representatives (CSRs) can help pick up the pieces if your computer crashes. See page 5 to learn more.

In May, 61 articles about Georgia Tech research appeared in publications with a combined circulation of over 8.6 million. See a sample of publications by turning to page 6.

Seventy GTRI employees recently finished "The Deming Approach to Total Quality Management" short course. Group members are listed on page 7.

Beautiful Compensations

It is one of the most beautiful compensations of life—no man can sincerely try to help another without helping himself.

—Ralph Waldo Emerson

Whoever is happy will make others happy too.

—Anne Frank

Kind words can be short and easy to speak, but their echoes are truly endless.

—Mother Teresa

Reorganization Leadership Plans Finalized

By Lea McLees, RCO

GTRI is now officially operating according to its new structure, just one month after the plan was approved by Georgia Tech President John Crecine and announced to employees.

Research operations consolidated from 18 labs into eight on August 16. Related personnel and financial details are expected to be complete by September 1. Top leaders of GTRI were announced in July, with lab directors’ names added during the first week of August.

GTRI Director Richard Truly expressed appreciation for employee response to the reorganization process.

"I know that any restructuring of a complex organization — especially when the necessary changes are extensive — can result in uncertainty and apprehension among the organization’s staff," he said. "I want to thank each of you for your patience and understanding during this process. The resulting GTRI will be much stronger and better positioned to continue growth and progress."

Heading the labs are Robert Casanovas, Aerospace Sciences Laboratory (ABO); Larry Holland, Electronic Systems Laboratory (ESYS); Richard Stanley, Huntsville Research Operations (HRO); Randy Case, Information Technology and Telecommunications Laboratory (ITL); Robert Hyde, Electro-optics, Environment and Materials Laboratory (EODEM); Robert Trebits, Sensors and Elec-
Meet the Lab Directors

Robert Cassanova, Aerospace Sciences Laboratory
holds bachelor’s, master’s and doctoral degrees in aerospace engineering. Employed at Georgia Tech since 1987, at GTRI since 1977. Previously director of Aerospace Laboratory. Interested in aerodynamics of ground vehicles, aerodynamic high lift devices, computational fluid dynamics, acoustics, rotorcraft, unmanned aerial vehicles, smart structures, and transportation.

Larry Holland, Electronic Systems Laboratory
holds bachelor’s and master’s degrees in electrical engineering. Employed at GTRI since 1972. Previously director of Electronic Support Measures Laboratory. Interested in electronic warfare receiver/processors, radar warning receivers, specific emitter identification. EW test systems, automatic control systems, missile guidance and control, communications, simulation.

Richard Stanley, Huntsville Research Operations
holds bachelor’s degree in mechanical engineering, master’s in R&D systems management. Employed at GTRI since 1984. Previously director of Huntsville Research Lab. Interested in ground-to-air missile systems, interactive system simulations, remotely controlled vehicles.

Randolph Case, Information Technology and Telecommunications Laboratory
holds bachelor’s degree in chemistry, master’s degrees in counseling psychology and systems management. Employed at GTRI since 1987. Previously director of Computer Science and Information Technology Laboratory. Interested in information and decision support systems applications for Command/Control/Intelligence, enterprise integration, transportation, manufacturing technology.

Robert Hyde, Electro-optics, Environment, and Materials Laboratory
holds bachelor’s and master’s degrees in physics, doctorate in astronomy. Employed at GTRI since 1978. Previously director of Electro-Optics Laboratory. Interested in optical and infrared systems, atmospheric science, educational technology.

Robert Trebits, Sensors and Electromagnetic Applications Laboratory
holds bachelor’s, master’s and doctoral degrees in physics. Employed at GTRI since 1985. Previously senior research scientist. Interested in radar reflectivity of clutter and targets, radar signal processing, synthetic aperture radar system applications, radar system analysis.

John Meadors, Signatures Technology Laboratory
holds bachelor’s, master’s and doctoral degrees in physics. Employed at GTRI since 1985. Maintains director of this lab. Interested in low observables technology, advanced signature measurement systems and instrumentation, time domain electromagnetics, and electro-optic/infrared countermeasures.

Joc Parks, Systems Development Laboratory
holds BS in physics, JD, and has done graduate work in physics. Employed at GTRI since 1978. Previously director of Threat Systems Development Laboratory. Interested in program management of large radar systems, co-inventor on three radar-related patents.

