Police Department reports another big drop in crime

Matt Nagel
Institute Communications and Public Affairs

Crime on Georgia Tech’s campus has fallen more than 50 percent during the last two years, according to new statistics released by the Georgia Tech Police Department. The drop encourages officials who saw crime reduced more than 22 percent in 2005 (see chart, page 3). GT Police credits an educated campus that is alert and ready to take action.

“Educating and alerting the campus has helped us in reducing crime,” said Sergeant Carla Cook of the Georgia Tech Police Crime Prevention Unit. “Teaching people to hide their valuables and lock them up has helped. Also, alerting the campus community when a repeat offender has been seen on campus is an important tool for us when trying to prevent crime.”

According to Cook, K-9 units have also helped with the reduction in crime. The specialized dog units have been used to deter criminal activity in areas where police have detected a pattern of crime.

“The K-9 unit is kind of like the police department’s hearing aid,” said Sergeant Carla Cook, Georgia Tech Police Crime Prevention Unit.

Crime continued, page 2

Commission on Colleges reaffirms Tech’s accreditation

Michael Hagearty
Institute Communications and Public Affairs

A three-year, institute-wide effort to review and enhance the educational mission of Georgia Tech has been successfully completed.

Earlier this month, the Commission on Colleges of the Southern Association of Colleges and Schools (SACS) — the representative body responsible for accrediting institutions of higher learning — sent the Institute a letter reaffirming its accreditation for the next 10 years. The review committee requested no further action, but did remind administrators that a fifty-year interim report would be necessary to assess the impact of its educational goals.

President Wayne Clough expressed his appreciation for those who committed themselves to ensuring a successful review.

“This process is about making sure we are demonstrating both accountability and leadership in our primary mission — educating the next generation of students,” he said. “It has been a monumental undertaking, and I personally want to thank everyone who helped to make the process go smoothly.”

New review process

The 10-year accreditation cycle was substantially revamped several years ago, and approval now requires two reports to the association and a site visit by delegates of the organization. The first report, submitted in September 2004, was a thorough self-assessment, demonstrating that the university is complying with SACS standards, and touching everything involved with student life and the learning environment.

The second report is new. Called the Quality Enhancement Plan (QEP), universities must submit to SACS officials a blueprint of future plans that improve the educational experiences of students. The exact nature of these plans is left up to the university officials, but in general a QEP must demonstrate broad institutional involvement; emphasize a project that has yet to be completed or is in progress: be well conceived and justified; and have a thoughtful implementation plan.

Tech’s QEP focuses on two areas: developing international competence among students and strengthening the undergraduate research experience. Administrators are striving to increase the percentage of students who participate in some form of international study. But the International Plan is for select students who wish to complete international coursework, demonstrate second language proficiency and participate in two academic terms of residential international experience. Tech’s goal is to have 300 students enrolled in the International Plan by 2009.

Similarly, administrators want to increase the number of undergraduates participating in research from its current level of about 40 percent to 60 percent, and have at least 70 percent of those students involved for multiple semesters. New initiatives in the pursuit of this goal include the Undergraduate Research Opportunities Program and the Research Thesis Option.

“The Institutional Review committee provided a great service to the Institution in preparation for the SACS review and developing our Quality Enhancement Plan,” Provost Jean-Lou Chameau said. “Enhancing the undergraduate curriculum through the research experiences and the International Plan advances Georgia Tech’s commitment to our core mission — the education of future technological leaders — within the evolving framework of globalization and global competition.”

The formal review is over, he added, but a successful implementation will require sustained effort. I am appreciative of [Vice Provost for Institutional Development] Jack Lohmann’s thoughtful leadership through the reaccreditation process. As pleased as we should be with the recent reaffirmation of our SACS accreditation, we also need to remember that accreditation is not an event but an ongoing process.

The follow-up report assessing the impact of Tech’s QEP on student learning is expected in 2010.
**PORTABLE MEDICAL DEVICE LEADS TO FASTER, MORE ACCURATE INJECTIONS**

**T.J. Becker**  
Research News

When medics are treating trauma patients, every second counts. Yet bruises, burns, and other physical conditions often make it difficult to locate veins and administer lifesaving drugs or solutions. In response, a team of Georgia Tech researchers is developing an inexpensive, handheld device that uses Doppler ultrasound technology to find veins quickly.

