**SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION**

Full Committee
Nomination Hearing
Wednesday, December 3, 2025, at 10:00 A.M.

# DEMOCRATIC QUESTIONS FOR THE RECORD

Mr. Jared Isaacman

## COVER PAGE

## RANKING MEMBER MARIA CANTWELL (D-WA)

***Commitment to Competition and Redundancy for Critical Missions*** As we discussed during the hearing, NASA's exploration programs are faced with steep competition from China. Given significant taxpayer investment in these programs, the United States cannot afford to allow critical missions to have a single point of failure and must ensure that contract formulation fosters competition among commercial providers.

*Question 1:* I appreciated the comments you made during our exchange in support of competition between SpaceX and Blue Origin. However, I have been made aware that contracting differences between the two HLS providers may not provide an even playing field for them to compete for the Artemis III mission. For example, SpaceX is contracted for Artemis III with fewer requirements, while Blue Origin is not on contract to deliver until the Artemis V mission and has more requirements. What is your plan to put both providers on equal footing, making Artemis III a true competition so the U.S. can beat China to the Moon?

> *Answer:* If confirmed, I fully intend to solicit feedback from all commercial partners on ways to reduce requirements and remove obstacles that impede America's near-term lunar objectives. This applies not only to Blue Origin and SpaceX, but to Lockheed Martin, Boeing, Northrop, and every other vendor contributing to Artemis and NASA's broader mission. As I stated during the hearing, America is best served when both HLS providers are able to compete--and as a nation, we must select the first landing system ready to ensure the United States returns to the Moon before China.

*Question 2:* Reconciliation provided $700 million for a Mars Telecommunications Orbiter (MTO) mission. However, the law limits the competition to two or perhaps even one bidder. What is your plan to ensure a true competition for the MTO spacecraft and mission in order to maximize the investment to deliver a system capable of meeting Mars communication relay needs for at least the next decade?

> *Answer:* I believe NASA is capable of advancing multiple world-changing missions in parallel, including discovery and exploration efforts on Mars. In that respect, it makes sense to begin investing in the capabilities required to support those missions, including the MTO program. If confirmed, I will review the agency's approach to this effort and ensure it is pursued through a lawful and competitive process.

*Question 3:* The Lunar Terrain Vehicle is the rover that Artemis astronauts are expected to use to traverse the lunar surface and extend their exploration of the Moon, beginning with Artemis V. To minimize the risk of delay, NASA has planned to have two of the three commercial LTV teams proceed to the Critical Design Review phase. Assuming that Congress provides adequate funding, do you agree that this plan will put NASA in the best position to maintain the Artemis timeline?

> *Answer:* I am not familiar with the current contracting approach for the Lunar Terrain Vehicle. However, it is imperative that the vehicle be ready to meet mission requirements and timelines--particularly as we work toward a growing and enduring presence on the

lunar surface. If confirmed, I will review the state of the program and ensure it is competitive and properly resourced to minimize risk to Artemis objectives.

***NASA FY26 President's Budget Request Implementation and Whistleblower Report.*** In September, my office released a report which included multiple accounts and documents from brave NASA whistleblowers showing the Administration's efforts to illegally implement the dangerous cuts in the President's Fiscal Year 2026 Budget Request. This not only disregarded Congress's constitutional role to determine spending; it jeopardized NASA's missions and their safety.

*Question 1:* Will you fully implement the funding levels Congress sets for NASA in 2026 and beyond?

*Answer:* As stated in my testimony, I commit to always follow the law and to maximize the scientific value of every dollar afforded by Congress.

*Question 2:* Will you be a strong advocate for NASA and protect its resources from misguided cuts?

*Answer:* I am a passionate supporter of NASA and will do all I can, with the resources provided, to execute on its world-changing mission.

*Question 3:* When you testified previously, you called potential drastic cuts to NASA's science budget "suboptimal." Do you stand by that testimony, and will you defend NASA's science budget if confirmed?

*Answer:* I support the President's goal of returning the nation to a sound fiscal position, and that will likely require government agencies to do more with less. I do not believe NASA should be an exception. If confirmed, I will do all I can to advocate for and maximize the scientific potential of every dollar afforded by Congress.

***Project Athena.*** In May 2025 you drafted your Project Athena Strategic Plan which detailed your vision for NASA, if confirmed. While the plan shows your commitment to maintain continuity in space exploration through the Artemis Program, it lacks robust discussion of other key areas of NASA's mission including aeronautics and space technology development.

