



Celebrating the Inauguration of Florida Tech President T. Dwayne McCay

REMARKS BY NASA DEPUTY ADMINISTRATOR DAVA NEWMAN

Florida Institute of Technology

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AS PREPARED FOR DELIVERY

Thank you all so much for the opportunity to share in this special day. I'm here wearing both my "NASA" hat and also as a fellow academic. You see, after having served for several years on the faculty of MIT – or as I like to think of it, "*the F.I.T. of the Northeast*" – I greatly admire this institution and all the great people who are a part of it ...meaning all of you!

From the wonderful Dean of your School of Human Centered Design, Innovation and Art – Dr. Boy; to Professor and Associate Dean for Research Daniel Kirk; to my former post-doctoral associate who taught as an adjunct professor here this past year, Dr. Ryan Kobrick; to our NASA astronaut alums Sunni Williams, Joan Higginbotham, Kate Hire, Frederick Sturckow ... as well as Sam Durrance, who is a professor on the faculty, and Winston Scott, your Senior Vice President for External Relations and Economic Development.

I could be here all day just naming folks I admire who are a part of the Florida Tech community ...

Margaret Mead said that we should "*never doubt that a small group of thoughtful committed citizens can change the world.*" In many ways, Florida Tech is the living proof that she was right.

It is my great honor to be able to join you in celebrating the inauguration of President McCay.

It is also an honor to toast the remarkable career of retiring President Catanese.

HONORING OUTGOING PRESIDENT CATANESE

President Catanese is a giant in the academic community – and you can see why if you look at the giant leaps that Florida Tech took during his tenure ...

Giant leaps such as: more than doubling this university's endowment. As an academic myself, I can attest to the fact that this is not just part of the natural evolution of an institution. It requires persistence, a lot of hard work, incredible vision, and most importantly, it requires having a powerful story to tell about an extraordinary institution.

The same can be said for another giant leap that Florida Tech achieved under President Catanese's leadership. When he first took office, enrollment was 4,000. Today, it stands at around 16,000 graduate and undergraduate students.

With all this said, the story of Florida Tech under President Catanese's tenure is not only a story about a rising endowment and rising enrollment ... It's a story about rising achievements and a rising spirit.

It's a story about a high-tech university that continues to rise in prestige and accomplishment by the day.

It's a story about an institution that is adapting to the changes going on in the world around us, and placing itself at the forefront of education and research around emerging technologies, challenges, and possibility.

It's a story about women and men who are taking the skills they acquired at F.I.T. and using them to build better lives for themselves, their families, and the world. It's a story inextricably linked to the Space Coast and exploration.

In so many ways, Florida Tech's story is NASA's story, and it will continue to be as we keep the momentum going in achieving our Journey to Mars – more on this in a moment.

HONORING NEW PRESIDENT MCCAY

President Catanese, thank you! And President McCay *we say "welcome to the future and YES to your future as the next great leader of FIT!"*

You've already accomplished many incredible feats. Most of us here are already aware that President McCay has accomplished a great deal for this university throughout his tenure as Provost, Executive Vice President and Chief Operating Officer.

You hopefully know as well that his priorities promise to pay dividends both for the student body and for America's space program. His focus on student success. His commitment to strengthening the space coast workforce. His dedication to strengthening Florida Tech's partnership with organizations like NASA and our industry partners.

Perhaps the best testament to President McCay's virtue is the resounding endorsement from one of the true giants in the history of NASA and America's space program; his wife, Dr. Mary Helen McCay. I'd like to share three highlights from her NASA resume: Payload Specialist Astronaut, NASA Scientific Medal recipient, and a Principal investigator for our Microgravity Laboratory I mission.

I should note that President McCay himself, is also a member of the NASA family, having served as senior engineer, branch chief, and division chief at our Marshall Space Flight Center. Most recently Professor McCay served on our NASA Advisory Council Education and Outreach Committee and played an important advising role from 2009-2014. Thank you Dr. McCay.

NASA and FLORIDA TECH

There is a powerful symbolism in the fact that the President of Florida Tech has such strong bonds to NASA, because NASA and Florida Tech have enjoyed such a special relationship since the very first days of both our institutions.

Florida Tech – or Brevard Engineering College, as it was then known -- opened its doors in September 1958; the next month, NASA became NASA from the former N-A-C-A in October 1958;

Many of the people who were involved in the founding of the college went on to work for NASA as engineers and scientists.

Your founding President, Dr. Jerome P. Keuper was himself a rocket **scientist** and in 1958 when he founded this institution, he was working for a contractor at what is now the Kennedy Space Center.

Later, this university would become the first institution of higher learning anywhere in the world to offer a masters degree in space technology.

Today, Florida Tech and NASA enjoy an incredible relationship... just think for a second of all that F.I.T. students and faculty are doing with the NASA family ... From the Buzz Aldrin Space Institute; to the students, faculty, and alumni who are working on Orion and the Space Launch System; to all of the astronaut alumni I previously mentioned; To the NASA-funded National Center for Hydrogen Research;

to all the groundbreaking work being performed at Florida Tech facilities like the Center for Space Commercialization and the Center for Remote Sensing.