"Depth and angle are the critical issues for vessel detection," says project leader Michael Gray, a research engineer at the Electro-Optical Systems Laboratory within the Georgia Tech Research Institute (GTRI). "Even if you locate a vein at the skin's surface, it's still easy to miss when you try to insert a needle into the tissue below."

The Doppler effect is a phenomenon that occurs when electromagnetic and sound waves interact with a moving object, altering wavelengths and frequency. For example, a police radar gun sends microwave signals to a moving car, and when signals bounce back, the change in their frequency provides a measurement used to determine the vehicle's speed.

Doppler ultrasound is similar, except that acoustical waves are transmitted. Compared to static skin and tissue, blood is a moving substance, so ultrasonic waves reflected from blood vessels have different characteristics than transmitted ones, providing critical 3-D information about a vein's location.

 Hospitals have sophisticated ultrasound systems to evaluate the heart, valves and vessels for general blood flow studies. But this kind of equipment is impractical and too costly for field use.

"Although the use of Doppler technology isn't new, the novel aspect of our vein finder is the system's design, which makes it both portable and economical," says Peter Rogers, a professor in the School of Mechanical Engineering.

As medics move the device along a patient's arm or leg, the transducer emits a thin acoustical beam, about the size of a pencil lead, into the reflector. Then the reflector directs the ultrasonic waves into the patient's skin at a slight angle. The device can determine the direction of blood flow to distinguish arteries from veins. Once the device detects a vein, an alarm is triggered and medics insert the needle.

The patent-pending vein finder has proved highly effective in initial tests on phantom tissue, a model that simulates human tissue and blood vessels.

Researchers have now begun adapting the device for human use. Once the system is adapted, data processing and electronics will be miniaturized in a prototype for field-testing. The researchers envision the final product will be about the size of a fat fountain pen.

Compared to existing devices on the market that try to locate veins with lights or heat strips, the GTRI-developed system will be faster and more reliable, says Connell Reynolds, founder of Reynolds Medical Inc., a medical device manufacturer in Fairburn, Ga., that is sponsoring the project.

"For example, intravenous insertion is especially difficult in dehydrated patients because their blood vessels lack normal volume," he explains. "Similarly, because cardiac patients' hearts aren't pumping properly, their veins are hard to locate. It's also difficult to find veins in obese people and young children because their vessels are covered by layers of fat."

In addition to speed, the vein finder's accuracy will make treatment easier for hospital patients who need ongoing IVs or blood work.

GTRI Research Scientist James Larsen recalls a hospital stay of his own that required numerous blood tests. This resulted in swelling and inflammation in his arms, making it increasingly more difficult for nurses to find his veins. "It often took seven or eight tries," he says. "It wasn't long before I felt like a pin cushion."

**Part 1 crimes  2004  2005  Change**

<table>
<thead>
<tr>
<th>Crime</th>
<th>2004</th>
<th>2005</th>
<th>Change</th>
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<tbody>
<tr>
<td>Murder</td>
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<td>0</td>
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</tr>
<tr>
<td>Rape</td>
<td>2</td>
<td>0</td>
<td>-100%</td>
</tr>
<tr>
<td>Robbery</td>
<td>3</td>
<td>9</td>
<td>200%</td>
</tr>
<tr>
<td>Aggravated Assault</td>
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<td>4</td>
<td>300%</td>
</tr>
<tr>
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<td>116</td>
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<tr>
<td>Motor Vehicle Theft</td>
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<td>24</td>
<td>-40%</td>
</tr>
<tr>
<td>Larceny-Theft</td>
<td>647</td>
<td>443</td>
<td>-31.5%</td>
</tr>
</tbody>
</table>

**Total**

770 596 -22.3%

Note: GT Police is conducting a community safety survey as part of its accreditation process with the Commission on Accreditation for Law Enforcement Agencies (CALEA). To participate, visit www.police.gatech.edu/policessurvey.html.
Report shows huge return on investment in University System

Public higher education adds $23B to Georgia economy

Georgia's public colleges and universities have a combined economic impact of more than $23.3 billion a year on the state's economy and are responsible for the creation of more than 130,000 jobs in Georgia, according to the final report of a task force appointed by Board of Regents Chair J. Timothy Shelnut to determine the University System of Georgia's total impact on the state. The report was presented to the Regents during its January meeting.

