U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
# SCIENCE, SPACE, & TECHNOLOGY
## Opening Statement

**Chairman Don Beyer (D-VA)**

Subcommittee on Space and Aeronautics Hearing:
*Enabling Mission Success from the Ground Up: Addressing NASA's Urgent Infrastructure Needs*
July 29, 2021

Good morning, and welcome to today's hearing, "Enabling Mission Success from the Ground Up: Addressing NASA's Infrastructure Needs".

I want to thank our NASA witness for being with us today.

This last March, many of us watched in awe as fire and smoke poured out from the B-2 Test Stand at NASA's Stennis Space Center in Mississippi. The fire and smoke was expected and part of NASA's hot-fire test of the engines and core stage of the world's most powerful rocket, the Space Launch System.

It was a long-awaited milestone that was many years in the making, and the test was essential to retiring risk and ensuring the performance of the core stage in preparation for upcoming SLS flight tests.

Getting to that critical test meant that NASA not only had to develop the SLS core stage, a challenging effort in its own right, it had to restore the B-2 Test Stand to its design condition, buildout the stand for the larger SLS stage, and complete special test equipment interfaces. That reconstruction effort took six years.

The B-2 story is a stark reminder of what it takes for NASA to achieve its ambitious goals of discovery, exploration, and innovation in space and aeronautics.

Whether it's landing Perseverance on Mars, launching rockets, testing experimental aircraft systems, or archiving massive amounts of Earth science data, achieving NASA's ambitious and inspiring missions require highly specialized facilities and dedicated physical infrastructure.

For NASA, that infrastructure comprises over 5000 buildings and facilities, including those at its nine field centers, the Jet Propulsion Laboratory, and five major facilities, all located across 14 states.

However, like the B-2 Test Stand that was first used to test the Saturn 5 rocket of the Apollo era, more than 70 percent of NASA's facilities are 50 years old.

Maintaining an increasingly aging infrastructure across such a vast physical footprint has been an ongoing challenge. NASA's $2.6 billion deferred maintenance backlog is case and point.

Roads and bridges, like the Wallops Causeway Bridge that is reaching the end of its anticipated service life, the aging roof at Michoud Assembly Facility in Louisiana, HVAC and water systems, and so much more, need attention.

And on top of these and other urgent infrastructure needs, NASA must also manage the impacts of climate change—the buildings battered by hurricanes, flooding, and tornadoes, and the low lying coastal facilities vulnerable to sea level rise.

In short, NASA's foundational infrastructure is cracking, and I fear we're reaching a tipping point.

That's why it is essential that we prioritize investments in NASA infrastructure—for repair, recapitalization, and modernization, and also sustainability—and that we do it now.

Not doing so risks our future for NASA, a future that creates jobs, generated a 2019 economic impact of $64 billion, and that enables some of our most precious assets—people, innovation, and inspiration.

A 2010 National Academies report on NASA's research facilities stated

> *The institutional capabilities of the NASA centers, including their laboratories, have always been critical to the successful execution of NASA's flight projects. These capabilities have taken years to develop and depend very strongly on highly competent and experienced personnel and the infrastructure that supports their research.*

The report underscored that NASA's research labs need to be on par with top-tier universities, corporate laboratories, and other government labs, in order to sustain NASA's leadership in science and aeronautics and attract the best talent.

It's clear that solving the mysteries of dark energy, finding evidence of microbial life beyond Earth, and advancing core competencies in hypersonics research will take the not only the best minds, but world-class facilities.

In closing, when we talk about NASA's infrastructure needs of today, what we're really talking about is NASA's innovation potential of tomorrow. That innovation has profound implications for our economic growth, our workforce, and our international standing. And, as we know from examples like the cell phone cameras we use constantly, NASA's innovation holds the potential promise of breakthroughs that can literally change our lives for the better, every day.

I look forward to working with my colleagues on the Committee and in Congress on addressing NASA's urgent infrastructure needs, and doing so now.