Committee on Science, Space, and Technology
U.S. House of Representatives
One Hundred Seventeenth Congress
Chairwoman Eddie Bernice Johnson
March 1, 2021

117th Congress Oversight Plan

This oversight plan is filed pursuant to Rule X, clause 2(d)(1) of the Rules of the U.S. House of Representatives.

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."[1] 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. In general the Investigations and Oversight (I&O) Subcommittee coordinates and directs oversight activities across the Committee.

Emerging issues not previously planned or anticipated will require Congressional investigation and oversight and will necessarily affect the Committee's oversight agenda as they evolve. However, there are several general themes the Committee intends to focus its oversight resources on during the 117th Congress.

- ***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 and federal agencies accountable for efficient, cost-effective, ethical program management.*
- ***Safety & Security:*** *Consistently review science and technology activities that can have an impact on the safety and security of the American people.*
- ***Emerging Technology:*** *Examine potential societal consequences of emerging technologies.*

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

The Committee will consult as appropriate with other Committees of the House where we share common oversight priorities.

General

The federal response to COVID-19. As of this writing, COVID-19 has killed nearly 500,000 Americans over the course of the year. The Committee will consider how scientific integrity failures may have contributed to the pandemic's severity in the United States to date and evaluate strategies for addressing future outbreaks of infectious disease.

Science Integrity. 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. The Committee will also consider policy changes to prevent recurrence of the types of scientific integrity violations our Members have observed within Federal agencies in recent years.

Scientific advisory committees. Federal agencies receive scientific advice and analysis from independent science advisory committees to help inform policymaking. The Committee will examine the structure, independence, functionality and ethical requirements of these committees to ensure that they are able to deliver sound expertise without undue influence by special interests.

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 cybersecurity standards across the government, consider the quality and adequacy of the standards and best practices themselves, and investigate reported breaches of government and private sector computer systems when they endanger the public's privacy, safety, or security.

Voting system design and integrity. A multitude of election system vulnerabilities in the diffuse voting infrastructure in the United States were following the 2016 and 2018 elections. The 2020 election cycle then saw state election officials marshalling an unprecedented shift to mail-in and

early voting in order reduce the spread of COVID-19. The Committee will continue to conduct oversight on the cyber and physical security standards and best practices for the complete supply chain of voting system technologies to help ensure elections are secure and resilient.

Identifying and mitigating influence operations. The use of social media platforms for influence operations against the American public by both domestic and foreign actors 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.

DHS Science & Technology Directorate. The Committee will reassert its oversight of the Department of Homeland Security's Science & Technology Directorate in the 117th Congress. The Committee will examine the S&T Directorate's programs and activities to ensure they are being managed efficiently and effectively.

Sexual harassment in the sciences. Sexual harassment in academia drives talented scientists out of the field as some 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 in place 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 protection of sensitive, often government-funded research. The Committee will consider strategies to ensure the United States remains a global science leader while respecting the international collaborations that help 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 Committee will ensure that OSTP is functioning as effectively as possible to confront national science priorities, including COVID-19, and is fulfilling its statutorily mandated responsibilities**.**

Public Access to Federally Funded Research. Currently, federally funded research papers can be locked behind paywalls for twelve months. The revenues from paywalls are used in part to support the peer review and hosting services provided by the major science publishers. The Committee will explore how this model is functioning to maximize both academic rigor in science publishing and public access to a taxpayer funded resource.

Facial recognition technology. Facial recognition applications are growing widely around the globe, creating privacy concerns and enabling misidentification of individuals by law enforcement, particularly people of color. The Committee will continue to explore the role of the National Institute of Standards and Technology and other federal science agencies in evaluating and validating the performance of facial recognition technologies.

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 conduct oversight to ensure that the newly enacted authorizations for DOE energy research, development, demonstration, and commercial application (RDD&CA) programs in the Energy Act of 2020 as part of the FY2021 Consolidated Appropriations Act, P.L. 116-260, are being executed faithfully. The Committee will examine whether the Department's energy technology offices are supporting the full range of high value RDD&CA activities that the private sector is unable or unwilling to support on its own. The Committee will also evaluate potentially transformational clean energy technologies that currently receive little federal support.

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.

Nuclear waste cleanup. Remediation and site management of legacy weapons sites accounts for over $6 billion annually from the Department of Energy. The Committee will examine whether the Department is leveraging its science and technology capabilities to their maximum potential in order to achieve site cleanups more quickly and at less cost.

Nuclear energy R&D spending. The Committee will examine how the Department of Energy's Office of Nuclear Energy informs its decisions for financial assistance to private companies.

DOE Loan Programs Office. The Committee will continue to provide oversight of the Department of Energy's Loan Programs Office, which the prior Administration sought to terminate, to ensure that the Office is diligently carrying out its statutory mission.

