

he be remembered as exemplifying the trademark characteristics exhibited by great leaders: Now, therefore, be it

Resolved, That the Senate—

(1) notes with deep sorrow and solemn mourning the death of Admiral James A. Lyons;

(2) extends heartfelt sympathy to the entire family of Admiral James A. Lyons for his death;

(3) honors and, on behalf of the United States, expresses deep appreciation for the outstanding and important service of Admiral James A. Lyons to the United States; and

(4) respectfully requests that the Secretary of the Senate transmit an enrolled copy of this resolution to the family of Admiral James A. Lyons.

AMENDMENTS SUBMITTED AND PROPOSED

SA 4175. Mr. SULLIVAN (for Mr. BARRASSO) proposed an amendment to the bill S. 512, to modernize the regulation of nuclear energy.

SA 4176. Mr. CRUZ (for himself, Mr. NELSON, and Mr. MARKEY) proposed an amendment to the bill S. 3277, to reduce regulatory burdens and streamline processes related to commercial space activities, and for other purposes.

SA 4177. Mr. MCCONNELL (for Mr. BOOKER) proposed an amendment to the bill H.R. 6287, to provide competitive grants for the operation, security, and maintenance of certain memorials to victims of the terrorist attacks of September 11, 2001.

SA 4178. Mr. MCCONNELL (for Mr. YOUNG) proposed an amendment to the bill S. 2432, to amend the charter of the Future Farmers of America, and for other purposes.

TEXT OF AMENDMENTS

SA 4175. Mr. SULLIVAN (for Mr. BARRASSO) proposed an amendment to the bill S. 512, to modernize the regulation of nuclear energy; as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) **SHORT TITLE.**—This Act may be cited as the “Nuclear Energy Innovation and Modernization Act”.

(b) **TABLE OF CONTENTS.**—The table of contents for this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Purpose.
- Sec. 3. Definitions.

TITLE I—ADVANCED NUCLEAR REACTORS AND USER FEES

- Sec. 101. Nuclear Regulatory Commission user fees and annual charges through fiscal year 2020.
- Sec. 102. Nuclear Regulatory Commission user fees and annual charges for fiscal year 2021 and each fiscal year thereafter.
- Sec. 103. Advanced nuclear reactor program.
- Sec. 104. Baffle-former bolt guidance.
- Sec. 105. Evacuation report.
- Sec. 106. Encouraging private investment in research and test reactors.
- Sec. 107. Commission report on accident tolerant fuel.
- Sec. 108. Report identifying best practices for establishment and operation of local community advisory boards.
- Sec. 109. Report on study recommendations.

TITLE II—URANIUM

- Sec. 201. Uranium recovery report.
- Sec. 202. Pilot program for uranium recovery fees.

SEC. 2. PURPOSE.

The purpose of this Act is to provide—

(1) a program to develop the expertise and regulatory processes necessary to allow innovation and the commercialization of advanced nuclear reactors;

(2) a revised fee recovery structure to ensure the availability of resources to meet industry needs without burdening existing licensees unfairly for inaccurate workload projections or premature existing reactor closures; and

(3) more efficient regulation of uranium recovery.

SEC. 3. DEFINITIONS.

In this Act:

(1) **ADVANCED NUCLEAR REACTOR.**—The term “advanced nuclear reactor” means a nuclear fission or fusion reactor, including a prototype plant (as defined in sections 50.2 and 52.1 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act)), with significant improvements compared to commercial nuclear reactors under construction as of the date of enactment of this Act, including improvements such as—

- (A) additional inherent safety features;
- (B) significantly lower leveled cost of electricity;
- (C) lower waste yields;
- (D) greater fuel utilization;
- (E) enhanced reliability;
- (F) increased proliferation resistance;
- (G) increased thermal efficiency; or
- (H) ability to integrate into electric and nonelectric applications.

(2) **ADVANCED NUCLEAR REACTOR FUEL.**—The term “advanced nuclear reactor fuel” means fuel for use in an advanced nuclear reactor or a research and test reactor, including fuel with a low uranium enrichment level of not greater than 20 percent.

(3) **AGREEMENT STATE.**—The term “Agreement State” means any State with which the Commission has entered into an effective agreement under section 274 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2021(b)).

(4) **APPROPRIATE CONGRESSIONAL COMMITTEES.**—The term “appropriate congressional committees” means the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives.

(5) **COMMISSION.**—The term “Commission” means the Nuclear Regulatory Commission.

(6) **CONCEPTUAL DESIGN ASSESSMENT.**—The term “conceptual design assessment” means an early-stage review by the Commission that—

- (A) assesses preliminary design information for consistency with applicable regulatory requirements of the Commission;
- (B) is performed on a set of topic areas agreed to in the licensing project plan; and
- (C) is performed at a cost and schedule agreed to in the licensing project plan.

(7) **CORPORATE SUPPORT COSTS.**—The term “corporate support costs” means expenditures for acquisitions, administrative services, financial management, human resource management, information management, information technology, policy support, outreach, and training, as those categories are described and calculated in Appendix A of the Congressional Budget Justification for Fiscal Year 2018 of the Commission.

(8) **LICENSING PROJECT PLAN.**—The term “licensing project plan” means a plan that describes—

- (A) the interactions between an applicant and the Commission; and
- (B) project schedules and deliverables in specific detail to support long-range resource planning undertaken by the Commission and an applicant.

(9) **REGULATORY FRAMEWORK.**—The term “regulatory framework” means the frame-

work for reviewing requests for certifications, permits, approvals, and licenses for nuclear reactors.

(10) **REQUESTED ACTIVITY OF THE COMMISSION.**—The term “requested activity of the Commission” means—

- (A) the processing of applications for—
 - (i) design certifications or approvals;
 - (ii) licenses;
 - (iii) permits;
 - (iv) license amendments;
 - (v) license renewals;
 - (vi) certificates of compliance; and
 - (vii) power uprates; and
- (B) any other activity requested by a licensee or applicant.

(11) **RESEARCH AND TEST REACTOR.**—

(A) **IN GENERAL.**—The term “research and test reactor” means a reactor that—

(i) falls within the licensing and related regulatory authority of the Commission under section 202 of the Energy Reorganization Act of 1974 (42 U.S.C. 5842); and

(ii) is useful in the conduct of research and development activities as licensed under section 104 c. of the Atomic Energy Act (42 U.S.C. 2134(c)).

(B) **EXCLUSION.**—The term “research and test reactor” does not include a commercial nuclear reactor.

(12) **SECRETARY.**—The term “Secretary” means the Secretary of Energy.

(13) **STANDARD DESIGN APPROVAL.**—The term “standard design approval” means the approval of a final standard design or a major portion of a final design standard as described in subpart E of part 52 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act).

(14) **TECHNOLOGY-INCLUSIVE REGULATORY FRAMEWORK.**—The term “technology-inclusive regulatory framework” means a regulatory framework developed using methods of evaluation that are flexible and practicable for application to a variety of reactor technologies, including, where appropriate, the use of risk-informed and performance-based techniques and other tools and methods.

(15) **TOPICAL REPORT.**—The term “topical report” means a document submitted to the Commission that addresses a technical topic related to nuclear reactor safety or design.

TITLE I—ADVANCED NUCLEAR REACTORS AND USER FEES

SEC. 101. NUCLEAR REGULATORY COMMISSION USER FEES AND ANNUAL CHARGES THROUGH FISCAL YEAR 2020.

(a) **IN GENERAL.**—Section 6101(c)(2)(A) of the Omnibus Budget Reconciliation Act of 1990 (42 U.S.C. 2214(c)(2)(A)) is amended—

- (1) in clause (iii), by striking “and” at the end;
- (2) in clause (iv), by striking the period at the end and inserting “; and”; and
- (3) by adding at the end the following:

“(v) amounts appropriated to the Commission for the fiscal year for activities related to the development of regulatory infrastructure for advanced nuclear reactor technologies, including activities required under section 103 of the Nuclear Energy Innovation and Modernization Act.”.

(b) **REPEAL.**—Effective October 1, 2020, section 6101 of the Omnibus Budget Reconciliation Act of 1990 (42 U.S.C. 2214) is repealed.

SEC. 102. NUCLEAR REGULATORY COMMISSION USER FEES AND ANNUAL CHARGES FOR FISCAL YEAR 2021 AND EACH FISCAL YEAR THEREAFTER.

(a) **ANNUAL BUDGET JUSTIFICATION.**—

(1) **IN GENERAL.**—In the annual budget justification submitted by the Commission to Congress, the Commission shall expressly identify anticipated expenditures necessary for completion of the requested activities of the Commission anticipated to occur during the applicable fiscal year.

(2) **RESTRICTION.**—Budget authority granted to the Commission for purposes of the requested activities of the Commission shall be used, to the maximum extent practicable, solely for conducting requested activities of the Commission.

(3) **LIMITATION ON CORPORATE SUPPORT COSTS.**—With respect to the annual budget justification submitted to Congress, corporate support costs, to the maximum extent practicable, shall not exceed the following percentages of the total budget authority of the Commission requested in the annual budget justification:

(A) 30 percent for each of fiscal years 2021 and 2022.

(B) 29 percent for each of fiscal years 2023 and 2024.

(C) 28 percent for fiscal year 2025 and each fiscal year thereafter.

(b) **FEES AND CHARGES.**—

(1) **ANNUAL ASSESSMENT.**—

(A) **IN GENERAL.**—Each fiscal year, the Commission shall assess and collect fees and charges in accordance with paragraphs (2) and (3) in a manner that ensures that, to the maximum extent practicable, the amount assessed and collected is equal to an amount that approximates—

(i) the total budget authority of the Commission for that fiscal year; less

(ii) the budget authority of the Commission for the activities described in subparagraph (B).

(B) **EXCLUDED ACTIVITIES DESCRIBED.**—The activities referred to in subparagraph (A)(ii) are the following:

(i) Any fee relief activity, as identified by the Commission.

(ii) Amounts appropriated for a fiscal year to the Commission—

(I) from the Nuclear Waste Fund established under section 302(c) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(c));

(II) for implementation of section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (50 U.S.C. 2601 note; Public Law 108-375);

(III) for the homeland security activities of the Commission (other than for the costs of fingerprinting and background checks required under section 149 of the Atomic Energy Act of 1954 (42 U.S.C. 2169) and the costs of conducting security inspections);

(IV) for the Inspector General services of the Commission provided to the Defense Nuclear Facilities Safety Board;

(V) for research and development at universities in areas relevant to the mission of the Commission; and

(VI) for a nuclear science and engineering grant program that will support multiyear projects that do not align with programmatic missions but are critical to maintaining the discipline of nuclear science and engineering.

(iii) Costs for activities related to the development of regulatory infrastructure for advanced nuclear reactor technologies, including activities required under section 103.

(C) **EXCEPTION.**—The exclusion described in subparagraph (B)(iii) shall cease to be effective on January 1, 2031.

(D) **REPORT.**—Not later than December 31, 2029, the Commission shall submit to the Committee on Appropriations and the Committee on Environment and Public Works of the Senate and the Committee on Appropriations and the Committee on Energy and Commerce of the House of Representatives a report describing the views of the Commission on the continued appropriateness and necessity of the funding described in subparagraph (B)(iii).

(2) **FEES FOR SERVICE OR THING OF VALUE.**—In accordance with section 9701 of title 31, United States Code, the Commission shall assess and collect fees from any person who

receives a service or thing of value from the Commission to cover the costs to the Commission of providing the service or thing of value.

(3) **ANNUAL CHARGES.**—

(A) **IN GENERAL.**—Subject to subparagraph (B) and except as provided in subparagraph (D), the Commission may charge to any licensee or certificate holder of the Commission an annual charge in addition to the fees assessed and collected under paragraph (2).

