

**SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION:
QUESTIONS FOR THE RECORD**

**FROM THE NOMINATION HEARING
ON APRIL 21, 2021**

**Written Questions Submitted to Bill Nelson, Nominee to be Administrator of the National
Aeronautics and Space Administration (NASA)**

Submitted by Ranking Member, Senator Roger Wicker

Question 1: NASA's Infrastructure

In 2020, Hurricane Zeta struck the Gulf Coast and caused significant damage to NASA infrastructure at Stennis Space Center and the Michoud Assembly Facility. According to NASA, these repairs will cost just over \$174 million. These facilities represent irreplaceable national assets and the backbone of NASA's spacecraft manufacturing and test capabilities. Will you work to ensure that these facilities are repaired?

Response:

Yes, I will work with the Congress to address NASA's massive infrastructure needs, including damage at Stennis Space Center and the Michoud Assembly Facility caused by Hurricane Zeta. Over 80 percent of NASA 5,000 buildings and structures are beyond their constructed design life. Maintenance issues and facility failures directly impact NASA's missions and employee safety, which is unacceptable.

Question 2: China Competition

According to the 2019 Annual Report published by the U.S.-China Economic and Security Review Commission, China's ambitions are, "to establish a leading position in the economic and military use" of the space domain. To further its goal, China has exploited U.S. export control laws and partnerships with U.S. universities to gain access to critical space technologies. Even more troubling, the Report identifies China as responsible for cyberattacks targeting NASA, NOAA, and U.S. contractor systems. Given this pattern of behavior, do you agree that partnering with the People's Republic of China in space would reward egregious acts and prove detrimental to the long-term stability and peaceful use of space?

Response:

NASA will continue to follow U.S. law ("the Wolf amendment"), which says that the agency will not collaborate with China unless NASA, in consultation with the FBI, certifies that the collaboration does not risk transferring technology or data with national or economic security implications. There are some areas where it may make sense to talk to China – for instance, right now both NASA and China have spacecraft in orbit around Mars, and the two nations need to

share data to avoid a collision. However, any such contact should be carefully considered to ensure it's in the best interest of the United States.

Question 3: STEM

As you know, one of the most powerful tools for building America's future STEM workforce is the broad portfolio of STEM education and engagement activities that NASA supports. We have had conversations in this committee recently about ensuring that U.S. science investment is spread evenly across educational and research institutions in more states. Similarly, NASA's STEM efforts should strive to spread opportunities across the nation and leverage growing commercial spaceflight capabilities. Programs such as the flight opportunities program and suborbital crew program further this goal by making space more accessible for education and research. Do you support programs such as Flight Opportunities and Suborbital Crew to expand spaceflight access?

Response:

Yes. The flight opportunities program has supported flight demonstrations for hundreds of technology demonstrations. This has the dual benefit of giving more sub-orbital spaceflight opportunities to researchers and growing business for new suborbital companies. NASA recently announced non-NASA researchers could fly on suborbital flights to tend to their payload. On my shuttle flight, I performed 12 experiments in orbit, so I understand the value of human-tended experiments.

Submitted by Senator Ted Cruz

Question 1: Senator Nelson, during your confirmation hearing I asked you about fully utilizing the International Space Station beyond 2024 and at least through 2030. While I know you answered the question at the time, I wanted to ask it again to give you an opportunity to respond in writing and to further expand on your answer.

Do you support the full utilization of the ISS beyond 2024 and at least through 2030, as long as technology allows the ISS to be safely utilized?

Response:

As noted during the hearing, in 2018 I joined you on legislation to extend ISS to 2030. Given the significant taxpayer investment in this incredible asset and the benefits to NASA and the public of ISS-based research, I believe we should maximize use of the ISS. I look forward to being briefed on the technical feasibility of extending ISS to 2030, because as you note, the safety of our people in space is the top priority.

From cancer drugs to robotic surgery, research performed on ISS has already improved life on Earth. With the regular transport of U.S. astronauts to ISS by two commercial providers, I believe NASA may be able to increase the number of astronauts on station performing research and development activities. In addition, studies performed on ISS are helping NASA determine how we can safely live and work further and further from Earth, which is critical for human exploration of the Moon and eventually Mars.

We all know the ISS cannot safely remain in orbit indefinitely, but I think it's important that the U.S. continue to have access to low-Earth orbit. Private companies are developing commercial space stations, and NASA may eventually be one of many customers on a commercial space station. These companies can use ISS to help develop these capabilities.

Submitted by Senator Dan Sullivan

Question 1: Senator Nelson, as space access becomes more frequent and less cost prohibitive, our existing commercial and government launch infrastructure in the U.S. will be relied upon to absorb the increased demand. What role do you see commercial spaceports, like the state-owned Pacific Spaceport Complex – Alaska, playing in future access to space?

Response:

If demand for access to space continues to grow, it seems likely that launch providers will explore using commercial spaceports to mitigate scheduling conflicts and congestion at existing launch sites.

Question 2: Senator Nelson, assuming compliance with our international space partnerships, do you think NASA should be prioritizing launches from spaceports on U.S. soil?

Response:

I believe, consistent with Title 51 Section 50131 of U.S. code, NASA should acquire space transportation services from United States commercial providers.