SELECTED JULY 1993 AWARDS

<table>
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<tr>
<th>Title</th>
<th>Principal Investigator</th>
<th>Sponsor</th>
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<td>Martin Marietta Corp.</td>
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<td>Navy</td>
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Quality

Tech's curriculum, operations and research. CQI is a philosophy, a set of principles and tools that result in a product or service which consistently meets customer requirements — giving the customer something useful at a good price. The five quality champions were selected with the help of an advisory committee to the quality council. The committee looked for criteria such as commitment to CQI principles, soundness of strategy, and strategic importance of each unit to Georgia Tech. Among the benefits the five units will receive are access to a full-time quality specialist Georgia Tech will hire. In addition, researchers who are interested in CQI studies will be eligible for seed research grants in their areas of expertise. Part of the funding for the individual research awards comes from a five-year grant awarded to Georgia Tech in October 1992 by IBM.

Associate Director of Enterprise Planning Charlie Brown prepared GTRI's proposal. GTRI's Director of Quality Assurance Fred Gaim and Richard Truly presented the proposal to Gilmour at GTRI's August 2 Senior Staff Meeting.

Quality improvement is not a short-term interest for GTRI, says Associate Director Pat O'Hare. A total of 70 GTRI employees led by Cain earned certificates for viewing and discussing implementation of a series of 20 videotapes on W. Edwards Deming's TQM philosophy. At least a dozen employees are set to take June Antoniou's (ISYTE) graduate course in quality management. In addition, Brown's job in the reorganized GTRI — leading enterprise planning — will include CQI training charged with ensuring that selected GTRI processes become even more effective, efficient and adaptable, and that customer satisfaction is maintained and improved.

New Laboratories, New Abbreviations

Here is a short list to help you learn the names and abbreviations of the new labs, and who is working in each one:

**Aerospace Sciences Lab (AERO)**: AERO, SOF program

**Huntsville Research Operations (HRO):** Same members

**Electronic Systems Lab (ELSYS):** ESML, CAL, CMID and ETWA, ECTC program

**Information Technology and Telecommunications Lab (ITL):** GIS, COM

**Electro-optics, Environment and Materials Lab (EOEML):** EOPLN, ETST, MTL

**Sensors and Electromagnetic Applications Lab (SEALS):** IRSA, MATT, MAL/CoB, EEF

**Signatures Technology Lab (STL):** STL, MAL/campus

**Systems Development Lab (SDL):** TDL, RIDL

**Principal Research Engineer Rob Michelson, left, presents a plaque to Georgia Tech student Mark Gordon, leader of Georgia Tech Aerial Robotics Team Number One. The team placed first in the Association for Unmanned Vehicle Systems' 1993 International Aerial Robotics Competition, held in June on the Georgia Tech campus. A total of 25 teams competed this year. Michelson is president of the association. (Photo courtesy of Rob Michelson)**

Understanding Overhead Rates

(This is the first installment of a three-part series explaining overhead rates, how they are figured, and why they are becoming so complicated.)

By Lea McKees, RCO

All the concern and discussion about overhead rates during the past year or two may have some readers wondering—or downright confused—about how the rates are set. The process can be difficult to understand, especially now, says J.W. Dees, Director of the Office of Contract Administration (OCA).

The overhead situation right now is less clear than it has ever been in the history of Georgia Tech, Dees said in late June. At that time he and OCA Associate Director Duran Hutchison were involved in intensive discussions of a projected overhead rate for FY 94 with the Office of Naval Research (ONR), which represents the federal government in rate negotiations with Tech. A brief explanation of how overhead rates work follows.

What are Overhead Rates?

Overhead rates are calculated to recover expenses associated with conducting research, such as building maintenance, equipment and contract administration. The current preliminary rates for FY 94 are 45 percent for research at GTRI, 37 percent for research in all other units, and 35 percent for public service in all units.

Overhead "collected" is reimbursement for expenses already incurred and paid from whatever source two years prior to actual "collection." Once "collected" these monies are general funds and usable for any purpose since, at that point, they belong to Georgia Tech. However, the "collected" funds are usually spent in support of research, and are split among a number of parties.

About 22 percent of the total overhead collected goes to the Georgia Tech Research Corporation, which provides money to researchers for equipment, matching funds, moving expenses, foreign travel and other needs — items for which state funds either are not available or cannot be used. The remaining 78 percent is returned to Georgia Tech and a significant part is sent to the labs, schools and departments that generated the sponsored research. The amount returned to these units varies, especially between GTRI and resident instruction units. Vice President for Research Devemets Paris indicated that in resident instruction for the current fiscal year, a portion of indirect recoveries is returned to research units, including the Office of Interdisciplinary Programs (OIP) Centers, to cover research management and support costs. A portion is retained centrally to pay part of the Centennial Research Building (CRB) rent, OCA expenses, and other central administration activities such as grants and contracts accounting, procurement and payroll. In GTRI, indirect recoveries are combined with other revenues and used for laboratory budgets, research equipment, STGC projects, plant operation costs, utilities and maintenance, leases on CRB and the Cobb County Research Facility, funding for service groups, etc.