JOURNEY TO MARS

All of you in the Florida Tech community play such an important role in NASA's present and future; just as your predecessors played in our past.

So if you remember nothing else, I hope you will remember this: NASA needs you, and the nation needs you!

Let me say that again: NASA needs you, and the nation needs you!

We need you because we are leading a global Journey to Mars. Why? Why explore? To answer the enduring questions: are we alone, are there other habitable planets, and did Mars once have past life - the evidence is mounting, and maybe it did 3.5 billion years ago. That scientific discovery will tell the most about life here on Earth, my favorite planet, Spaceship Earth!

It's a Journey that's taking place at our NASA centers and in industry facilities, but also in classrooms and garages, in art studios, and museums, and in laboratories and hospitals and even movie theaters! Our ambition is to take the world with us on our Journey to capture the hearts and minds of every girl and boy out there.

We've been exploring Mars for 50 years, and currently have 2 NASA rovers and 3 Orbiters at Mars today. What's more, we will send American astronauts to the Red Planet in the 2030s!

The course for this Journey was set just a few miles from here by President Obama at our Kennedy Space Center laying out the strategy in 2010.

Over the past six years, under the incredible leadership of my colleague, friend and mentor Administrator Charlie Bolden, with the NASA workforce and our strategic partners – including Florida Tech – and other partners in industry and academia – together, we've made tremendous progress.

Our Journey to Mars plan is sustainable and attainable ... it offers a clear 3- phase approach from 1) the International Space Station to 2) the proving ground in deep space to 3) Mars... and it is a consensus plan.

Today, I can enthusiastically say that we are closer to sending human beings to Mars than ever before in human history! We will become an interplanetary species!

As I travel the country, people are asking me the same question *“how can I be a part of this?”*

My answer is we need you!

If you're an artist – keep creating your art and use it to inspire a new generation of young women and men to pursue studies and careers in what I call STEAMD – science, technology, engineering: bringing in the arts, math, and bringing in design.

If you're an educator, keep inspiring the next generation, who I like to call the Mars generation. Why STEAMD? First, we're not making significant progress to achieve our goals in diversity and inclusion. Make no mistake about it, diversity = excellence and excellence demands diversity! Diversity of intellect, race, religion, gender and all life experiences.

At FIT you're leading academia bringing human centered design, innovation, and art together in One School.

For me, I'm changing the conversation. As an aerospace engineer I heard the message: you had to be the best in math, the best in physics, and the best in chemistry. Well, how intimidating is that?

I now say *“do you want to design, build and fly spacecraft to get us to Mars and explore the solar system and beyond?”*

“Do you want to be a maker for the benefit of society and life here on Earth”? (My favorite planet!)

“Then math and science are tools for engineering, so you need to be proficient, and go with your passion.”

The conversation needs to be that as engineers, our work is for the betterment of humanity - whether it's in exploration, medicine, the environment, or elsewhere.

If you're an engineer or scientist, plan on working toward developing the breakthrough technologies that drive both exploration and economic growth. If you're an aspiring astronaut, keep pursuing your dream.

Our most recent astronaut class was the first ever to have the same number of women as men, which should be the 'new normal'.

The most recent round of astronaut applications – upwards of 18,000 of them -- saw historic, record interest.

And since we're close to returning human space flight launches to the Space Coast, we

may very well be sending you to space sooner, rather than later.

I mentioned earlier that the Florida Tech community continues to play a major role in Orion – the spacecraft that will get our astronauts to deep space in the next few years, which I had the great pleasure to see yesterday at KSC.

We're hitting our major milestones and we can't wait for Exploration Mission 1 with our Space Launch System (more powerful than Saturn 5) with the Orion capsule on top to launch in 2018!

In August, we had another successful engine test of the Space Launch System, or SLS, which will launch our astronauts to deep space. We are currently undergoing more development and testing for space exploration than we have done in decades, and the heart of all the activities is right here on the Space Coast.

If you download our Journey to Mars plan – hint, hint! – at NASA.gov you'll see that it is centered around three phases: 1) our current Earth Reliant Stage where we're on ISS; 2) the Proving Ground Stage which takes place in earth-moon orbit with SLS and Orion; and finally, 3) to Mars orbit and 'Boots on Mars', which is our Earth Independent phase.

At every phase there is a role for each and everyone of you. Please join us and contribute to the areas that best match for your interests, abilities, and passions.

CONCLUSION

When Dr. Keuper passed away, then Florida Tech president Lynn Weaver said *“his vision, his drive to succeed, and his unparalleled optimism, made this university possible.”*

These are exactly the three ingredients that will make our Journey to Mars possible. **Vision, drive, and optimism.**

President Obama has put us on what I believe is a visionary course with Mars as our horizon goal – it is up to each of us, in our own way, to excel and to make this dream in to reality.

Maya Angelou said that *“each person is a product of their dreams.”* I have full confidence that each of you – under the tremendous leadership of President McCay – will keep dreaming, and will find the vision, drive, and optimism to achieve a potential that stretches all the way from helping people on Earth to getting humans on Mars ... and beyond.

Thank you all very much!