(B) **CAP ON ANNUAL CHARGES OF CERTAIN LICENSEES.**—

(i) **OPERATING REACTORS.**—The annual charge under subparagraph (A) charged to an operating reactor licensee, to the maximum extent practicable, shall not exceed the annual fee amount per operating reactor licensee established in the final rule of the Commission entitled “Revision of Fee Schedules; Fee Recovery for Fiscal Year 2015” (80 Fed. Reg. 37432 (June 30, 2015)), as may be adjusted annually by the Commission to reflect changes in the Consumer Price Index published by the Bureau of Labor Statistics of the Department of Labor.

(ii) **WAIVER.**—The Commission may waive, for a period of 1 year, the cap on annual charges described in clause (i) if the Commission submits to the Committee on Appropriations and the Committee on Environment and Public Works of the Senate and the Committee on Appropriations and the Committee on Energy and Commerce of the House of Representatives a written determination that the cap on annual charges may compromise the safety and security mission of the Commission.

(C) **AMOUNT PER LICENSEE.**—

(i) **IN GENERAL.**—The Commission shall establish by rule a schedule of annual charges fairly and equitably allocating the aggregate amount of charges described in subparagraph (A) among licensees and certificate holders.

(ii) **REQUIREMENT.**—The schedule of annual charges under clause (i)—

(I) to the maximum extent practicable, shall be reasonably related to the cost of providing regulatory services; and

(II) may be based on the allocation of the resources of the Commission among licensees or certificate holders or classes of licensees or certificate holders.

(D) **EXEMPTION.**—

(i) **DEFINITION OF RESEARCH REACTOR.**—In this subparagraph, the term “research reactor” means a nuclear reactor that—

(I) is licensed by the Commission under section 104 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2134(c)) for operation at a thermal power level of not more than 10 megawatts; and

(II) if licensed under subclause (I) for operation at a thermal power level of more than 1 megawatt, does not contain—

(aa) a circulating loop through the core in which the licensee conducts fuel experiments;

(bb) a liquid fuel loading; or

(cc) an experimental facility in the core in excess of 16 square inches in cross-section.

(ii) **EXEMPTION.**—Subparagraph (A) shall not apply to the holder of any license for a federally owned research reactor used primarily for educational training and academic research purposes.

(c) **PERFORMANCE AND REPORTING.**—

(i) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act, the Commission shall develop for the requested activities of the Commission—

(A) performance metrics; and

(B) milestone schedules.

(2) **DELAYS IN ISSUANCE OF FINAL SAFETY EVALUATION.**—The Executive Director for Operations of the Commission shall inform the Commission of a delay in issuance of the final safety evaluation for a requested activ-

ity of the Commission by the completion date required by the performance metrics or milestone schedule under paragraph (1) by not later than 30 days after the completion date.

(3) **DELAYS IN ISSUANCE OF FINAL SAFETY EVALUATION EXCEEDING 180 DAYS.**—If the final safety evaluation for the requested activity of the Commission described in paragraph (2) is not completed by the date that is 180 days after the completion date required by the performance metrics or milestone schedule under paragraph (1), the Commission shall submit to the appropriate congressional committees a timely report describing the delay, including a detailed explanation accounting for the delay and a plan for timely completion of the final safety evaluation.

(d) **ACCURATE INVOICING.**—With respect to invoices for fees described in subsection (b)(2), the Commission shall—

(1) ensure appropriate review and approval prior to the issuance of invoices;

(2) develop and implement processes to audit invoices to ensure accuracy, transparency, and fairness; and

(3) modify regulations to ensure fair and appropriate processes to provide licensees and applicants an opportunity to efficiently dispute or otherwise seek review and correction of errors in invoices for those fees.

(e) **REPORT.**—Not later than September 30, 2021, the Commission shall submit to the Committee on Appropriations and the Committee on Environment and Public Works of the Senate and the Committee on Appropriations and the Committee on Energy and Commerce of the House of Representatives a report describing the implementation of this section, including any impacts and recommendations for improvement.

(f) **EFFECTIVE DATE.**—Except as provided in subsection (c), this section takes effect on October 1, 2020.

SEC. 103. ADVANCED NUCLEAR REACTOR PROGRAM.

(a) **LICENSING.**—

(1) **STAGED LICENSING.**—For the purpose of predictable, efficient, and timely reviews, not later than 270 days after the date of enactment of this Act, the Commission shall develop and implement, within the existing regulatory framework, strategies for—

(A) establishing stages in the licensing process for commercial advanced nuclear reactors; and

(B) developing procedures and processes for—

(i) using a licensing project plan; and

(ii) optional use of a conceptual design assessment.

(2) **RISK-INFORMED LICENSING.**—Not later than 2 years after the date of enactment of this Act, the Commission shall develop and implement, where appropriate, strategies for the increased use of risk-informed, performance-based licensing evaluation techniques and guidance for commercial advanced nuclear reactors within the existing regulatory framework, including evaluation techniques and guidance for the resolution of the following:

(A) Applicable policy issues identified during the course of review by the Commission of a commercial advanced nuclear reactor licensing application.

(B) The issues described in SECY-93-092 and SECY-15-077, including—

(i) licensing basis event selection and evaluation;

(ii) source terms;

(iii) containment performance; and

(iv) emergency preparedness.

(3) **RESEARCH AND TEST REACTOR LICENSING.**—For the purpose of predictable, efficient, and timely reviews, not later than 2 years after the date of enactment of this

Act, the Commission shall develop and implement strategies within the existing regulatory framework for licensing research and test reactors, including the issuance of guidance.

(4) **TECHNOLOGY-INCLUSIVE REGULATORY FRAMEWORK.**—Not later than December 31, 2027, the Commission shall complete a rulemaking to establish a technology-inclusive, regulatory framework for optional use by commercial advanced nuclear reactor applicants for new reactor license applications.

(5) **TRAINING AND EXPERTISE.**—As soon as practicable after the date of enactment of this Act, the Commission shall provide for staff training or the hiring of experts, as necessary—

(A) to support the activities described in paragraphs (1) through (4); and

(B) to support preparations—

(i) to conduct pre-application interactions; and

(ii) to review commercial advanced nuclear reactor license applications.

(6) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to the Commission to carry out this subsection \$14,420,000 for each of fiscal years 2020 through 2024.

(b) **REPORT TO ESTABLISH STAGES IN THE COMMERCIAL ADVANCED NUCLEAR REACTOR LICENSING PROCESS.**—

(1) **REPORT REQUIRED.**—Not later than 180 days after the date of enactment of this Act, the Commission shall submit to the appropriate congressional committees a report for expediting and establishing stages in the licensing process for commercial advanced nuclear reactors that will allow implementation of the licensing process by not later than 2 years after the date of enactment of this Act (referred to in this subsection as the “report”).

(2) **COORDINATION AND STAKEHOLDER INPUT.**—In developing the report, the Commission shall seek input from the Secretary, the nuclear energy industry, a diverse set of technology developers, and other public stakeholders.

(3) **COST AND SCHEDULE ESTIMATES.**—The report shall include proposed cost estimates, budgets, and timeframes for implementing strategies to establish stages in the licensing process for commercial advanced nuclear reactor technologies.

(4) **REQUIRED EVALUATIONS.**—Consistent with the role of the Commission in protecting public health and safety and common defense and security, the report shall evaluate—

(A)(i) the unique aspects of commercial advanced nuclear reactor licensing, including the use of alternative coolants, operation at or near atmospheric pressure, and the use of passive safety strategies;

(ii) strategies for the qualification of advanced nuclear reactor fuel, including the use of computer modeling and simulation and experimental validation; and

(iii) for the purposes of predictable, efficient, and timely reviews, any associated legal, regulatory, and policy issues the Commission should address with regard to the licensing of commercial advanced nuclear reactor technologies;

(B) options for licensing commercial advanced nuclear reactors under the regulations of the Commission contained in title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act), including—

(i) the development and use under the regulatory framework of the Commission in effect on the date of enactment of this Act of a licensing project plan that could establish—

(i) milestones that—

(aa) correspond to stages of a licensing process for the specific situation of a commercial advanced nuclear reactor project; and

(bb) use knowledge of the ability of the Commission to review certain design aspects; and

(II) guidelines defining the roles and responsibilities between the Commission and the applicant at the onset of the interaction—

(aa) to provide the foundation for effective communication and effective project management; and

(bb) to ensure efficient progress;

(ii) the use of topical reports, standard design approval, and other appropriate mechanisms as tools to introduce stages into the commercial advanced nuclear reactor licensing process, including how the licensing project plan might structure the use of those mechanisms;

(iii) collaboration with standards-setting organizations to identify specific technical areas for which new or updated standards are needed and providing assistance if appropriate to ensure the new or updated standards are developed and finalized in a timely fashion;

(iv) the incorporation of consensus-based codes and standards developed under clause (iii) into the regulatory framework—

(I) to provide predictability for the regulatory processes of the Commission; and

(II) to ensure timely completion of specific licensing actions;

(v) the development of a process for, and the use of, conceptual design assessments; and

(vi) identification of any policies and guidance for staff that will be needed to implement clauses (i) and (ii);

(C) options for improving the efficiency, timeliness, and cost-effectiveness of licensing reviews of commercial advanced nuclear reactors, including opportunities to minimize the delays that may result from any necessary amendment or supplement to an application;

(D) options for improving the predictability of the commercial advanced nuclear reactor licensing process, including the evaluation of opportunities to improve the process by which application review milestones are established and met; and

(E) the extent to which Commission action or modification of policy is needed to implement any part of the report.

(c) **REPORT TO INCREASE THE USE OF RISK-INFORMED AND PERFORMANCE-BASED EVALUATION TECHNIQUES AND REGULATORY GUIDANCE.**—

(1) **REPORT REQUIRED.**—Not later than 180 days after the date of enactment of this Act, the Commission shall submit to the appropriate congressional committees a report for increasing, where appropriate, the use of risk-informed and performance-based evaluation techniques and regulatory guidance in licensing commercial advanced nuclear reactors within the existing regulatory framework (referred to in this subsection as the “report”).

(2) **COORDINATION AND STAKEHOLDER INPUT.**—In developing the report, the Commission shall seek input from the Secretary, the nuclear energy industry, technology developers, and other public stakeholders.

(3) **COST AND SCHEDULE ESTIMATE.**—The report shall include proposed cost estimates, budgets, and timeframes for implementing a strategy to increase the use of risk-informed and performance-based evaluation techniques and regulatory guidance in licensing commercial advanced nuclear reactors.

(4) **REQUIRED EVALUATIONS.**—Consistent with the role of the Commission in protecting public health and safety and common

defense and security, the report shall evaluate—

(A) the ability of the Commission to develop and implement, where appropriate, risk-informed and performance-based licensing evaluation techniques and guidance for commercial advanced nuclear reactors within existing regulatory frameworks not later than 2 years after the date of enactment of this Act, including policies and guidance for the resolution of—

(i) issues relating to—

(I) licensing basis event selection and evaluation;

(II) use of mechanistic source terms;

(III) containment performance;

(IV) emergency preparedness; and

(V) the qualification of advanced nuclear reactor fuel; and

(ii) other policy issues previously identified; and

(B) the extent to which Commission action is needed to implement any part of the report.

(d) **REPORT TO PREPARE THE RESEARCH AND TEST REACTOR LICENSING PROCESS.**—

(1) **REPORT REQUIRED.**—Not later than 1 year after the date of enactment of this Act, the Commission shall submit to the appropriate congressional committees a report for preparing the licensing process for research and test reactors within the existing regulatory framework (referred to in this subsection as the “report”).

(2) **COORDINATION AND STAKEHOLDER INPUT.**—In developing the report, the Commission shall seek input from the Secretary, the nuclear energy industry, a diverse set of technology developers, and other public stakeholders.

(3) **COST AND SCHEDULE ESTIMATES.**—The report shall include proposed cost estimates, budgets, and timeframes for preparing the licensing process for research and test reactors.

(4) **REQUIRED EVALUATIONS.**—Consistent with the role of the Commission in protecting public health and safety and common defense and security, the report shall evaluate—

(A) the unique aspects of research and test reactor licensing and any associated legal, regulatory, and policy issues the Commission should address to prepare the licensing process for research and test reactors;

(B) the feasibility of developing guidelines for advanced reactor demonstrations and prototypes to support the review process for advanced reactors designs, including designs that use alternative coolants or alternative fuels, operate at or near atmospheric pressure, and use passive safety strategies; and

(C) the extent to which Commission action or modification of policy is needed to implement any part of the report.