How Are Overhead Rates Calculated?

Overhead rates are figured by dividing indirect costs by modified total direct costs. Indirect costs, the numerator of the fraction, covers expenses for the use of research space and equipment, plant maintenance, utilities, telecommunications, the library and administration (such as the Office of Contract Administration, the Business Office, the Vice President for Research, the Office of Academic and Research Support, etc.) and departmental administration. Only a fraction of these expenses is allocated to research, so that only the expenses directly benefiting research are included. Because many central administrative expenses, such as payroll, accounting, procurement and the library benefit many activities on campus, only a portion of these expenses is included as indirect costs of research.

The largest components of the "administrative" indirect cost pool — 40 percent — are indirect expenses of sponsored projects (ISEP). These are the "F" funds spent by research units, labs and schools for administrative research within their units. This is the cost pool capped by the federal Office of Management and Budget.

Total direct costs are expenses attributable directly to projects; they include such expenses as salary and wages, travel, materials, supplies, equipment, and subcontract costs. Those costs are modified for use in the denominator of the fraction by excluding equipment and subcontracting costs over $25,000.

Next Month: Why Overhead Rate Setting Has Become So Complicated

How Has The Rate Calculation Changed?

Until about 1980 the government only included salaries and wages in the denominator of the fraction — thus collecting overhead only on those items — and that worked well, Dees said. However, the government adopted the modified total direct costs explained above after years of complaints from Congress that university overhead rates were too high. The Office of Management and Budget decided around 1980 to start including travel and other items in the total direct costs figure, making the denominator of the fraction larger, and reducing government overhead rates. However, the indirect expenses in the numerator of the fraction did not decrease — only the resulting rate decreased, not overhead expenses. This rate reduction was made despite the fact that private industry's overhead rates are much higher than academic's.
**Tech Part of Team That Will Manage Sandia**

By Lea McIees, RCO

Sandia National Laboratories in Albuquerque, N.M., will be managed and operated by a new prime contractor starting October 1—and Georgia Tech will be part of the effort.

Martin Marietta of Bethesda, Md., won the five-year, approximately $9 billion contract on July 27. Martin is the largest defense electronics contractor in the U.S., and has experience running U.S. Department of Energy (DOE) labs. AT&T, Martin’s predecessor, had operated the lab since its inception in 1949, but decided it no longer wanted the job.

Martin was competing against Battelle, a non-profit industrial research company based in Ohio, when the decision was made. The two were the top finalists out of seven original applicants for the job.

Georgia Tech officials expressed pleasure that Martin Marietta was chosen for the job and that Tech and fellow universities have a chance to help implement DOE’s vision for Sandia.

“Tech will be involved in a variety of educational and research activities with its partners in this effort,” said Georgia Tech Executive Vice President Mike Thomas. “We already have excellent relationships with Sandia National Labs. For example, the National Center for Photovoltaics Research at Tech receives funding via Sandia.”

Georgia Tech is part of a consortium called University Associates, led by New Mexico State University (NMSU). The consortium works with the management/operations team Martin assembled and includes the University of Texas at Austin, Texas A&M, Louisiana State University, and several smaller New Mexico schools. Consortium members already have performed millions of dollars of Sandia-sponsored research.

The group was well-positioned during the negotiations, thanks in part to Georgia Tech efforts. NMSU Dean of Engineering Gerald Morgan and GTRI Senior Research Scientist Sam Blankenship negotiated places for the center in Sandia’s decision to open new contracts for scientists who were originally vying for the Sandia job.

Chief Scientist Devin Crowe of GTRI suggested the Sandia opportunity to Georgia Tech’s administration in 1992. Tech President John P. Crecine decided Georgia Tech should pursue it for several reasons, Thomas said.

“Among these are the opportunities to expand our research portfolio to include more non-DOE activities, and to enhance our efforts in recruiting minority students into science and engineering,” he said. “Another focus will be in technology transfer from Sandia National Labs to U.S. industry. Georgia Tech already has one of the largest roles in the country in such efforts.”

Crowe directed the effort to get Georgia Tech involved, and Blankenship did a good bit of the legwork. Blankenship has many professional contacts in New Mexico. In addition to his duties as senior research scientist, he works part-time developing opportunities for Georgia Tech in New Mexico through GTRI’s Program Development Office.

Blankenship and Crowe are helping to negotiate the role of Georgia Tech and its fellow universities in a variety of meetings with the Martin Marietta managers added to Sandia’s staff. Among the potential benefits of Sandia interaction are support for graduate students, faculty exchanges, and access to equipment and facilities not available on campus. Blankenship said, as well as expanded joint research opportunities.

