I thank the ranking member of the Research and Technology Subcommittee, Mr. LIPINSKI, for introducing this bill. I also thank the subcommittee's vice chair, Mr. MOOLENAAR, the ranking member of the full committee, Ms. JOHNSON, as well as our colleagues Mr. HULTGREN, Ms. ESTY, and Mr. SWALWELL for being bipartisan cosponsors.

The Office of Science and Technology Policy, in coordination with the State Department, represents the United States in bilateral and multilateral meetings with foreign nations. It works closely with government science agencies, nongovernmental organizations, and independent research and scientific institutions to promote science and technology initiatives and to strengthen global science cooperation.

H.R. 1156 improves our Nation's collaborative efforts with international partners on scientific issues. While many Federal agencies are engaged with international partners on science and technology projects, there is a need to coordinate these projects across the Federal Government. Better collaboration with our partners will strengthen U.S. scientific activities and further promote the free exchange of ideas with other nations. Interagency coordination ensures that taxpayer dollars are used efficiently and that U.S. priorities are consistently addressed when working with our international partners on science and technology issues.

Science and technology research addresses some of the major challenges that face our Nation, including public health, energy production, national security, and economic development. Coordinated international collaboration on scientific issues, which H.R. 1156 promotes, also will improve economic and national security and support U.S. foreign policy goals.

Again, I want to thank Mr. LIPINSKI for his continued hard work on this issue. I urge my colleagues to support this bill.

I reserve the balance of my time.

Mr. LIPINSKI. Mr. Speaker, I yield myself such time as I may consume.

I rise in support of H.R. 1156, the International Science and Technology Cooperation Act, which I reintroduced earlier this year.

A similar bill, which I authored in the last Congress, passed the House with overwhelming bipartisan support by a vote of 346–41. I am hopeful that we can do the same this week and then work to get this bill through the Senate and onto the President's desk.

I want to thank Mr. MOOLENAAR for cosponsoring this bill with me, and I thank Chairman SMITH and Ranking Member JOHNSON for helping advance it through the Science, Space, and Technology Committee and for getting it to the House floor.

Mr. Speaker, the laws of science know no political boundaries. While the United States arguably has the most brilliant scientists in the world and has developed some of the greatest technology, no country has a monopoly on great minds in science and technology. So, if we want to advance science in ways that benefit Americans and the rest of the world, we need to encourage international collaboration.

Improvements in areas such as energy security, infectious diseases, space exploration, telecommunications and the Internet, and many more are due, in part, to international cooperation, to the benefit of all nations involved. By collaborating with international partnerships on science, we also strengthen the U.S. scientific enterprise, which helps us get the best return on our research investment.

In addition, international collaborations make possible research endeavors on a grander scale than the U.S. can accomplish on its own. For example, CERN, the U.S. Department of Energy, and the National Science Foundation signed a cooperative agreement 2 weeks ago expanding their collaboration on particle physics. Not only will this provide for our scientists to continue work at the highest energy accelerator in the world at CERN, it will also allow CERN to provide equipment to an upcoming neutrino experiment at Fermilab in Batavia, Illinois.

CERN was the site of one of the most significant technological advances that impacts us every day. At CERN in 1989, Tim Berners-Lee was working on the problem of allowing international researchers to see data instantaneously around the globe. The solution that was developed was the World Wide Web, which has completely transformed the way we communicate and get information today.

H.R. 1156 makes more collaborations like this possible. It requires the National Science and Technology Council at the White House to continue to maintain a working group to coordinate the U.S. interagency strategy for international science and technology cooperation. Many Federal agencies already work with international counterparts on scientific and technological issues, but, until recently, there was no coordinating body to identify new partnerships and to fully leverage existing collaborations.

Mr. Speaker, it is important that we find ways to collaborate with other countries on scientific discoveries that push the boundaries of knowledge and improve our lives. This bill will do that. I urge my colleagues to support the bill.

Again, I want to thank the chairman for his support on this. As I said, we have passed this bill before with wide bipartisan support. I am very hopeful we can do that again today.

International cooperation is very critical to doing more than we alone can do. We have, arguably, the best researchers in the world, producing the most advanced technology, but in working together with others, we can do even more than we have. The impact that it can have on the everyday lives of Americans is tremendous, so I urge my colleagues to support this bill.

I yield back the balance of my time.

□ 1815

Mr. SMITH of Texas. Mr. Speaker, I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Texas (Mr. SMITH) that the House suspend the rules and pass the bill, H.R. 1156, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

The title of the bill was amended so as to read: ''A bill to authorize the establishment or designation of a working group under the National Science and Technology Council to identify and coordinate international science and technology cooperation opportunities.''.

A motion to reconsider was laid on the table.

WEATHER RESEARCH AND FORECASTING INNOVATION ACT OF 2015

Mr. SMITH of Texas. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 1561) to improve the National Oceanic and Atmospheric Administration's weather research through a focused program of investment on affordable and attainable advances in observational, computing, and modeling capabilities to support substantial improvement in weather forecasting and prediction of high impact weather events, to expand commercial opportunities for the provision of weather data, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 1561

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Weather Research and Forecasting Innovation Act of 2015''.