(e) **REPORT TO COMPLETE A RULEMAKING TO ESTABLISH A TECHNOLOGY-INCLUSIVE REGULATORY FRAMEWORK FOR OPTIONAL USE BY COMMERCIAL ADVANCED NUCLEAR REACTOR TECHNOLOGIES IN NEW REACTOR LICENSE APPLICATIONS AND TO ENHANCE COMMISSION EXPERTISE RELATING TO ADVANCED NUCLEAR REACTOR TECHNOLOGIES.**—

(1) **REPORT REQUIRED.**—Not later than 30 months after the date of enactment of this Act, the Commission shall submit to the appropriate congressional committees a report (referred to in this subsection as the “report”) for—

(A) completing a rulemaking to establish a technology-inclusive regulatory framework for optional use by applicants in licensing commercial advanced nuclear reactor technologies in new reactor license applications; and

(B) ensuring that the Commission has adequate expertise, modeling, and simulation capabilities, or access to those capabilities,

to support the evaluation of commercial advanced reactor license applications, including the qualification of advanced nuclear reactor fuel.

(2) **COORDINATION AND STAKEHOLDER INPUT.**—In developing the report, the Commission shall seek input from the Secretary, the nuclear energy industry, a diverse set of technology developers, and other public stakeholders.

(3) **COST AND SCHEDULE ESTIMATE.**—The report shall include proposed cost estimates, budgets, and timeframes for developing and implementing a technology-inclusive regulatory framework for licensing commercial advanced nuclear reactor technologies, including completion of a rulemaking.

(4) **REQUIRED EVALUATIONS.**—Consistent with the role of the Commission in protecting public health and safety and common defense and security, the report shall evaluate—

(A) the ability of the Commission to complete a rulemaking to establish a technology-inclusive regulatory framework for licensing commercial advanced nuclear reactor technologies by December 31, 2027;

(B) the extent to which additional legislation, or Commission action or modification of policy, is needed to implement any part of the new regulatory framework;

(C) the need for additional Commission expertise, modeling, and simulation capabilities, or access to those capabilities, to support the evaluation of licensing applications for commercial advanced nuclear reactors and research and test reactors, including applications that use alternative coolants or alternative fuels, operate at or near atmospheric pressure, and use passive safety strategies; and

(D) the budgets and timeframes for acquiring or accessing the necessary expertise to support the evaluation of license applications for commercial advanced nuclear reactors and research and test reactors.

SEC. 104. BAFFLE-FORMER BOLT GUIDANCE.

(a) **REVISIONS TO GUIDANCE.**—Not later than 90 days after the date of enactment of this Act, the Commission shall publish any necessary revisions to the guidance on the baseline examination schedule and subsequent examination frequency for baffle-former bolts in pressurized water reactors with down-flow configurations.

(b) **REPORT.**—Not later than 90 days after the date of enactment of this Act, the Commission shall submit to the appropriate congressional committees—

(1) a report explaining any revisions made to the guidance described in subsection (a); or

(2) if no revisions were made, a report explaining why the guidance, as in effect on the date of submission of the report, is sufficient.

SEC. 105. EVACUATION REPORT.

(a) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act, the Commission shall submit to the appropriate congressional committees a report describing the actions the Commission has taken, or plans to take, to consider lessons learned since September 11, 2001, Superstorm Sandy, Fukushima, and other recent natural disasters regarding directed or spontaneous evacuations in densely populated urban and suburban areas.

(b) **INCLUSIONS.**—The report under subsection (a) shall—

(1) describe the actions of the Commission—

(A) to consider the results from—

(i) the State-of-the-Art Reactor Consequence Analyses project; and

(ii) the current examination by the Commission of emergency planning zones for

small modular reactors and advanced nuclear reactors; and

(B) to monitor international reviews, including reviews conducted by—

(i) the United Nations Scientific Committee on the Effects of Atomic Radiation;

(ii) the World Health Organization; and

(iii) the Fukushima Health Management Survey; and

(2) with respect to a disaster similar to a disaster described in subsection (a), include information about—

(A) potential shadow evacuations in response to the disaster; and

(B) what levels of self-evacuation should be expected during the disaster, including outside the 10-mile evacuation zone.

(c) **CONSULTATION REQUIRED.**—The report under subsection (a) shall be prepared after consultation with—

(1) the Federal Radiological Preparedness Coordinating Committee;

(2) State emergency planning officials from States that the Commission determines to be relevant to the report; and

(3) experts in analyzing human behavior and probable responses to a radiological emission event.

SEC. 106. ENCOURAGING PRIVATE INVESTMENT IN RESEARCH AND TEST REACTORS.

(a) **PURPOSE.**—The purpose of this section is to encourage private investment in research and test reactors.

(b) **RESEARCH AND DEVELOPMENT ACTIVITIES.**—Section 104 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2134(c)) is amended—

(1) in the first sentence, by striking “and which are not facilities of the type specified in subsection 104 b.” and inserting a period; and

(2) by adding at the end the following:

“The Commission is authorized to issue licenses under this section for utilization facilities useful in the conduct of research and development activities of the types specified in section 31 in which the licensee sells research and testing services and energy to others, subject to the condition that the licensee shall recover not more than 75 percent of the annual costs to the licensee of owning and operating the facility through sales of nonenergy services, energy, or both, other than research and development or education and training, of which not more than 50 percent may be through sales of energy.”.

SEC. 107. COMMISSION REPORT ON ACCIDENT TOLERANT FUEL.

(a) **DEFINITION OF ACCIDENT TOLERANT FUEL.**—In this section, the term “accident tolerant fuel” means a new technology that—

(1) makes an existing commercial nuclear reactor more resistant to a nuclear incident (as defined in section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014)); and

(2) lowers the cost of electricity over the licensed lifetime of an existing commercial nuclear reactor.

(b) **REPORT TO CONGRESS.**—Not later than 1 year after the date of enactment of this Act, the Commission shall submit to Congress a report describing the status of the licensing process of the Commission for accident tolerant fuel.

SEC. 108. REPORT IDENTIFYING BEST PRACTICES FOR ESTABLISHMENT AND OPERATION OF LOCAL COMMUNITY ADVISORY BOARDS.

(a) **BEST PRACTICES REPORT.**—Not later than 18 months after the date of enactment of this Act, the Commission shall submit to Congress, and make publicly available, a report identifying best practices with respect to the establishment and operation of a local community advisory board to foster communication and information exchange between a licensee planning for and involved in decommissioning activities and members of

the community that decommissioning activities may affect, including lessons learned from any such board in existence before the date of enactment of this Act.

(b) **CONTENTS.**—The report described in subsection (a) shall include—

(1) a description of—

(A) the topics that could be brought before a local community advisory board;

(B) how such a board's input could be used to inform the decision-making processes of stakeholders for various decommissioning activities;

(C) what interactions such a board could have with the Commission and other Federal regulatory bodies to support the board members' overall understanding of the decommissioning process and promote dialogue between the affected stakeholders and the licensee involved in decommissioning activities; and

(D) how such a board could offer opportunities for public engagement throughout all phases of the decommissioning process;

(2) a discussion of the composition of a local community advisory board; and

(3) best practices relating to the establishment and operation of a local community advisory board, including—

(A) the time of establishment of such a board;

(B) the frequency of meetings of such a board;

(C) the selection of board members;

(D) the term of board members;

(E) the responsibility for logistics required to support such a board's meetings and other routine activities; and

(F) any other best practices relating to such a local community advisory board that are identified by the Commission.

(c) **CONSULTATION.**—In developing the report described under subsection (a), the Commission shall consult with any host State, any community within the emergency planning zone of an applicable nuclear power reactor, and any existing local community advisory board.

(d) **PUBLIC MEETINGS.**—

(1) **IN GENERAL.**—The consultation required under subsection (c) shall include public meetings.

(2) **PUBLIC PARTICIPATION.**—The public meetings under paragraph (1) shall be conducted under the requirements applicable to category 3 meetings under the policy statement of the Commission entitled “Enhancing Public Participation in NRC Meetings; Policy Statement” (67 Fed. Reg. 36920 (May 28, 2002)) (or a successor policy statement).

(3) **NUMBER OF MEETINGS.**—

(A) **IN GENERAL.**—The Commission shall conduct not less than 10 public meetings under paragraph (1) in locations that ensure geographic diversity across the United States.

(B) **PRIORITY.**—In determining locations in which to conduct a public meeting under subparagraph (A), the Commission shall give priority to States that—

(i) have a nuclear power reactor currently undergoing the decommissioning process; and

(ii) request a public meeting under this paragraph.

(4) **WRITTEN SUMMARY.**—The report under subsection (a) shall include a written summary of the public meetings conducted under paragraph (1).

SEC. 109. REPORT ON STUDY RECOMMENDATIONS.

Not later than 90 days after the date of enactment of this Act, the Commission shall submit to Congress a report describing the status of addressing and implementing the recommendations contained in the memorandum of the Executive Director of Operations of the Commission entitled “Tasking

in Response to the Assessment of the Considerations Identified in a ‘Study of Reprisal and Chilling Effect for Raising Mission-Related Concerns and Differing Views at the Nuclear Regulatory Commission’” and dated June 19, 2018 (ADAMS Accession No.: ML18165A296).

TITLE II—URANIUM

SEC. 201. URANIUM RECOVERY REPORT.

Not later than 90 days after the date of enactment of this Act, the Commission shall submit to the appropriate congressional committees a report describing—

- (1) the duration of uranium recovery license issuance and amendment reviews; and
- (2) recommendations to improve efficiency and transparency of uranium recovery license issuance and amendment reviews.

SEC. 202. PILOT PROGRAM FOR URANIUM RECOVERY FEES.

Not later than 1 year after the date of enactment of this Act, the Commission shall—

- (1) complete a voluntary pilot initiative to determine the feasibility of the establishment of a flat fee structure for routine licensing matters relating to uranium recovery; and
- (2) provide to the appropriate congressional committees a report describing the results of the pilot initiative under paragraph (1).

SA 4176. Mr. CRUZ (for himself, Mr. NELSON, and Mr. MARKEY) proposed an amendment to the bill S. 3277, to reduce regulatory burdens and streamline processes related to commercial space activities, and for other purposes; as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) **SHORT TITLE.**—This Act may be cited as the “Space Frontier Act of 2019”.

(b) **TABLE OF CONTENTS.**—The table of contents of this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Definitions.

TITLE I—STREAMLINING OVERSIGHT OF LAUNCH AND REENTRY ACTIVITIES

- Sec. 101. Office of Commercial Space Transportation.
- Sec. 102. Use of existing authorities.
- Sec. 103. Experimental permits.
- Sec. 104. Space-related advisory rulemaking committees.
- Sec. 105. Government-developed space technology.
- Sec. 106. Regulatory reform.
- Sec. 107. Secretary of Transportation oversight and coordination of commercial launch and reentry operations.
- Sec. 108. Study on joint use of spaceports.
- Sec. 109. Airspace integration report.

TITLE II—STREAMLINING OVERSIGHT OF NONGOVERNMENTAL EARTH OBSERVATION ACTIVITIES

- Sec. 201. Nongovernmental Earth observation activities.
- Sec. 202. Radio-frequency mapping report.

TITLE III—MISCELLANEOUS

- Sec. 301. Promoting fairness and competitiveness for NASA partnership opportunities.
- Sec. 302. Lease of non-excess property.
- Sec. 303. Maintaining a national laboratory in space.
- Sec. 304. Presence in low-Earth orbit.
- Sec. 305. Continuation of the ISS.
- Sec. 306. United States policy on orbital debris.
- Sec. 307. Low-Earth orbit commercialization program.
- Sec. 308. Bureau of Space Commerce.

SEC. 2. DEFINITIONS.