The plan also introduces the idea of 'science-as-a-service' as a method of reducing the costs of scientific research. During the December 3 confirmation hearing you said that you "stand behind everything in the document."

*Question 1:* Do you believe that there is a need for NASA to continue collecting its own observations in addition to leveraging commercial imagery?

*Answer:* The draft document included research requests in areas where information was either unavailable or not accessible to a nominee, so it should be understood that some sections were less developed than others. That said, the collection of scientific data is not binary. In Earth observation, for example, there will be cases where data can be acquired more affordably through commercial constellations, and others where only NASA

possesses the necessary capability. This evolution has already occurred across other government and national security observation missions and could similarly free resources for planetary science and other missions commercial providers cannot support.

*Question 2:* Can you commit to ensuring that any cost savings, particularly those achieved by using science-as-a-service for Earth observations, will be reinvested in NASA's capacity to conduct world class research focused on both Earth and space science disciplines?

*Answer:* Yes, that was always the concept worth exploring.

*Question 3:* Can you commit to pursuing sufficient funding for a robust NASA aeronautics portfolio that develops pre-competitive technology that supports U.S. aerospace industry leadership worldwide?

*Answer:* Yes. NASA Aeronautics should be working on cutting-edge test programs that push the boundaries of speed, altitude, and materials necessary to ensure the competitiveness of American aerospace industries.

***Workforce Plans and Reorganization:*** You noted in your testimony that some of the most talented people in America show up to work at NASA. Under the current Administration, NASA has seen over 4,000 employees -- roughly 20% of its workforce -- opt to leave under the deferred resignation program or early retirement, in addition to normal attrition. In Project Athena, you propose to consolidate all ongoing staff reductions and reorganization initiatives into a single, comprehensive plan.

*Question 1:* Before implementing this plan, will you commit to sharing it and discussing it with this committee?

*Answer:* Should I be confirmed, I will work alongside Congress and this committee specifically. It is worth noting that the draft document was several months old and developed during a period when NASA was contemplating multiple RIF and reorganization efforts. Given how much time has passed and how much has changed since then, I am not certain a comprehensive reorganization, at least on the scale previously contemplated, is even still necessary.

*Question 2:* Considering the turmoil federal agencies experience when subjected to poorly justified structural overhauls, can you commit to also ensuring that any proposed major reorganization of NASA will be based on clear, evidence-based justification and transparent strategic need and will be shared and discussed with this committee before implementation?

*Answer:* The idea--if necessary at all-- was always intended to be a data-driven reorganization informed by broad input, including from this committee.

***Human Spaceflight Safety and Oversight:*** As the only private sector astronaut to conduct extra vehicular activity in orbit, you have unique experience with the role that NASA plays or should play in ensuring the safety of commercial human spaceflight activities. In this regard, and referencing the current limited regulatory framework for commercial human spaceflight known as the "learning period," your Project Athena Strategic Plan proposes a study for a "Starfleet

Academy" that would be capable of certifying launch and spaceflight hardware for operation, training operators and flight crew members, and certifying the competence of such personnel.

*Question 1:* For NASA's human spaceflight programs and missions, what principles should guide certification processes and operational decisions that appropriately balance cost and schedule, mission objectives, and safety requirements?

> *Answer:* It is worth noting that the draft document was intended to-- at a much later stage-- initiate research, discussion, and input across the agency, industry, and Congress to begin addressing these types of questions. At present, I believe the existing learning period remains appropriate until industry reaches a more mature state. That stated, researching and preparing for the future seemed prudent, and NASA is likely the organization best positioned to lead in defining what a post-learning-period certification environment should look like.

Question 2: Based on your experience, do you believe that NASA's certification processes and expertise in human spaceflight are being effectively utilized by commercial industry and the FAA Office of Commercial Space Transportation?

> *Answer:* I believe NASA possesses the ultimate subject-matter expertise to help shape the future of commercial hardware, operator, and crew certification. I also suspect there is significant learning to be captured-- and improvements to be made-- based on experience from the HLS, Commercial Crew and Cargo programs.

Question 3: Given that an institution such as your proposed *Starfleet Academy* could be an effective mechanism for defining and implementing an appropriate role for NASA in commercial human spaceflight oversight, will you commit to sharing the results of the proposed study with Congress?

> *Answer:* I would, as I believe--like all major NASA endeavors-- success depends on collaboration and advocacy from all key stakeholders.

