Dr. Peterson
CORE Leadership Talk
6:30-8:30 p.m. Monday, Nov. 25, 2013, ORGT Offices, Lower Level, CRC

Opening Comments

(Tell how Outdoor Recreation at Georgia Tech, and the freshman CORE leadership experience fit in with our goals of developing innovators and leaders.)

You learn teamwork, creative problem solving, planning, risk management, and decision-making.

I am told that thousands of alumni identify their ORGT experiences as among the most influential of their time at Georgia Tech. It is included in those experiences outside of the classroom that enrich your Georgia Tech education.

When I talk with graduates before each commencement, I ask them about their most meaningful experiences. Rarely do they say “it was that physics lab, or that calculus course.” Not that those aren’t important. They tend to mention things that involve experiential learning. Many say it was their study abroad experience. In fact, nearly 47% of Tech’s BS recipients have a study or work abroad experience before they graduate. These experiences change their lives, and help them to adapt to new situations and cultures.

Outdoor challenges have a way of stretching you. I thought you might be interested in a couple of my personal experiences.

1) Story about skydiving with your kids
2) A story about Antarctica

I had the privilege of representing the NSB as part of a review team and participate in a site visit to Antarctica in December 2010. We reviewed a broad spectrum of scientific
research activities, and toured McMurdo Station science projects and facilities, and reviewed science programs at Amundsen-Scott South Pole Station, took a helicopter tour of the Dry Valleys.

We flew from Christchurch to McMurdo Station on a military C-17. We had ECW bags, which stands for Extreme Cold Weather. The flight attendants were all young men in fatigues. They issued us a sack lunch in everything that was biodegradable, and earplugs, which were a must.

We took a cargo plane, an LC-130 to the South Pole. We again had our orange ECW bags, along with emergency rations. The weather was good: clear and minus-30 C with a 15-knot wind, bringing the wind chill to about minus-45 C. You cannot have any skin exposed for very long in these conditions or it will get burned or suffer from frostbite.

All of the research at the Pole is focused on astrophysics and cosmology. We visited the Dark Sector Astrophysics Lab, where we received a briefing on “Ice Cube,” a program that involves drilling holes in the ice 2.5 kilometers deep (86 of them) to form a one-kilometer-square instrumented grid in the ice that will detect neutrinos. They drill the holes with hot water and then lower the instrumentation in and it refreezes – the construction process is fascinating, not to mention the science. They are essentially searching for gravity waves and cosmic structures that can provide information on the initial moments after the creation of the universe.

We had talked about some of these programs at the NSB meetings before, and it is very enlightening to see first-hand what the scientists are doing and to be able to talk to them. Some of these folks spend years down here – a bleak and isolated existence and one where there is a real danger of psychological problems, particularly in the long, cold, dark winter. They shut down transportation into and out of the station in February and do not reopen it until the following September or October. These folks
are really dedicated to their science and have a lifestyle that in some ways resembles a summer camp -- a small group of folks with many inside stories, their own customs and traditions and a family type atmosphere.

Leaders take risks
  - What you would have missed if you had not gone

Defining Leadership:
  - John Maxwell’s model for level of leadership. It is a progression from the lowest level (#1, to the highest, #5)

1. **Position** (People follow you because they have to. Basic entry level of leadership because you have a title)
2. **Permission** (People follow you because they want to. You have a greater level of influence. People know that you care about them as a person, and you create win-win situations)
3. **Production** (People follow you because of what you have done for the organization) People are working together to accomplish a goal. You become a change agent.
4. **People Development** (People follow you because of what you have done for them) You mentor someone and they grow. You’re a model for others, and expose them to growth opportunities.
5. **Personhood** (People follow you because of who you are and what you represent) It will take a lifetime of proven leadership to attain this level. Followers are loyal and sacrificial. People follow you because they share the same vision, and because of your integrity.
   - Strong Personhood Examples: Dr. Martin Luther King Jr.
   - President Kennedy (talk about Rice University speech, how bold his vision was. (Do imitation)
When President Kennedy laid out his vision for the U.S. to go to the moon in 9 years, we had not even orbited the earth successfully. It was a tremendously powerful vision he laid out.

