Government sector frequently soliciting Clough’s opinion

Michael Happart
Institute Communications
and Public Affairs

President Wayne Clough is engaging some serious public service hours. First, Governor Roy Barnes tapped him to serve on a special commission to look at the state’s natural gas market deregulation. Then, Mayor Shirley Franklin asked him to chair a committee to review the city’s plan to fix its sewer system. Last week he was called upon again — this time by the President of the United States.

George W. Bush planned a one-day national economic forum in an effort to bring together individuals from all walks of life — from government policy makers and small investors to union members and corporate executives — to discuss the fundamentals of the economy and President Bush’s agenda to increase economic growth for the future.

The forum consisted of eight panels, addressing the major aspects of the economy. Clough, who participated in the Technology panel discussion, said, “I think we all came away impressed by how little they talked and how much they listened to our ideas, observations and concerns.”

PCAST report issued

Clough is also a member of the President’s Council of Advisors on Science and Technology (PCAST), which recently issued a draft report outlining the roles science and technology should play in domestic security. Among other things, the report recommends:

• Creating an Undersecretary for Science and Technology within the Department of Homeland Security;
• Directing the new Department of Homeland Security to draw heavily on academic and industry resources in combating terrorism; and
• Creating federally funded research and development centers to assess terrorist threats.

The council of advisors is made up of 24 members, who were appointed by President Bush last December. Their report can be found at www.sci.gov/PCAST/

Welcome back:
For those who have been away for the summer, this issue of the Whistle is devoted to all the events of the past three months. Some articles may be accessed at www.whistle.gatech.edu/archives.

The fastest growing population in the country is now the fastest growing student population at Georgia Tech. This fall, 59 percent more Hispanic students are expected to enroll at the Institute compared with last year.

Unlike affirmative action — in which some schools have been accused of altering admission standards to increase diversity — Tech’s effort is largely a marketing campaign designed to increase interest in the Institute among a wide variety of demographic groups.

The numbers bear that out. The average SAT score and grade point average for incoming Hispanic

With a little less than a year to go before it reopens, the Aquatic Center at the Student Athletic Complex (SAC) is beginning to take shape. The renovation of the Aquatic Center is the first of a two-phase, $45 million renovation at SAC. When it reopens in September 2003, the center will be enclosed and sport a second floor above the pool. The new floor will contain six basketball courts, an auxiliary gym, two multipurpose exercise rooms and an elevated jogging track surrounding the basketball courts.

Right now, construction workers are building the ten beams that will support the new floor. The seven-foot supports are 21 feet long and 11 feet deep. The typical beam consists of six to seven rows of steel cable, surrounded by concrete, and designed to withstand 8,000 pounds per square inch of pressure. In this photo, a worker inspects one of the 146 strands of steel cable that give the support beams their strength.

The beams are more massive than they need to be to simply hold up the floor. The extra mass is designed to dampen the vibrations that can occur in structures with large unsupported spans such as bridges.

"You don't want to be playing basketball and feeling those vibrations through the floor. It would be very disconcerting," said project manager Gary Ross.

For updated information on SAC’s progress, refer to www.composites.gatech.edu.
students is on par with that of the overall freshman class. In fact, said Barbara Hall, associate vice president of Enrollment Services, over the past five years the freshman class’ average SAT score has risen steadily at the same time Georgia Tech has focused on increasing diversity. Climbing from 1296 in 1998 to 1338 in 2002, the SAT scores are one indicator that the quality of Tech students is improving year after year. —David Terrazas, June 17

College of Management degree renamed

It’s official: Georgia Tech has an N.B.A. program. At its June 12 meeting, the Board of Regents approved a name change for the Master of Science in Management (M.S.M.) offered by the DuPREE College of Management to an M.B.A. or Master of Business Administration.

The program was established at Tech in 1945 as a Master of Science in Industrial Management (M.S.I.M.) degree and was changed to N.S.M. in 1985 to better reflect the content of the degree. Other major research universities to have recently changed the name of their graduate business programs to an M.B.A. are Northwestern University, Carnegie Mellon University, Purdue University and the Massachusetts Institute of Technology.

With an M.B.A. degree, College administrators believe they can better position students and alumni for professional success. The College began to award the N.B.A. degree to graduates at summer commencement earlier this month. —Hope Wilson, July 1

New school, degree in applied physiology

Beginning this semester, Georgia Tech’s new School of Applied Physiology will debut the nation’s only two-year master’s degree program in prosthetics and orthotics.