In this Act:

- (1) **ISS.**—The term “ISS” means the International Space Station.
- (2) **NASA.**—The term “NASA” means the National Aeronautics and Space Administration.
- (3) **NOAA.**—The term “NOAA” means the National Oceanic and Atmospheric Administration.

TITLE I—STREAMLINING OVERSIGHT OF LAUNCH AND REENTRY ACTIVITIES

SEC. 101. OFFICE OF COMMERCIAL SPACE TRANSPORTATION.

(a) **IN GENERAL.**—Section 50921 of title 51, United States Code, is amended—

- (1) by inserting “(b) **AUTHORIZATION OF APPROPRIATIONS.**—” before “There” and indenting appropriately; and
- (2) by inserting before subsection (b), the following:

“(a) **ASSOCIATE ADMINISTRATOR FOR COMMERCIAL SPACE TRANSPORTATION.**—The Assistant Secretary for Commercial Space Transportation shall serve as the Associate Administrator for Commercial Space Transportation.”

(b) **ESTABLISHMENT OF ASSISTANT SECRETARY FOR COMMERCIAL SPACE TRANSPORTATION.**—Section 102(e)(1) of title 49, United States Code, is amended—

- (1) in the matter preceding subparagraph (A), by striking “6” and inserting “7”; and
- (2) in subparagraph (A), by inserting “Assistant Secretary for Commercial Space Transportation,” after “Assistant Secretary for Research and Technology,”.

SEC. 102. USE OF EXISTING AUTHORITIES.

(a) **SENSE OF CONGRESS.**—It is the sense of Congress that the Secretary of Transportation should make use of existing authorities, including waivers and safety approvals, as appropriate, to protect the public, make more efficient use of resources, reduce the regulatory burden for an applicant for a commercial space launch or reentry license or experimental permit, and promote commercial space launch and reentry.

(b) **LICENSE APPLICATIONS AND REQUIREMENTS.**—Section 50905 of title 51, United States Code, is amended—

- (1) in subsection (a)—
 - (A) by amending paragraph (1) to read as follows:
 - “(1) **IN GENERAL.**—
 - “(A) **APPLICATIONS.**—A person may apply to the Secretary of Transportation for a license or transfer of a license under this chapter in the form and way the Secretary prescribes.
 - “(B) **DECISIONS.**—Consistent with the public health and safety, safety of property, and national security and foreign policy interests of the United States, the Secretary, not later than the applicable deadline described in subparagraph (C), shall issue or transfer a license if the Secretary decides in writing that the applicant complies, and will continue to comply, with this chapter and regulations prescribed under this chapter.
 - “(C) **APPLICABLE DEADLINE.**—The applicable deadline described in this subparagraph shall be—
 - “(i) for an applicant that was or is a holder of any license under this chapter, not later than 90 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(E); and
 - “(ii) for a new applicant, not later than 180 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(E).
 - “(D) **NOTICE TO APPLICANTS.**—The Secretary shall inform the applicant of any pending issue and action required to resolve the issue if the Secretary has not made a decision not later than—

“(i) for an applicant described in subparagraph (C)(i), 60 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(E); and

“(ii) for an applicant described in subparagraph (C)(ii), 120 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(E).

“(E) **NOTICE TO CONGRESS.**—The Secretary shall transmit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a written notice not later than 30 days after any occurrence when the Secretary has not taken action on a license application within an applicable deadline established by this subsection.”; and

(B) in paragraph (2)—

(i) by inserting “**PROCEDURES FOR SAFETY APPROVALS.**—” before “‘In carrying out’”; and

(ii) by inserting “software,” after “services,”; and

(iii) by adding at the end the following: “Such safety approvals may be issued simultaneously with a license under this chapter.”; and

(2) by adding at the end the following:

“(e) **USE OF EXISTING AUTHORITIES.**—

“(1) **IN GENERAL.**—The Secretary shall use existing authorities, including waivers and safety approvals, as appropriate, to make more efficient use of resources, reduce the regulatory burden for an applicant under this section, and promote commercial space launch and reentry.

“(2) **EXPEDITING SAFETY APPROVALS.**—The Secretary shall expedite the processing of safety approvals that would reduce risks to health or safety during launch and reentry.”.

(c) **RESTRICTIONS ON LAUNCHES, OPERATIONS, AND REENTRIES.**—Section 50904 of title 51, United States Code, is amended by adding at the end the following:

“(e) **MULTIPLE SITES.**—The Secretary may issue a single license or permit for an operator to conduct launch services and reentry services at multiple launch sites or reentry sites.”.

SEC. 103. EXPERIMENTAL PERMITS.

Section 50906 of title 51, United States Code, is amended by adding at the end the following:

“(j) **USE OF EXISTING AUTHORITIES.**—

“(1) **IN GENERAL.**—The Secretary shall use existing authorities, including waivers and safety approvals, as appropriate, to make more efficient use of resources, reduce the regulatory burden for an applicant under this section, and promote commercial space launch and reentry.

“(2) **EXPEDITING SAFETY APPROVALS.**—The Secretary shall expedite the processing of safety approvals that would reduce risks to health or safety during launch and reentry.”.

SEC. 104. SPACE-RELATED ADVISORY RULEMAKING COMMITTEES.

Section 50903 of title 51, United States Code, is amended by adding at the end the following:

“(e) **FACA.**—The Federal Advisory Committee Act (5 U.S.C. App.) does not apply to such space-related rulemaking committees under the Secretary’s jurisdiction as the Secretary shall designate.”.

SEC. 105. GOVERNMENT-DEVELOPED SPACE TECHNOLOGY.

Section 50901(b)(2)(B) of title 51, United States Code, is amended by striking “and encouraging”.

SEC. 106. REGULATORY REFORM.

(a) **DEFINITIONS.**—The definitions set forth in section 50902 of title 51, United States Code, shall apply to this section.

(b) **FINDINGS.**—Congress finds that the commercial space launch regulatory environment has at times impeded the United States

commercial space launch sector in its innovation of launch technologies, reusable launch and reentry vehicles, and other areas related to commercial launches and reentries.

(C) REGULATORY IMPROVEMENTS FOR COMMERCIAL SPACE LAUNCH ACTIVITIES.—

(1) **IN GENERAL.**—Not later than February 1, 2019, the Secretary of Transportation shall issue a notice of proposed rulemaking to revise any regulations under chapter 509, United States Code, as the Secretary considers necessary to meet the objective of this section.

(2) **OBJECTIVE.**—The objective of this section is to establish, consistent with the purposes described in section 50901(b) of title 51, United States Code, a regulatory regime for commercial space launch activities under chapter 509 that—

(A) creates, to the extent practicable, requirements applicable both to expendable launch and reentry vehicles and to reusable launch and reentry vehicles;

(B) is neutral with regard to the specific technology utilized in a launch, a reentry, or an associated safety system;

(C) protects the health and safety of the public;

(D) establishes clear, high-level performance requirements;

(E) encourages voluntary, industry technical standards that complement the high-level performance requirements established under subparagraph (D); and

(F) facilitates and encourages appropriate collaboration between the commercial space launch and reentry sector and the Department of Transportation with respect to the requirements under subparagraph (D) and the standards under subparagraph (E).

(d) **CONSULTATION.**—In revising the regulations under subsection (c), the Secretary of Transportation shall consult with the following:

(1) Secretary of Defense.

(2) Administrator of NASA.

(3) Such members of the commercial space launch and reentry sector as the Secretary of Transportation considers appropriate to ensure adequate representation across industry.

(e) REPORT.—

(1) **IN GENERAL.**—Not later than 60 days after the date of enactment of this Act, the Secretary of Transportation, in consultation with the persons described in subsection (d), shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology and the Committee on Transportation and Infrastructure of the House of Representatives a report on the progress in carrying out this section.

(2) **CONTENTS.**—The report shall include—

(A) milestones and a schedule to meet the objective of this section;

(B) a description of any Federal agency resources necessary to meet the objective of this section;

(C) recommendations for legislation that would expedite or improve the outcomes under subsection (c); and

(D) a plan for ongoing consultation with the persons described in subsection (d).

SEC. 107. SECRETARY OF TRANSPORTATION OVERSIGHT AND COORDINATION OF COMMERCIAL LAUNCH AND REENTRY OPERATIONS.

(a) **OVERSIGHT AND COORDINATION.—**

(1) **IN GENERAL.**—The Secretary of Transportation, in accordance with the findings under section 1617 of the National Defense Authorization Act for Fiscal Year 2016 (51 U.S.C. 50918 note) and subject to section 50905(b)(2)(C) of title 51, United States Code, shall take such action as may be necessary to consolidate or modify the requirements

across Federal agencies identified in section 1617(c)(1)(A) of that Act into a single application set that satisfies those requirements and expedites the coordination of commercial launch and reentry services.

(2) CHAPTER 509.—

(A) **PURPOSES.**—Section 50901 of title 51, United States Code, is amended by inserting “all” before “commercial launch and reentry operations”.

(B) **GENERAL AUTHORITY.**—Section 50903(b) of title 51, United States Code, is amended—

(i) by redesignating paragraphs (1) and (2) as paragraphs (3) and (4), respectively; and

(ii) by inserting before paragraph (3), as redesignated, the following:

“(1) consistent with this chapter, authorize, license, and oversee the conduct of all commercial launch and reentry operations, including any commercial launch or commercial reentry at a Federal range;

“(2) if an application for a license or permit under this chapter includes launch or reentry at a Defense range, coordinate with the Secretary of Defense, or designee, to protect any national security interest relevant to such activity, including any necessary mitigation measure to protect Department of Defense property and personnel;”.

(3) **EFFECTIVE DATE.**—This subsection takes effect on the date the final rule under section 107(c) of this Act is published in the Federal Register.

(b) **RULES OF CONSTRUCTION.**—Nothing in this Act, or the amendments made by this Act, may be construed to affect—

(1) section 1617 of the National Defense Authorization Act for Fiscal Year 2016 (51 U.S.C. 50918 note); or

(2) the authority of the Secretary of Defense as it relates to safety and security related to launch or reentry at a Defense range.

(c) **TECHNICAL AMENDMENT; REPEAL REDUNDANT LAW.**—Section 113 of the U.S. Commercial Space Launch Competitiveness Act (Public Law 114-90; 129 Stat. 704) and the item relating to that section in the table of contents under section 1(b) of that Act are repealed.

SEC. 108. STUDY ON JOINT USE OF SPACEPORTS.

(a) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act—

(1) the Secretary of Transportation shall, in consultation with the Secretary of Defense, conduct a study of the current process the Government uses to provide or permit the joint use of United States military installations for licensed nongovernmental space launch and reentry activities, space-related activities, and space transportation services by United States commercial providers; and

(2) submit the results of the study to the Committee on Commerce, Science, and Transportation and the Committee on Armed Services of the Senate and the Committee on Science, Space, and Technology and the Committee on Armed Services of the House of Representatives.

(b) **CONSIDERATIONS.**—In conducting the study required by subsection (a), the Secretary of Transportation shall consider the following:

(1) Improvements that could be made to the current process the Government uses to provide or permit the joint use of United States military installations for licensed nongovernmental space launch and reentry activities, space-related activities, and space transportation services by United States commercial providers.

(2) Means to facilitate the ability for a military installation to request that the Secretary of Transportation consider the military installation as a site to provide or permit the licensed nongovernmental space

launch and reentry activities, space-related activities, and space transportation services by United States commercial providers.

(3) The feasibility of increasing the number of military installations that provide or are permitted to be utilized for licensed nongovernmental space launch and reentry activities, space-related activities, and space transportation services by United States commercial providers.

(4) The importance of the use of safety approvals of launch vehicles, reentry vehicles, space transportation vehicles, safety systems, processes, services, or personnel (including approval procedures for the purpose of protecting the health and safety of crew, Government astronauts, and space flight participants), to the extent permitted that may be used in conducting licensed commercial space launch, reentry activities, and space transportation services at installations.

SEC. 109. AIRSPACE INTEGRATION REPORT.