“A number of leaders have been elected to the board of directors of the Research Corporation,” he said. “They will set up a separate office, an incubator where they will find commercial applications for Sandia technologies. Small and medium-sized businesses can get help from the center in producing products. We believe that is a place we can play, as well.”

As an additional benefit, Blankenship also met many potential customers for Georgia Tech while negotiating with potential prime contractors. For example, NMSU and Georgia Tech have teamed on a number of projects in the past.

Tech will need to present Sandia with research endeavors that are mutually beneficial to both Sandia and Tech, Crowe emphasized.

“We will have to spend time earning the opportunity,” he said.

Researchers working on or proposing research that they believe Sandia might be interested in may contact Blankenship at 941-7511 or send e-mail to sam.blankenship@grc.gatech.edu.

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**GTRI to Manage Phosphor Research Center at Tech**

By Mark Hodges, RCO

The Advanced Research Projects Agency (ARPA) has selected Georgia Tech as headquarter for its new Phosphor Technology Center of Excellence, and a GTRI researcher will manage the operation.

This three-year, $50 million program will stimulate research, technology development, and education in phosphor, a key enabling technology for high-definition television (HDTV) and other uses of enhanced resolution displays.

The center will bring together university and industry members in an effort to speed up the transfer of phosphor technology from the laboratory to the commercial market.

The leader of this new program is Chris Summers, a GTRI fellow and principal research scientist whose specialty is electronic materials. Michael J. Kelly, director of Tech’s Manufacturing Research Center, leads the center’s liaison between industrial and university members.

Recently, America has lost most of its presence in the display-manufacturing industry,” says Summers. “The aim of this new center is to help U.S. manufacturers compete successfully in this market for high-resolution displays.”

HDTV is the most highly publicized application of enhanced-resolution displays, but strong potential also exists for vehicle dashboard controls, medical instruments, conversion computer screens, virtual environments displays, and industrial process control panels.

Phosphors are materials that glow without any increase in temperature. Luminescence occurs after the phosphor has been excited by a flow of electron, an electric field, or light itself. Though the technology for most current uses of phosphor is mature, the demands of current and future displays require materials and devices with improved resolution, brightness, energy efficiency, and color.

Manufacturing problems also must be addressed so that new low-voltage phosphor device designs are reproducible in quantity and result in affordable, widely operating products.

Five U.S. universities will carry out the center’s mission: Georgia Tech, the University of Georgia, the University of Florida, Oregon State University, and Pennsylvania State University.

Another participant in the American Display Consortium, a group composed of 10 small to medium companies.

At Tech, the program will involve several GTRI labs, the Manufacturing Research Center, and the School of Materials Engineering, Physics, and Electrical and Computer Engineering.

“Everyone can see the state of the art and the capabilities of technical participation we have attracted is outstanding,” says Summers. “This center should give the phosphor industry a major boost.”

The largest source of funding for the center’s first three years of operation is the $90 million provided by ARPA. However, its university members are contributing $1.03 million, and the universities of the American Display Consortium are serving for $300,000. In addition, the State of Georgia has committed itself to contribute $1 million during this period.

The research agenda in support of ARPA’s high-definition display initiative will focus on four technical areas: cathode ray tubes, thin-film electrode luminescent displays, plasma display panels, and field emission displays.

Georgia Tech researchers will partner in center programs aimed at improving low-voltage thin-film electrode luminescent displays (TFLDs), field emission display disks (FERDs), and thin-film cathode ray tubes (RF-CRTs). In addition, they will develop new phosphor materials and structures as well as new device and array processing techniques.

The center will use a variety of approaches for transferring phosphor technology to industry, including periodic short courses and seminars as well as the creation of a technical information database on phosphors.
May be strange hieroglyphics are dancing across your computer monitor, but you are undoubtedly devouring that journal article you have so painstakingly crafted. Or perhaps you’ve suddenly lost e-mail access and are faced with typing, printing and personally distributing 200 copies of a memo across campus within one hour.

Going bananas—or bananas—will not solve either problem. Placing a call to that pivotal person, your computer support representative (CSR), probably will, says GTRI Computer Coordinator and CSR Tony White.

“Call a CSR once you know everything is turned on and parts of the system are plugged in,” he said. “CSRs are intimately familiar with the hardware, software, budget and direction of their labs.”

Consider the CSR a physician for sick hardware or software, says Research Technology and CSR Karen Moss.

“Once the symptoms have been determined and well-defined, the diagnosis can be made,” she said. “The next step is to fix the problem so co-workers can feel as little pain—computer downtime—as possible.”