SEC. 2. PUBLIC SAFETY PRIORITY.

In accordance with NOAA's critical mission to provide science, service, and stewardship, the Under Secretary shall prioritize weather research, across all weather programs, to improve weather data, forecasts, and warnings for the protection of life and property and the enhancement of the national economy.

SEC. 3. WEATHER RESEARCH AND FORECASTING INNOVATION.

(a) PROGRAM.—The Assistant Administrator for OAR shall conduct a program to develop improved understanding of and forecast capabilities for atmospheric events and their impacts, placing priority on developing more accurate, timely, and effective warnings and fore-casts of high impact weather events that endanger life and property.

(b) PROGRAM ELEMENTS.—The program described in subsection (a) shall focus on the following activities:

(1) Improving the fundamental understanding of weather consistent with section

2, including the boundary layer and other atmospheric processes affecting high impact weather events.

(2) Improving the understanding of how the public receives, interprets, and responds to warnings and forecasts of high impact weather events that endanger life and property.

(3) Research and development, and transfer of knowledge, technologies, and applications to the NWS and other appropriate agencies and entities, including the American weather industry and academic partners, related to—

(A) advanced radar, radar networking technologies, and other ground-based technologies, including those emphasizing rapid, fine-scale sensing of the boundary layer and lower troposphere, and the use of innovative, dual-polarization, phased array technologies;

(B) aerial weather observing systems;

(C) high performance computing and information technology and wireless communication networks;

(D) advanced numerical weather prediction systems and forecasting tools and techniques that improve the forecasting of timing, track, intensity, and severity of high impact weather, including through—

(i) the development of more effective mesoscale models;

(ii) more effective use of existing, and the development of new, regional and national cloud-resolving models;

(iii) enhanced global weather models; and

(iv) integrated assessment models;

(E) quantitative assessment tools for measuring the impact and value of data and observing systems, including OSSEs (as described in section 8), OSEs, and AOAs;

(F) atmospheric chemistry and interactions essential to accurately characterizing atmospheric composition and predicting meteorological processes, including cloud microphysical, precipitation, and atmospheric electrification processes, to more effectively understand their role in severe weather; and

(G) additional sources of weather data and information, including commercial observing systems.

(4) A technology transfer initiative, carried out jointly and in coordination with the Assistant Administrator for NWS, and in cooperation with the American weather industry and academic partners, to ensure continuous development and transition of the latest scientific and technological advances into NWS operations and to establish a process to sunset outdated and expensive operational methods and tools to enable cost-effective transfer of new methods and tools into operations.

(c) EXTRAMURAL RESEARCH.—

(1) IN GENERAL.—In carrying out the program under this section, the Assistant Administrator for OAR shall collaborate with and support the non-Federal weather research community, which includes institutions of higher education, private entities, and nongovernmental organizations, by making funds available through competitive grants, contracts, and cooperative agreements.

(2) SENSE OF CONGRESS.—It is the sense of Congress that not less than 30 percent of the funds for weather research and development at OAR should be made available for the purpose described in paragraph (1).

(d) REPORT.—The Under Secretary shall transmit to Congress annually, concurrently with NOAA's budget request, a description of current and planned activities under this section.

SEC. 4. TORNADO WARNING IMPROVEMENT AND EXTENSION PROGRAM.

(a) IN GENERAL.—The Under Secretary, in collaboration with the American weather industry and academic partners, shall establish a tornado warning improvement and extension program.

(b) GOAL.—The goal of such program shall be to reduce the loss of life and economic losses from tornadoes through the development and extension of accurate, effective, and timely tornado forecasts, predictions, and warnings, including the prediction of tornadoes beyond one hour in advance.

(c) PROGRAM PLAN.—Not later than 6 months after the date of enactment of this Act, the Assistant Administrator for OAR, in coordination with the Assistant Administrator for NWS, shall develop a program plan that details the specific research, development, and technology transfer activities, as well as corresponding resources and timelines, necessary to achieve the program goal.

(d) BUDGET FOR PLAN.—Following completion of the plan, the Under Secretary, acting through the Assistant Administrator for OAR, in coordination with the Assistant Administrator for NWS, shall transmit annually to Congress a proposed budget corresponding to the activities identified in the plan.

SEC. 5. HURRICANE FORECAST IMPROVEMENT PROGRAM.

(a) IN GENERAL.—The Under Secretary, in collaboration with the American weather industry and academic partners, shall maintain the Hurricane Forecast Improvement Program (HFIP).

(b) GOAL.—The goal of such program shall be to develop and extend accurate hurricane forecasts and warnings in order to reduce loss of life, injury, and damage to the economy.

(c) PROGRAM PLAN.—Not later than 6 months after the date of enactment of this Act, the Assistant Administrator for OAR, in consultation with the Assistant Administrator for NWS, shall develop a program plan that details the specific research, development, and technology transfer activities, as well as corresponding resources and timelines, necessary to achieve the program goal.