***NASA Aeronautics Research and Development and the Spokane- Coeur d'Alene Tech Hub.***
NASA's aeronautics R&D is essential to maintaining the global competitiveness of our aerospace industry. For example, in partnership with industry, NASA's Hi-Rate Composite Aircraft Manufacturing (Hi-CAM) Project develops advanced composite materials that promise to make aircraft lighter and more fuel efficient. This is key for ensuring that next generation aircraft are manufactured here in the U.S.

We have established a Washington and Idaho Tech Hub in Spokane focused on advanced thermoplastics with the goal of enabling manufacturing by industry at scale. This is an ambitious goal, and the NASA and industry Advanced Composites Consortium has been very supportive of this initiative.

*Question 1:* Will you fight for NASA's aeronautics budget to sufficiently fund projects such as Hi-CAM, and will you support pre-competitive technology development initiatives that keep our

aerospace industry ahead of our competitors, such as the Advanced Aerospace Materials and Manufacturing Tech Hub?

> *Answer:* Yes. I am very passionate about NASA's Aeronautics program, and I believe the agency can do far more through research and test programs that push the boundaries of speed, altitude, and advanced materials.

***NASA's Role in Developing Aviation Technology.*** NASA's research has played a pivotal role in advancing the aviation industry, driving innovations that and capabilities later used by the FAA enhance both safety and cost-efficiency within the National Airspace System (NAS).

Examples include the System-Wide Safety (SWS) project, where NASA has conducted research to understand how the modernization of industry and aircraft can affect overall safety, and is developing an In-Time Aviation Safety Management System (IASMS) to address operational risks and hazards of a transformed NAS.

*Question 1:* Will you commit to maintaining NASA's focus on leading edge technologies that will improve the safety of aviation and the NAS?

> *Answer*: Yes--this is an area in which NASA has historically been very successful.

*Question 2:* As we look to the future, what specific actions will you take to further support and accelerate NASA's efforts in developing next-generation commercial aviation technologies?

> *Answer:* This goes to the heart of NASA's Aeronautics mission, and it begins with a thorough review of the portfolio to ensure resources are focused on what no other agency or organization is capable of accomplishing. From there, it becomes cultural and organizational-- eliminating obstacles that impede progress and ensuring the best and brightest are working urgently on the breakthroughs NASA, including Aeronautics, was meant to deliver.

## SENATOR EDWARD MARKEY (D-MA)

1) Mr. Isaacman, I want to recognize your support for the continued operation of NASA's Chandra X-ray Observatory. Chandra is proudly operated for NASA and includes U.S. Military Veterans on its staff. Science has always been the heartbeat of NASA. In fact, the very first objective listed in the National Aeronautics and Space Act of 1958 is "the expansion of human knowledge of phenomena in the atmosphere and space."

   a) With that founding mandate in mind, do you agree that maintaining a robust science portfolio is critical to U.S. leadership in discovery?

      *Answer:* Yes.

   b) If so, can you explain specifically your view on how long-term flagship missions—like Chandra, our space telescopes, and planetary rovers—as a sustained priority that must run parallel to human exploration?

      *Answer:* I have always been a strong advocate for science, and I believe it would be a mistake to prematurely retire flagship missions that continue to deliver meaningful results at very low overhead cost. Chandra and our telescope missions such as Hubble are great examples where the scientific yield relative to the ongoing cost remains highly favorable.

2) Mr. Isaacman, during your hearing, you said I mischaracterized your recent suggestion that NASA purchase 'science-as-a-service' for Earth observations. While NASA has used commercial data to supplement Earth science, some Earth-observing capabilities are inherently governmental—they require decades-long continuity, transparent calibration, and open public access, forming the baseline for both federal agencies and commercial providers.

a) Please detail why, in your view, it is important for NASA to maintain operating certain data capabilities, such as these foundational systems.

*Answer:* I believe it is a mistake to assume that collecting data or calibrating systems the same way we have for decades remains the most appropriate or affordable path. Many national security missions have already evolved from bespoke satellites to procuring data from commercial providers at far lower cost. That approach could free resources for missions--such as planetary science or heliophysics--that commercial providers cannot address. This is not binary. There will be Earth observation missions that NASA must retain for technical or strategic reasons, but we should still take advantage of affordable alternatives where they exist.

b) How would you balance and leverage existing government-owned capabilities with obtaining commercially available data?

*Answer:* Similar to the above, I would work with experts within the agency and solicit input from academia and commercial providers to identify opportunities to achieve the same or superior science at lower cost.

