

U.S. Senator Maria Cantwell

**Senate Commerce, Science, and Transportation Committee Hearing on Examining NASA's
FY24 Budget and Priorities**

**Witnesses: The Honorable Bill Nelson, Administrator, National Aeronautics and Space
Administration**

May 16th, 2023

Sen. Cantwell Opening Statement

[\[VIDEO\]](#) [\[AUDIO\]](#)

Sen. Cantwell: For more than 100 years, the National Aeronautics and Space Administration and its predecessor agency, the National Advisory Committee on Aeronautics, have delivered on its commitment to make the United States of America a world leader in aviation and space.

I'm not sure how many people know about the deep connection between NASA and the aviation industry, but there is a saying at the agency: "NASA is with you when you fly."

When many of the aircraft roll off the line in Everett, Washington, they have quieter and cleaner engine technology developed and tested thanks to at least two NASA programs.

So NASA has long been an important partner to the development of the 2 million strong American aviation and defense sector jobs.

When it comes to space exploration, the scientific research, NASA has also been equally powerful.

In 2022 alone, NASA delivered the first images from the James Webb Telescope and demonstrated the Space Launch System and Orion crew vehicle that will send the first woman to the Moon.

The NASA DART mission even proved for the first time that this country could defend itself from a planet killing asteroid.

And every single one of these stories made national news.

Two of them have close ties to the Washington State workforce. Workers in Redmond, Washington, built parts of the propulsion system for both the Space Launch System and the DART mission.

And we also have several scientists who have been assigned research time on the Webb telescope.

But as a Congress we cannot afford to take NASA and its success for granted.

That is why this Committee and the reauthorization of the agency last year was a critical part of the CHIPS and Science Act. This was the first NASA authorization in five years.

Now we might say it's because colleague is no longer with us, who was a key advocate for always getting NASA authorized.

But we authorized the Artemis program and demanded that NASA establish both accountable leadership and a clear description of each element in the effort, in response to concerns raised in a hearing by the head of the NASA Aerospace Safety Advisory Panel.

We directed the agency to create an independent program analysis, evaluation office, reduce the costs and delays associated with its programs, and also in response, raise concerns in this hearing, this time by the Government Accountability Office.

And we made it the policy of the United States to maintain world leadership in aeronautics by advancing areas such as advanced materials and manufacturing.

Over the course of this hearing, I look forward to hearing from the Administrator about the progress in these particular areas.

It is my goal to complete another NASA bill this Congress, this time with a multi-year authorization that will help ensure that the nation's leading space and aeronautics research agency has stable, predictable funding that it needs to succeed. It would be the first multi-year NASA authorization in 13 years.

It should be clear to every member of Congress: we cannot operate our science agencies on the cheap, and we shouldn't operate them without clear, multi-year direction.

Stable, growing investments in the technologies of the future—from hypersonic wind tunnels to advanced manufacturing—are the best way to protect our national and economic security.

Giving NASA anything less could jeopardize our leadership in space exploration, slow down our progress on key issues, faster fuel-efficiency, increase the challenges that we faces at our Space Station, and jeopardize commonsense safety actions like building redundant systems to transport our astronauts.

Administrator Nelson has been a tireless advocate to protect NASA's budget. So, I look forward to working with him and with Ranking Member Cruz to make sure that NASA and the United States keep their leadership position.

So thank you for joining us today, Administrator Nelson.

Sen. Cruz: Thank you, Madam Chair. Good morning. I suppose we should begin with a moment of regret.

You and I had a wager going about the Kraken and the Stars and last night. And these wagers - we've been on winning sides and losing sides of the wagers, but I will say I look forward to some

wonderful delicacies from Washington State as we celebrate the Stars game seven victory last night.

Sen. Cantwell: Well congratulations Senator Cruz. At least I told him he should show up on time if he wants to gloat. It's okay. We're very proud of the Kraken, congratulations to the Stars and yes, some great salmon is coming your way and I think some beer.

Sen. Cantwell Witness Q&A

[\[VIDEO\]](#) [\[AUDIO\]](#)

Sen. Cantwell: Thank you. And without objection, we'll enter those articles into the record.

We'll now turn to questioning and Administrator Nelson, I wrote to you in January about a Manufacturing USA Institute, something that NASA could inform is really an action that NIST would take.

But in my state alone, we're looking at 60,000 STEM workers shortfall by 2026. And this notion of continuing our efforts on material science, I believe, is a key aspect of where we need to go.

So, NASA, NIST, industry need to continue to collaborate on what I think is training and skilling people in material sciences. Do you agree that NASA should help and work on these issues?

Administrator Nelson: Indeed, I do. And another thing that you are looking at is thermoplastic composites as a new material, that would not only help aviation industry, but also the space industry.

And we have a NASA project going on, on high-rate composite aircraft manufacturing. And we are working with the partners, obviously those in Washington state as well, to reduce the cost and increase the production rate of composite aircraft.

You know, the Dreamliner, the 787 is built of composites. And it has a lot of advantages, including a weight advantage and so, this is a new kind of composite.

So, at your request, Madam Chairman, NASA, Commerce, Defense are developing recommendations to leverage the manufacturing here in America to accelerate our capabilities in manufacturing aerospace technologies like thermal plastic.

Sen. Cantwell: Thank you for that answer. I think there's some that believe we're falling behind to where Europe is on this R&D side of the equation. So, thank you for your answer on that.

I'd like to ask a couple of other things. Obviously, you and I have had many conversations about NASA's need to continue with redundancy and making sure that we keep programs on schedule and reduce risks. And also the fact that we need a multi-year budget.

The President's 2024 budget for NASA is 7% increase over 2023. But your requested increases in the out year appear to be only 2% or less.

So, we think here in discussions, getting a three-to-five-year authorization would help NASA on making sure that we don't fall behind in what we need to do to be competitive. And thank you for your detailed answer on thermoplastics.

Many of our supply chain are making thermoplastic products today for the space sector and so we appreciate that answer. But could you talk a little bit about a multi-year request? And how do we stay competitive? And redundancy?

Administrator Nelson: And I commend you for a multi-year proposal. It's true that the last NASA Authorization bill, as Senator Cruz has mentioned, the two of us fashioned that that was back in 2017.

It's true that before that one of the primary drivers was the NASA bill of 2010, which Kay Bailey Hutchinson of Texas, and I fashioned that set us off on this course of the dual approach and are going back to the moon and to Mars. One track is government, the other track is commercial.

And so, I would welcome a multi-year approach to appropriations instead of in the past where it's been. You get into the negotiations between the House and the Senate, and then you all can't agree on this, and you have to accept what they want.

But that's not the comprehensive approach. I think what you've said a five-year authorization bill would be very, very well received in the aerospace community.

Sen. Cantwell: Thank you.