A conversation with ...

Peterson speaks about issues, concerns and strengths

Nearly three weeks ago, the Board of Regents confirmed University of Colorado at Boulder Chancellor G.P. “Bud” Peterson as Tech’s next president effective April 1. The Whistle had an opportunity to speak with the incoming president, ask about his experience, energy and his expectations. Part 1 of this interview follows, with the second part publishing next week.

From your experience with Texas A&M, RPI and CU, what do you think will explicitly help with your leadership at Tech in the coming years?

I have experience from a wide variety of institutions. Texas A&M is a very large public institution—when I first arrived, it was approximately 29,000 students, and when I left 19 years later, it was close to 42,000. As a public university, it was governed by a board of regents, appointed by the governor. Rensselaer Polytechnic Institute (RPI) was much smaller—about 7,500 students—it was a private university with a self-perpetuating Board of Trustees. The University of Colorado at Boulder (CU) is a national, comprehensive research university with an “elected” board of regents. All three have a strong focus on research.

While at these three very different institutions, I have been able to experience the best of each, and also to observe a number of leaders and perhaps more importantly, leadership styles. This variety of experiences allows me to bring the strengths of each to Georgia Tech. I hope that I will be able to pull the best from each and apply it accordingly.

It’s a particularly volatile time financially for any school, public or private. What is it about Georgia Tech that made you seek the presidency during this challenging time?

It’s a difficult time financially for universities all over the country. Like many states, higher education in Georgia has many challenges. I think the interesting thing about Georgia Tech and what makes it very attractive to Val and me, is that it is really at the forefront of innovation and discovery at a time in our nation’s history when both of these are very important.

Tech is uniquely positioned to address some of the most pressing problems that
Research

POLICE PURSUIT

Tech assists with designing the first ‘purpose-built’ law enforcement vehicle

JOHN TOON

RESEARCH NEWS

The Georgia Tech Research Institute’s (GTRI) expertise in human-factors issues helped an Atlanta-based startup company create the world’s first vehicle designed specifically to meet the patrol needs of law enforcement agencies.

The Carbon Motors E7, slated for production in 2012, features an ergonomic “cockpit” designed to help drivers safely and efficiently interact with the vehicle under high-stress conditions. It features a large touch screen with voice-activated controls and a backup manual system.

“The pilots of jet fighters, law enforcement officers must interact extensively with their vehicles, receive and evaluate large amounts of information and make split-second decisions in high-pressure environments,” noted Dennis Folds, GTRI’s chief scientist and head of its Human Systems Integration Division. “The assistance we provided Carbon Motors helped the company develop a new-generation vehicle cockpit designed to help these officers do their jobs safely and efficiently.”

The human-machine interface was one of the most critical aspects of the new vehicle, which was designed to meet more than 100 requirements recommended by law enforcement agencies across the nation, said William Santia, chairman and CEO of Carbon Motors Corp.

“We wanted to reach out beyond the usual automotive design groups,” he said. “Getting

invention disclosures per year, all of which are evaluated according to their potential to create jobs in the state. There are currently 63 projects in various stages of evaluation. Since it began in 2001, 22 companies have emerged from the program, including Suniva, the Southeast's first solar cell manufacturer that has already raised $55 million in venture capital and generated more than $1 billion in orders.

To help meet the state's demand for math and science teachers, this funding also helps support the newly established Tech to Teaching program designed to create pathways for students pursuing K-12 or college teaching careers. Likewise, the Foundations for the Future initiative helps Georgia educators incorporate technology into the classroom.

In addition to supporting education, the well-being of Georgians is the focus of early warning tornado systems developed by the Georgia Tech Research Institute’s (GTRI) Severe Storms Research Center, while the Georgia Transportation Institute tackles the challenges of improving highway safety and finding solutions to traffic congestion.