(d) BUDGET FOR PLAN.—Following completion of the plan, the Under Secretary, acting through the Assistant Administrator for OAR, in consultation with the Assistant Administrator for NWS, shall transmit annually to Congress a proposed budget corresponding to the activities identified in the plan.

SEC. 6. WEATHER RESEARCH AND DEVELOPMENT PLANNING.

Not later than 6 months after the date of enactment of this Act, and annually thereafter, the Under Secretary, acting through the Assistant Administrator for OAR, in coordination with the Assistant Administrators for NWS and NESDIS, shall issue a research and development and research to operations plan to restore and maintain United States leadership in numerical weather prediction and forecasting that—

(1) describes the forecasting skill and technology goals, objectives, and progress of NOAA in carrying out the program conducted under section 3;

(2) identifies and prioritizes specific research and development activities, and performance metrics, weighted to meet the operational weather mission of NWS to achieve a weather-ready Nation;

(3) describes how the program will collaborate with stakeholders, including the American weather industry and academic partners; and

(4) identifies, through consultation with the National Science Foundation, American weather industry, and academic partners, research necessary to enhance the integration of social science knowledge into weather forecast and warning processes, including to improve the communication of threat information necessary to enable improved severe weather planning and decisionmaking on the part of individuals and communities.

SEC. 7. OBSERVING SYSTEM PLANNING.

The Under Secretary shall—

(1) develop and maintain a prioritized list of observation data requirements necessary to ensure weather forecasting capabilities to protect life and property to the maximum extent practicable;

(2) undertake, using OSSEs, OSEs, AOAs, and other appropriate assessment tools, ongoing systematic evaluations of the combination of observing systems, data, and information needed to meet the requirements listed under paragraph (1), assessing various options to maximize observational capabilities and their cost-effectiveness;

(3) identify current and potential future data gaps in observing capabilities related to the requirements listed under paragraph (1); and

(4) determine a range of options to address gaps identified under paragraph (3).

SEC. 8. OBSERVING SYSTEM SIMULATION EXPERIMENTS.

(a) IN GENERAL.—In support of the requirements of section 7, the Assistant Administrator for OAR shall undertake OSSEs to quantitatively assess the relative value and benefits of observing capabilities and systems. Technical and scientific OSSE evaluations—

(1) may include assessments of the impact of observing capabilities on—

(A) global weather prediction;

(B) hurricane track and intensity forecasting;

(C) tornado warning lead times and accuracy;

(D) prediction of mid-latitude severe local storm outbreaks; and

(E) prediction of storms that have the potential to cause extreme precipitation and flooding lasting from 6 hours to 1 week; and

(2) shall be conducted in cooperation with other appropriate entities within NOAA, other Federal agencies, the American weather industry, and academic partners to ensure the technical and scientific merit of OSSE results.

(b) REQUIREMENTS.—OSSEs shall quantitatively—

(1) determine the potential impact of proposed space-based, suborbital, and in situ observing systems on analyses and forecasts, including potential impacts on extreme weather events across all parts of the Nation;

(2) evaluate and compare observing system design options; and

(3) assess the relative capabilities and costs of various observing systems and combinations of observing systems in providing data necessary to protect life and property.

(c) IMPLEMENTATION.—OSSEs—

(1) shall be conducted prior to the acquisition of major Government-owned or Government-leased operational observing systems, including polar-orbiting and geostationary satellite systems, with a lifecycle cost of more than $500,000,000; and

(2) shall be conducted prior to the purchase of any major new commercially provided data with a lifecycle cost of more than $500,000,000.

(d) PRIORITY OSSEs.—

(1) GLOBAL NAVIGATION SATELLITE SYSTEM RADIO OCCULTATION.—Not later than December 31, 2015, the Assistant Administrator for OAR shall complete an OSSE to assess the value of data from Global Navigation Satellite System Radio Occultation.

(2) GEOSTATIONARY HYPERSPECTRAL SOUNDER GLOBAL CONSTELLATION.—Not later than

December 31, 2016, the Assistant Administrator for OAR shall complete an OSSE to assess the value of data from a geostationary hyperspectral sounder global constellation.

(e) RESULTS.—Upon completion of all OSSEs, results shall be publicly released and accompanied by an assessment of related private and public sector weather data sourcing options, including their availability, affordability, and cost effectiveness. Such assessments shall be developed in accordance with section 50503 of title 51, United States Code.

SEC. 9. COMPUTING RESOURCES PRIORITIZATION REPORT.

Not later than 12 months after the date of enactment of this Act, and annually thereafter, the Under Secretary, acting through the NOAA Chief Information Officer, in coordination with the Assistant Administrator for OAR and the Assistant Administrator for NWS, shall produce and make publicly available a report that explains how NOAA intends to—

(1) continually support upgrades to pursue the fastest, most powerful, and cost effective high performance computing technologies in support of its weather prediction mission;

(2) ensure a balance between the research to operations requirements to develop the next generation of regional and global models as well as highly reliable operational models;

(3) take advantage of advanced development concepts to, as appropriate, make next generation weather prediction models available in beta-test mode to operational forecasters, the American weather industry, and partners in academic and government research; and

(4) use existing computing resources to improve advanced research and operational weather prediction.