The Board of Regents approved the new master’s program at its June meeting. The Regents also approved the renaming of Tech’s former Department of Health and Performance Sciences to the School of Applied Physiology. The School remains a unit within the College of Sciences.

Faculty interests within the School of Applied Physiology range from the behavioral to the systemic and molecular levels. At the undergraduate level, the school instructs all students in their health and wellness requirement and offers a Certificate in Health Science, which addresses student interest in basic medical science education.

At the graduate level, the School is the home of the new master’s program in orthotics and prosthetics, and represents a close collaboration among faculty and students within the Schools of Electrical and Computer Engineering, and Biomedical Engineering. —Sean Selman, July 29

Satellite campus in Savannah

In June, Georgia Tech and the Savannah Economic Development Authority (SEDA) broke ground on a new academic and research campus to house the hub facilities for the Georgia Tech Regional Engineering Program (GTREP), which offers students in southeast Georgia the opportunity to earn an engineering degree from Georgia Tech without leaving the area.

The program offers undergraduate degrees in civil engineering and computer engineering, as well as master’s degrees in civil and environmental engineering, electrical and computer engineering, and mechanical engineering. Additional bachelor’s degrees in electrical engineering and mechanical engineering are also planned. —Larry Bowie, June 17

In May, work began on the $23 million U.A. Whitaker Building, the third of a four-building complex devoted to instruction and research in biotechnical, environmental and molecular disciplines. The Whitaker Building (proposed design shown below) will house the Wallace H. Coulter School of Biomedical Engineering, a 90,000-square-foot facility that will provide a permanent home for the joint Georgia Tech-Emory University school, and will stand alongside the Parker H. Petit Institute for Bioengineering and Bioscience and the soon-to-be-completed Ford Environmental Science and Technology Building. —Michael Hargrady, May 20
New director of Information Security Center

Richard DeNino has been named a Distinguished Professor of Computing and the new director of the Georgia Tech Information Security Center (GTISC). He is leaving his post as vice president and chief technology officer at the Heidtke-Packard Company and returning to Georgia Tech, where he taught until 1987. "Rich is an outstanding addition to GTISC, the College of Computing and to Georgia Tech," said Jean-Lou Chameau, provost and vice president for Academic Affairs. "He will provide us with the information security initiative a tremendous boost."

"Information security has become the critical technology problem of the decade, and I look forward to helping Georgia Tech become a national resource in cyber security," said DeNino.

—David Arnold, July 29

New chair in TFE

The School of Textile and Fiber Engineering has selected the University of Southern Mississippi's top academic officer to chair the School. Anselm C. Griffin, provost of Southern Mississippi, began serving as chair on July 1. Griffin replaces longtime chair Fred Cook, who served as chair for 14 years. He holds a doctorate in organic chemistry from the University of Texas-Austin. His research interests include liquid crystals, supramolecular polymers and polymer synthesis.

—Sean Selman, July 15

Dean of Arts and Humanities

Narl Davidson, interim dean of the College of Humanities and Social Sciences, said, "He is an eminent polymer scientist and engineer and a respected administrator. I have every confidence he will lead the School of Textile and Fiber Engineering to new heights in its educational and research missions."

—Larry Bowie, June 17

New chair in TFE

Professors among nation's most prominent

Assistant Professor Reginald DesRoches, a researcher in the School of Civil and Environmental Engineering, and Associate Professor Z. John Zhang, a scientist in the School of Chemistry and Biochemistry, were among those awarded 2001 Presidential Early Career Awards for Scientists and Engineers (PECASE). The PECASE awards are the nation's highest honor for professionals working at the outset of their independent research careers. DesRoches and Zhang were among 60 scientists nationwide to be honored by President Bush at a White House ceremony.

DesRoches earned his PECASE award for his work in earthquake-hazard mitigation. Zhang earned his PECASE award for his innovations and vital contributions to the development of new tools, materials and applications that advance the science of component microfabrication from materials other than silicon.

