

**Georgia Institute of Technology  
GTRI 75<sup>th</sup> Anniversary Remarks  
G.P. "Bud" Peterson, President  
April 20, 2009**

**April 20, 2009**—Good morning. It's a pleasure to be here today and to have been able to arrive at Georgia Tech in time to participate in this symposium celebrating the 75th Anniversary of GTRI. Steve (Cross) talked a little bit about the creation and evolution of GTRI, and the importance of Engineering Experiment Stations around the country. As some of you may know, I spent a number of years on the faculty at Texas A&M, and during that time was employed by the Texas A&M Engineering Experiment Station, which goes by the acronym TEES. TEES receives line item funding from the Texas legislature, separate from the University. In fact one half of my salary came from TEES and half from the University itself. As I look at what's happening here at GTRI, and many of the things that you are involved in, I am seeing the themes that echo my experience at Texas A&M.

I also had an opportunity in my career to work at NASA for a short time as a summer research fellow, and came to know Dick Truly. In fact, when I was considering whether or not I should become a candidate for the position of President of Georgia Tech, I called Dick to try to learn a little bit more about Georgia Tech and about GTRI and what kind of relationship they had. That conversation and the positive things Dick had to say about Tech and GTRI were instrumental in my decision to come here. I'm very sorry that Dick was not able to be here today, he lives in the mountains, up above Denver, and he had about four feet of snow—it looks like I got out of Colorado just in time.

I want to also recognize the contributions of Steve Cross and the former directors, those that are with us here, Maurice Long and Ed Reedy, who have made such an important contribution to the progress here at GTRI. I look forward to getting to know them, to working with them, and continuing to try to strengthen the relationship between GTRI and Georgia Tech.

As Steve mentioned, this is my 14th day. Val and I arrived here in Atlanta three weeks ago last Friday night, and I will celebrate my three week anniversary, day after tomorrow. So it seems a little presumptuous of me to stand up here and to speak on this occasion of the 75th Anniversary to a group that's much more familiar with GTRI and its history than I am. In many ways, many of you are part of that history, and I've been here less than three weeks. This symposium has provided a valuable opportunity for me to try to learn more about GTRI and how it contributes to the economy in the State of Georgia, to the solution of problems across the country, and in fact, around the world.

This has been a valuable opportunity for me to get acquainted with some of you, and it also has helped me to try to think about the future role of GTRI. As Steve mentioned, when you think about what has happened in the past and what may happen in the future, in some regards applied research at Georgia Tech is, in fact, "Back to the Future." I have learned that Georgia Tech's origins were rooted in the shop culture that emphasized hands-on experience and practical problem solving here at Georgia Tech. I see that heritage expressed in the very entrepreneurial personality of this Institution, when compared with many other universities.

Many of you here today have helped to foster Tech's practical, "entrepreneurial brand," and in so doing, have helped to shape the history of GTRI.

In the 1990's, GTRI renewed its commitment to applied research and to expanding its long-held entrepreneurial spirit. And in so doing, set its course in a way that has brought us to where we are

today. It has increased collaboration with the Georgia Tech academic units, something that I would like to see us continue to emphasize and continue to grow and expand in the future. As a result of this collaboration, GTRI has transitioned applications of defense-oriented expertise to new fields—things like radar technologies that today are being applied to medical imaging applications, and military geographical mapping technology that has transitioned into the field of weather and climate change. The result was that by the mid-'90s, GTRI had set a record high, \$100 million worth of research, despite the fact that defense contracts were dwindling.

Today, nearly a decade later, that research volume has grown to \$184 million, and reflects not only the capabilities of GTRI and its researchers, but also the fact that practical problem-solving has a new relevance and a new value in today's high tech innovation economy. As universities are increasingly called upon to become drivers of innovation and high-end economic development, the importance of the role of GTRI and organizations like it will continue to grow. As will the need to build stronger bridges and connections to the research underway at the Institute.

There continues to be a greater need for a full spectrum of research, from the most basic exploratory research, to solving very practical problems. And perhaps more importantly, there is a demand that we make sure that our researchers, even those focusing on fundamental research, recognize that an idea is not an invention. An invention is not a product, and a product is not a business.

So what does that hold for the future for GTRI? We can maximize Georgia Tech's capability for research across this full spectrum, from the most basic to the most applied research. That will require that we continue to try and emphasize the integrated relationship between GTRI and the broader mission of Georgia Tech. We can increase the collaboration between the academic units, the interdisciplinary centers, and the relationships that already exist. And I know that's happening today, but we'll need to continue to grow and expand that collaboration and cooperation in the years ahead. Those relationships not only occur in the research arena, but also occur outside in the participatory involvement of the people of GTRI with the University. We see that collaboration in terms of researchers like Leanne West and Ron Bohlander, who are playing key faculty leadership roles here at Georgia Tech.