SEC. 10. COMMERCIAL WEATHER DATA.

(a) AMENDMENT.—Section 60161 of title 51, United States Code, is amended by adding at the end the following: ''This prohibition shall not extend to—

''(1) the purchase of weather data through contracts with commercial providers; or

''(2) the placement of weather satellite instruments on cohosted government or private payloads.''.

(b) STRATEGY.—

(1) IN GENERAL.—Not later than 6 months after the date of enactment of this Act, the Secretary of Commerce, in consultation with the Under Secretary, shall transmit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a strategy to enable the procurement of quality commercial weather data. The strategy shall assess the range of commercial opportunities, including public-private partnerships, for obtaining surface-based, aviation-based, and space-based weather observations. The strategy shall include the expected cost effectiveness of these opportunities as well as provide a plan for procuring data, including an expected implementation timeline, from these nongovernmental sources, as appropriate.

(2) REQUIREMENTS.—The strategy shall include—

(A) an analysis of financial or other benefits to, and risks associated with, acquiring commercial weather data or services, including through multiyear acquisition approaches;

(B) an identification of methods to address planning, programming, budgeting, and execution challenges to such approaches, including—

(i) how standards will be set to ensure that data is reliable and effective;

(ii) how data may be acquired through commercial experimental or innovative techniques and then evaluated for integration into operational use;

(iii) how to guarantee public access to all forecast-critical data to ensure that the American weather industry and the public continue to have access to information critical to their work; and

(iv) in accordance with section 50503 of title 51, United States Code, methods to address potential termination liability or cancellation costs associated with weather data or service contracts; and

(C) an identification of any changes needed in the requirements development and approval processes of the Department of Commerce to facilitate effective and efficient implementation of such strategy.

(3) AUTHORITY FOR AGREEMENTS.—The Assistant Administrator for NESDIS may enter into multiyear agreements necessary to carry out the strategy developed under this subsection.

(c) PILOT PROGRAM.—

(1) CRITERIA.—Not later than December 31, 2015, NOAA shall publish data standards and specifications for space-based commercial weather data.

(2) PILOT CONTRACT.—

(A) CONTRACT.—Not later than October 1, 2016, NOAA shall, through an open competition, enter into at least one pilot contract with a private sector entity capable of providing data that meet the standards and specifications set by NOAA to provide commercial weather data in a manner that allows NOAA to calibrate and evaluate the data.

(B) ASSESSMENT OF DATA VIABILITY.—Not later than October 1, 2019, NOAA shall transmit to Congress the results of a determination of the extent to which data provided under the contract entered into under subparagraph (A) meet the criteria published under paragraph (1).

(3) OBTAINING FUTURE DATA.—NOAA shall, to the extent feasible, obtain commercial weather data from private sector providers.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated out of funds made available for procurement, acquisition, and construction at NESDIS, $9,000,000 for carrying out this subsection.

SEC. 11. ENVIRONMENTAL INFORMATION SERVICES WORKING GROUP.

(a) ESTABLISHMENT.—The NOAA Science Advisory Board shall continue to maintain a standing working group named the Environmental Information Services Working Group (in this section referred to as the ''Working Group'') to—

(1) provide advice for prioritizing weather research initiatives at NOAA to produce real improvement in weather forecasting;

(2) provide advice on existing or emerging technologies or techniques that can be found in private industry or the research community that could be incorporated into forecasting at NWS to improve forecasting skill;

(3) identify opportunities to improve communications between weather forecasters, Federal, State, local, tribal, and other emergency management personnel, and the public; and to improve communications and partnerships among NOAA and the private and academic sectors; and

(4) address such other matters as the Science Advisory Board requests of the Working Group.

(b) COMPOSITION.—

(1) IN GENERAL.—The Working Group shall be composed of leading experts and innovators from all relevant fields of science and engineering including atmospheric chemistry, atmospheric physics, meteorology, hydrology, social science, risk communications, electrical engineering, and computer sciences. In carrying out this section, the Working Group may organize into subpanels.

(2) NUMBER.—The Working Group shall be composed of no fewer than 15 members. Nominees for the Working Group may be forwarded by the Working Group for approval by the Science Advisory Board. Members of the Working Group may choose a chair (or co-chairs) from among their number with approval by the Science Advisory Board.

(c) ANNUAL REPORT.—The Working Group shall transmit annually to the Science Advisory Board for submission to the Under Secretary a report on progress made by NOAA in adopting the Working Group's recommendations. The Science Advisory Board shall transmit this report to the Under Secretary. Within 30 days of receipt of such report, the Under Secretary shall transmit it to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

SEC. 12. INTERAGENCY WEATHER RESEARCH AND INNOVATION COORDINATION.

(a) ESTABLISHMENT.—The Director of the Office of Science and Technology Policy shall establish an Inter-agency Committee for Advancing Weather Services to improve coordination of relevant weather research and forecast innovation activities across the Federal Government. The Interagency Committee shall—

(1) include participation by the National Aeronautics and Space Administration, the Federal Aviation Administration, NOAA and its constituent elements, the National Science Foundation, and such other agencies involved in weather forecasting research as the President determines are appropriate;

(2) identify and prioritize top forecast needs and coordinate those needs against budget requests and program initiatives across participating offices and agencies; and

(3) share information regarding operational needs and forecasting improvements across relevant agencies.