**Level 5 differentiates good vs. great leadership**

- **Leaders articulate the vision, provide direction, and encourage experimentation.** They translate “my vision” into “our vision.” They are coaches, touch emotions, and are servant leaders.
  - I generally practice “no fault” management. How do we set up a policy to provide direction?
  - Good judgment comes from experience; a lot of that comes from bad judgment.
  - When I first became a manager, a department head at Texas A&M told me “Eighty percent of the problems you faced will be communication problems. The other 20 percent will be special communication problems.”

- **The importance of vision:** When we started Georgia Tech’s Strategic Plan, Designing the Future, we took great care to include the entire Georgia Tech community and the general community. We emphasized thinking big. We planned for 25 years because it required vision, and risk. In 2009 when we started the planning process, the economy tanked. It would be easy to be discouraged right now (budget, no merit raises). The Strategic Plan has allowed us to look forward.

- **Why it is important in today’s global marketplace:** Working to develop leaders and innovators at Georgia Tech. Why leadership characteristics are important in their careers. Interdisciplinary solutions; need for leaders vs. just engineers or people trained in a particular discipline. Opportunities for leadership in the 400 student organizations, co-op, study abroad, internships.
• **Leaders are inclusive.** Dr. William Wulf, past president of the National Academy for Engineering drove home the importance of diversity in a lecture I had the privilege of hearing several years ago. One of the things he said was that aside from the social, moral and ethical rationale for having a diverse workforce or a diverse group in any organization, it just makes good sense. Basically, his point was that if you don't have a diverse group that you're working with then you have designs that are never thought of, ideas that are never imagined, and dreams never dreamed. It really does take a diverse group of people to come up with the best ideas and the best designs. We see that over and over. That in and of itself is an excellent justification for diversity, aside from the fact that it is just the right thing to do and it makes us better people. It makes our society a better society.

• **Leaders have confidence**
  - Art Hansen emphasized the need for confidence because while good information is important, the facts rarely provide unqualified guidance. “One of the traits that characterizes good leaders is confidence and the ability to instill that confidence in others. Typically those who wish to accomplish anything of significance have just a little more confidence than the facts would justify. It is something that outstanding executives have in common with brilliant political leaders and great artists. It is true of societies as well as of individuals. Every great civilization has been characterized by confidence in itself.

Lacking the confidence, too many leaders add ingenious new twists to the modern art, which I call “how to reach a decision without really deciding.” They require that the question be put through a series of clearances within the organization and let the clearance process settle it—or take a public opinion poll and let the poll settle it—or devise elaborate statistical systems, hoping that out of them will come unassailable support for one course of action or another.
This is not to say that good leadership cannot profit enormously from good information. If the modern leader doesn’t know the facts, they are in grave trouble, but rarely do the facts provide unqualified guidance. After the facts are in, the good leader must in some measure emulate the little girl, who when asked by her teacher what she was drawing told her she was going to draw a picture of God. The teacher said, ‘But Mary, no one knows what God looks like’ to which Mary responded, ‘They will when I get through.”

- Your phone interview with NASA and how you were reading the book on heat transfer while on the phone.

**Personal example of the solution not being black and white:** Lightning threat at football stadium.

**Leadership decision example:** Commencement in McCamish.

**Close**

While there are times when you don’t have all the answers, you can be guided by integrity. You assemble a team of good people, know the facts, and together develop innovative solutions.

Of all of the things I’ve done in my career, serving as Georgia Tech’s president is by far my most rewarding. One of the main reasons is that I have the privilege of seeing students like you learn and grow, and prepare to be leaders and innovators.

Thank you.