3) The 2024 Solar and Space Physics Decadal Survey highlighted the success of NASA's three Drive Science Centers, including the SHIELD Center, which is building a "digital twin" of the heliosphere to study cosmic radiation. This work is critical for both fundamental solar science and preparing for human missions to Mars and beyond. As the initial contracts for these Centers come to an end, how will you sustain their research and the benefits they provide, particularly for SHIELD?

   *Answer:* If confirmed, I will work with the best and brightest at NASA and across academia to ensure we never allow a lapse in scientific missions vital to achieving the agency's overarching goals.

4) Do you agree that climate observations are integral to our understanding of atmospheric conditions on our own planet and other planetary bodies in our solar system? Why or why not?

   *Answer:* We inhabit only one planet *at this time*, so we should invest scientific resources in understanding it--especially the conditions that affect human life through flooding, wildfires, droughts, and weather. At the same time, we should study other planets to the greatest extent possible as we work to unlock the secrets of the universe and prepare for the day American astronauts may operate for extended periods of time on other celestial bodies.

## SENATOR GARY PETERS (D-MI)

1. In many of your answers in your last hearing, you noted that you were not privy to any internal budgetary planning conversations. However, you did share that you looked forward to reviewing the Office of Management and Budget's recommendations and working with Congress to determine the appropriate level of funding to ensure NASA can execute its mission.

   Now the president's request has been made public, and it includes a 24.3% decrease in overall funding and a 47% cut in funding for the Science Mission Directorate. Further, O-M-B has instructed NASA to comply with the request without approval from Congress.

   If confirmed, are you prepared to push back against these efforts to ensure that we do not continue to see cuts to NASA's budget and staff without Congressional approval?

*Answer:* I support the President's goal of reducing the deficit and ensuring the nation remains on sound financial footing. That stated, if confirmed, I will work with Congress and always follow the law--ensuring NASA maximizes the scientific value of every dollar allocated.

2. We have seen massive reductions in staffing across agencies. The president's budget request for fiscal year 2026 includes a significant reduction in staff at NASA. The Office of Management and Budget has directed NASA to comply with the president's budget request without approval from Congress.

   As a result, we have already seen over 3,000 employees leave NASA since January. This loss in staff jeopardizes NASA's ability to complete missions safely and efficiently. You have big plans for NASA, but I fail to see how we achieve them if we are not retaining talent.

   What is your plan to ensure that NASA remains sufficiently staffed? How do you plan to do that in an environment where NASA's budget decreases?

   *Answer:* I believe NASA can only achieve its world-changing mission--to undertake the near-impossible on behalf of all humankind--with the support and contributions of the best and brightest across the nation. When NASA focuses on what no one else can do, it will naturally attract the talent that seeks to work at the world's most accomplished space agency. If confirmed, I will do all I can with the resources afforded by Congress to support the mission.

3. The Artemis program – in addition to achieving a key national strategic goal – supports thousands of jobs across the U.S. manufacturing supply chain. This is extremely important in Michigan where suppliers are critical to NASA missions and goals.

   Unfortunately, the past year has been unpredictable and erratic for our nation's space program creating a lot of uncertainty for companies supporting NASA missions - especially small businesses.

   Although Congress has stepped in to provide some base funding stability through Artemis V, delays in one element of Artemis can lead to inefficient workflow and costs for those who are ready to deliver.

As Administrator how will you work to provide a stable environment that ensures Artemis maintains its launch schedule?

*Answer:* If confirmed, I will do all I can to pull the present launch schedule forward, as it has been consistently delayed and over budget. NASA is faced with a rival moving at impressive speed, and it is imperative that we remove obstacles impeding progress and return to delivering world-changing missions as quickly and affordably as possible.

## SENATOR TAMMY DUCKWORTH (D-IL)

Question Topic: U.S. Space Leadership

*Question 1:* Ensuring multiple commercial providers of transportation and other mission components is critical to improve safety, ensure efficiency, maintain leadership and successfully complete missions. NASA has long supported that approach as shown in the "ISS Lessons Learned" report, in which NASA wrote that "dissimilar redundancy in transportation has been critical to the preservation of the ISS… Future exploration programs must be structured with alternative transport vehicles, so there is no particular system that becomes a single-point-of-failure."

1. Do you agree with the approach of securing multiple commercial providers for transport components of missions, as stated in NASA's "ISS Lessons Learned" report? Please explain your reasoning.