(a) **IN GENERAL.**—Not later than 90 days after the date of enactment of this Act, the Secretary of Transportation shall—

(1) identify and review the current policies and tools used to integrate launch and reentry (as those terms are defined in section 50902 of title 51, United States Code) into the national airspace system;

(2) consider whether the policies and tools identified in paragraph (1) need to be updated to more efficiently and safely manage the national airspace system; and

(3) submit to the appropriate committees of Congress a report on the findings under paragraphs (1) and (2), including recommendations for how to more efficiently and safely manage the national airspace system.

(b) **CONSULTATION.**—In conducting the review under subsection (a), the Secretary shall consult with such members of the commercial space launch and reentry sector and commercial aviation sector as the Secretary considers appropriate to ensure adequate representation across those industries.

(c) **DEFINITION OF APPROPRIATE COMMITTEES OF CONGRESS.**—In this section, the term “appropriate committees of Congress” means—

(1) the Committee on Commerce, Science, and Transportation of the Senate;

(2) the Committee on Science, Space, and Technology of the House of Representatives; and

(3) the Committee on Transportation and Infrastructure of the House of Representatives.

TITLE II—STREAMLINING OVERSIGHT OF NONGOVERNMENTAL EARTH OBSERVATION ACTIVITIES

SEC. 201. NONGOVERNMENTAL EARTH OBSERVATION ACTIVITIES.

(a) **LICENSING OF NONGOVERNMENTAL EARTH OBSERVATION ACTIVITIES.**—Chapter 601 of title 51, United States Code, is amended—

(1) in section 60101—

(A) by amending paragraph (12) to read as follows:

“(12) **UNENHANCED DATA.**—The term ‘unenhanced data’ means signals or imagery products from Earth observation activities that are unprocessed or subject only to data preprocessing.”;

(B) by redesignating paragraphs (12) and (13) as paragraphs (18) and (19), respectively;

(C) by redesignating paragraph (11) as paragraph (15);

(D) by redesignating paragraphs (4) through (10) as paragraphs (5) through (11), respectively;

(E) by inserting after paragraph (3), the following:

“(4) **EARTH OBSERVATION ACTIVITY.**—The term ‘Earth observation activity’ means a space activity the primary purpose of which

is to collect data that can be processed into imagery of the Earth or of man-made objects orbiting the Earth.”;

(F) by inserting after paragraph (11), as redesignated, the following:

“(12) **NONGOVERNMENTAL EARTH OBSERVATION ACTIVITY.**—The term ‘nongovernmental Earth observation activity’ means an Earth observation activity of a person other than—

“(A) the United States Government; or

“(B) a Government contractor or subcontractor if the Government contractor or subcontractor is performing the activity for the Government.

“(13) **ORBITAL DEBRIS.**—The term ‘orbital debris’ means any space object that is placed in space or derives from a space object placed in space by a person, remains in orbit, and no longer serves any useful function or purpose.

“(14) **PERSON.**—The term ‘person’ means a person (as defined in section 1 of title 1) subject to the jurisdiction or control of the United States.”; and

(G) by inserting after paragraph (15), as redesignated, the following:

“(16) **SPACE ACTIVITY.**—

“(A) **IN GENERAL.**—The term ‘space activity’ means any activity that is conducted in space.

“(B) **INCLUSIONS.**—The term ‘space activity’ includes any activity conducted on a celestial body, including the Moon.

“(C) **EXCLUSIONS.**—The term ‘space activity’ does not include any activity that is conducted entirely on board or within a space object and does not affect another space object.

“(17) **SPACE OBJECT.**—The term ‘space object’ means any object, including any component of that object, that is launched into space or constructed in space, including any object landed or constructed on a celestial body, including the Moon.”;

(2) by amending subchapter III to read as follows:

“SUBCHAPTER III—AUTHORIZATION OF NONGOVERNMENTAL EARTH OBSERVATION ACTIVITIES

“§ 60121. Purposes

“The purposes of this subchapter are—

“(1) to prevent, to the extent practicable, harmful interference to space activities by nongovernmental Earth observation activities;

“(2) to manage risk and prevent harm to United States national security;

“(3) to ensure consistency with international obligations of the United States; and

“(4) to promote the leadership, industrial innovation, and international competitiveness of the United States.

“§ 60122. General authority

“(a) **IN GENERAL.**—The Secretary shall carry out this subchapter.

“(b) **FUNCTIONS.**—In carrying out this subchapter, the Secretary shall consult with—

“(1) the Secretary of Defense;

“(2) the Director of National Intelligence; and

“(3) the head of such other Federal department or agency as the Secretary considers necessary.

“§ 60123. Administrative authority of Secretary

“(a) **FUNCTIONS.**—In order to carry out the responsibilities specified in this subchapter, the Secretary may—

“(1) grant, condition, or transfer licenses under this chapter;

“(2) seek an order of injunction or similar judicial determination from a district court of the United States with personal jurisdiction over the licensee to terminate, modify, or suspend licenses under this subchapter

and to terminate licensed operations on an immediate basis, if the Secretary determines that the licensee has substantially failed to comply with any provisions of this chapter, with any terms, conditions, or restrictions of such license, or with any international obligations or national security concerns of the United States;

“(3) issue penalties for noncompliance with the requirements of licenses or regulations issued under this subchapter, including civil penalties not to exceed \$10,000 (each day of operation in violation of such licenses or regulations constituting a separate violation);

“(4) compromise, modify, or remit any such civil penalty;

“(5) issue subpoenas for any materials, documents, or records, or for the attendance and testimony of witnesses for the purpose of conducting a hearing under this purpose;

“(6) seize any object, record, or report pursuant to a warrant from a magistrate based on a showing of probable cause to believe that such object, record, or report was used, is being used, or is likely to be used in violation of this chapter or the requirements of a license or regulation issued thereunder; and

“(7) make investigations and inquiries and administer to or take from any person an oath, affirmation, or affidavit concerning any matter relating to the enforcement of this chapter.

“(b) **REVIEW OF AGENCY ACTION.**—Any applicant or licensee that makes a timely request for review of an adverse action pursuant to paragraph (1), (3), (5), or (6) of subsection (a) shall be entitled to adjudication by the Secretary on the record after an opportunity for any agency hearing with respect to such adverse action. Any final action by the Secretary under this subsection shall be subject to judicial review under chapter 7 of title 5.

“§ 60124. Authorization to conduct nongovernmental Earth observation activities

“(a) **REQUIREMENT.**—No person may conduct any nongovernmental Earth observation activity without an authorization issued under this subchapter.

“(b) **WAIVERS.**—

“(1) **IN GENERAL.**—The Secretary, in consultation with the Secretary of Defense, the Director of National Intelligence, and the head of such other Federal agency as the Secretary considers appropriate, may waive a requirement under this subchapter for a nongovernmental Earth observation activity, or for a type or class of nongovernmental Earth observation activities, if the Secretary decides that granting a waiver is consistent with section 60121.

“(2) **STANDARDS.**—Not later than 120 days after the date of enactment of the Space Frontier Act of 2019, the Secretary shall establish standards, in consultation with the Secretary of Defense and the head of such other Federal agency as the Secretary considers appropriate, for determining de minimis Earth observation activities that would be eligible for a waiver under paragraph (1).

“(c) **COVERAGE OF AUTHORIZATION.**—The Secretary shall, to the maximum extent practicable, require a single authorization for a person—

“(1) to conduct multiple Earth observation activities using a single space object;

“(2) to operate multiple space objects carrying out substantially similar Earth observation activities; or

“(3) to use multiple space objects to carry out a single Earth observation activity.

“(d) **APPLICATION.**—

“(1) **IN GENERAL.**—A person seeking an authorization under this subchapter shall submit an application to the Secretary at such time, in such manner, and containing such

information as the Secretary may require for the purposes described in section 60121, including—

“(A) a description of the proposed Earth observation activity, including—

“(i) a physical and functional description of each space object;

“(ii) the orbital characteristics of each space object, including altitude, inclination, orbital period, and estimated operational lifetime; and

“(iii) a list of the names of all persons that have or will have direct operational or financial control of the Earth observation activity;

“(B) a plan to prevent orbital debris consistent with the 2001 United States Orbital Debris Mitigation Standard Practices or any subsequent revision thereof; and

“(C) a description of the capabilities of each instrument to be used to observe the Earth in the conduct of the Earth observation activity.

“(2) **APPLICATION STATUS.**—Not later than 14 days after the date of receipt of an application, the Secretary shall make a determination whether the application is complete or incomplete and notify the applicant of that determination, including, if incomplete, the reason the application is incomplete.

“(e) **REVIEW.**—

“(1) **IN GENERAL.**—Not later than 90 days after the date that the Secretary makes a determination under subsection (d)(2) that an application is complete, the Secretary shall review all information provided in that application and, subject to the provisions of this subsection, notify the applicant in writing whether the application was approved, with or without conditions, or denied.

“(2) **APPROVALS.**—The Secretary shall approve an application under this subsection if the Secretary determines that—

“(A) the Earth observation activity is consistent with the purposes described in section 60121; and

“(B) the applicant is in compliance, and will continue to comply, with this subchapter, including regulations.

“(3) **DENIALS.**—

“(A) **IN GENERAL.**—If an application under this subsection is denied, the Secretary—

“(i) shall include in the notification under paragraph (1)—

“(I) a reason for the denial; and

“(II) a description of each deficiency, including guidance on how to correct the deficiency;

“(ii) shall sign the notification under paragraph (1);

“(iii) may not delegate the duty under clause (ii); and

“(iv) shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a copy of the notification.

“(B) **INTERAGENCY REVIEW.**—Not later than 3 days after the date that the Secretary makes a determination under subsection (d)(2) that an application is complete, the Secretary shall consult with the head of each Federal department and agency described in section 60122(b) and if any head of such Federal department or agency does not support approving the application—

“(i) that head of another Federal department or agency—

“(I) not later than 60 days after the date of the consultation, shall notify the Secretary, in writing, of the reason for withholding support, including a description of each deficiency and guidance on how to correct the deficiency;

“(II) shall sign the notification under subsection (I); and

“(III) may not delegate the duty under subclause (II), except the Secretary of Defense may delegate the duty under subclause (II) to an Under Secretary of Defense; and

“(ii) subject to all applicable laws, the Secretary shall include the notification under clause (i) in the notification under paragraph (1), including classified information if—

“(I) the Secretary of Defense or Director of National Intelligence, as appropriate, determines that disclosure of the classified information is appropriate; and

“(II) the applicant has the required security clearance for that classified information.

“(C) INTERAGENCY ASSENTS.—If the head of another Federal department or agency does not notify the Secretary under subparagraph (B)(i)(I) within the time specified in that subparagraph, that head of another Federal department or agency shall be deemed to have assented to the application.

“(D) INTERAGENCY DISSENTS.—If, during the review of an application under paragraph (1), a head of a Federal department or agency described in subparagraph (B) disagrees with the Secretary or the head of another Federal department or agency described in subparagraph (B) with respect to a deficiency under this subsection, the Secretary shall submit the matter to the President, who shall resolve the dispute before the applicable deadline under paragraph (1).

“(E) DEFICIENCIES.—The Secretary shall—

“(i) provide each applicant under this paragraph with a reasonable opportunity—

“(I) to correct each deficiency identified under subparagraph (A)(i)(II); and

“(II) to resubmit a corrected application for reconsideration; and

“(ii) not later than 30 days after the date of receipt of a corrected application under clause (i)(II), make a determination whether to approve the application or not, in consultation with—

“(I) each head of another Federal department or agency that submitted a notification under subparagraph (B); and

“(II) the head of such other Federal department or agency as the Secretary considers necessary.

“(F) IMPROPER BASIS FOR DENIAL.—

“(i) COMPETITION.—The Secretary shall not deny an application under this subsection in order to protect any existing Earth observation activity from competition.