President Wayne Clough, who chaired the Total Impact Task Force, said the $23.3 billion was 15 times more than the state's appropriation of $1.6 billion for higher education that year.

But Clough also noted that the University System's total impact on the state must be measured in more than numbers. He pointed out that Georgia's public colleges and universities are supplying qualified teachers for classrooms all over the state, healthcare professionals for Georgia hospitals, clinics, pharmacies and medical offices and law enforcement officers. Moreover, each college and university contributes to the quality of life by offering cultural and athletic events, facilities for public use, continuing education courses, lifelong-learning opportunities and ongoing community service projects.

In addition, he noted that a wealth of valuable research is under way in Georgia's public colleges and universities, including work on treating sickle-cell anemia, understanding Alzheimer's Disease, preventing infectious diseases and engineering tools with which to diagnose and fight cancer.

"The University System of Georgia truly is Georgia's best investment," he said. "What other appropriation of state funding gives you this kind of a return?"

Tech adapts open-source software principles

Matt NageI
Institute Communications and Public Affairs

Georgia Tech is among seven American universities that have joined four information technology companies and the Ewing Marion Kauffman Foundation in adopting innova-
tive guiding principles to accelerate collaborative research for open-source software.

Specifically, the companies and universities have agreed on two major items: that intellectual prop-
erty arising from selected research collaborations will be made available free of charge for commer-
cial and academic use, and an established set of guidelines that address the rights of the partici-
pants and the public.

These twelve institutions believe that the princi-
pies will accelerate innovation and contribute to open-source software research across a breadth of initiatives, thus enabling the development of related industry standards and greater interoper-
ability, while managing intellectual property in a more balanced manner.

"Georgia Tech has always worked with indus-
ty," said Jilda Garton, associate vice provost for research. "What we're doing here is setting down a group of common principles that can be used for future collaborations. It provides us with an agreement to point to and say that both sides agree to these standards."

According to Garton, this agreement will improve the industrial competitiveness of the U.S. information technology industry. "The agreement helps keep the innovation engine going," said Garton. "The industry climate is changing, and we need to change with it to keep our competitive edge. These principles allow us to become more productive and produce better technology."

The guiding principles are broad based, and the participants have agreed to use them in all of their future collaborations. The principles will have a subtle impact on the industry right away, but Garton believes the long-term benefits will be clear.

"The public will get new products and services faster with the benefit of university research," said Garton. "The products will be broadly avail-
able in a shorter period of time. Hopefully, the principles will help get industry to adopt technology and use it."

In addition to Georgia Tech, the six other uni-
versities signing the agreement are Carnegie Mellon University, Rensselaer Polytechnic Institute, Stanford University, University of California at Berkeley, University of Illinois at Urbana
-Champaign, and the University of Texas at Austin.

It's a great opportunity," she said of her new position. "Clemson is striving to get into the top 20 of public institutions and so they have great aspirations. I like being in aspiration places."

In addition to the traditional duties of the job, DiSabatino will also oversee civil services such as the fire department, police department and the courts for the municipality of Clemson University.

"There's a very close relationship between the university and the town. I'm pretty excited about that," she said.

John Stein, director of Success Programs, will serve as the interim dean of students. The search committee will conduct a national search and aim to have a new dean in time for the fall semester, said Vice President of Student Affairs Bill Schaefer.

"We'll have some really big shoes to fill," said Schaefer. "She's given an amazing amount of personal attention to the students. I think she'll be greatly missed on campus."

IN BRIEF:

Updated campus smoking policy

This month, the Institute updated its smoking policy to comply with State of Georgia law. This policy establishes Georgia Tech's smoke-free workplace environment in all campus buildings. The entire policy can be found by visiting www.admin-fin.gatech.edu/human/ discipline/051500.html.

Volunteers needed!

Georgia Tech is the proud host of the 2006 PCAA Division 1 Men's Swimming and Diving Championship to be held March 25-25.