(b) CO-CHAIR.—The Federal Coordinator for Meteorology shall serve as a co-chair of this panel.

(c) FURTHER COORDINATION.—The Director shall take such other steps as are necessary to coordinate the activities of the Federal Government with those of the American weather industry, State governments, emergency managers, and academic researchers.

SEC. 13. OAR AND NWS EXCHANGE PROGRAM.

(a) IN GENERAL.—The Assistant Administrator for OAR and the Assistant Administrator for NWS may establish a program to detail OAR personnel to the NWS and NWS personnel to OAR.

(b) GOAL.—The goal of this program is to enhance forecasting innovation through regular, direct interaction between OAR's world-class scientists and NWS's operational staff.

(c) ELEMENTS.—The program shall allow up to 10 OAR staff and NWS staff to spend up to 1 year on detail. Candidates shall be jointly selected by the Assistant Administrator for OAR and the Assistant Administrator for NWS.

(d) REPORT.—The Under Secretary shall report annually to the Committee on Science, Space, and Technology of the House of Representatives and to the Committee on Commerce, Science, and Transportation of the Senate on participation in such program and shall highlight any innovations that come from this interaction.

SEC. 14. VISITING FELLOWS AT NWS.

(a) IN GENERAL.—The Assistant Administrator for NWS may establish a program to host postdoctoral fellows and academic researchers at any of the National Centers for Environmental Prediction.

(b) GOAL.—This program shall be designed to provide direct interaction between forecasters and talented academic and private sector researchers in an effort to bring innovation to forecasting tools and techniques available to the NWS.

(c) SELECTION AND APPOINTMENT.—Such fellows shall be competitively selected and appointed for a term not to exceed 1 year.

SEC. 15. NOAA WEATHER READY ALL HAZARDS AWARD PROGRAM.

(a) PROGRAM.—The Assistant Administrator for NWS is authorized to establish the NOAA Weather Ready All Hazards Award Program. This award program shall provide annual awards to honor individuals or organizations that use or provide NOAA Weather Radio All Hazards receivers or transmitters to save lives and protect property. Individuals or organizations that utilize other early warning tools or applications also qualify for this award.

(b) GOAL.—This award program draws attention to the life-saving work of the NOAA Weather Ready All Hazards Program, as well as emerging tools and applications, that provide real-time warning to individuals and communities of severe weather or other hazardous conditions.

(c) PROGRAM ELEMENTS.—

(1) NOMINATIONS.—Nominations for this award shall be made annually by the Weather Field Offices to the Assistant Administrator for NWS. Broadcast meteorologists, weather radio manufacturers and weather warning tool and application developers, emergency managers and public safety officials may nominate individuals and/or organizations to their local Weather Field Offices, but the final list of award nominees must come from the Weather Field Offices.

(2) SELECTION OF AWARDEES.—Annually, the Assistant Administrator for NWS shall choose winners of this award whose timely actions, based on NOAA weather radio all hazards receivers or transmitters or other early warning tools and applications, saved lives and/or property or demonstrated public service in support of weather or all hazard warnings.

(3) AWARD CEREMONY.—The Assistant Administrator for NWS shall establish a means of making these awards to provide maximum public awareness of the importance of NOAA Weather Radio, and such other warning tools and applications as are represented in the awards.

SEC. 16. DEFINITIONS.

In this Act:

(1) AOA.—The term ''AOA'' means an Analysis of Alternatives.

(2) NESDIS.—The term ''NESDIS'' means the National Environmental Satellite, Data, and Information Service.

(3) NOAA.—The term ''NOAA'' means the National Oceanic and Atmospheric Administration.

(4) NWS.—The term ''NWS'' means the National Weather Service.

(5) OAR.—The term ''OAR'' means the Office of Oceanic and Atmospheric Research.

(6) OSE.—The term ''OSE'' means an Observing System Experiment.

(7) OSSE.—The term ''OSSE'' means an Observing System Simulation Experiment.

(8) UNDER SECRETARY.—The term ''Under Secretary'' means the Under Secretary of Commerce for Oceans and Atmosphere.

SEC. 17. AUTHORIZATION OF APPROPRIATIONS.

(a) FISCAL YEAR 2015.—There are authorized to be appropriated for fiscal year 2015—

(1) $90,800,000 to OAR to carry out this Act, of which—

(A) $70,000,000 is authorized for weather laboratories and cooperative institutes; and

(B) $20,800,000 is authorized for weather and air chemistry research programs; and

(2) out of funds made available for research and development at NOAA, an additional amount of $16,000,000 for OAR to carry out the joint technology transfer initiative described in section 3(b)(4).