“(ii) CAPABILITIES.—The Secretary shall not, to the maximum extent practicable, deny an application under this subsection based solely on the capabilities of the Earth observation activity if those capabilities—

“(I) are commercially available; or

“(II) are reasonably expected to be made commercially available, not later than 3 years after the date of the application, in the international or domestic marketplace.

“(iii) APPLICABILITY.—The prohibition under clause (ii)(II) shall apply whether the marketplace products and services originate from the operation of aircraft, uncrewed aircraft, or other platforms or technical means or are assimilated from a variety of data sources.

“(4) DEADLINE.—If the Secretary does not notify an applicant in writing before the applicable deadline under paragraph (1), the Secretary shall, not later than 1 business day after the date of the applicable deadline, notify the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives of the status of the application, including the reason the deadline was not met.

“(5) EXPEDITED REVIEW PROCESS.—Subject to paragraph (2) of this section and section 60122(b), the Secretary may modify the requirements under this subsection, as the

Secretary considers appropriate, to expedite the review of an application that seeks to conduct an Earth observation activity that is substantially similar to an Earth observation activity already licensed under this subchapter.

“(f) ADDITIONAL REQUIREMENTS.—An authorization issued under this subchapter shall require the authorized person—

“(1) to be in compliance with this subchapter;

“(2) to notify the Secretary of any significant change in the information contained in the application; and

“(3) to make available to the government of any country, including the United States, unenhanced data collected by the Earth observation system concerning the territory under the jurisdiction of that government as soon as such data are available and on reasonable commercial terms and conditions.

“(g) PROHIBITION ON RETROACTIVE CONDITIONS.—

“(1) IN GENERAL.—Except as provided in paragraph (3), the Secretary may not modify any condition on, or add any condition to, an authorization under this subchapter after the date of the authorization.

“(2) RULE OF CONSTRUCTION.—Nothing in this section shall be constructed to prohibit the Secretary from removing a condition on an authorization under this subchapter.

“(3) INTERAGENCY REVIEW.—

“(A) IN GENERAL.—Subject to subparagraphs (B) and (E), the Secretary or the head of a Federal department or agency described in section 60122(b) may, without delegation, propose the modification or addition of a condition to an authorization under this subchapter after the date of the authorization.

“(B) CONSULTATION REQUIREMENT.—Prior to making the modification or addition under subparagraph (A), the Secretary or the applicable head of the Federal department or agency shall consult with the head of each of the other Federal departments and agencies described in section 60122(b) and if any head of such Federal department or agency does not support such modification or addition that head of another Federal department or agency—

“(i) not later than 60 days after the date of the consultation, shall notify the Secretary, in writing, of the reason for withholding support;

“(ii) shall sign the notification under clause (i); and

“(iii) may not delegate the duty under clause (ii).

“(C) INTERAGENCY ASSENTS.—If the head of another Federal department or agency does not notify the Secretary under subparagraph (B)(i) within the time specified in that subparagraph, that head of another Federal department or agency shall be deemed to have assented to the modification or addition under subparagraph (A).

“(D) INTERAGENCY DISSENTS.—If the head of a Federal department or agency described in subparagraph (A) disagrees with the Secretary or the head of another Federal department or agency described in subparagraph (A) with respect to such modification or addition under this paragraph, the Secretary shall submit the matter to the President, who shall resolve the dispute.

“(E) NOTICE.—Prior to making a modification or addition under subparagraph (A), the Secretary or the head of the Federal department or agency, as applicable, shall—

“(i) provide notice to the licensee of the reason for the proposed modification or addition, including, if applicable, a description of any deficiency and guidance on how to correct the deficiency; and

“(ii) provide the licensee a reasonable opportunity to correct a deficiency identified in clause (i).

“§ 60125. Annual reports

“(a) IN GENERAL.—Not later than 180 days after the date of enactment of the Space Frontier Act of 2019, and annually thereafter, the Secretary shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on the progress in implementing this subchapter, including—

“(1) a list of all applications received or pending in the previous calendar year and the status of each such application;

“(2) notwithstanding paragraph (4) of section 60124(e), a list of all applications, in the previous calendar year, for which the Secretary missed the deadline under paragraph (1) of that section, including the reasons the deadline was not met; and

“(3) a description of all actions taken by the Secretary under the administrative authority granted under section 60123.

“(b) CLASSIFIED ANNEXES.—Each report under subsection (a) may include classified annexes as necessary to protect the disclosure of sensitive or classified information.

“(c) CESSATION OF EFFECTIVENESS.—This section ceases to be effective September 30, 2021.

“§ 60126. Regulations

“The Secretary may promulgate regulations to implement this subchapter.

“§ 60127. Relationship to other executive agencies and laws

“(a) EXECUTIVE AGENCIES.—Except as provided in this subchapter or chapter 509, or any activity regulated by the Federal Communications Commission under the Communications Act of 1934 (47 U.S.C. 151 et seq.), a person is not required to obtain from an executive agency a license, approval, waiver, or exemption to conduct a nongovernmental Earth observation activity.

“(b) RULE OF CONSTRUCTION.—This subchapter does not affect the authority of—

“(1) the Federal Communications Commission under the Communications Act of 1934 (47 U.S.C. 151 et seq.); or

“(2) the Secretary of Transportation under chapter 509 of this title.

“(c) NONAPPLICATION.—This subchapter does not apply to any space activity the United States Government carries out for the Government.”; and

(3) by amending section 60147 to read as follows:

“§ 60147. Consultation

“(a) CONSULTATION WITH SECRETARY OF DEFENSE.—The Landsat Program Management shall consult with the Secretary of Defense on all matters relating to the Landsat Program under this chapter that affect national security. The Secretary of Defense shall be responsible for determining those conditions, consistent with this chapter, necessary to meet national security concerns of the United States and for notifying the Landsat Program Management of such conditions.

“(b) CONSULTATION WITH SECRETARY OF STATE.—

“(1) IN GENERAL.—The Landsat Program Management shall consult with the Secretary of State on all matters relating to the Landsat Program under this chapter that affect international obligations. The Secretary of State shall be responsible for determining those conditions, consistent with this chapter, necessary to meet international obligations and policies of the United States and for notifying the Landsat Program Management of such conditions.

“(2) INTERNATIONAL AID.—Appropriate United States Government agencies are authorized and encouraged to provide remote sensing data, technology, and training to developing nations as a component of programs of international aid.

“(3) REPORTING DISCRIMINATORY DISTRIBUTION.—The Secretary of State shall promptly report to the Landsat Program Management any instances outside the United States of discriminatory distribution of Landsat data.

“(c) STATUS REPORT.—The Landsat Program Management shall, as often as necessary, provide to Congress complete and updated information about the status of ongoing operations of the Landsat system, including timely notification of decisions made with respect to the Landsat system in order to meet national security concerns and international obligations and policies of the United States Government.”.

(b) TABLE OF CONTENTS.—The table of contents of chapter 601 of title 51, United States Code, is amended by striking the items relating to subchapter III and inserting the following:

“SUBCHAPTER III—AUTHORIZATION OF NON-GOVERNMENTAL EARTH OBSERVATION ACTIVITIES

“60121. Purposes.

“60122. General authority.

“60123. Administrative authority of Secretary.

“60124. Authorization to conduct nongovernmental Earth observation activities.

“60125. Annual reports.

“60126. Regulations.

“60127. Relationship to other executive agencies and laws.”.

(c) RULES OF CONSTRUCTION.—

(1) Nothing in this section or the amendments made by this section shall affect any license, or application for a license, to operate a private remote sensing space system that was made under subchapter III of chapter 601 of title 51, United States Code (as in effect before the date of enactment of this Act), before the date of enactment of this Act. Such license shall continue to be subject to the requirements to which such license was subject under that chapter as in effect on the day before the date of enactment of this Act.

(2) Nothing in this section or the amendments made by this section shall affect the prohibition on the collection and release of detailed satellite imagery relating to Israel under section 1064 of the National Defense Authorization Act for Fiscal Year 1997 (51 U.S.C. 60121 note).

SEC. 202. RADIO-FREQUENCY MAPPING REPORT.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary of Commerce, in consultation with the Secretary of Defense and the Director of National Intelligence, shall complete and submit a report on space-based radio-frequency mapping to—

(1) the Committee on Commerce, Science, and Transportation of the Senate;

(2) the Select Committee on Intelligence of the Senate;

(3) the Committee on Armed Services of the Senate;

(4) the Committee on Science, Space, and Technology of the House of Representatives;

(5) the Permanent Select Committee on Intelligence of the House of Representatives; and

(6) the Committee on Armed Services of the House of Representatives.

(b) CONTENTS.—The report under subsection (a) shall include—

(1) a discussion of whether a need exists to regulate space-based radio-frequency mapping;

(2) a description of any immitigable impacts of space-based radio-frequency mapping on national security, United States competitiveness and space leadership, or Constitutional rights;

(3) any recommendations for additional regulatory action regarding space-based radio-frequency mapping;

(4) a detailed description of the costs and benefits of the recommendations described in paragraph (3); and

(5) an evaluation of—

(A) whether the development of voluntary consensus industry standards in coordination with the Department of Defense is more appropriate than issuing regulations with respect to space-based radio-frequency mapping; and

(B) whether existing law, including regulations and policies, could be applied in a manner that prevents the need for additional regulation of space-based radio-frequency mapping.

(c) FORM.—The report under subsection (a) shall be submitted in unclassified form, but may include a classified annex.

TITLE III—MISCELLANEOUS

SEC. 301. PROMOTING FAIRNESS AND COMPETITIVENESS FOR NASA PARTNERSHIP OPPORTUNITIES.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) fair access to available NASA assets and services on a reimbursable, noninterference, equitable, and predictable basis is advantageous in enabling the United States commercial space industry;

(2) NASA should continue to promote fairness to all parties and ensure best value to the Federal Government in granting use of NASA assets, services, and capabilities in a manner that contributes to NASA's missions and objectives; and

(3) NASA should continue to promote small business awareness and participation through advocacy and collaborative efforts with internal and external partners, stakeholders, and academia.

(b) GUIDANCE FOR SMALL BUSINESS PARTICIPATION.—The Administrator of NASA shall—

(1) provide opportunities for the consideration of small business concerns during public-private partnership planning processes and in public-private partnership plans;

(2) invite the participation of each relevant director of an Office of Small and Disadvantaged Business Utilization under section 15(k) of the Small Business Act 915 U.S.C. 644(k) in public-private partnership planning processes and provide the director access to public-private partnership plans;

(3) not later than 90 days after the date of enactment of this Act—

(A) identify and establish a list of all NASA assets, services, and capabilities that are available, or will be available, for public-private partnership opportunities; and

(B) make the list under subparagraph (A) available on NASA's website, in a searchable format;

(4) periodically as needed, but not less than once per year, update the list and website under paragraph (3); and

(5) not later than 180 days after the date of enactment of this Act, develop a policy and issue guidance for a consistent, fair, and equitable method for scheduling and establishing priority of use of the NASA assets, services, and capabilities identified under this subsection.

(c) STRENGTHENING SMALL BUSINESS AWARENESS.—Not later than 180 days after the date of enactment of this Act, the Administrator of NASA shall designate an official at each NASA Center—

(1) to serve as an advocate for small businesses within the office that manages partnerships at each Center; and

(2) to provide guidance to small businesses on how to participate in public-private partnership opportunities with NASA.

SEC. 302. LEASE OF NON-EXCESS PROPERTY.

Section 20145(g) of title 51, United States Code, is amended by striking “December 31, 2018” and inserting “December 31, 2019”.

SEC. 303. MAINTAINING A NATIONAL LABORATORY IN SPACE.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) the United States national laboratory in space, which currently consists of the United States segment of the ISS (designated a national laboratory under section 70905 of title 51, United States Code)—

(A) benefits the scientific community and promotes commerce in space;

(B) fosters stronger relationships among NASA and other Federal agencies, the private sector, and research groups and universities;

(C) advances science, technology, engineering, and mathematics education through utilization of the unique microgravity environment; and

(D) advances human knowledge and international cooperation;

(2) after the ISS is decommissioned, the United States should maintain a national microgravity laboratory in space;

(3) in maintaining a national microgravity laboratory described in paragraph (2), the United States should make appropriate accommodations for different types of ownership and operational structures for the ISS and future space stations;

(4) the national microgravity laboratory described in paragraph (2) should be maintained beyond the date that the ISS is decommissioned and, if possible, in cooperation with international space partners to the extent practicable; and

(5) NASA should continue to support fundamental science research on future platforms in low-Earth orbit and cis-lunar space, short duration suborbital flights, drop towers, and other microgravity testing environments.