> Answer: I believe that for capabilities vital to national security, it is imperative that the nation maintain redundancy--such as launch vehicles, human-rated spacecraft, and landers. It is worth noting that for much of the past two decades, and even today, U.S. space policy relies on a single heavy-lift launch platform for crewed lunar missions. Fortunately, industry investment and innovation now stand to reduce that dependency in the near future.

*Question 2:* In your opening statement, you said "we are in a great competition with a rival that has the will and means to challenge American exceptionalism across multiple domains, including in the high ground of space… if we fall behind—if we make a mistake—we may never catch up, and the consequences could shift the balance of power here on Earth." This is a sentiment I agree with and we are much less likely to make a mistake that causes us to fall behind if no one mistake can derail a mission.

2. How do you plan to ensure that all aspects of the Artemis missions have redundancies and therefore help protect our global leadership?

> Answer: While I don't believe it is always appropriate for the government to buy two of everything, capabilities vital to national security--such as launch, human-rated spacecraft, and landers-- justify having more than one path to mission success. As noted above, for more than two decades it has been U.S. policy to rely on a single launch vehicle for human lunar objectives, but thanks to commercial industry investments, that dependency will likely diminish.

Should this include the Human Landing System of the Artemis III mission, that has consistently been delayed?

Answer: I believe it is factual that there have been extensive delays across the entire Artemis architecture, and that must be addressed through improvements within NASA and across our commercial and international partners.

## SENATOR JACKY ROSEN (D-NV)

Question Topic: Future of NASA

I'd like to discuss your vision for NASA's future and how you intend to position the agency for long-term U.S. leadership is space. Microgravity research – the conducting of experiments not possible here on Earth –has historically produced major breakthroughs in biomedical science, materials development, and advanced manufacturing.

*Question 1:* Mr. Isaacman: Given the competitive international landscape, do you support elevating microgravity research as a national strategic priority? And would you support partnering with commercial microgravity research payload services to promote American leadership and avoid ceding this domain to foreign competitors?

> *Answer:* Consistent with my testimony, I believe it is imperative that NASA help unlock an economy that directly requires the unique environment of microgravity— otherwise the future of space will remain largely taxpayer-funded. In that respect, NASA should do all it can, alongside industry and academia, to prioritize the highest-potential science and research on the ISS and through suborbital providers where appropriate, in order to accelerate the emergence of a sustainable orbital and eventually lunar economy.

## SENATOR JOHN HICKENLOOPER (D-CO)

Scientific Workforce Pipeline

Mr. Isaacman, your "Project Athena" strategic plan aligns with the President's budget request to cut NASA's Science Mission Directorate by nearly 50%. You have also advocated for NASA to adopt a "science-as-a-service" model where we buy data from industry rather than running missions ourselves. NASA science funding not only pays for data, it pays for people. NASA grants directly fund the tuition and stipends of the students and postdocs who become our nation's experts in aerospace, space sciences, and physics. These proposed cuts effectively fire the next generation of American scientists before they even graduate.

*Question 1*: **Mr. Isaacman**, how will you ensure American dominance in space when these proposed cuts could dismantle the training pipeline for the very workforce we need to maintain it?

> *Answer:* To be clear, the draft document referenced never made any determinations to cut agency budgets or programs and science-as-a-service was something to research specific to certain earth-observation missions . Referring broadly to science and the future workforce pipeline, the objective was always to make NASA a force multiplier for science-- applying agency resources and talent to enable academia to increase the rate of world-changing discovery. Consistent with my testimony, I believe it is fundamental to NASA's mission to direct grants to academic institutions that develop the pipeline of future scientists, engineers, researchers, and astronauts, and to support science and technology development aligned with agency objectives.

*Question 2*: **Mr. Isaacman**, China is actively increasing its investment in STEM education. If we push our brightest young minds out of the field by defunding their training supported by NASA, aren't we just handing our advantage over to our adversaries?

> *Answer:* I believe inspiration and STEM engagement are inherent in everything NASA does. By executing on the mission-- which naturally requires extensive collaboration with academic institutions-- inspiration and STEM education will follow. That next generation can then join the great adventure, whether at NASA or in industry, strengthening America's competitiveness and national interests.

Science Cuts' Impact on Partnerships

Mr. Isaacman, "Project Athena" aims to terminate active scientific programs and close NASA facilities. Our scientific partnerships are built on decades of trust, stability, and collaboration among researchers at NASA Centers. If we abruptly shutter labs, terminate scientists and

engineers, and cancel programs, we aren't saving money: we are burning bridges with international allies.

