Before I get started, I always like to get the lay of the land. How many of you are proud Georgia Tech alumni? For you football fans, how many of you heard about our 2016 season opener against Boston College in Dublin, Ireland? Now that’s an away game! Our student–athletes on all 13 intercollegiate teams are excelling on and off the field. For the first time, Georgia Tech student athletes posted back-to-back terms with a 3.0 mean GPA.

It’s good to be back in Macon and always enjoyable to meet with Rotary groups. It’s especially gratifying to stand before a club of your historic stature. I was interested to learn that your charter from 1914 makes you one of the nation’s oldest Rotary Clubs, and that your club has spawned 10 other Rotary clubs.

While we’re on the subject of history, Georgia Tech is celebrating its 130th anniversary in 2015. For that, we owe thanks to a couple of prominent Maconites, John Fletcher Hanson and Nathaniel Harris, who had the foresight to realize that Georgia needed to improve its technological education and develop a skilled workforce if it was to compete in the Industrial Revolution. We have residence halls on campus named after both men.

Interestingly, Macon was one of the cities under consideration as the site for Georgia Tech, along with Atlanta, Milledgeville, Penfield (in Greene County) … and Athens. A five-member commission took 23 different votes and finally settled on Atlanta. The commissioners kept voting for their own cities. Too bad they didn’t have more Macon representatives on the commission … I would have had a much shorter drive.
If John Hanson and Nathaniel Harris could see what Georgia Tech has become, I think they would be impressed. It has become a destination for many of the best and brightest students in the country and the world. It’s also a launching point for scientific and technological advances that are dramatically improving the human experience both here and abroad, and serves as an important resource in economic development.

When I last spoke to your group in September 2009, I had been on the job for six months. I thought that once I had been at Georgia Tech for a year I would have a full grasp of everything happening at the Institute. Well, I was wrong. It’s so fast-paced and broad-reaching that it’s almost impossible to keep up. We’re involved in everything from cybersecurity to robotics to the development medical devices for pediatric surgery. And, we’re making an economic impact throughout the state.

We have things going on that people don’t usually associate with Georgia Tech. Some of you might have seen a recent appearance on NBC’s Today Show of Professor Gil Weinberg and a robot band from our Center for Music Technology. You can find it online if you didn’t see it. A robot named Shimon plays the marimba and can improvise to the music much like a live musician would do, and Shimi robots analyze the music’s rhythms and then can dance to the tempo. We are also designing robots that can help a stroke patient shave, explore the ocean floor, and make manufacturing processes more efficient.

In the very important field of cybersecurity, our researchers are working on ways to make Apple devices, including your iPhone, less vulnerable to malware attacks.

Five years ago, we completed our 25-year strategic plan, Designing the Future. It’s always interesting to look ahead and make an educated guess about where the future will take us. Some scientists predict that in the next 25 years the growth of knowledge will be five to ten times faster than in the preceding 25 years. If we use the five-times
scenario, predicting the potential world of 2040 would be like trying to imagine our life today from back in the early 1880s, when there were no electric lights, no automobiles, no radio, television, or motion pictures, no airplanes, and only very limited use of antibiotics. And of course, no Internet, iPhones, and no Georgia Tech.

If we extrapolate using the 10-times scenario, it would be like the people of 1764 trying to determine what the period from 2015 to 2040 might look like. Isaac Newton, who helped develop calculus, had been dead for less than 40 years (imagine a life without calculus — OK, never mind), but his discoveries and formulations were just starting to shape the way scientists thought about the physical world, and only the elite knew about the “concept of gravity.”

So how do we go about “Designing the Future”? By making educated assessments of what that future might look like even as we know that some of what our students learn as freshmen may be obsolete by the time they graduate.

We have tremendous confidence in the people who make Georgia Tech what it is today: the faculty, staff, and students. This past fall, we welcomed the best-qualified, most diverse freshman class for the sixth year in a row. When Fall Semester 2015 begins, we will continue that distinction for a seventh consecutive year. Some stats about that class:

- 1450 SAT average
- Over 40% women in freshman class for first time in Institute history
- 15-year high in African-American students
- Increased in-state enrollment by more than 5%, 86 counties represented
- 49 states (no Montana), 64 countries, representing 9% of the class.