(b) REPORT.—The Administrator of NASA shall produce, in coordination with the National Space Council and other Federal agencies as the Administrator deems relevant, a report detailing the feasibility of establishing a microgravity national laboratory Federally Funded Research and Development Center to undertake the work related to the study and utilization of in-space conditions.

SEC. 304. PRESENCE IN LOW-EARTH ORBIT.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) it is in the national and economic security interests of the United States to maintain a continuous human presence in low-Earth orbit; and

(2) low-Earth orbit should be utilized as a testbed to advance human space exploration, scientific discoveries, and United States economic competitiveness and commercial participation.

(b) HUMAN PRESENCE REQUIREMENT.—NASA shall continuously maintain the capability for a continuous human presence in low-Earth orbit through and beyond the useful life of the ISS.

SEC. 305. CONTINUATION OF THE ISS.

(a) CONTINUATION OF THE INTERNATIONAL SPACE STATION.—Section 501(a) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18351(a)) is amended by striking “2024” and inserting “2030”.

(b) MAINTENANCE OF THE UNITED STATES SEGMENT AND ASSURANCE OF CONTINUED OPERATIONS OF THE INTERNATIONAL SPACE STATION.—Section 503(a) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18353(a)) is amended by striking “2024” and inserting “2030”.

(c) RESEARCH CAPACITY ALLOCATION AND INTEGRATION OF RESEARCH PAYLOADS.—Section 504(d) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18354(d)) is amended by striking “2024” each place it appears and inserting “2030”.

(d) MAINTAINING USE THROUGH AT LEAST 2030.—Section 70907 of title 51, United States Code, is amended—

(1) in the heading, by striking “2024” and inserting “2030”; and

(2) by striking “2024” each place it appears and inserting “2030”.

SEC. 306. UNITED STATES POLICY ON ORBITAL DEBRIS.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) existing guidelines for the mitigation of orbital debris may not be adequate to ensure long term usability of the space environment for all users; and

(2) the United States should continue to exercise a leadership role in developing orbital debris prevention standards that can be used by all space-faring nations.

(b) POLICY OF THE UNITED STATES.—It is the policy of the United States to have consistent standards across Federal agencies that minimize the risks from orbital debris in order to—

- (1) protect the public health and safety;
- (2) protect humans in space;
- (3) protect the national security interests of the United States;
- (4) protect the safety of property;
- (5) protect space objects from interference; and
- (6) protect the foreign policy interests of the United States.

SEC. 307. LOW-EARTH ORBIT COMMERCIALIZATION PROGRAM.

(a) PROGRAM AUTHORIZATION.—The Administrator of NASA may establish a low-Earth orbit commercialization program to encourage the fullest commercial use and development of space by the private sector of the United States.

(b) CONTENTS.—The program under subsection (a) may include—

- (1) activities to stimulate demand for human space flight products and services in low-Earth orbit;
- (2) activities to improve the capability of the ISS to accommodate commercial users; and
- (3) subject to subsection (c), activities to accelerate the development of commercial space stations or commercial space habitats.

(c) CONDITIONS.—

(1) COST SHARE.—The Administrator shall give priority to an activity under subsection (b)(3) in which the private sector entity conducting the activity provides a share of the cost to develop and operate the activity.

(2) COMMERCIAL SPACE HABITAT.—The Administration may not engage in an activity under subsection (b)(3) until after the date that the Administrator of NASA awards a contract for the use of a docking port on the ISS.

(d) REPORTS.—Not later than 30 days after the date that an award or agreement is made under subsection (b)(3), the Administrator of NASA shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on the development of the commercial space station or commercial space habitat, as applicable, including a business plan for how the activity will—

- (1) meet NASA's future requirements for low-Earth orbit human space flight services; and
- (2) satisfy the non-Federal funding requirement under subsection (c)(1).

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Administrator of NASA to carry out a low-Earth commercialization program under this section \$150,000,000 for fiscal year 2020.

SEC. 308. BUREAU OF SPACE COMMERCE.

(a) IN GENERAL.—Chapter 507 of title 51, United States Code, is amended—

(1) in the heading, by striking “OFFICE” and inserting “BUREAU”; and

(2) by amending section 50701 to read as follows:

“§ 50701. Definition of Bureau

“In this chapter, the term ‘Bureau’ means the Bureau of Space Commerce established in section 50702 of this title.”;

(3) in section 50702—

(A) by amending subsection (a) to read as follows:

“(a) IN GENERAL.—There is established within the Department of Commerce a Bureau of Space Commerce.”;

(B) by amending subsection (b) to read as follows:

“(b) ASSISTANT SECRETARY.—The Bureau shall be headed by an Assistant Secretary for Space Commerce, to be appointed by the President with the advice and consent of the Senate and compensated at level II or III of the Executive Schedule, as determined by the Secretary of Commerce. The Assistant Secretary shall report directly to the Secretary of Commerce.”;

(C) in subsection (c)—

(i) in the matter preceding paragraph (1), by striking “Office” and inserting “Bureau”; and

(ii) in paragraph (2), by inserting “, including activities licensed under chapter 601 of this title” before the semicolon; and

(iii) in paragraph (5), by striking “Position,” and inserting “Positioning,”; and

(D) in subsection (d)—

(i) in the heading, by striking “DIRECTOR” and inserting “ASSISTANT SECRETARY”; and

(ii) in the matter preceding paragraph (1)—

(I) by striking “Director” and inserting “Assistant Secretary”; and

(II) by striking “Office shall” and inserting “Bureau shall, under the direction and supervision of the Secretary,”;

(iii) by redesignating paragraphs (1) through (7) as paragraphs (3) through (9), respectively; and

(iv) by inserting before paragraph (3), as redesignated, the following:

“(1) to oversee the issuing of licenses under chapter 601 of this title;

“(2) coordinating Department policy impacting commercial space activities and working with other executive agencies to promote policies that advance commercial space activities;”; and

(v) in paragraph (8), as redesignated, by inserting “, consistent with the international obligations, foreign policy, and national security interests of the United States” before the semicolon;

(4) in section 50703—

(A) by striking “Office” and inserting “Bureau”; and

(B) by striking “Committee on Science and Technology of the House of Representatives” and inserting “Committee on Science, Space, and Technology of the House of Representatives”; and

(5) by adding at the end the following:

“§ 50704. Authorization of appropriations

“There is authorized to be appropriated to the Secretary of Commerce to carry out this chapter \$10,000,000 for each of fiscal years 2020 through 2024.”.

(b) TECHNICAL AND CONFORMING AMENDMENTS.—

(1) TABLE OF CONTENTS.—The table of contents of chapter 507 of title 51, United States Code, is amended—

(A) in the item relating to section 50701, by striking “Office” and inserting “Bureau”; and

(B) by adding after the item relating to section 50703 the following:

“50704. Authorization of appropriations.”.

(2) TABLE OF CHAPTERS.—The table of chapters of title 51, United States Code, is amended in the item relating to chapter 507 by striking “Office” and inserting “Bureau”.

(3) COOPERATION WITH FORMER SOVIET REPUBLICS.—Section 218 of the National Aeronautics and Space Administration Authorization Act, Fiscal Year 1993 (51 U.S.C. 50702 note) is amended by striking “Office” each place it appears and inserting “Bureau”.

SA 4177. Mr. McCONNELL (for Mr. BOOKER) proposed an amendment to the bill H.R. 6287, to provide competitive grants for the operation, security, and maintenance of certain memorials to victims of the terrorist attacks of September 11, 2001; as follows:

On page 2, lines 5 and 6, strike “, the Pentagon, and United Airlines Flight 93” and insert “and the Pentagon”.

SA 4178. Mr. McCONNELL (for Mr. YOUNG) proposed an amendment to the bill S. 2432, to amend the charter of the Future Farmers of America, and for other purposes; as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the “National FFA Organization’s Federal Charter Amendments Act”.

SEC. 2. ORGANIZATION.

Section 70901 of title 36, United States Code, is amended—

(1) in subsection (a), by striking “corporation” and inserting “FFA”; and

(2) in subsection (b), by striking “corporation” and inserting “FFA”.

SEC. 3. PURPOSES OF THE CORPORATION.

Section 70902 of title 36, United States Code, is amended—

(1) in the matter preceding paragraph (1), by striking “corporation” and inserting “FFA”; and

(2) by redesignating paragraphs (1) and (2) as paragraphs (7) and (8), respectively;

(3) by striking paragraphs (3), (4), (6), and (7);

(4) by redesignating paragraph (5) as paragraph (11);

(5) by redesignating paragraphs (8) and (9) as paragraphs (12) and (13), respectively;

(6) by inserting before paragraph (7), as redesignated by paragraph (2), the following:

“(1) to be an integral component of instruction in agricultural education, including instruction relating to agriculture, food, and natural resources;

“(2) to advance comprehensive agricultural education in the United States, including in public schools, by supporting contextual classroom and laboratory instruction and work-based experiential learning;

“(3) to prepare students for successful entry into productive careers in fields relating to agriculture, food, and natural resources, including by connecting students to relevant postsecondary educational pathways and focusing on the complete delivery of classroom and laboratory instruction, work-based experiential learning, and leadership development;

“(4) to be a resource and support organization that does not select, control, or supervise State association, local chapter, or individual member activities;

“(5) to develop educational materials, programs, services, and events as a service to State and local agricultural education agencies;

“(6) to seek and promote inclusion and diversity in its membership, leadership, and staff to reflect the belief of the FFA in the value of all human beings;”;

(7) in paragraph (7), as redesignated by paragraph (2)—

(A) by striking “composed of students and former students of vocational agriculture in public schools qualifying for Federal reimbursement under the Smith-Hughes Vocational Education Act (20 U.S.C. 11–15, 16–28”;

(B) by inserting “as such chapters and associations carry out agricultural education programs that are approved by States, territories, or possessions” after “United States”;

(8) in paragraph (8), as redesignated by paragraph (2)—

(A) by striking “to develop” and inserting “to build”;

(B) by striking “train for useful citizenship, and foster patriotism, and thereby” and inserting “and”;

(C) by striking “aggressive rural and” and inserting “assertive”;

(9) by inserting after paragraph (8), as redesignated by paragraph (2), the following:

“(9) to increase awareness of the global and technological importance of agriculture, food, and natural resources, and the way agriculture contributes to our well-being;

“(10) to promote the intelligent choice and establishment of a career in fields relating to agriculture, food, and natural resources;”;

(10) in paragraph (11), as redesignated by paragraph (4)—

(A) by striking “to procure for and distribute to State” and inserting “to make available to State”;

(B) by inserting “, programs, services,” before “and equipment”;

(C) by striking “corporation” and inserting “FFA”;

(11) in paragraph (12), as redesignated by paragraph (5), by striking “State boards for vocational” and inserting “State boards and officials for career and technical”;

(12) in paragraph (13), as redesignated by paragraph (5), by striking “corporation” and inserting “FFA”.

SEC. 4. MEMBERSHIP.

Section 70903(a) of title 36, United States Code, is amended—

(1) by striking “corporation” and inserting “FFA”; and

(2) by striking “as provided in the bylaws” and inserting “as provided in the constitution or bylaws of the FFA”.

SEC. 5. GOVERNING BODY.