*Question 3*: **Mr. Isaacman**, how can NASA remain the partner of choice for the world's best scientists and space agencies if these commitments are abandoned?

> *Answer:* The Athena document, as referenced, does not make any determinations regarding active scientific programs or the closure of any facilities.

*Question 4*: **Mr. Isaacman**, if a university or international partner has spent millions building an instrument for a NASA mission, what impact would cancelling that mission to save cash have, why would any international partner trust a signed agreement with NASA ever again?

> *Answer:* As previously note, the Athena document does not make any such determinations. That said, while I am a strong advocate for science, I do not believe every mission or endeavor should be funded solely because an academic institution or international partner has contributed to it. NASA must be responsible for the resources afforded by congress and focus on the world-changing missions the agency was created to pursue--missions no other organization is capable of accomplishing. And to be clear, academic institutions and international partners are essential to achieving those goals.

<u>NASA Facilities Infrastructure</u>

NASA's ten Centers across the country play a key role in our space enterprise. These Centers design experiments and analyze data to produce key scientific findings; assemble, test, and prepare leading-edge payloads and spacecraft for in-space operations; and serve as mission control centers and collaboration hubs with researchers across the U.S. and world. In Project Athena, you expressed certain views which question the role or efficacy of NASA's network of Centers.

*Question 5*: **Mr. Isaacman**, if any of NASA's Centers are closed or consolidated, how would you ensure NASA–and the U.S.–does not lose any critical capabilities in science?

> *Answer:* Consistent with my testimony, I do not believe it is a good use of time or resources to close centers when NASA requires the best and brightest to achieve world-changing missions. The document in question focused more on *logically organizing* assets across the agency--for example, considering Armstrong, which manages aircraft, actually oversee NASA's aviation fleet. Likewise, it suggested potentially repurposing resources that are currently supporting infrastructure or test assets in disrepair and with little-to-no demand, toward infrastructure and capabilities that are in great demand and vital to NASA's mission and to national security.

Impact of Goddard Closures

Mr. Isaacman, we have received reports that critical spaces essential for the Nancy Grace Roman Space Telescope at the Goddard Space Flight Center are being closed on a compressed timeline. Earth observation missions like AQUA and TERRA are being shuttered. The DAVINCI mission to study the atmosphere of Venus is also on the chopping block. These events will have ripple effects throughout the space science ecosystem.

Scientists, universities, and companies across the country, including in Colorado, are contributing to these missions, using the data they produce, and improving life for us here on earth.

*Question 6*: **Mr. Isaacman**, how does the cancellation of productive investments like these align with your stated goal to "maximize the likelihood of discovering scientific value"?

> *Answer:* I am not aware of any specific facility closures or cancellations of science programs. I am an advocate for science, and I have publicly defended missions--even offering to help personally fund some, including Nancy Grace Roman, Hubble, and the Chandra X-ray Observatory. I believe flagship missions that continue to yield meaningful scientific data at relatively low cost should operate as long as the cost-to-yield ratio remains favorable.

Earth Observation Capabilities

Space assets play a crucial role not just in exploring the cosmos, but also in protecting life and livelihoods here on Earth. Satellite-based observations for flooding, winds, lightning, drought, space weather, wildfires, and crop yields drive safety and economic strength across America.

*Question 7*: **Mr. Isaacman**, what are your plans for ensuring continuity of space-based observations and assured U.S. access to the data we need to protect American citizens and drive national economic growth?

> *Answer:* I have always defended the importance of Earth observation data and making it freely available to academic institutions. We should also remain open-minded about how to capture that data affordably, recognizing that several Earth observation constellation providers are now capable of delivering portions of the mission at lower cost. Leveraging those commercial capabilities and capacity could free resources for exciting planetary science missions that only NASA is capable of undertaking.

Microgravity Research

NASA has led the world in delivering countless scientific breakthroughs thanks to research experiments conducted on the International Space Station (ISS). We have analyzed how proteins can crystallize in space, which led to drug development for conditions like muscular dystrophy. Over its decades in space, the ISS is now on track to be retired later this decade. Going forward,

we believe it is essential the United States continues our sustained human presence and microgravity research in space.

*Question 8*: **Mr. Isaacman**, if confirmed, how will you ensure NASA and federal agencies have continued access to new commercial space stations to conduct scientific research?