The CSR network, modeled on a similar system at Brigham Young University and begun at Georgia Tech early in 1993, puts computer expertise within quick reach of users around campus. It improves Georgia Tech’s system of computer coordinators, said CIT Associate Director Linda Gabor, who oversees Client Services.

“The computer coordinators in each lab and department received monthly computer usage reports,” said Gabor. “We changed that system because people who get the reports might not know much about computers.”

The new system also matches the growing distribution of computing power on campus from a few shared mainframes to a myriad of personal computers in almost every building.

“We followed the same path and distributed our advocates,” she said.

Each lab, school and department has at least one CSR familiar with its computer network and needs. At least one CSR works with each GTRI lab and some work within the support groups. Some of these CSRs must provide computer assistance between work on sponsored research projects or after hours.

Among the services CSRs offer are advice on equipment and software, assistance with special needs on a project, training and answering questions; installation, configuration, assembly and upgrading of hardware and software; and trouble-shooting and problem-solving help. CSRs interviewed say they spend between 5 and 35 percent of their time helping co-workers with computers. Major changes, such as the transition from PROFS, require as much as 50 percent of their time sometime.

CSRs have two options if they cannot solve a computer problem alone. Initially, they may post a description of the problem to the e-mail group that all CSRs check daily, to see if a colleague can offer advice.

However, if the CSR needs immediate assistance on a serious problem, he or she can phone the Helpdesk and expect a quick response, noted CSR Jimmy Woody.

“The Office of Information Technology has given CSRs a ‘magic cookie,’” says Woody, a Senior Research Engineer. “If a CSR calls and really has an emergency, OIT will put someone on it immediately.”

CSRs interviewed hope that one day their newly created occupation will include specific job descriptions, titles and career paths. In the meantime, they offer these helpful hints on efficient computing:

• Keep a computer notebook of everything you learn about hardware, software, networking, Moss says. “It could become a valuable tool for solving simple problems that are usually associated with lack of training.”

• Call your CSR as soon as a problem arises, Moss adds. “Sometimes user solutions can magnify the problem.”

• Ask for training, or take time to train yourself to use your hardware and software, White says. “If you train people they can work easier and faster, and find new ways of working. The more the end users know, the more helpful the computer can be.”

• Keep your CSR up-to-date about computer needs and whether the equipment you use is working properly, Woody says. “The reason for having a CSR is to help people, but we need you to keep us properly informed.”

Defensive Driving Training Required For Some Employees

Most of us know Building Supervisor George Watkins as one of the Facilities Management team members who keep our buildings safe and in working order. However, Watkins helps keep GTRI employees safe on the road as well, by teaching a defensive driving course.

“It is my intent to make my students better drivers, and hopefully save lives,” said Watkins, a U.S. Air Force retiree. “I have taught this class for more than one-and-a-half years now and have graduated about 175 people.”

The class is a requirement for all employees who plan on using a GTRI vehicle. The four-hour session can be taken from 8 a.m. until noon on the fourth Thursday of any month except November and December, Watkins said.

Classes are held in the first floor conference room of the OKeefe Building, and are open to faculty, staff and students. Dependents may attend, as well, if seats are available, Watkins said. Average class size is about 18 students.

Attendance may hold an added bonus. Some insurance companies will give discounts to those who have taken the four-hour course. Check with your insurer for information, Watkins said.

To sign up for a class, call Watkins at 894-8008 at least a week before the scheduled class date.

Ensuring that employees drive defensively in GTRI vehicles is one of George Watkins’ responsibilities. Watkins wants to help keep automobile accident fatalities below the 4,300 reported nationally last year. (Photo by Lea McLees)
Reorganization  From page 1

Some new organizational changes are being made at Georgia Tech. Assistant Research Director Jim Gofer is leaving the university to become the director of the Advanced Concepts Office (ACO). The ACO will be headed by Richard Tandy, who will also be the leader of the Aerospace Engineering Department.

Gofer said that the changes are being made to better focus on the needs of the Georgia Tech community. The new structure will allow for more flexibility in the way research is conducted and will enable the university to better compete for research funding.

Research in the News

By John Toon, RCO

During May, 61 articles about Georgia Tech research appeared in publications with a combined circulation of more than 8.6 million subscribers. Selected highlights of those media placements follow:

The Combustion Chemical Vapor Deposition (CVD) process under development in the School of Materials Science & Engineering was described in Business Week (975,000), Chemical & Engineering News (35,000), Chemical Week (45,360) and Aviation Week & Space Technology (144,115). Information about the process has appeared in publications with a combined circulation of more than 1.3 million.