Georgians have access to a more wholesome and affordable food supply through innovative technologies designed by the Georgia Tech Agricultural Technology Research Program, while more than 14,000 Georgia workers were protected from hazardous conditions as a result of GTRI's workplace safety program, which saved the state's manufacturing sector nearly $2.5 million in penalties and lost work days. Research and development originating from Tech also positively impact the health of Georgians, according to Schuster. For example, discoveries from Tech labs have transformed the monitoring of patients with chronic cardiovascular conditions through tiny, wireless devices, while painless microneedles in patches applied to the skin could soon provide an alternative to delivery of vaccines through hypodermic injections.

"Georgia Tech continues to grow the amount of research funding it brings to the state of Georgia. This underscores the exceptional quality of our faculty and the high caliber of their work," said Schuster. "We take pride in Tech's role as an internationally prominent research institution and significant role as a positive catalyst in our state's economy."
Lounge a showcase for digital life at Tech

New to Tech’s virtual landscape is a repository for all things digital from the various disciplines and departments across campus.

Creating a one-stop shop for Tech’s experts on digital life, the Digital Lounge showcases research and work from faculty members in the School of Literature, Communication and Culture alongside those from the College of Computing, the Department of Music and the School of Psychology. The site, created initially for the external media, complies the Institute’s resources of digital research into a logical, viewable space.

“Just as being interdisciplinary has played a role in how we construct our physical campus buildings, we are trying to highlight the interdisciplinary nature of our digital experts,” said media contact David Terraso, with Communications & Marketing. “If a reporter wanted to find out what was going on with digital life research, they may go to the Tech homepage or the College of Computing Web site, but they would not necessarily know to visit the School of Literature, Communication and Culture or the College of Architecture Web sites.”

In addition to organizing research into four areas—Gaming, Digital Life, Entertainment and Music, and Health and Education—the site also contains a faculty experts list that highlights each researcher’s expertise and areas of interest.

Terraso says that future plans could allow for networking within the Tech community.

“In the future, we’ll be looking at ways for faculty to use their pages to reach students and colleagues to help collaborate research,” he said.

For more information
www.digitallounge.gatech.edu
the world faces today—the rise in demand for energy worldwide, and the effect that this has on the environment; tremendous advances in biotechnology and the biosciences, and how these will impact our lives; and the new and emerging fields that Georgia Tech is heavily involved in, things like nanotechnology and information technology, that will change the way we think about what we do and how we do it.

Think back 20 years. There was no e-mail, there was no Internet and Google had not yet been invented. If you had a cell phone, it was to come up to speed as fast as I can, but there was an awful lot to learn. I guess I would advise anyone who arrives in Atlanta to look at the folks at Georgia Tech to be patient and to help me learn as much as possible, as fast as I can. That will be most helpful.

One of the reasons we are coming in April is so that we can be there during the ‘regular semester,’ and to try to understand what the Institute is really like, what the culture is, as quickly as possible. While it would be much easier from a workload perspective to wait and start sometime in the summer, at most universities the summer is very different and it is not really possible to fully ‘understand’ the heart and soul of the university. As it is, we will be coming in at one of the busiest times of the year and this will be a big challenge, to try and begin when there’s so much going on. I think about diversity, I think about inclusive-ness. To be truly excellent, any organization has to be fully inclusive.

What are your priorities for Tech concerning students being up to speed for the NAE studies of the Engineer of the Future?

Certainly there is a philosophy that an area like Georgia Tech is a very positive track right now, it’s doing a lot of things right. It doesn’t mean we can’t benefit from stepping back and critically evaluating what we’re doing. But I think it would be pre- sumptuous for me to come in and say “this is the way it is”.

My expectation is that we will develop a shared vision for what those priorities should be. I’ve received a large number of e-mails from people who are involved in student affairs, from the tail end of the strategic planning process and that was the size of a toaster. Today, most people in the U.S. recognize Google, have access to the Internet and have a personal cell phone.

It is all very ubiquitous and very ingrained in our everyday existence, and all of these things have dramatically changed our lives. Now think ahead, about what’s going to happen in the next 20 years, one can hardly imagine, but the graduates from Georgia Tech will help to shape that future, whatever it is.

What one thing would you like to say to faculty and staff members in this time of transition?