(b) FISCAL YEARS 2016 AND 2017.—For each of fiscal years 2016 and 2017, there are authorized to be appropriated to OAR—

(1) $100,000,000 to carry out this Act, of which—

(A) $80,000,000 is authorized for weather laboratories and cooperative institutes; and

(B) $20,000,000 is authorized for weather and air chemistry research programs; and

(2) an additional amount of $20,000,000 for the joint technology transfer initiative described in section 3(b)(4).

(c) LIMITATION.—No additional funds are authorized to carry out this Act, and the amendments made by this Act.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Texas (Mr. SMITH) and the gentlewoman from Oregon (Ms. BONAMICI) each will control 20 minutes.

The Chair recognizes the gentleman from Texas.

GENERAL LEAVE

Mr. SMITH of Texas. I ask unanimous consent that all Members may have 5 legislative days to revise and extend their remarks and to include extraneous material on H.R. 1561, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Texas?

There was no objection.

Mr. SMITH of Texas. I yield such time as he may consume to the gentleman from Oklahoma (Mr. LUCAS), who is the vice chairman of the Science, Space, and Technology Committee, and the sponsor of this legislation.

Mr. LUCAS. Mr. Speaker, I want to thank the gentleman from Texas, Chairman SMITH, for his continued leadership on the Committee on Science, Space, and Technology.

H.R. 1561, the Weather Research and Forecasting Innovation Act of 2015, prioritizes the protection of life and property at the National Oceanic and Atmospheric Administration by focusing research and computing resources on improving weather forecasting, quantitative observing data planning, Next Generation modeling, and an emphasis on research to operations technology transfer.

I echo Chairman SMITH's concerns that severe weather greatly affects large parts of the country, and as a Representative from Oklahoma, I understand the need for improvement firsthand. In 2013, the deadly storms in my home State were a stark reminder that we can do better to predict severe weather events and provide longer lead times to protect Americans in harm's way.

I am proud that this legislation has a dedicated tornado warning improvement Program. The goal of this program is to reduce the loss from tornadoes by advancing the understanding of fundamental meteorological science, allowing detection and notifications that are more accurate, effective, and timely.

Constituents in my home State will benefit greatly from longer tornado warning lead times, which will save lives and better protect property. H.R. 1561 makes clear that NOAA will prioritize weather research and protect lives and property through a focused, affordable, attainable, and forward-looking research plan at the agency's research office.

This bill also helps encourage innovation and new capacities developed through NOAA's Weather Research Program, like creating a joint technology transfer from the Office of Oceanic and Atmospheric Research. This transfer is essential to get new forecasting models and technologies out of the research side of NOAA and into our operational forecast.

This bill directs NOAA to develop plans to restore our country's leadership in weather forecasting. It is no secret that many people in our weather community are distraught that our forecasting capacities have deteriorated in recent years. While other countries are making great strides in weather advancements, Americans are paying the price for lost leadership with their lives and their wallets. This is another reminder that we can do better.

This bill prompts NOAA to actively consider new commercial data and private sector solutions to further enhance our weather forecasting capacities. This legislation includes a pilot program which will provide NOAA a clear and credible demonstration of the valuable data from commercial technologies available today.

This legislation is substantially similar to last year's bipartisan Weather Forecasting Improvement Act, which passed the House by a voice vote. The bill before us today updates authorization numbers to reflect current spending levels, adjusts dates to reflect current operating status, and incorporates minor additions and technical changes to improve the bill's clarity and intent.

This legislation is the result of a bipartisan agreement last year and again this year. I want to thank the gentleman from Oklahoma (Mr. BRIDENSTINE), the Subcommittee on Environment chairman, for his active leadership on this issue in the last Congress and for getting us here today.

I also want to thank the ranking member of the Subcommittee on Environment, the gentlewoman from Oregon (Ms. BONAMICI), for her efforts in crafting a bipartisan agreement and joining in this most worthwhile initiative to save American lives and property through better weather forecasting.

Finally, the Weather Research and Forecasting Innovation Act has received numerous letters of support which I would like to mention, including letters from Utah State University, Space Environment Technologies, Metro Weather, Utah Science Technology and Research Initiative.

Once again, it is a good bill. It has been worked on diligently. We need to pass it.

Ms. BONAMICI. Mr. Speaker, I yield myself such time as I may consume.

I rise in support of H.R. 1561, the Weather Research and Forecasting Innovation Act of 2015. This bill, introduced by my friend, Mr. LUCAS, builds on the work that subcommittee chairman Mr. BRIDENSTINE and former subcommittee chairman Mr. STEWART and I did in the last Congress.

The language before us today is the result of a truly bipartisan effort with extensive discussions and negotiations across the aisle. Although the bill is not perfect, it is a good bill and a better bill than the one that passed in the last Congress, and I ask all my colleagues to support it.

The National Oceanic and Atmospheric Administration has many important tasks at the cutting edge of science and service. The agency's responsibilities for weather forecasting are critical to our country.

We are proud of the good work of NOAA and its dedicated employees. They are a committed workforce, responsible for keeping our communities safe during inclement weather.

But with the increasing frequency of severe weather events, there can and should be improvements in weather forecasting. For example, forecasts can be more precise regarding what will happen and when. Forecasts can provide more lead time, especially of severe weather events, to allow people to prepare. Forecast information can be communicated more effectively to the public and those in harm's way so we can reduce the loss of life and property.