News In Brief

GT& Research faculty members may nominate candidates for the GTRI Fellows Council through September 10. Up to four fellows will be selected, one for each four-year term. Two active council members, GTRI Chief Scientist Devor Gowe and Principal Research Scientist Chris Simmons, were appointed to the council on August 17 by Director Richard Tandy.

The group will administer the GTRI Internal Research Program, assist in technology forecasting and assessment, and work toward campus research collaboration goals stated in GTRI's strategic plan. Establishing the council is a strategy cited in the plan, as well.

Fellowships must be principal research scientists or engineers of full professors. Nominations are due by August 10. GTRI's guidelines, forms, and list of the 70 eligible individuals are available mid-August. Completed forms should be submitted to Gowe by August 19.

Proposals for GTRI internal research funding may be submitted to Gowe's office until October 1. Any current or potentially new area of research is eligible — about 50 percent of the funding, which has been increased significantly for FY 94. Committee members included in GTRI's strategic plan eligible for research in such areas to make up 50 percent of the funding at the beginning of FY 95.

The proposals will be evaluated based on innovation, probability of success, cost/benefit to the strategic plan, and grant development potential and lead to funding. Short, concise proposals that address strategic planning goals are preferred.

Janice Porter, Secretary to GTRI Director Richard Tandy, needs your help! SIC is compiling a history of the GTRI (or Engineering Experiment Station) logo. Porter especially needs information on logos for EES, GTRI's predecessor, pre-1989. If you have photos, stationery, or timeline information that might be helpful, please contact her at (706) 585-8140 or janice.porter@gtri.gatech.edu.

Collaboration on an X-ray Tomographic Microscopy (XTM) technique involving GTRI, the School of Materials Science and Engineering, Lawrence Livermore National Laboratory and Sandia National Laboratories produced a refereed paper published in Science: Georgia Tech and Lawrence Livermore collaborated on a news release which has been published in Chemical Week (45,300), American Metal Market (3,100), and Inside R&D.

Mindy Millard Stafford's research on the effects of Sports Drinks was described in the San Jose Mercury News (27,170), the Boston Herald (390,164) and Running Times (65,000).

Eric Barnhart was recently interviewed by the National Public Radio show "Technology," a syndicated half-hour weekly program exploring science and technology. Barnhart discussed Georgia Tech, GCAIT, and the recent National Telecommunications Conference on Commercial Applications and Dual-Use Technology, of which he was general chairman.
Congratulations,
Deming Graduates!

The following 70 GTRI employees recently completed “The Deming Approach to Total Quality Management (TQM)” short course by viewing and discussing a 20-volume series of videotapes on W. Edwards Deming’s TQM philosophy. Each employee receives 1.1 Continuing Education Units for completing the course. This group brings to 131 the total number of GTRI employees who have taken the course.

- Neal Alexander
- James Allison
- John Andrews
- Sarah Andrews
- Charlotte Batson
- Carl Baxter
- Milton Bennett
- Charles Brown
- Tom Brown
- Fred Cain
- Susan Carcione
- Don Clark
- James Clark
- William Clark
- Tony Cochran
- Jim Cofer
- Bruce Crain
- Ron Cresswell
- Devon Crowe
- Carol Croy
- Nicholas Currie
- Janice Davis
- Linda Davis
- Hugh Denny
- Angela DuBose
- Lee Edwards
- Martha Farley
- Molly Gary
- Geovin Gerard
- Ennice Glover
- Jill Goslin
- Lamar Goslin
- Mary Granger
- Harry Haas
- Lou Flaher
- Michael Heiges
- Mary Henderson
- Wiley Holcomb
- Larry Holland
- Brian Hudson
- Claudia Huff
- David J. Huggins
- Gal Jameson
- Nancy Kelley
- Joanna King
- Sandra Kirchofer
- Carolyn Mahaffey
- Jim Marks
- William Marshall
- Gary McMurray
- Marlon Moses
- Rickey Craven
- Gaylord Sidhu
- David Mohr
- Marlon Moses
- Richard Odorn
- Carolyn Olive
- Aram Partan
- Sam Piper
- Russell Ray
- Deann Rece
- Cynthia Rogers
- Harry Ross
- Juan Santamaria
- Lillian Spreen
- Mike Valletti
- Harry Vantin
- Bert Watkins
- George Watkins
- Jimmy Woody
- Angela DuBose
- Lee Edwards
- Martha Farley
- Molly Gary
- Geovin Gerard
- Ennice Glover
- Jill Goslin
- Lamar Goslin
- Mary Granger
- Harry Haas
- Lou Flaher

18 Employees Retire From GTRI in FY 93

Congratulations and best wishes to the 18 GTRI employees who retired during FY 93:

NAME LAB SERVICE
Samuel T. Alford TSDL 1969-93
Stephen P. Brookshire BDEL 1969-92
Gerald J. Carey OOD 1981-93
William J. Dittrman MATD 1965-93
Fredrick Dixon TSDL 1950-92
Gene Dixon MSOL 1974-93
Donald J. Grace OOD 1970-93
James L. Hubbard MIST 1900-93
Bernard M. Jenkins EEEL 1965-93
Bill Livsey EOPCL 1958-93
William H. Nolte MATD 1979-93
Marguerite R. Osborne FDL 1979-92
Richard H. Prater TSDL 1982-93
Robert N. Seitz HRL 1981-93
Marthu Ann Siegir RCO 1993-93
Robert D. Thompson TSDL 1979-93
Frank R. Williamson BDEL 1958-93
Robert E. Willoughby ESML 1981-92

September 1
Computer Aided Software Engineering. Through September 2. For more information, call Continuing Education at 894-2457.

September 7
14th Annual Modeling, Simulation and Gaming of Warfare. Through September 10. For more information, call 894-2457.

September 8
Introduction to Multimedia. Through September 8. For more information, call 894-2457.

September 9

Database Design. Through September 10. For more information, call 894-2457.

General Engineering Refreshers Course. Through October 27. For more information, call 894-2457.

Executive Overview of Multimedia. For more information, call 894-2457.

UNIX Internals. Through September 15. For more information, call 894-2457.


Diffraction Optics Workshop. Through September 17. For more information, call 894-2457.


September 21
Audience Analysis and Storyboard Production (Multimedia). For more information, call 894-2457.

Oracle for Application Users, 9 a.m. until noon, Room 209/Rich Bldg. Through September 23. For beginners. Learn common SQL and SQL*Plus commands, such as the SELECT statement, constructing tables and manipulating output. For more information, call the Office of Information Technology at 894-4660.

September 27

September 28
Introduction to Microsoft Word for the Macintosh, 9-11 a.m., Room 209/Rich Bldg. For experienced Macintosh users who need help starting Microsoft Word. Learn basic editing, formatting, page setup, fonts, selecting margins and more. Bring a 5.5 disk to class. For more information, call 894-4660.

September 30

Internet Exploration Tools, 2-4 p.m., Room 209/Rich Bldg. Learn about a wide range of software tools for accessing the Internet. Basic experience working in a UNIX environment is required, and experience with X Windows is a plus. For more information, call 894-4660.

Understanding and Using Your Georgia Tech Computer Account, 2-4 p.m., Room 209/Rich Bldg. Formerly called "Basics of Hydra." This class is a prerequisite for the "Introduction to UNIX" class. Topics include logging on to your account, sending, receiving, reading and posting messages; and accessing Helpdesk online. For more information, call 894-4660.

Below: Fred Cain, director of quality assurance is recognized by GTRI Director Richard Truly and Georgia Tech Vice President for Strategic Planning Tim Gilmour. Cain planned, coordinated and also enrolled in the Deming short course offered via videotape to GTRI employees. Cain then presented Gilmour with GTRI's proposal entry in Georgia Tech's "Quality Champions" competition. GTRI was later selected, based on this proposal, to participate in the "Champions" program. See related story, page 1. (Photo by Stanley Leary)
Focus on Folks

Due to the great number of professional activities to report, “Personal Notes” and “Personnel News” were held and will resume in September.

Professional Activities

(This month’s professional items are listed alphabetically by the last name of the first person cited in each entry. We used this method for disguise since GTRI was in transition between old and new lab structures during our deadline. Next month we’ll resume listing items by labs.)

A-D
Dayton Adams, Rickey Cottom, Glen Hopkins and Eric Myers attended the IEEE MTT-S International Microwave Symposium, held in Atlanta, June 15-17. Adams chaired a session. Hopkins and Myers were on the steering committee. Hopkins also organized and coordinated the Georgia Tech Exhibit booth at the symposium.


A well-attended “Principles and Applications of Millimeter Wave Radar” short course was conducted in Atlanta by the Radar and Instrumentation Development Laboratory during July 25-30. Coordinators were Wayne Cassaday and Tracy Wallace. Lecturers included Jim Scheer, Nick Gurrieri, Tracy Wallace, Wayne Cassaday, Jim Eckard, Bob Trebich, Bill Holka, Margaret Hoest, Ben Perry, Bob Milliman, Don Bodnar, Sam Piper, Charlie Brown, Gary Morris, Joe Bruder, Joe Galliano, and Ed Joy.