> *Answer:* I have always taken the position that NASA should maximize the remaining life of the ISS and prioritize high-potential research--including the areas you referenced--so we can accelerate the development of an orbital economy and give commercial space stations the best chance of success. I have also consistently supported maintaining a "continuous *heartbeat in space"* and believe the United States should never accept a capability gap in low-Earth orbit, for scientific, economic, and national security reasons.

National Academies Decadal Surveys

Decadal surveys represent a consensus from the scientific community on the highest priority scientific questions for NASA to investigate, and help enable efficient use of taxpayer dollars through this prioritization process. However, you have suggested in past remarks that the Decadal Survey process is too slow to incorporate new discoveries and that these documents are overly prescriptive when it comes to NASA priorities.

Question 9: **Mr. Isaacman,** can you provide further context for your suggestion that the decadal prioritization process should be reevaluated?

> *Answer:* Given the extent of the commercial space economy today--with numerous launch providers, lower costs, and rapid data analysis enabled by AI--a faster approach to prioritizing science than once per decade should be considered. Just because we have conducted our processes a certain way for decades does not mean it remains the most effective or efficient model for this new space age.

NASA Science Mission Directorate

NASA's most transformational missions typically take many years to go from formulation to development to launch to operations, often going beyond any one term or majority in Congress. There has been a push to speed up implementation time, but this is unlikely to happen any time soon and there are currently a slate of missions in development that have years left until completion.

Question 10: **Mr. Isaacman,** how do you plan to address the current slate of science missions to ensure that during your tenure they continue on to launch and minimize costs to the taxpayer?

*Answer:* I fully acknowledge that some missions will inherently span longer than a single administration to plan, build, and launch. Certain challenges demand those timelines. However, NASA should not grow comfortable with 'generational programs' when there is clear hunger for

data and discovery. If confirmed, I would intend to challenge the system to pursue breakthrough scientific missions as quickly and affordably as possible.

Question 11: **Mr. Isaacman,** how will you sustain a scientific community working on these projects that relies on long-term stability and programmatic direction to achieve their strongest and most creative outputs?

> *Answer:* I do not believe most scientists want to build careers around a single program, but rather contribute to *families* of missions that build on previous successes--as we saw with Explorer, Pioneer, and Mariner. These iterative programs are not a replacement for exquisite flagship missions such as JWST, Dragonfly, or Europa Clipper, but we should not be comfortable with single scientific programs that unfold over decades when there should be hunger for data, iteration, and mission success at a much higher cadence.

Mars Sample Return Mission

The United States has led the world in the exploration of Mars since Vikings I and II landed in 1976. During questions from your first hearing, it was discussed how the Mars Sample Return mission will be crucial for planning a human mission to Mars. It is becoming increasingly clear delaying Mars Sample Return or waiting for astronauts to pick up the samples will make the human exploration of Mars much more costly and potentially dangerous, and it will cede decades of U.S. space exploration leadership to China. Martian soil has substances known to be toxic, as well as uncharacterized biological potential.

Question 12: **Mr. Isaacman**, what is your plan to assess offers from US companies to perform the Mars Sample Return mission as a commercial service for a fraction of the previous estimated cost?

> *Answer:* I believe a Mars Sample Return mission could lead to the most consequential scientific discovery in human history, and in that respect, I am eager to investigate the opportunities to pursue such a mission.

Space Resources Utilization

Space resources, and the extraction and mining of such resources, have the potential to support and enable future mission architectures, reduce reliance on Earth-sourced materials, and expand what is possible in space exploration. Developing the science of space resources and the technology to advance them is critical to maintaining our preeminent position as a spacefaring nation.

Question 13: **Mr. Isaacman**, how will you ensure that NASA's approach to space resources—across research, policy, and partnerships—promotes responsible use while strategically

integrating these capabilities into future exploration architectures, commercial missions, and potential Earth-supply applications?

> *Answer:* NASA is fortunate to have many talented subject-matter experts, along with numerous avenues to solicit input from industry and academia. I am particularly interested in resource utilization as a means to ignite an orbital and lunar economy capable of helping fund the space-faring future so many hope to see realized. There are, of course, significant scientific benefits to resource analysis, as well as practical applications-- including shielding and habitats--that will likely be essential for sustained human operations on the Moon and Mars.

Small Satellite Deep-Space Missions

Colorado is home to one of the nation's largest aerospace workforces and multiple major research universities and federal labs. Small satellites are increasingly critical for scouting, communications relays, technology demonstrations, and space weather monitoring.