This bill is designed to make sure that NOAA achieves these important goals. H.R. 1561 draws upon the model of innovation used by the military services where researchers work hand in hand with those on the front lines to develop innovations that have real-world practical returns.

The bill connects the research side of NOAA, the Office of Oceanic and Atmospheric Research, more effectively with the forecasting needs of the National Weather Service. The bill contains several provisions that will improve interactions and information sharing between OAR and NWS. It also establishes new ways for NOAA to hear from and work with the broader research and private weather communities.

NOAA is not the only agency that researches weather or has responsibility for communicating forecast information, so the bill establishes interagency coordination, through the Office of Science and Technology Policy, across the agencies that have these responsibilities. This coordination will leverage our limited resources and more rapidly spread the adoption of best tools and practices across agencies.

H.R. 1561 recognizes that the best forecasts in the world will not fully serve the public's needs unless we have an effective communications system. The bill directs NOAA to do more research, listen to experts, and improve its risk communication techniques. The bill also reestablishes a program that allows NOAA to make awards to people who save the lives of others through reliance on NOAA's Weather Radio All Hazards program.

This bill also establishes a pilot program at NOAA to look to the commercial sector for weather forecasting data. This is an overdue effort to ensure that Federal dollars are spent effectively and leveraged appropriately.

Additionally, the bill requires NOAA to run simulations of the effect of different configurations of instruments and datasets on forecasting accuracy so the agency can look at the benefits and costs of different arrays of sensors. It is important to make sure that these requirements are not too prescriptive so that NOAA is able to use the most efficient, accurate, and cost-effective model for the situation. I will continue to work with my colleagues on the other side of the aisle on how we can make these provisions work well.

In summary, the changes in this bill will bring about advances that result in better development and deployment of forecast innovations and technology. Importantly, most of these changes are coming at little or no cost. The bill is focused on changes to internal processes rather than simply spending more money. To the degree that the bill does expand the agency's authorization for weather research, it is done in line with anticipated needs in this area.

Again, I want to thank the Members on both sides of the aisle for their input and support. I am particularly grateful to Ms. JOHNSON for her support during negotiations as well as Mr. LUCAS and Mr. BRIDENSTINE. Also, I want to thank the hard-working staff on both sides of the aisle for their efforts to keep coming back to the table and helping to move this forward.

Mr. Chairman, we also received many letters of support for H.R. 1561 from more than 20 different organizations, including the Weather Coalition; the University Corporation for Atmospheric Research, which represents more than 100 research institutions; the Global Weather Corporation; the American Weather and Climate Industry Association; the American Commercial Space Weather Association; and many others. Additionally, we received letters of support from a number of individuals who serve on the Environmental Information Services Working Group, which is one of NOAA's scientific advisory bodies.

Mr. Chairman, I ask my colleagues to support this bill.

I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Speaker, I want to first thank the gentlewoman from Oregon for her work on this bill. She has been a strong advocate and an initiator on the benefits that this bill does promote.

Mr. Speaker, I yield such time as he may consume to the gentleman from Oklahoma (Mr. BRIDENSTINE), the chairman of the Subcommittee on Environment of the Committee on Science, Space, and Technology.

Mr. BRIDENSTINE. Mr. Speaker, I would like to just echo the comments of my colleague from Oklahoma, the vice chairman of the Committee on Science, Space, and Technology, Mr. LUCAS, and of course the ranking member, Ms. BONAMICI. I think your summation of this bill is right on target.

Mr. Speaker, I would like to attest that H.R. 1561, the Weather Research and Forecasting Innovation Act, is the very first step in what will lead us to a day when we have zero deaths from tornadoes. I want to repeat that. This is the very first step of what is necessary to move us to a day where we have zero deaths from tornadoes. Those of us from the great State of Oklahoma understand this all too well.

Mr. Speaker, I would like to first thank Chairman SMITH, Vice Chairman LUCAS, and the Subcommittee on Environment Ranking Member BONAMICI for their tireless efforts to see this bipartisan legislation move forward.

The burgeoning commercial private sector for space-based weather data and aviation-based weather data has voiced its support for this legislation. I would like to mention letters to the Committee on Science, Space, and Technology from PlanetiQ, Tempus Global Data, Panasonic Avionics Corporation, GeoOptics, and Spire Global.

H.R. 1561 builds on the foundation laid by my House-passed Weather Forecasting Improvement Act from last Congress and directs NOAA to prioritize activities that will save lives and protect property. This is critically important to my State, which is in the heart of Tornado Alley.

In fact, I just went home for the weekend. Saturday night, about midnight, all of the tornado sirens started going off. My wife and I got up. We got our kids out of bed. We brought them downstairs. We set up their beds in my closet. My wife and I turned on the TV, and we surfed the Internet trying to find out where the tornadoes were and where they were touching down.

This is critically important, and I am sure my experience this weekend, which is not unique to this weekend, is also an experience by many of my constituents and others throughout the State of Oklahoma. We must do all we can to improve our ability to predict the weather.