Volunteers are needed to staff the deck during competition.

If you're available on March 23-25 from 5 - 10 p.m. and would like to see the competition up close (and get a free T-shirt), e-mail norsmith@smm.com by Feb. 14.

Irish to play at Bobby Dodd in '06

Georgia Tech's 2006 football schedule, announced last week by the Atlantic Coast Conference, opens on Sept. 2 as Notre Dame visits Bobby Dodd Stadium at Historic Grant Field.

Coming off a 7-5 season and a school-record ninth straight bowl appearance, Tech will face a challenging schedule that includes seven teams that played in bowl games last season, including three schools ranked in the final Associated Press Top 10.

Notre Dame comes to Atlanta for the first time since 1980, when Tech played to a 5-5 tie with the then No. 1-ranked Fighting Irish. The teams last met in the Gator Bowl on Jan. 1, 1999, which the Jackets won, 35-28.

The Notre Dame context is the first of four straight home games in a 19-day span for the Yellow Jackets. Other home games include Samford (Sept. 9), Troy (Sept. 16), Virginia (Sept. 21, Maryland (Oct. 7), Miami (Oct. 28) and Duke (Nov. 18). For a complete schedule, visit www.ramblinwreck.collegesports.com.

Fun run

Run for Success, a 5K race that provides need-based scholarships for Atlanta students, will be held on Saturday, Feb. 4, at 9 a.m. Register at the Success Center, on race day under the west stands of the football field or on Active.com.

For more information, call 894-1953 or e-mail robin.cubbage@ssc.gatech.edu.
CAMPUS EVENTS

Art & Culture
Jan. 31
The Music Department welcomes Columbia University Professor Tristan Murail, at 2:30 p.m. in room 104, Couch Building. For more information, visit www.music.gatech.edu.

Feb. 2
The School of Literature, Communication and Culture annual H. Bruce McEvier Poetry Reading features Chadre deNord, Kurtis Lamkin and H. Bruce McEvier, at 4:30 p.m. in the Clary Theater.

Feb. 11
The Ferst Center welcomes Julio Bocca and Ballet Argentino for an 8 p.m. performance of “Bocca Tango.” For tickets, call 894-9600 or visit www.ferstcenter.org.

Feb. 12
The Ferst Center welcomes the Aguila Theater Company for a 5 p.m. performance of “Hamlet.” For tickets, call 894-9600 or visit www.ferstcenter.org.

Brown Bags/Conferences/Lectures
Jan. 31
The Materials Council welcomes Lehigh University Professor Slade Cargill, on “Thermal and Electromigration-induced Strains in Polycrystalline Films and Conductor Lines,” at 3 p.m. in room 1B3, Love Building.

Feb. 7
The Healthy Places Research Group welcomes Emory University Professor Karen Glanz, who will talk about measures to evaluate the nutrition environment in communities, at 7:30 a.m. in the Center for Quality Growth and Regional Development. For more information, visit www.cqgrd.gatech.edu/bgrp.

Feb. 8
The IMPACT Speaker Series continues with John Wells, president and CEO of Interface Americas, at 4:30 p.m. in the LeCraw Auditorium.

Feb. 15
Living Game Worlds, a symposium featuring leading digital designers and design theorists, will be held in the Technology Square Research Building. For more information, visit www.gameworlds.gatech.edu.

Faculty/Staff Development
Feb. 9
The Office of Organizational Development sponsors the brown bag discussion “Introduction to the Engineering Disciplines for Campus Administrators,” featuring College of Engineering Associate Dean Part Davidson, at 11:30 a.m. in room 308, Savant Building. To register, visit www.trainswb.gatech.edu.

Feb. 15
The Office of Organizational Development sponsors a class in, “Successful Meeting Management,” at 8:30 a.m. in room 308, Savant Building. To register, visit www.trainswb.gatech.edu.

Miscellaneous
Feb. 6-10
Jazzman’s Café, located in the Library and Information Center, will have its grand opening week, offering discounted food and beverages, as well as other promotions. For complete details, visit www.gatechdining.com.