Georgia Tech continues to expand its prominence on the national scene. In early March, we hosted President Barack Obama. At our Spring Commencement last month,
we celebrated with about 2,700 graduates in three sessions. Of our roughly 145,000 living alumni, almost 35,000 have graduated in the past seven years. That's a lot of Yellow Jackets adding value to our world!

At Commencement, our speaker lineup included Georgia Tech President Emeritus Wayne Clough, U.S. Secretary of Education Arne Duncan and NATO Supreme Allied Commander Philip Breedlove, a 1977 Georgia Tech graduate.

Gen. Breedlove's love and respect for the Institute shone throughout his address, but one sentence particularly captured the substance of our university: "Georgia Tech is a professional network of innovators, a civic resource, a charitable provider, a forward-leaning, critical-thinking institution, a university that actively seeks problems to solve, and challenges to attack and conquer."

Each year our Office of Assessment conducts a Spring 2015 Career and Salary Survey. Some of the interesting things we found out that the percentage of job-seeking Georgia Tech BS recipients who reported employment at graduation was about 74%. The median reported salary for Georgia Tech BS graduates was $65,000 and $80,000 for MS recipients.

Some have referred to commencement as our largest technology-transfer event. These students have worked hard to prepare to be innovators and leaders, ready to tackle some of society’s toughest challenges.

In addition to classroom experiences, Georgia Tech offers a number of chances for students to become engaged, such as a Capstone Design project, and our Invention Studio, run by students. We partner with business and industry in a number of these projects, including the Spring Convergence Innovation Competition held in April.
Along those lines, Georgia Tech this past spring held our seventh annual InVenture Prize competition. The competition has drawn almost 3,000 participants during its seven years. The finals are broadcast live on Georgia Public Broadcasting, and the atmosphere is very exciting. The prize encourages undergraduate students’ interest in invention, innovation, and entrepreneurship. The six finalist teams present their design and their business plan. The winner receives $20,000, and Georgia Tech provides free licensing. Many winners have gone on to market their products. This spring’s winner was a team called FlameTech Grill Defender, which invented a device to make gas grills safer.

Our Capstone Design Expo this spring drew more than 1,000 students and almost 200 teams. The Expo showcases projects from the undergraduate senior design courses in which students work together to design products or tackle real-world problems. The winner was a team called Shunt Doubles — a little play on words there — made up of five biomedical engineering majors. They designed a safe, easy, economical way for caregivers to monitor the effectiveness of shunts used to drain cerebrospinal fluid in the brain. They’re exploring to see whether there’s a market for their device.

Through our curriculum and student competitions, we’re working to instill entrepreneurial confidence in our graduates.

Example: A device called FIXD connects a car to a smartphone via Bluetooth. Rachel Ford (fifth-year BME), John Gattuso (graduated last month in ME), and two others began working on it through the new course last spring called Startup Lab.

FIXD was accepted into the inaugural session of Startup Summer offered by Tech. They launched a Kickstarter campaign. After the Kickstarter campaign, they were highlighted on FOX national news, and have since gone on to win Cisco’s “Internet of Everything” Challenge for 2015. They are planning a product launch on June 24.
Tech Square

Please allow me to digress here just briefly to recommend to you a column by Regent Larry Walker that appeared May 31 in *The Telegraph*. You can also find it online. I’m not saying this just because he had kind words about Georgia Tech, but that alone makes it worth reading! He points out that Georgia is the only state to have two top-20 public universities, the University of Georgia and Georgia Tech. Then he goes on to say the following: “Do you realize how many Fortune 500 companies are located and are locating around Georgia Tech because of the research that the Yellow Jacket engineers are doing?” That’s a perfect segue into my next point.

Some of you know about Tech Square, now part of our campus that in the early 2000s had been an area of parking lots and underutilized real estate. Today it’s one of the nation’s premier research and innovation centers. The momentum there is amazing. The latest additions include Southern Company, Home Depot, Coca-Cola Enterprises, and Worldpay, along with AT&T Mobility and NCR.

These large-company “innovation centers” are able to interact with the talent and expertise that exist at Georgia Tech in our students, faculty and staff, and everybody benefits.

