Committee on Science, Space, and Technology U.S. House of Representatives One Hundred Sixteenth Congress Chairwoman Eddie Bernice Johnson February 21, 2019

116th Congress Oversight Plan

Oversight Authority & Oversight Themes

The Committee on Science, Space, and Technology was first established as the Committee on Science and Astronautics on July 21, 1958 in a direct response to the Soviet Union's 1957 launch of Sputnik 1, the world's first satellite. The Science Committee was created to help the United States foster innovation and stay globally competitive in the science and technology domains. House Rule X, clause 1 (p) sets forth the legislative jurisdiction of the Committee. However, Rule X, clause 3 (k) grants the Committee "special oversight functions" that stretches beyond its legislative jurisdiction. As this clause sets out: "The Committee on Science, Space, and Technology shall review and study on a continuing basis laws, programs, and Government activities relating to nonmilitary research and development." This provides the Committee with wide-ranging oversight authority over science and technology issues throughout the government.

Each of the Committee's five subcommittees, as well as the full Committee, engage in oversight work as authorized by House rules. These five subcommittees include the Subcommittee on Energy, Subcommittee on Environment, Subcommittee on Research and Technology, Subcommittee on Space and Aeronautics, and the Subcommittee on Investigations and Oversight. Because of its far-reaching oversight authority the Committee intends to investigate a wide-array of issues highlighted by Subcommittees listed below. Many of these topics may be investigated by one or more of the Committee's subcommittees or by the full Committee. Although each subcommittee engages in oversight efforts, many of the Committee's investigations are carried out by, or in coordination with, the Investigations & Oversight (I&O) Subcommittee.

New, unforeseen issues often emerge that drive Congressional investigations not previously planned or anticipated. The emergence of new oversight related issues may impact the Committee's oversight agenda. However, thematically there are several general lines of inquiry that the Committee intends to focus its oversight resources on during the 116th Congress.

- o *Scientific Integrity:* Ensure federal science activities, including environmental and climate sciences, are free from political or industry interference and undue influence.
- **Public Accountability:** Hold public officials accountable for proper, effective, and valid program management.
- o **Safety & Security:** Consistently review science and technology activities that can have an impact on the safety and security of the American public and the nation.

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¹ House Rule X, clause 3, (k)—attached as Appendix A.

• **Emerging Technology:** Examine potential safety, security, privacy, and other potential consequences of emerging technologies.

Subcommittee on Investigations & Oversight

Whistleblowers. The Committee maintains an open door policy for any whistleblower who would like to alert Congress to issues of waste, fraud, abuse, or mismanagement at agencies under the Committee's jurisdiction or within other activities within the Committee's broad oversight authority. The Committee takes confidentiality issues seriously and will help to protect the identity of any individual who approaches the Committee with issues of concern.

GAO & OIGs. The Committee will coordinate with the Government Accountability Office (GAO) and the various Offices of Inspectors General (OIGs) within agencies under the Committee's legislative jurisdiction to ensure Departments, programs, and agencies are being transparent and implementing GAO and OIG recommendations. The Committee will also utilize the resources of the GAO and IG community to steer them towards oversight issues of concern to the Committee. In addition, the Committee will ensure the IG offices within the agencies under the Committee's jurisdiction are being managed appropriately and effectively.

Cybersecurity. The Committee will continue its work to help ensure federal agencies are complying with adequate cybersecurity standards across the government. The Committee will also investigate reported breaches of government and private sector computer systems when they endanger the public's privacy, safety, or security. These oversight efforts will examine any shortcomings and determine how these might inform cybersecurity standards and best practices.

Voting system design and integrity. A multitude of election system vulnerabilities were made clear following the 2016 and 2018 elections. The diffuse and often outdated voting infrastructure within the United States creates many points of entry for potential bad actors and the opportunity for deficient software or unsecure tools and technology to lead to problems in our election infrastructure. This is a critical area for enhanced bipartisan oversight and review of the cybersecurity standards used by voting system vendors and to explore methods to help make our election infrastructure more secure, robust, and resilient to potential software defects and intentional attack. The I&O Subcommittee will explore these issues jointly with the Subcommittee on Research and Technology.

Identifying and mitigating influence operations. The use of social media platforms for influence operations against the American public has become an area of intense interest. The Committee will examine what tools and technologies are being developed by the scientific and technical community to help identify these threats to mitigate their impact.