Feb. 7-8
Campus Recreation Center’s G.I.T. FIT Program and HealthCheck Services will be providing health screenings from 7:30 - 10:30 a.m. in room 240 at the CRC. All tests are reviewed by a physician. Appointments must be made in advance by e-mailing brooke.nicholas@crc.gatech.edu. For more information, visit www.crc.gatech.edu.

Feb. 8
A series of pre-retirement meetings will be held by the Office of Human Resources for employees who are within ten years of retirement. This section, covering Social Security benefits and Georgia Tech benefits, will be held in room 117, Student Services Building from 1:30 to 4:30 p.m. To register, visit www.trainswb.gatech.edu.

Feb. 15
The second of two pre-retirement meetings will be held for employees who are within ten years of retirement. This section, covering Teacher’s Retirement benefits and optional and supplemental retirement benefits, will be held in room 117, Student Services Building from 1:30 to 4:30 p.m. To register, visit www.trainswb.gatech.edu.

CLASSIFIEDS

AUTOMOBILES
1992 Honda Civic LX. Kelley Blue Book. “Good” condition except low compression in one cylinder. One owner, like-new Michelin, third timing belt at 168K miles. Any reasonable offer accepted. Call 404-314-7545 or e-mail dave.scott@gtri.gatech.edu.

1996 Lexus 400, Excellent condition rating from CarFax, beige leather interior, gold exterior, luxury vehicle features. 132K miles, $8,700. All reasonable offers considered. Call 404-349-1329 or e-mail jcaka81@earthlink.net.


FURNITURE
Moving sale: Sofa, chair and ottoman set. All in great condition. E-mail vrood@gatech.edu for pictures.

Moving sale: Storehouse Java queen bed, night stands; Ethan Allen entertainment unit and coffee table; Crate & Barrel dining table and chairs; crib and bedding set; nursing rocking chair; futon. All less than 5 years old. E-mail anping@bellsouth.net for pictures.

Coffee table with two matching end tables. Oak finish. Very good condition. $75 for set. E-mail ritabrown@edi.gatech.edu for pictures or call 770-928-7344.

Brophy sofa, wingback style, reclines both ends. Blue, cream, green and berry plaid, approximately 3 years old and in excellent condition, $250. E-mail susan.longuepee@biology.gatech.edu or call 770-944-6240.

REAL ESTATE/ROOMATES
$5,4- acre lot at Turtle Cove on Lake Oconee, common property access to water, $14,500. Call 478-825-5004.

1BR/1BA condo in Vinings Run swim and tennis community. $90,900. For more information, call 770-356-6162, e-mail scott.seraphin@housing.gatech.edu, or visit www.forsalebyowner.com, ad #20577581.

1BR/1BA, street-level garden condo at 3609 Essex Avenue, Vinings. Swim, tennis, stream and private woods view. No stairs, motivated seller. $139,900. E-mail jplson3609@comcast.net or call 770-541-6769.

2BR/2BA authentic loft in Castleberry Hills, two miles from campus. Amenities include high-speed internet, swimming pool, dog run, and roof top deck. Visit www.lofts-of-atlanta.com (GE Lofts #112), or call 404-688-8098.

2BR/2BA, two-story home in Underwood Hills near Atlantic Station. Move-in condition with new carpet, roof and HVAC. Landscaped back yard fully fenced for privacy and security. Renting for $2,200/month. E-mail ngirvin3@aol.com.

4BR/3BA, furnished house for rent in Dunwoody Redfield area. Excellent schools, includes swim and tennis facilities and 1.3 miles to MARTA. Available Aug. 2006 for $1,800/month + utilities. Contact yves.berthelot@me.gatech.edu.

2BR/2BA home in Home Park with 2-car garage. Walk to GT and the Midtown business district. Available March 1, Month-to-month or longer term available. $1475/month. For more information, visit www.tech-tutors.com/calhoun.htm.

MISCELLANEOUS
Dog cage, 28”x42”x25”. Excellent for crate training. $40. Call 678-687-7788.

New home needed for a 5-year-old male Border Collie, named Chad. He is microchipped, house- and crate-trained with basic obedience covered. Chad comes from national herding champion family line. Price negotiable. E-mail Louz32@yahoo.com.

E-mail calendar events to editor@icpa.gatech.edu as soon as dates are confirmed.