Transitions are always difficult, for everybody involved. Val and I am excited to have this opportunity, and I’ll do everything I can to come up to speed as fast as I can, but there’s an awful lot to learn. I guess I would advise anyone who arrives in Atlanta to look at the folks at Georgia Tech to be patient and to help me learn as much as possible, as fast as I can. That will be most helpful.

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What are your expectations for students, faculty and staff?

They are the same for all three. Focus on excellence, be open to new ideas, learn from our mistakes and—with most importantly—get engaged. Students shouldn’t just stay in their dorm rooms and study, faculty shouldn’t just stay in their labs and teach their classes. Try different things, new things. Reach out Work with new people and new disciplines. Discover new ideas.

A university environment is so exciting because of the variety of people. There are a whole bunch of very bright people with very different backgrounds who have expertise in a multitude of different areas. Try and take advantage of what Georgia Tech can offer. It’s important for the students, particularly the fresh- men, to ask themselves what they want to accomplish while they are here, and figure out how they can get there, besides just a degree. Between the arts, student government, athletics, service activities and

Petersen, continued from page 1

What lessons on strategic planning did the Flagship 2030 initiative (the University of Colorado’s strategic plan) provide?

I was involved in the strategic planning process at Texas A&M in the late ‘90s. I was involved in the tail end of the strategic planning process at RPI. When I went to Colorado, I asked people to tell me about their strategic plan, “Quality for Colorado.” People couldn’t describe or explain the principles of that plan, and that caused me some concern. I think if you have a strategic plan, people should know what it is and understand the fundamental tenants of it. Today, if you ask people here at Colorado what is Flagship 2030? I think they can tell you the principal goals, and that’s important. People support things that they think are well-managed and that they feel passionately about. A good strategic plan helps do both of those things, but it needs to provide direction and vision, and it engenders passion.

Tech has grown on a steady trajectory since the 1960 Olympic Games. Do you think the Institute should continue in that trajectory, or is it time to alter/otherwise address the growth plan?

When you talk with people, it is clear that Georgia Tech has really blossomed, it has grown tremendously. While at Texas A&M in the College of Engineering in the ‘90s, I saw a memo from a fellow dean of engineer- ing at another university, written to his faculty, that said, “If you want to see an institution that’s doing it right, look at Georgia Tech and its steady growth.” I think that it was shortly after the 1993 NRC [National Research Council] rankings, Georgia Tech was on a continual path of progress.

When I was at Texas A&M, we went from just under 30,000 to over 40,000 students in 10 years. I think one of the things we need to do here at Georgia Tech is to try to assess what that growth should be, particularly in light of the economic situation, and then make a deliberate decision about the growth of the Institute. It needs to be a conscious decision and not just left to chance. If we choose to grow, we need to decide how fast and why; to have a reason for growing because getting bigger is not necessarily getting better.

One of the really unique features of Georgia Tech is the large percentage of students living on campus. When that happens, it allows you to build a certain climate and culture. We need to leverage that to the greatest extent possible.

What role do you think the president should play in helping to shape leadership through all levels of faculty, staff and students?

When I think about diver- sity, I think about four differ- ent types. Ethnic and gender are the obvious pretty ones, but there is also intellectual and geographic, and those are important, too. I think that the very best rationale [for diversi- ty] I have ever heard was a statement by Bill Wolf, who was president of the National Academy of Engineering. I can’t remember the exact words, but he said “Aside from the fact that it’s the right thing to do, morally and ethically, to create a diverse environment, it also makes good sense. If you don’t have a diverse workforce, then you have ideas that are never thought of and designs that are never developed and dreams that are never imagined” I’m 6’3”, my wife, Val is 5’3” (on a good day), and if everyone that designed a car looked like me, then Val wouldn’t be able to reach the pedals and there would be no power steering or power brakes! The President, and in fact the entire leadership team, must take a leadership role.

Overall, diversity makes us better. When I think about diversity, I think about inclusive-ness. To be truly excellent, any organization has to be fully inclusive.

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