

Chairwoman Kendra Horn (D-OK) of the Subcommittee on Space & Aeronautics

Subcommittee on Space & Aeronautics Hearing: Developing Core Capabilities for Deep Space Exploration: An Update on NASA's SLS, Orion, and Exploration Ground Systems Wednesday, September 18, 2019

Good morning, and welcome to our witnesses. We appreciate your being here.

As I said in the first hearing of the Subcommittee this Session, "*Mars is the horizon goal and I want Americans to be the first to set foot on the Red Planet*." It is a goal worthy of this great nation and NASA's Space Launch System—SLS—Orion Crew Vehicle, and Exploration Ground Systems—EGS—are essential core capabilities for getting us into deep space and onward to Mars. Because I believe moving human exploration beyond low Earth orbit in a safe, sustainable, and affordable way is a goal we all share and want to achieve.

Today, many eyes are on the Moon—a stepping stone toward Mars. The Administration seeks to send humans there by 2024, four years earlier than the President proposed in the initial Fiscal Year 2020 budget request. Can NASA do so as part of a safe, sustainable, and affordable means of reaching the Mars goal?

At this point, many questions remain unanswered.

- Why did the Administration request 16 percent less than the FY 2019 enacted level for SLS, Orion and EGS in its initial request for fiscal year 2020 while also prioritizing deep space exploration near and on the surface of the Moon?
- Why did the Administration choose not to request funding in FY 2020 for an Exploration Upper Stage that would give SLS more lift-capability to carry cargo to deep space destinations?
- Why did NASA abruptly reassign its well-respected and longstanding head of the Human Exploration and Operations Mission Directorate at a time when NASA is approaching key milestones for SLS and Orion, and Commercial Crew, while also planning for a Gateway and human landing system, all on tight timelines?

- Why is NASA not requiring an uncrewed demonstration of a human landing system and is this trading "sustainability" for "affordability" in a rush to send humans to the Moon by 2024?
- Is a human landing on the Moon in 2024 even possible? And if it is possible, what is it going to take in annual funding, management capacity, and technical capability to achieve this goal?

I'm pleased that NASA, its industry partners, and the exploration systems workforce have made significant strides on the SLS and Orion programs in recent months. In July, the Orion program successfully tested and demonstrated the Orion launch abort system. The SLS program is integrating the core stage with the engine section in what will be a major milestone and the beginning of a complete rocket. I'm excited, because clear progress increases confidence.

However, getting to this point has come with major challenges: flat funding, budget overruns, technical problems, issues with program, cost, and schedule management, and instances of poor workmanship. The road ahead—integration and testing—isn't likely to be any easier.

Challenges with development programs aren't surprising, especially when we're asking NASA to push the boundaries of innovation in projects that have never been done before. What is surprising, though, is that recommendations on how to address cost, schedule, and management problems haven't been followed.

As we work to reauthorize NASA, there are still more questions that need answers.

- What is the new, rescheduled launch readiness date for the first, uncrewed SLS and Orion integrated test flight?
- How is NASA guarding against schedule pressure given the 2024 lunar landing goal?
- What are NASA's plans for completing the Exploration Upper Stage, the SLS Block 1B variant, and the second Mobile Launch Platform that is needed to launch a Block 1B vehicle?

I ask these questions because we need to know how the near-term status of SLS and Orion affects our overall exploration goals. The House will vote soon on a Continuing Resolution for FY 2020—a relatively "clean" CR with no additional funding for the Moon program. What will this mean for the 2024 date? In the absence of detailed information, a plan, and an estimated budget profile for the Moon program, I can't get to a clear answer.

I believe that Members of this Subcommittee on both sides of the aisle share the desire for this nation to dream big in our goals for space exploration and scientific discovery, including the goal of sending our astronauts into deep space to explore the Moon, Mars and other destinations. Doing so will bring our society untold benefits that we can't imagine today, just as global positioning and navigation, communications satellites, medical advancements, and the miniaturized camera technologies that are now used in our smart phones have demonstrated.

In closing, we need to right the ship for SLS, Orion, and EGS and set a sustainable course going forward. But if we're serious about a human exploration program that ultimately leads to landing

humans on Mars, we need to build in sustainability, accountability, transparency, and affordability from the start. We need to learn from our challenges in order to set-up, structure, and manage our future human space flight programs for success. I look forward to our witness' testimonies.

Thank you.