Scott Croggley and Victor Tripp had a paper published at the 1995 National Radio Science Meeting held in Ann Arbor, Michigan, June 28 -July 2. It was titled “Design of Arrays to Radiate Short Pulse.”

John Dimarco and Bill Bell presented “User Perspectives on SPIRITS” at the 1993 JANAE-SPIRITS Users group meeting July 12 in Austin, Tex.

Ted Doll will lead a symposium titled “Preservative Processes in Visual Search” at the annual meeting of the Human Factors and Ergonomics Society in Seattle, October 11-15. He will also present a paper co-authored with David Schneider and Shane McWhorter, at the conference. Its title is “Simulation of Human Visual Search in Cluttered Backgrounds.” In addition, Doll and Schneider published an article in July’s Optical Engineering titled “Observer Pulse Alarm Effects on Detection in Gutter.”

E-H
Paul Friederichs, Keith Kelley and Rick Moore have had three papers accepted for presentation at the 95th DOD RadSim Symposium scheduled for October in Boulder, Col.

Bruce Glasgow recently presented an “Affordable MRS System Design” during an Emory University School of Medicine Department of Radiology seminar.

Claudia Hult served on the June 15 “Ethics and the Professional Technology” panel sponsored by the National Society for Professional In- struction held in Atlanta.

H-J

M-P
Kirk Mahan presented an overview of OSHA’s Construction Safety Standards to a group of local contractors on July 31.


Rick Moore is one of several authors from JPL, MCT, Rockwell, Los Alamos, MTI of “An Intercomparison of Measurement Techniques for the Determination of the Dielectric Properties of Solids at Near Millimeter Wavelengths” in MTT Transactions, August 1995. Moore also gave an invited presentation on “Radar Absorbing Material Measurement Techniques” during the materials workshop at the June MTT meeting in Atlanta, June 14-18.

Istvan Nagrandi prepared a paper entitled “Army-Type Pulsed-Power Modulators” at the 26th International Energy Conversion Engineering Conference in Atlanta, August 14-15.

Lon Pringle presented “Generalization of Reflectance and Emittance from Desired Emitted Radiance” at the KRC Symposium on Ground Target and Modeling Conference in August 1993.

Q-T
Paul Schumper gave a presentation on OSHA, Confined Space Entry Procedures, and Bloodborne Pathogens at the quarterly meeting of Employer’s Resource, Inc.

Vic Tripp presented a paper entitled “A Low-Profile Broadband Balun Feed” at the IEEE AP-S International Symposium held in Ann Arbor, Mich., June 26-27. Trip and Johnson Wang had a paper published at the National Telesystems Conference, 1993, held in Atlanta on June 17. Their paper entitled “GaAs and Tracking Features of a Broadband, Low-Cost, and Low-Profile Land Mobile Signal-Modulation Antenna” was published at the 1993 National Radio Science Meeting, June 28-27 in Ann Arbor. Wang also attended the IEEE AP-S International Symposium.

U-Z
Tony White had a paper accepted for publication in the Proceedings of International Oracular Fall Week September 26-30. It is titled “A Client/Server Database Implementation Using a TCP/IP Network.” He will present the paper at the Orleans, Fla., meeting.

Art Wickman presented a lecture on “The Exposure of Casual Workers to Airborne Asbestos” at the July 22 meeting of the Georgia Section of the American Industrial Hygiene Association.

Three chapters of the new Infrared and Electro-Optical Systems Handbook were authored by GTRI employees. This book, in eight volumes, replaces the Infrared Handbook 1978, which replaced the original Military-Infrared Handbook. This series of books has been the main reference for professionals in this field. Chapter One, “Warning Systems” (In Volume 7), Countermeasures System was authored by Donald Wiltz, William Owens, and Robert Shelton. Chapter Two, “Camouflage, Suppression, and Screening Systems” (also in Volume 7) was authored by David Schneider and Gregory Walker. Chapter Four, “Defectors” (In Volume 3, Electro-Optical Components) was authored by Devon Crowe, Peter Norton, Thomas Lempers, and Joseph Mudler. This is the first GTRI presentation in this widely referenced work, previously dominated by authors from ERIM and Arizona State University.

Job Information Posted

Information on available jobs within GTRI and on the academic side has been posted in the lobbies of all GTRI buildings. The information also is available electronically through the GTRI Clearinghouse or via more Clearinghouse information, contact Ennice Glower at 894-6972 or ennice.glower@gtri.gatech.edu.

Correction

Mille Kelly, a co-presenter of "ATMS 2000: Hybrid Automation or a "Lights Out" Traffic Management Center" was incorrectly identified as a Manufacturing Research Center employee in the July issue. She is a GTRI employee. The Connector regrets the error.