Unauthorized use of private data. The unauthorized use of private data for commercial or political purposes is a growing concern. The Committee will investigate such cases wherein public trust is breached, whether the perpetrator be a government or commercial entity and whether the intended use of the data is for financial, political, or other purposes. In an increasingly digital world, the Committee has a responsibility to expose Internet privacy failures and deliberate on potential solutions.

Science integrity issues. The Committee will examine scientific integrity issues throughout the federal government, including efforts to silence scientists and sideline specific scientific activities for political or other purposes whenever they occur.

DHS S&T Directorate. The Committee intends to reassert its oversight of the Department of Homeland Security's (DHS's) Science & Technology (S&T) Directorate in the 116th Congress. The S&T Directorate provides a vital function to help develop tools and technologies to keep America safe. The Committee will examine the S&T Directorate's programs and activities to ensure they are being managed efficiently and effectively.

Protecting the public's health & safety. The I&O Subcommittee will work in coordination with the Environment Subcommittee to try to ensure the public is being protected from the release of toxic chemicals and will work to ensure there is no undue influence over the Environmental Protection Agency (EPA) by the industries it is legally mandated to regulate.

Subcommittee on Energy

ARPA-E. The Committee will review the management of the U.S. Department of Energy's (DOE's) Advanced Research Projects Agency-Energy (ARPA-E), which the Trump Administration unsuccessfully proposed to terminate each of the past two years. ARPA-E is tasked with promoting and funding high-risk, high-reward research and development of advanced energy technologies. The Committee will ensure that the agency is being adequately supported and that its core mission is being pursued.

Natural gas pipeline/storage safety. The Committee is concerned about the state of natural gas storage sites around the country and the sufficiency of state and federal safety standards. The Pipeline and Hazardous Materials Safety Administration (PHMSA) appears to lack sufficient resources to effectively enforce existing standards. The Committee will continue its work with GAO to determine whether current standards and resources are sufficient to protect public health and safety, the environment, and our nation's energy infrastructure.

Critical infrastructure and electricity grid security. The Committee will continue to conduct oversight over the state of the nation's critical infrastructure to ensure that vulnerabilities to cyberattacks, physical attacks, and natural hazards are identified and remedied to the extent possible, and to ensure the government has the capability to respond to such threats efficiently and effectively.

Clean energy technologies in general. The Committee will examine whether the Department's applied energy technology offices are supporting the full range of high value research, development, demonstration, and commercial application activities that the private sector is unable or unwilling to support on its own, rather than attempting to confine the Department's support to ill-defined "early-stage" or "basic" research areas. The Committee will also evaluate potentially transformational clean energy technologies that currently receive little to no federal funding.

DOE Laboratory Complex. The management, upkeep and security of the Department's aging facilities remains a continuing concern of the Committee. Efforts will continue to assure that the Department meets its responsibilities to control risks in and around these facilities.

DOE Loan Programs Office. The Committee will continue to provide oversight of the Department of Energy's Loan Programs Office, which the Trump Administration unsuccessfully proposed to terminate for the past two years, to ensure that the Office is diligently carrying out its statutory mission.

Fusion research. – The Committee will provide oversight of the Department's fusion energy research activities to ensure that direction provided in the Department of Energy Research and Innovation Act, P.L. 115-246, is being faithfully executed, including the establishment of programs to advance inertial fusion for energy applications and to advance other innovative fusion energy concepts. In addition, the Committee will oversee the U.S. contribution to the ITER international fusion project to ensure that the Department is actually providing the resources that it has projected are required to minimize the project's schedule and total cost.

Subcommittee on Environment

Scientific advisory boards. The Environmental Protection Agency's mission to protect human health and the environment is dependent upon the integrity of the scientific advice it receives from its various advisory committees, including the Board of Scientific Counselors, the Clean Air Scientific Advisory Committee, and the Scientific Advisory Board. The Committee will examine appointments to these entities and any proposed restructuring thereof to ensure the Agency is utilizing appropriate and sound expertise that is not unduly influenced by the industries the EPA is entrusted to oversee in its rulemaking.

Science Integrity Issues. The Committee will continue to collect and examine allegations of intimidation of scientists in federal agencies or suppression or revisions of scientific findings because of political or other pressures.