Georgia Tech is moving forward with the Tech Square expansion project. The High Performance Computing Center will support leading-edge research programs in computing and advanced big data analytics.

- Portman Holdings was selected as the project developer
- 750,000 sq. foot, located between Spring Street and West Peachtree Street near the Scheller College of Business and the Georgia Tech Hotel.
- Georgia Tech will be an anchor tenant, taking one-half of the new development. (computing, big-data analytics)
- Interdisciplinary, collaborative environment to enhance Tech Square’s positive
impact in Midtown Atlanta. The HPCC will bring together people in a mixed-use community of innovation, education, and intelligent exchange.

Also in Tech Square is EI², Georgia Tech’s primary business outreach organization. In Fiscal 2014, EI² helped about 1,800 Georgia manufacturing companies reduce operating costs by $36 million, increase sales by $191 million, and create or save 950 jobs.

Next week we will take our seventh summer tour of Georgia since Val and I arrived at Georgia Tech. Our weeklong trip will take us south to Meriwether County and north to the state line in Walker County. We will travel 650 miles through nearly 30 counties, with 25 separate meetings, tours and events in 13 cities. We meet with businesses, lawmakers, editorial boards, alumni, members of the Board of Regents and others. I’m told that by the time we’re done this summer, our state tours will have covered 4,650 miles. Last summer, we toured Middle Georgia, including Macon.

While the pace is demanding, we always look forward to the opportunity to visit with friends and leaders throughout the state to listen, learn, and share the exciting things happening at Georgia Tech, both on our Atlanta campus along with our efforts to help communities throughout the state.

Georgia Tech is invested in Middle Georgia. We have more than 4,000 alumni living in Middle Georgia. In addition, 35 Georgia Tech employees live in your area, and they return $2.9 million in salary to Middle Georgia.

We are also invested through Georgia Tech’s business outreach arm, the Enterprise Innovation Institute, which I mentioned earlier. The Georgia Manufacturing Extension Partnership (GaMEP) is a division of EI² that has worked closely with companies in Middle Georgia. It has several success stories in your area, but I’ll just tell you about one that took place in Dublin.
Easter Seals Middle Georgia is a vocational rehabilitation facility affiliated with Easter Seals, a nonprofit organization that for more than 90 years has been helping individuals with disabilities and special needs, and their families. Easter Seals Middle Georgia operates five manufacturing facilities that partner with numerous central Georgia manufacturers in contracting opportunities. In providing services to these manufacturers, it employs about 300 people with disabilities.

Based on the training Easter Seals Middle Georgia received from MEP, it dramatically improved its material-handling efficiency and implemented a process to train staff members who had never worked in manufacturing plants.

In the past 3 years GaMEP:

- Completed 153 projects with 69 unique Manufacturing Companies in the Central Georgia region.
- Forty-seven of those 153 projects from 22 unique manufacturing companies were from the Macon/Warner Robins area.

These projects produced:

- $127 million in total Investments
- 1,425 new or retained jobs
- $269 million in Increased sales

In Middle Georgia, we are committed to boosting the continuum of learning, keeping your workforce globally competent, and partnering with you to create a brighter future for individuals, companies, and your community.

In closing, I want to tell you about a scholarship program that has come to mean a great deal to me. The G. Wayne Clough Tech Promise Program provides financial support for Georgia residents whose family income falls below 150 percent of the
federal poverty level. We believe that any qualified Georgia resident should have access to a Georgia Tech education, regardless of family income. We have about 200 students in the program, and more than 500 Georgia students from 86 counties have benefited from the program. One is a young woman from Warner Robins. Jamie Barnwell is a senior majoring in computer science who’s well on her way toward graduating with a degree. Other Tech Promise Scholars from your area include Jihwan Oh, an alumnus of Central High, and Frank Ray, from Northside High.

Through programs like the Tech Promise and many others, we’re preparing the next generation of leaders and innovators. Georgia Tech is about changing lives. We’re curing diseases. We’re revolutionizing manufacturing processes, designing global solutions, and developing and implementing breakthroughs in dozens of areas. We’re influencing thinking in science, technology, and policy. We have a great story to tell, and we’re grateful for the part that Middle Georgia plays in it. Thank you for allowing me to share with you some of the exciting things going on at Georgia Tech.