

**Dr. Peterson**

**MOU Agreement with JPL**

9 a.m. Wednesday, Aug. 29, 2012, Ferst Room, 7<sup>th</sup> floor, Library

Yesterday I gave my annual Institute Address in Clough Commons, in the same room in Clough Commons where Dr. Elachi will give an open campus seminar at noon. One of the slides we showed before the actual talk highlighted Tech's involvement in the Mars Curiosity landing, something Dr. Elachi will be talking about today along with the future of space exploration. What most people probably take for granted is that the fate of the most ambitious machine humans have ever sent to another planet rested on an innovative 7-minute landing sequence. Three Tech alumni: Devin Kipp, Ravi Prakash, and David Way were part of the MSL entry, descent, and landing team. In the LA Times, David Kipp said "It's not really possible to do end-to-end tests on Earth because Earth is not Mars. The first time we do that end-to-end test, it's not a test. It's the real thing. On Mars."

Now that is bold engineering at its best to take something 352 million miles in eight months to test it in real time!

Bobby Braun, serving on the mission review board, had a front-row seat for the dramatic landing in the Jet Propulsion Lab. In a post on Tech's website, Bobby described the Mars Science Laboratory (MSL), as one of the most complex operations NASA has ever attempted, dubbed by NASA as "seven minutes of terror." Bobby noted that it marks the beginning our quest for habitable environments and organics in a fascinating region of the planet that has not been previously accessible.

Landing on Mars is something Bobby Braun has studied and worked toward for most of his professional career. While he was not been part of the MSL team he watched as they created, built, tested and re-tested this amazing machine. MSL marks the next chapter in deep space exploration. Adding to the wonder of this is the fact that it comes just one year after the final launch of the Space Shuttle program. While we

celebrated the accomplishment, the general public was asking “What’s next?” The answer is, of course, that engineers and scientists in education and industry have been working on next steps for deep space exploration for years.

I had the fortune of attending the STS-135 launch last summer as part of the Director’s Guest Program, and as a space geek, it was the chance of a lifetime. The final launch of the space shuttle was momentous for all Americans, and it is especially meaningful for us at Tech. There are 14 Georgia Tech graduates who have flown on the shuttle and a huge number of engineers and scientists who have helped to make the U.S. space program successful. Hundreds, and perhaps thousands, of Georgia Tech alumni have worked for NASA over the years as researchers, engineers and administrators, including about 150 full-time engineers and co-ops currently employed today at facilities such as the Johnson, Kennedy and Marshall Space Flight Centers. Nearly one-third of the research conducted by faculty in our School of Aerospace Engineering is supported by NASA. All of us here at Georgia Tech are enormously proud of the role and impact that our faculty, staff, students and alumni have had on the space shuttle program, from the first launch of Challenger in 1981 that was commanded by Georgia Tech alumnus John Young, AE 1952, to this last mission of Atlantis with Dr. Sandra Magnus, MSE 1996, as one of a four-person crew.

We are particularly grateful to Bobby Braun for serving as NASA’s chief technologist, and for his leadership at Georgia Tech in space technology and in partnering with industry. We are thankful for his leadership role in this MOU agreement today. Our agreement today opens the door for virtually unlimited possibilities of research collaboration and undergraduate, graduate and faculty exchanges.

It is a good fit. Georgia Tech has the largest engineering program in the country and one of the best. We have a culture of innovation and collaboration. JPL is one of NASA’s key resources for deep space systems, playing a unique role in supporting the formulation, development and implementation of a wide range of missions. JPL’s

world leadership in deep space exploration via robotic missions is of particular interest to Georgia Tech, as we are involved in robotics research in numerous applications.

We anticipate great things through this partnership. I would say the sky is the limit, but it is really the universe. Thank you.