Fusion research. The Committee will provide oversight of the Department of Energy's fusion energy research activities to ensure that direction provided in the Department of Energy Research and Innovation Act, P.L. 115-246, and the Energy Act of 2020, a Division of P.L. 116-260, is being faithfully executed, including the establishment of programs to advance inertial fusion for energy applications and to advance other innovative fusion energy concepts. The Committee will also oversee the U.S. contribution to the ITER 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.

Emerging technologies. The Committee will examine emerging technologies such as autonomous vehicles, artificial intelligence, deep fakes, and gene editing. The positive use cases of each of these are well-documented, as are their high-profile failures and misapplications. Where they are commercializing faster than the technical standards, cybersecurity standards and applicable public policies, emerging technologies may threaten the safety, security and privacy of the American people. The Committee intends to examine their potential social, public health, economic, and security consequences.

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.

Environmental effects of COVID-19. The Committee will examine how the vast societal and economic changes forced by COVID-19 have temporarily affected global environmental air quality and consider implications for environmental management strategies going forward.

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.

EPA chemicals. The Committee will work to ensure the public is being protected from the release of toxic chemicals, that EPA is using the best available science in its chemical policy decisions, and that it is not unduly influenced by the industries it is legally mandated to regulate.

Deregulatory actions at EPA. The Trump administration made rollbacks of environmental protection a hallmark of its policy agenda. The Committee will examine incidents where principles of scientific and analytical integrity were not met in the effort to promulgate these policy measures and evaluate strategies for ensuring EPA adheres to its mission of protecting human health and the environment in the future.

Methane leak detection. Methane is a powerful greenhouse gas. Methane emissions in the U.S. are systemically underestimated by the EPA, largely due to poorly quantified leaks in the oil and natural gas sector. The Committee will review the effectiveness of current leak detection technologies and the need for additional data, research and development.

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.

National Weather Service 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.

Access to the International Space Station (ISS). The Committee will conduct oversight into NASA's oversight of contracted commercial crewed flights and the certification of commercial crew providers to ensure U.S. access to the ISS will continue safely and without a gap, as well as NASA's contingency plan should commercial crew certification or operational flights experience delays.

ISS research priorities. The International Space Station, and its crew and facilities, are precious and limited resources. The Committee will conduct oversight of the use of the ISS, the prioritization of ISS resources to meet and enable key objectives, and plans for meeting such objectives once the ISS reaches the end of its operational life.

Oversight of NASA's flagship science 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, 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, its progress in implementing the priorities

of the 2018 National Academies' Earth science decadal survey, and its contributions climate change research.

Orbital Debris. Hundreds of thousands of debris objects orbit the Earth. Travelling at very high velocities, debris of any size can pose significant risk to active space systems and human spaceflight operations. Mega constellation deployments comprising thousands of small satellites increase potential collision risk. The Committee will conduct oversight of NASA's activities in orbital debris monitoring, mitigation, and modeling, as well as its efforts to coordinate with other Federal agencies and internationally on orbital debris mitigation standards and guidelines.

Human spaceflight schedule pressure. The Space Shuttle *Challenger* accident in 1986 made clear that launch pressure can lead to catastrophic consequences. In all expeditions, but particularly human space flight, oversight must be conducted to ensure that schedule pressures do not influence decisions that have implications for the overall safety of human spaceflight systems and operations.

Lunar Campaign. The Trump Administration prioritized a return to lunar expeditions at NASA. 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 United States' efforts to send humans to the surface of Mars by the 2030s. The Committee will examine the status of lunar activities, NASA's management of development projects, and how they would contribute toward the goal of a manned mission to Mars.

Civil Aeronautics Research and Development. The Committee will evaluate research and development activities at the Federal Aviation Administration (FAA) and NASA's aeronautics research into topics including the next generation air transportation system (NextGen), the integration of unmanned aviation systems into the national airspace system, 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 licenses commercial launch and reentry vehicles and commercial spaceports. The Committee will conduct oversight on the FAA's AST, its licensing activities, and the implementation of the FAA's updated launch and reentry licensing regulations. In addition, the Committee will examine the growing commercial launch industry, including the emerging commercial human space flight industry, and the challenges facing it.

Consultation with Other Committees

The Committee may coordinate on the following oversight priorities with other House Committees as follows:

- With Administration on election security technologies
- With Agriculture on integrity in cost-benefit analysis, biofuels, and climate change
- With Energy & Commerce on environmental policy, including climate change, emerging trends in technology that may affect American consumers, and public health research priorities
- With Homeland Security on facial recognition technology, advanced technology strategies for national security, including cybersecurity, and for addressing chemical, biological, radiological and nuclear threats
- With Natural Resources on climate change science, advanced energy technologies, and geological sciences
- With Oversight and Reform on ensuring the effectiveness and independence of Inspectors General at federal science agencies, on scientific integrity in the federal response to COVID-19, cybersecurity in federal agencies, the federal science workforce, and other general oversight priorities
- With Transportation & Infrastructure on advanced infrastructure materials and technologies, strategies for reducing aircraft emissions and climate resiliency of transportation infrastructure
- With the Select Committee on the Climate Crisis on climate science priorities

Appendix A

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.