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

Chairman Don Beyer (D-VA)
of the Subcommittee on Space and Aeronautics

Subcommittee on Space and Aeronautics Hearing:
Unfolding the Universe: Initial Science Results from the James Webb Space Telescope

November 16, 2022

Before we begin, I want to take a moment to recognize the thrilling first successful test launch of the integrated Space Launch System and Orion crew vehicle—Artemis 1—from Cape Canaveral that occurred early this morning. This is a momentous achievement for NASA and for the Nation. And it's a huge step forward toward sending our astronauts back to the Moon and on to Mars. Congratulations to all those at NASA and its industry and international partners on this historic Artemis 1 launch that will send Orion on a test flight journey to the Moon and back.

Now turning to another thrilling success, good morning, and welcome to today's hearing on *Unfolding the Universe: Initial Science Results from the James Webb Telescope*. I also want to welcome our esteemed panel of witnesses. We are so pleased you are joining us today.

Most of us here in person and watching online have likely seen the awe-inspiring images obtained by the James Webb Space Telescope—the Tarantula Nebula, the Cartwheel Galaxy, the Cosmic Cliffs, and Stephan's Quintet, just to name a few.

The visual impact of JWST's images alone, with unprecedented clarity and detail, provides an inspirational value that I hope will draw a new generation of scientists and explorers into astronomy, astrophysics, and the sciences.

Today's hearing will delve into what those stunning images tell us.

What questions will those mesmerizing pictures answer and what new mysteries will they reveal?

How will JWST's observations help us understand how our Universe came to be, the birth and evolution of stars, planets, and galaxies, and how the conditions arose for life to exist on this planet, in this Solar System, and in this galaxy?

I'm eager to hear from our witnesses on what they are learning in just the first months of JWST's science operations, which officially began on July 12, 2022.

While JWST's science is just beginning, the journey to get here has been decades in the making.

Recommended as the top priority for major new investments in the National Academies of Science, Engineering, and Medicine's 2000 decadal survey for astronomy and astrophysics, JWST's design, development, integration, and testing on the ground spanned more than twenty years and required ten technology "miracle" innovations along the way.

The challenges were many and success was not a guarantee. Even following its successful launch on an Ariane 5 rocket, the telescope's complex deployment sequence over 29 days involved 344 potential single-point failures.

I'm proud of the dedication and commitment of the many scientists, engineers, international partners, and contractors that have brought us here to celebrate the first science of JWST, the most powerful and complex telescope humans have ever sent into space.

While the initial results and first imagery have been nothing short of stunning, I am confident that there is much more to come, and much we cannot even imagine.

In closing, thank you again to our witnesses for being here—and in person—for what I predict will be a fascinating discussion.