Censorship of climate science. The Committee is concerned about the scrubbing of references to climate change – including information about federally funded climate science and climate change programs – from federal agency websites. This hinders the ability of the public and of state and local entities to access resources that keep them apprised of the state of climate science.

Climate science. The Committee will aggressively track emerging issues and scientific studies regarding global warming and climate science and eliciting thoughtful science-based discussions on potential solutions and remedies to reduce Greenhouse Gas Emissions. This includes the role of federally funded research and innovative technology demonstration and development related to cutting-edge mitigation and adaptation strategies.

Extreme weather hazards. The severity of storms, floods, fires, and hurricanes has increased tremendously over the past few years leaving a path of death and multi-billion dollar destruction in their wake. The Committee will examine various issues surrounding these extreme weather events, including the science behind these hazards and how climate change has increased the frequency and severity of these events, improvements to forecasting and warning, and proposed methods to reduce their impact.

IRIS Program Oversight. The Committee will continue its long-standing oversight of the EPA's Integrated Risk Information System (IRIS). IRIS develops critical toxicological assessments of environmental contaminants, providing the science that underpins regulations of toxic chemicals. Since a 2011 National Academies of Sciences (NAS) report on process issues at IRIS, the program has come a long way, and has received praise from NAS and EPA's Science Advisory Board (SAB) on its progress. The Committee is concerned that limited resources and political interference are restricting the IRIS program's productivity, and that critical assessments are being held up.

Deregulatory actions at EPA. The Trump administration has made deregulation a hallmark of its policy agenda across the federal government. At EPA, this has resulted in the rollback of many critical health-based regulations. The EPA's mandate is to protect human health and the environment. The Committee will examine whether the agency is following its mission statement

in deregulating pollutants that by the EPA's own admission is endangering the health and safety of the public.

Earth observations satellite oversight. The Committee will continue to review the federal government's development, management, and operation of its earth observations satellites at both the National Oceanic and Atmospheric Administration (NOAA) and the National Aeronautics and Space Administration (NASA). These satellites provide critical data that feed into weather forecasting and climate models. The current and future planning of the satellite architecture is crucial to ensuring continuity of data collection.

NOAA/NWS workforce issues. The Committee has been concerned with workforce issues at NOAA and the National Weather Service (NWS), which the GAO is currently investigating. The Committee will continue to monitor these issues and work with the GAO to ensure workforce issues are handled effectively and efficiently in a manner that does not jeopardize the ability of NWS or NOAA to perform their crucial life-saving missions.

Subcommittee on Space and Aeronautics

Access to the International Space Station (ISS). The Committee will conduct oversight into NASA's certification process with its commercial crew service providers to ensure U.S. access to the ISS will continue safely and without a gap, as well as NASA's contingency plan should the availability of commercial crew services continue to be delayed.

ISS research priorities. The International Space Station, and its crew and facilities, are precious and limited resources and must be treated as such. The Committee will conduct oversight of the use of the ISS and the prioritization of ISS resources to meet and enable key objectives.

Oversight of NASA's flagship missions. The Committee will oversee the management of major flagship science mission development projects, including the James Webb Space Telescope, the Wide-field Infrared Survey Telescope, Mars2020, and the Europa Clipper spacecraft.

NASA Earth Science programs. NASA's Earth science programs offer valuable insights into Earth systems, climate change, severe weather, land change, and more. The Committee will conduct oversight of NASA's Earth science program and its plans for meeting the priorities set forth in the National Academies' Earth science decadal survey.

Human spaceflight schedule pressure. Following the Space Shuttle Challenger accident, it became clear that launch pressure can lead to catastrophic consequences. In all expeditions, but particularly human space flight, oversight must be conducted to ensure that safety remains the priority and that schedule pressures do not influence decisions that have implications for the overall safety of human spaceflight systems and operations.

Lunar Campaign. The beginning of this administration ushered in a pivot back to lunar expeditions. Proposed lunar missions could ostensibly contribute to the mission of getting humans to Mars. However, without clear objectives as part of a human exploration roadmap, significant investments in a lunar campaign could delay the U.S.'s ability to send humans to the surface of Mars by the 2030s. The Committee will examine proposed lunar missions and how they would contribute toward the ultimate goal of a human mission to Mars.