GTRI also plays a valuable role in educating our students. It is, in fact, the largest employer of Georgia Tech graduate and undergraduate students, employing more than 250 students a year. They come from every college and school on the campus. They contribute to research in a wide variety of areas: in floatable tanks, in carbon nanotubes, and super capacitors, and high-speed imaging, intelligent medical devices, aerodynamics for heavy vehicles, and wind tunnel and flight testing for unmanned aircraft. And while some of these students go on to be employees and researchers at GTRI, many more of them go out into other areas where their experiences, their opportunities, the connections that they have made, and the things that they have learned will continue to be of tremendous value to them in their careers and to the research of many organizations around the world.

GTRI researchers also participate in developing and teaching academic courses, which is an important connection. It helps bring the research that's being done here into the classrooms and expose our students to the most up-to-date and informed technologies available. Today, GTRI researchers teach more than half of Georgia Tech's distance learning and professional education courses. They develop new and innovative professional master's degrees in applied systems engineering, jointly with the College of Engineering, and 40 researchers have joint faculty appointments at both GTRI and Georgia Tech academic units. This helps us keep our technical coursework plugged-in to reality.

Today, on the celebration of the 75th anniversary of GTRI, we should try to look ahead to the next 25 years, and try to imagine what the relationship between Georgia Tech and GTRI will be when GTRI celebrates its 100th anniversary. This is a daunting task if you think back to what has happened technologically in the past 25 years, but it can be very helpful to envision what life will be like and what the relationship between Georgia Tech and GTRI might become.

I would like to share a few ideas about things I think we might look at, and consider. I must preface my comments again with a qualifier: I have been president of Georgia Tech for less than three weeks - but I am heartened to think that some of what I am about to propose are quite consistent with some of the projections and prognostications that Jud Ready made earlier in his presentation.

Clearly it is critically important that we continue to expand the collaboration between GTRI and the academic units here at Georgia Tech. To do so, we must first, increase the collaboration along the entire research spectrum, and to continually watch for research opportunities for collaboration between GTRI and the academic units. Some areas that might be a natural fit for greater collaboration are energy, fuel cells, and solar cells, water resources, high performance computing and networking, and in management training and education.

Second, and more immediately, we can work together to attract stimulus funding to Georgia Tech. The AAAS estimates that the federal stimulus package contains \$21.5 billion in research and development funds, \$18 billion for actual research, and \$3.5 billion for facilities. This research covers a number of high technology areas and high priority fields, and is focused on issues of energy, biomedical research, and climate change. The agencies are seeing dramatic increases in terms of the amount of resources that they are going to manage in both applied and fundamental research.

One example is the National Science Foundation. Their budget historically, or this year, was destined to be \$6.4 billion. If you imagine that something like \$1.4 billion of that is devoted to infrastructure, to people, to buildings, and those types of things, this leaves about \$5 billion a year in fundamental research. As part of the stimulus package this year, the National Science Foundation will receive an additional \$3 billion dollars that they hope to allocate to researchers across the country before September 30 of this year, providing tremendous opportunities for our faculty and the researchers at GTRI to collaborate in new areas and expand our ongoing research. I have asked Mark Allen, Senior Vice Provost for Research and Innovation, to work with Steve Cross, to identify how we can strengthen the collaboration and pursue some of that research and stimulus funding in a more collaborative and cooperative way.

Beyond research, GTRI has field offices in Alabama, Ohio, New Mexico, and Washington, D.C. It is critical to ask how we can increase and strengthen the presence of Georgia Tech in these locations. GTRI Huntsville, for example, has become an important link and liaison between Georgia Tech and the Huntsville area industries and universities, as well as Georgia Tech students and alumni in that area. We can expand our role in Huntsville and in other places, and develop it more fully at the other sites where GTRI has a strong presence, thereby continuing to incorporate GTRI, into Georgia Tech's efforts to become a truly global university. The first step is Georgia Tech Ireland, which is now basically all GTRI, but might offer the potential for us to have a broader presence and could present additional opportunities for us in the future internationally, both in Ireland, and other places around the globe.

Next, we can incorporate GTRI in Georgia Tech's role as a driver of economic development. I know that happens today, but I think we can do it better. We see many instances throughout society in which defense research has spawned commercial technologies. GTRI, with its combination of defense and industry based research, is well-positioned to help with this transition, to help take us "Back to the Future." This will provide a tremendous advantage in this innovation economy that

exists today. We need to continue to expand the leadership and technology transfer in the lab-to-market commercialization. And there is a potential for GTRI to dramatically increase its participation in these stages of the process.

There are many potential opportunities to increase the collaboration between Georgia Tech, the academic units, and GTRI, and they will mutually benefit both organizations. Over the course of the next months and year, I hope to continue to explore some of these opportunities, and to help understand what your ideas and your thoughts are about how we can strengthen that relationship and better leverage the relationship that currently exists between Georgia Tech and GTRI.

While I have only been here a short time, it is clear to me that GTRI is a tremendous resource for Georgia Tech, and is one of the principal reasons that Georgia Tech enjoys the national and international respect that it has today. Congratulations on the 75th Anniversary. I look forward to getting to know you and GTRI better, and working with you to continue the positive momentum that exists today.

Thank you very much.

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