—Sean Selman, July 15

New faculty

Aerospace Engineering

John Holmes
Massimo Ruzzene

Architecture

Soni Bafna
Kathy Rogers

Biology

Stephen Harvey
Adam James
John Kirby
Manton Sear

Biomedical Engineering

Barbara Royan
Steve Potter
Oskar Strojnar
Dongmei Wang
Leni Ting

Chemical Engineering

Vicor Boccobilli
Mathia Gallivan
Sanlar Tiar

Civil and Environmental Engineering

Gina Abraham
Yahvi Ben-Haim
Jaehong Kim
Alexander Puzrin
Peter Webster

College of Computing

Constantinos Doxolina
Charles Ladek
Jeff Pierce

Earth and Atmospheric Sciences

Jodi Ancin
Anantamuros Nene
Yubang Riang

Economics

Macario Aparicio
Rehim Kilic

Electrical and Computer Engineering

Olivier Bruneau
Geo-Hung Chang
John Crocker
Ramesh Jain
Fred Jiang
Hsin-Hsin Sean Lee
Jennifer Michals
Thomas Michals
Nikos Velez

History, Technology and Society

William Winkles

Industrial and Systems Engineering

Kareem Andel
William Cook
Jan Parc Linter
Chelsea White

Institute of Paper Science and Technology

Ingrid Nedelges

International Affairs

Michelle Dion

Library

Cathy Carpenter
Susan Clement
Tim Daniels

Literature, Communication and Culture

Ron Braglio
Thomas Lux

Management

Timothy Carroll
Rai Dai
Brady Rinker
Lucy Martin
Maree Thursty

Mathematics

Jean Bellissard
Federico Bonetto
Stephen Demko
Ande Gallep
Yingjie Liu
Tom Trotter

Mechanical Engineering

Jens Karlsson
William Ring
Christian Farell
David Sanborn
Zhongmin Zhang

Modern Languages

Marianne Nason

Physics

Michael Fastlinder

Psychology

Paul Corballis
Stephen Stark

Public Policy

Bob Kirkman
Cheryl Loggen
Vedat Niler
Douglas Noonan

Textile and Fiber Engineering

Anselm Griffin

www.whistle.gatech.edu

IN BRIEF:

Rogers grants dual degree program

Earlier this month, the Board of Regents approved a new dual degree program that gives both Georgia Tech and Institute of Paper Science and Technology (IPST) students the opportunity to obtain two degrees — a master's in chemical engineering from Tech and a master's degree from IPST — by satisfying the core course requirements for each degree, and by completing a thesis co-advised by a faculty member from each institution. Essentially, a student may obtain two degrees by doing additional coursework that will take approximately two semesters longer than required for one degree.

Amyn Teja, the associate chair of Graduate Studies in the School of Chemical Engineering, believes the dual program is a natural fit because, he said, "More than half the students at IPST have a bachelor's degree in chemical engineering, and approximately 10 percent of students with master's degrees in chemical engineering take up employment in the pulp and paper industry upon leaving Tech."

Fast, faster, fastest

Oak Ridge National Laboratory's (ORNL) new computer link to Georgia Tech is 200,000 times faster than the fastest dial-up connections typical of home computers and is expected to spur significant advances in science and economic development in the region and beyond.

At a ceremony last week in Tennessee, Ray Orbach, director of the U.S. Department of Energy's Office of Science, symbolically completed the connection linking the laboratory's supercomputer to Southern Crossroads universities and schools throughout the country, including Georgia Tech.

With the new link, a data file the size of the film "Gone With the Wind" could be transmitted in a mere six seconds. Charles Liotta, vice president for research at Georgia Tech, said, "Over the past several years ORNL, Oak Ridge Associated Universities and the core universities — Georgia Tech, Virginia Tech, University of Georgia, Duke, North Carolina State, University of Tennessee and Florida State — have worked together in order to foster inter-institutional, multidisciplinary research. The new high-speed network will allow this partnership to evolve to a new level of collaboration. I predict that an important outcome will be enhanced economic development for this region of the nation."

With the link to ORNL's Cheyenne, a 4.5 teraflop IBM machine recently listed No. 8 in the Top 500 list of fastest computers in the world, researchers from leading universities and national laboratories will have access to incredible amounts of data that will help them in their studies of astrophysics, biology, chemistry, climate modeling, materials and fusion.

Researchers will be able to acquire data through ORNL's Center for Computational Sciences in a matter of seconds.

For more information about the Southern Crossroads Initiative, visit www.sox.net.