Question 14: **Mr. Isaacman,** what role do you see for small satellites in enabling human and robotic missions in cislunar and deep-space? What policy support or funding mechanisms would best enable a sustainable cadence of small deep-space missions?

> *Answer:* As you may be aware, I have spoken and written extensively about NASA serving as a force-multiplier for science--leveraging talent, bulk buys of launch and spacecraft buses, and enabling academia to undertake more meaningful discovery missions, including in cislunar and deep space. I believe programs of this nature could help differentiate academic institutions and provide access to exploration assets that attract students and researchers. I have had initial conversations with academic institutions and industry on this topic and, if confirmed, would look forward to exploring the concept further.

STEM Education & NASA

You have stated previously that you view STEM Education as crucial for inspiring future generations and driving innovation as we compete with China and other countries. As you know, NASA's Office of STEM Engagement (OSTEM) and Space Grant Consortium works with non-profit affiliates across Colorado and nationwide to deliver quality STEM engagement programs to K-12 and college students. These programs successfully build a STEM workforce, connect students and faculty with NASA programs, and bridge academia to industry.

Question 15: **Mr. Isaacman**, will you work with me to ensure that these OSTEM programs continue to grow to meet the challenges ahead?

> *Answer:* I believe STEM education and inspiration is inherent in all that NASA endeavors to accomplish and is vital to the long-term success of the agency.

Artemis Mission Supply Chain

In response to a question regarding the One Big Beautiful Bill's funding for the Space Launch System (SLS) for Artemis missions through Artemis V, you seemed to indicate that by that point, there will be other heavy lift options available and thus revised architectures may be possible. However, hardware is in flow now that supports SLS and Orion for flights beyond Artemis V. To interrupt the existing supply chain would risk putting in place another gap in U.S. human spaceflight capability – and as you rightfully stated in your testimony, we can never afford to let that happen again.

Question 16**: Mr. Isaacman**, since we may not know the status or success of these alternative launch vehicles and landers for at least 3-4 more years, will you commit to maintaining the existing supply chain and progress on hardware to support future Artemis missions beyond Artemis V at least until such time as we have a new vehicle (or vehicles) in place that is fully certified to fly with humans?

> *Answer:* I will certainly commit to working with Congress and will always follow the law. As it stands, the One Big Beautiful Bill contemplates funding through Artemis V, and in that respect, I agree that SLS and Orion are the most expeditious path to meeting near-term lunar objectives. However, it is worth acknowledging the cost of SLS as highlighted by NASA's Inspector General, and recognizing that if we want an enduring presence on the Moon--with mission cadence greater than every few years--and future missions to Mars and beyond, it will be imperative to eventually pivot to an architecture that enables more frequent and affordable launches.

## SENATOR JOHN FETTERMAN (D-PA)

1. Mr. Isaacman, President Trump signed an executive order on August 28th that ended collective bargaining agreements between federal employee unions and various federal agencies, including NASA. In its justification for this move, the Administration stated that these collective bargaining agreements impede national security because they could delay implementation of "time-sensitive" national security measures. While the Civil Service Reform Act of 1978 allows for the suspension of collective bargaining in limited national security circumstances, this August 28th decision covered every single federal employee at NASA.

**Do you believe that every NASA employee that was represented by a union before August 28, 2025, is engaged in work which directly affects national security?**

*Answer:* I believe NASA undertakes work that is vital to the national interest and, in many cases, essential to America's competitiveness and national security.

2. Mr. Isaacman, the American people expect NASA to lead and execute on the President's plan to return to the Moon. I am particularly interested in what you are going to do to ensure success on the power generation missions, which are crucially important for any exploration on the lunar surface. Congress has historically highlighted the importance of a mix of power solutions, including utilizing solar array technologies. These systems increase the odds that we can beat China back to the Moon and claim key locations around the south pole while also being less expensive and faster.

**How do you view solar power generation fitting into the overall lunar surface power portfolio going forward?**

*Answer:* There is scarce real estate on the lunar surface that provides access to both solar power and vital resources. I believe it is imperative that NASA return to the Moon before our great competitor and establish the infrastructure necessary to realize the scientific, economic, and national security benefits of a sustained presence. That certainly includes solar power, of which I am a strong proponent. That said, not every scientific mission will be able to rely on solar energy-- whether due to distance from the Sun in deep space, power-generation requirements (resource manufacturing), or other constraints--which is why I am also a strong advocate for urgent investment in space-based nuclear programs (propulsion and surface power).