

**REMARKS OF THE HONORABLE KATHIE L. OLSEN**  
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**AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS**  
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Thank you for such a kind introduction. And special thanks to Mary Snitch, a colleague of several years and close personal friend. I'm delighted to be here tonight among so many distinguished educators, scientists, engineers, and policy makers; and especially among outstanding students and young professionals – because you are our future. Many others of you here tonight are colleagues of long-standing and personal friends. Your presence tonight makes receiving this award an even more special honor.

Throughout my professional career the promotion of math, science and engineering education has been a passion. I never *intended* to be a scientist and actually “hated” it in high school, but I am living proof of the importance of great science education. Forced to take general biology because of schedule conflicts, the class – or probably even more so, the Professor – opened the door to an incredible thirst for knowledge and convinced me that science would be my future. Science, to me, is all about what we *don't* know. I love a challenge, and striving to discover something new can be so much more interesting and inspiring than memorizing what is already known. Science has been a great career choice for me, and I have been forever grateful to the fantastic teachers who “turned me on to science.”

I am also a first hand witness of the potential for aeronautics and astronautics to, *literally*, give education wings. No other discipline is better at conveying the sheer wonder of all we have achieved and all we may achieve – I could go so far as to say demonstrating the potential of science to “shock and awe” us, but definitely in a positive sense!

When I came to NASA as Chief Scientist, I was strictly a biologist and knew very little about engineering and the physical sciences. My job was a crash course in aeronautics, astronautics, space science, earth science, and space technology – and I found out (no; *was taught*) how fascinating those subjects can be. From the classes I had taken, I *never imagined* what a background in physics could open up for discovery. And engineering...somehow, we must get to young people about what an engineer is and does – because if they knew, we would not be concerned about shortages in these fields.

It is every child's dream to fly – above the trees, to outer space, back in time to see the dinosaurs, or wherever curiosity leads. (When I worked on the Hill, Senator Burns used to say that if it had space or dinosaurs in it, you could guarantee a child's interest!) It's the job of educators to tap into these dreams and show the child how to construct a bridge between “her” dreams and “her”

future reality. I mean the child in all of us, because we are all still learning. I hope we are all still dreaming, too!

The engine of human progress is discovery and invention, and educators lay the groundwork. One of my favorite quotes is from a Nobel Prize winning biochemist whose name I can't pronounce (but I have it written down *right here*, if you want to see me afterward – **Albert von Szent-Gyorgyi**). He said, “A discovery is said to be an accident meeting a prepared mind.” He also said; “Discovery consists of seeing what everybody has seen and thinking what nobody has thought.” In truth, he was honoring educators, particularly science educators and researchers, who prepare their students to think creatively, see possibilities, and imagine.

I often quote *myself* too, and one of the things I always say is that “it is impossible to separate education and research.” They are truly integrated, and I always try to reflect that value in my career and how I promote research. As a research scientist, program manager at NSF, Chief Scientist at NASA, and now in the Office of Science and Technology Policy, I have fought for strong, high-priority education programs that are integrated with research and development. I am also a strong advocate of public education for science literacy. Consider this: On a 10-question "pop quiz" on biotechnology, most Americans, Europeans, and Canadians gave the incorrect answer (true) to the statement "ordinary tomatoes do not contain genes, while genetically modified tomatoes do."<sup>1</sup> With the challenges and opportunities that we all face today, we need a public that is better informed! Therefore, I'm very glad to see engineering and scientific associations, like the AIAA, who recognize and emphasize the importance of education. You are to be commended for your leadership in this area. It's not just the future of aeronautics and astronautics that you promote, it's the future of US science and technology, and it's ultimately our future prosperity.

As we look toward this future; math, science, engineering and technology will be as important as ever, probably more so. At OSTP, we are actively looking at ways to better coordinate federal agency science programs in education, cement ties with academia and industry on this issue, and generate international discussion and coordination. Education and workforce concerns for science and technology are global and multi-sector, so we all need to work together to understand the issues and make sure our planning is coordinated and all our needs are addressed.

I can promise you that I will continue to do all I can to promote science and engineering education and its full partnership with the federal research and development enterprise. I know that you too will continue to make education one of your priorities, and that your expertise in this area will continue to help shape our future directions.

Finally, as we look forward to our next steps together, I want to challenge us all with this quote from Evan Essar: “America *believes* in education: the average professor earns more money *in a year* than a professional athlete earns in *a whole week*.” Let's all think about that one for awhile...

Again, I sincerely thank you for this award. It really means a lot.

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<sup>1</sup> NSF, Indicators 2002 - Science and Technology: Public Attitudes and Public Understanding. Available at <http://www.nsf.gov/sbe/srs/seind02/c7/c7h.htm>