Civil Aeronautics Research and Development. The Committee will carry out oversight research and development activities at the Federal Aviation Administration (FAA) and NASA's aeronautics research, including the next generation air transportation system (*NextGen*), the integration of unmanned aviation systems into the national airspace system, research related to the safety of civil aviation and aeronautics, and efforts to mitigate the environmental impacts of civil aviation.

FAA Commercial Space Transportation. FAA's Office of Commercial Space Transportation (AST) licenses commercial launch and reentry vehicles. In addition to its oversight of the FAA's AST, the Committee will examine the growing commercial launch industry, including the emerging commercial human space flight industry as well as the challenges facing it.

Subcommittee on Research & Technology

Sexual harassment in the sciences. The nation is reckoning with the pervasiveness of sexual harassment and its impact on the lives and careers of women. The academic workplace has the second-highest rate of sexual harassment. This drives talented scientists out of the field, as perpetrators continue to hold high-status positions and receive federal grant money. The Committee will continue its bipartisan oversight of federal science agencies to ensure they have clear policies and are handling reports of sexual harassment effectively and efficiently.

Academic espionage. The Committee will continue to conduct bipartisan oversight into the coordination and collaboration between law enforcement, the intelligence community, and institutions of higher education regarding the exfiltration of sensitive, often government-funded research by nontraditional collectors. Following the February 2018 disbandment of the Federal Bureau of Investigation's (FBI's) National Security Higher Education Advisory Board (NSHEAB), no formal body exists to facilitate the communication of security risks and best practices to the higher education community. The Committee is interested in protecting the research that makes the United States a global science leader while respecting the international collaboration inherent to the research enterprise that often helps foster U.S. innovation.

STEM Education. The Committee will continue to review Science, Technology, Engineering, and Mathematics (STEM) education related subjects, particularly the need to increase the diversity of individuals who have access to STEM education. The Committee will examine the effectiveness of federal programs in improving the recruitment and retention of a diverse pool of individuals pursuing STEM-related degrees and careers.

Arctic Research. The Committee will examine the scientific issues related to the warming of the Arctic and the environmental, social, public health, and safety and security implications that represents for the United States and the world.

Office of Science and Technology Policy (OSTP). The Science Committee has been deeply concerned that the Trump Administration went without a Director of OSTP for two years. The Committee will ensure that OSTP is being managed effectively and is fulfilling its statutorily mandated responsibilities.

Emerging technologies. The Committee will examine emerging technologies, including autonomous vehicles, artificial intelligence (AI), commercial use of facial recognition technologies, deep fakes, medical devices, and gene editing. Each of these technologies has had high-profile media coverage of significant failures, misapplications, or other implementation issues that should be investigated as the technologies evolve faster than the technical and cybersecurity standards or policy can keep up. Emerging technologies may affect the safety, security and privacy of all Americans and individuals around the world. The Committee intends to examine the potential unintended social, public health, economic, security, and other consequences of emerging technologies.

HOUSE RULE X

ORGANIZATION OF COMMITTEES

Committees and their legislative jurisdictions

1. There shall be in the House the following standing committees, each of which shall have the jurisdiction and related functions assigned by this clause and clauses 2, 3, and 4. All bills, resolutions, and other matters relating to subjects within the jurisdiction of the standing committees listed in this clause shall be referred to those committees, in accordance with clause 2 of rule XII, as follows:

(p) Committee on Science, Space, and Technology.

- (1) All energy research, development, and demonstration, and projects therefor, and all federally owned or operated nonmilitary energy laboratories.
- (2) Astronautical research and development, including resources, personnel, equipment, and facilities.
- (3) Civil aviation research and development.
- (4) Environmental research and development.
- (5) Marine research.
- (6) Commercial application of energy technology.
- (7) National Institute of Standards and Technology, standardization of weights and measures, and the metric system.
- (8) National Aeronautics and Space Administration.
- (9) National Space Council.
- (10) National Science Foundation.
- (11) National Weather Service.
- (12) Outer space, including exploration and control thereof.
- (13) Science scholarships.
- (14) Scientific research, development, and demonstration, and projects therefor.

Special oversight functions

3(k) The Committee on Science, Space, and Technology shall review and study on a continuing basis laws, programs, and Government activities relating to nonmilitary research and development.