Section 70904 of title 36, United States Code, is amended—

(1) in subsection (a)—

(A) in paragraph (1), by striking “corporation” and inserting “FFA” each place the term appears;

(B) by striking paragraphs (2) and (3) and inserting the following:

“(2) The board—

“(A) shall consist of—

“(i) the Secretary of Education, or the Secretary of Education’s designee who has experience in agricultural education, the FFA, or career and technical education; and

“(ii) other individuals—

“(I) representing the fields of education, agriculture, food, and natural resources; or

“(II) with experience working closely with the FFA; and

“(B) shall not include any individual who is a current employee of the National FFA Organization.

“(3) The number of directors, terms of office of the directors, and the method of se-

lecting the directors, are as provided in the constitution or bylaws of the FFA.”; and

(C) in paragraph (4)—

(i) in the first sentence, by striking “bylaws” and inserting “constitution or bylaws of the FFA”; and

(ii) in the third sentence, by striking “chairman” and inserting “chair”;

(2) by striking subsection (b); and

(3) by inserting after subsection (a) the following:

“(b) OFFICERS.—The officers of the FFA, the terms of officers, and the election of officers, are as provided in the constitution or bylaws of the FFA, except that such officers shall include—

“(1) a national advisor;

“(2) an executive secretary; and

“(3) a treasurer.

“(c) GOVERNING COMMITTEE.—

“(1) The board may designate a governing committee. The terms and method of selecting the governing committee members are as provided in the constitution or bylaws of the FFA, except that all members of the governing committee shall be members of the board of directors and at all times the governing committee shall be comprised of not less than 3 individuals.

“(2) When the board is not in session, the governing committee has the powers of the board subject to the board’s direction and may authorize the seal of the FFA to be affixed to all papers that require it

“(3) The board shall designate to such committee—

“(A) the chair of the board;

“(B) the executive secretary of the board; and

“(C) the treasurer of the board.”.

SEC. 6. NATIONAL STUDENT OFFICERS.

Section 70905 of title 36, United States Code, is amended—

(1) by amending subsection (a) to read as follows:

“(a) COMPOSITION.—There shall be not less than 6 national student officers of the FFA, including a student president, 4 student vice presidents (each representing regions as provided in the constitution or bylaws of the corporation), and a student secretary.”;

(2) by striking subsection (b); and

(3) by redesignating subsections (c) and (d) as subsections (b) and (c), respectively.

SEC. 7. POWERS.

Section 70906 of title 36, United States Code, is amended—

(1) in the matter preceding paragraph (1), by striking “corporation” and inserting “FFA”;

(2) in paragraph (2), by striking “corporate”;

(3) in paragraph (4), by striking “corporation” and inserting “FFA”;

(4) in paragraph (6), by striking “corporation” and inserting “FFA”;

(5) by amending paragraph (8) to read as follows:

“(8) use FFA funds to give prizes, awards, loans, and grants to deserving members, local FFA chapters, and State FFA associations to carry out the purposes of the FFA;”;

(6) by amending paragraph (9) to read as follows:

“(9) produce publications, websites, and other media;”;

(7) in paragraph (10)—

(A) by striking “procure for and distribute to State” and inserting “make available to State”; and

(B) by striking “Future Farmers of America” and inserting “FFA”; and

(8) in paragraph (12), by striking “corporation” and inserting “FFA”.

SEC. 8. NAME, SEALS, EMBLEMS, AND BADGES.

Section 70907 of title 36, United States Code, is amended—

(1) by striking “corporation” and inserting “FFA” each place the term appears;

(2) by striking “name” and inserting “names”;

(3) by striking “‘Future Farmers of America’” and inserting “‘Future Farmers of America’ and ‘National FFA Organization,’”;

(4) by inserting “education” before “membership”.

SEC. 9. RESTRICTIONS.

Section 70908 of title 36, United States Code, is amended—

(1) in subsection (a), by striking “corporation” and inserting “FFA”;

(2) in subsection (b), by striking “corporation or a director, officer, or member as such” and inserting “FFA or a director, officer, or member acting on behalf of the FFA”;

(3) in subsection (c), by striking “corporation” and inserting “FFA” each place the term appears; and

(4) in subsection (d), in the first sentence, by striking “corporation” and inserting “FFA”.

SEC. 10. RELATIONSHIP TO FEDERAL AGENCIES.

Section 70909 of title 36, United States Code, is amended to read as follows:

“SEC. 70909. RELATIONSHIP TO FEDERAL AGENCIES.

“(a) IN GENERAL.—On request of the board of directors, the FFA may collaborate with Federal agencies, including the Department of Education and the Department of Agriculture on matters of mutual interest and benefit.

“(b) AGENCY ASSISTANCE.—Those Federal agencies may make personnel, services, and facilities available to administer or assist in the administration of the activities of the FFA.

“(c) AGENCY COMPENSATION.—Personnel of the Federal agencies may not receive compensation from the FFA for their services, except that travel and other legitimate expenses as defined by the Federal agencies and approved by the board may be paid.

“(d) COOPERATION WITH STATE BOARDS.—The Federal agencies also may cooperate with State boards and other organizations for career and technical education to assist in the promotion of activities of the FFA.”.

SEC. 11. HEADQUARTERS AND PRINCIPAL OFFICE.

Section 70910 of title 36, United States Code, is amended by striking “of the corporation shall be in the District of Columbia. However, the activities of the corporation are not confined to the District of Columbia but” and inserting “of the FFA shall be as provided in the constitution or bylaws of the FFA. The activities of the FFA”.

SEC. 12. RECORDS AND INSPECTION.

Section 70911 of title 36, United States Code, is amended—

(1) in subsection (a)—

(A) in paragraph (1), by striking “corporation” and inserting “FFA”; and

(B) in paragraph (3), by striking “entitled to vote”; and

(2) in subsection (b), by striking “corporation” and inserting “FFA”.

SEC. 13. SERVICE OF PROCESS.

Section 70912 of title 36, United States Code, is amended—

(1) in subsection (a)—

(A) by striking “DISTRICT OF COLUMBIA” and inserting “IN GENERAL”;

(B) by striking “corporation” and inserting “FFA” each place the term appears;

(C) by striking “in the District of Columbia” before “to receive”; and

(D) by striking “Designation of the agent shall be filed in the office of the clerk of the United States District Court for the District of Columbia”;

(2) in subsection (b)—

(A) by striking “corporation” and inserting “FFA” each place the term appears; and

(B) by inserting “of the FFA” after “association or chapter”.

SEC. 14. LIABILITY FOR ACTS OF OFFICERS OR AGENTS.

Section 70913 of title 36, United States Code, is amended by striking “corporation” and inserting “FFA”.

SEC. 15. DISTRIBUTION OF ASSETS IN DISSOLUTION OR FINAL LIQUIDATION.

Section 70914 of title 36, United States Code, is amended—

(1) by striking “corporation” and inserting “FFA”; and

(2) by striking “vocational agriculture” and inserting “agricultural education”.

The PRESIDING OFFICER. The majority leader.

GLOBAL HEALTH INNOVATION ACT OF 2017

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the Senate proceed to the immediate consideration of Calendar No. 364, H.R. 1660.

The PRESIDING OFFICER. The clerk will report the bill by title.

The senior assistant legislative clerk read as follows:

A bill (H.R. 1660) to direct the Administrator of the United States Agency for International Development to submit to Congress a report on the development and use of global health innovations in the programs, projects, and activities of the Agency.

There being no objection, the Senate proceeded to consider the bill.

Mr. MCCONNELL. I ask unanimous consent that the bill be read a third time and passed and that the motion to reconsider be considered made and laid upon the table with no intervening action or debate.

The PRESIDING OFFICER. Without objection, it is so ordered.

The bill (H.R. 1660) was ordered to a third reading, was read the third time, and passed.

9/11 MEMORIAL ACT

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the Senate proceed to the immediate consideration of Calendar No. 587, H.R. 6287.

The PRESIDING OFFICER. The clerk will report the bill by title.

The senior assistant legislative clerk read as follows:

A bill (H.R. 6287) to provide competitive grants for the operation, security, and maintenance of certain memorials to victims of the terrorist attacks of September 11, 2001.

There being no objection, the Senate proceeded to consider the bill.

Mr. MCCONNELL. I further ask unanimous consent that the amendment at the desk be agreed to; that the bill, as amended, be considered read a third time and passed; and that the motion to reconsider be considered made and laid upon the table.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment (No. 4177) was agreed to as follows:

(Purpose: To modify the definition of the term “covered memorial”)

On page 2, lines 5 and 6, strike “, the Pentagon, and United Airlines Flight 93” and insert “and the Pentagon”.

The amendment was ordered to be engrossed and the bill to be read the third time.

The bill was read the third time.

The bill (H.R. 6287), as amended, was passed.

NATIONAL FFA ORGANIZATION'S FEDERAL CHARTER AMENDMENTS ACT

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the Committee on the Judiciary be discharged from further consideration of S. 2432 and the Senate proceed to its immediate consideration.

The PRESIDING OFFICER. The clerk will report the bill by title.

The senior assistant legislative clerk read as follows:

A bill (S. 2432) to amend the charter of the Future Farmers of America, and for other purposes.

The PRESIDING OFFICER. Is there objection to proceeding to the measure?

Without objection, it is so ordered.

There being no objection, the committee was discharged and the Senate proceeded to consider the bill.

Mr. MCCONNELL. I ask unanimous consent that the Young substitute amendment at the desk be considered and agreed to; that the bill, as amended, be considered read a third time and passed; and that the motion to reconsider be considered made and laid upon the table.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment (No. 4178), in the nature of a substitute, was agreed to.

(The amendment is printed in today's RECORD under “Text of Amendments.”)

The bill (S. 2432), as amended, was ordered to be engrossed for a third reading, was read the third time, and passed.

JOHN HERVEY WHEELER UNITED STATES COURTHOUSE

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the Environment and Public Works Committee be discharged from further consideration of H.R. 3460, and the Senate proceed to its immediate consideration.

The PRESIDING OFFICER. The clerk will report the bill by title.

The senior assistant legislative clerk read as follows:

A bill (H.R. 3460) to designate the United States courthouse located at 323 East Chapel Hill Street in Durham, North Carolina, as the “John Hervey Wheeler United States Courthouse.”

There being no objection, the committee was discharged, and the Senate proceeded to consider the bill.

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the bill be

considered read a third time and passed and the motion to reconsider be considered made and laid upon the table.

The PRESIDING OFFICER. Without objection, it is so ordered.

The bill (H.R. 3460) was ordered to a third reading, was read the third time, and passed.

CONGRATULATING THE MARYLAND TERRAPINS MEN'S SOCCER TEAM

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the Senate proceed to the consideration of S. Res. 739, submitted earlier today.

The PRESIDING OFFICER. The clerk will report the resolution by title.

The senior assistant legislative clerk read as follows:

A resolution (S. Res. 739) congratulating the Maryland Terrapins men's soccer team of the University of Maryland, College Park for winning the 2018 National Collegiate Athletic Association Division I men's soccer national championship.

There being no objection, the Senate proceeded to consider the resolution.

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the resolution be agreed to, the preamble be agreed to, and the motions to reconsider be considered made and laid upon the table with no intervening action or debate.

The PRESIDING OFFICER. Without objection, it is so ordered.

The resolution (S. Res. 739) was agreed to.

The preamble was agreed to.

(The resolution, with its preamble, is printed in today's RECORD under “Submitted Resolutions.”)

DISCHARGE AND REFERRAL—S. 3720

Mr. MCCONNELL. Mr. President, I ask unanimous consent that S. 3720 be discharged from the Commerce, Science, and Transportation Committee and referred to the Banking, Housing, and Urban Affairs Committee.

The PRESIDING OFFICER. Without objection, it is so ordered.

SIGNING AUTHORITY

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the majority leader and the junior Senator from Indiana be authorized to sign duly enrolled bills or joint resolutions on Thursday, December 20 and Friday, December 21.

The PRESIDING OFFICER. Without objection, it is so ordered.

ORDERS FOR FRIDAY, DECEMBER 21, 2018

Mr. MCCONNELL. Mr. President, I ask unanimous consent that when the Senate completes its business today, it adjourn until 12 noon, Friday, December 21; further, that following the prayer and pledge, the morning hour be