H.R. 1561 will help NOAA to develop more accurate and timely warnings for not only tornadoes, but also hurricanes and other high-impact weather events. It calls on NOAA to develop a plan to regain and maintain our forecasting capabilities that are second to none in the world because right now we, unfortunately, are lagging behind our counterparts in Europe, the U.K., and Canada. The bill encourages better cooperation across NOAA offices and enhances collaboration with universities such as the University of Oklahoma,

which is a national leader in weather research.

Mr. Speaker, I am particularly proud of a new section in this year's version that we have worked closely with industry, NOAA, and other Members of Congress to include. H.R. 1561 authorizes a pilot program for NOAA to purchase commercial space-based weather data and test it against NOAA's proprietary data. It also calls on NOAA to publish standards it expects from any purchased data from the commercial sector.

Mr. Speaker, this has the potential to be a major paradigm shift provision. This is the first step towards changing the business model. I believe we need to change the business model, moving to a day where the government does not purchase, own, and operate huge monolithic billion-dollar satellites but, rather, utilizes the innovation of the private sector to provide the data necessary to feed our data assimilation systems and our numerical weather models.

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This will ultimately allow NOAA to focus its resources on the research and development necessary to improve our modeling capabilities, computing capacity, and warning lead times outlined in this legislation.

Mr. Speaker, I believe there will come a time when there will be zero deaths from tornados. I think this bill will help us implement the necessary steps to get there.

I, once again, thank my colleagues on the Science Committee for all their hard work, and I look forward to working with our counterparts in the Senate to move this legislation to the President's desk.

I encourage all my colleagues to support this bill.

Ms. BONAMICI. Mr. Speaker, I continue to reserve the balance of my time

Mr. SMITH of Texas. Mr. Speaker, H.R. 1561 has received overwhelming support from the weather enterprise and industry. I would like to mention letters of support from AccuWeather, The Weather Company, Science and Technology Corporation, and Carmel Research Center as well.

Mr. Speaker, I will insert in the RECORD a full list of the 25 letters of support the Science Committee received for this legislation.

LETTERS OF SUPPORT FOR H.R. 1561—THE WEATHER RESEARCH AND FORECASTING INNOVATION ACT OF 2015

COMPANIES

AccuWeather, American Commercial Space Weather Association, Atmospheric & Space Technology Research Associates, American Weather and Climate Industry Association, Carmel Research Center, GeoOptics, Global Weather Corporation, MetraWeather, Panasonic Avionics Corporation, Planet IQ.

Space Environment Technologies, Spire Global, Science Technology Corporation, Tempus Global Data, The Weather Company, University Corporation of Atmospheric Research, Utah Science Technology and Research Initiative, Utah State University, Weather Coalition, Weather Decision Technologies.

INDIVIDUAL MEMBERS OF THE ENVIRONMENTAL INFORMATION SERVICES WORKING GROUP

Walt Dabbert—Vaisala, Philip Ardanuy—Raytheon, Waren Qualley—Harris, Jean Vieux—Vieux Hydrology, Julie Winkler—Michigan State University.

Mr. SMITH of Texas. Mr. Speaker, I have no other request for time, but I just want to thank the three original cosponsors we have on the floor tonight—Mr. LUCAS, Mr. BRIDENSTINE, and Ms. BONAMICI—for sponsoring such an important piece of legislation.

I reserve the balance of my time.

Ms. BONAMICI. Mr. Speaker, let me say, again, that this is a good bill that will improve weather forecasting innovation and services.

The results of the changes contained in this legislation? The public will be safer because of more timely and more accurate forecasts that will protect lives and property. We will also be growing our economy and creating jobs through this bill.

Researchers have found that annual variations in weather can produce billions of dollars in reduced U.S. gross domestic product. With stakes that large, we owe it to our Nation to improve weather forecasting.

H.R. 1561 takes intelligent steps to support NOAA and to drive needed change in how we harness research to forecasting needs.

Again, I want to thank the many leaders in the research community and the private weather sector who provided advice to the committee as we worked on this bill. I also want to extend my appreciation to the Under Secretary of Commerce for Oceans and Atmosphere, Dr. Kathy Sullivan, for her cooperation and advice.

I will continue working with my colleagues across the aisle and in the other body until we have a good, final bill. Again, I thank my cosponsors, and I yield back the balance of my time.

Mr. SMITH of Texas. Mr. Speaker, I yield back the balance of my time.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Speaker, I rise in support of H.R. 1561, the Weather Research and Forecasting Innovation Act of 2015.

I want to take a moment to acknowledge that getting to where we are today was not easy. This is an update to a bill the House passed two years ago, and we have spent several months in this Congress negotiating over how to rework that legislation.

I want to especially recognize the efforts of Environment Subcommittee Chairman JIM BRIDENSTINE and Ranking Member SUZANNE BONAMICI as well as the bill's sponsor, Mr. LUCAS. Their leadership and commitment has really driven this process forward. Today's bill is a testament to their dedication and represents one very positive step forward on the long and continuous road to improving the American weather forecasting system.

America has some of the most diverse and dangerous weather events of any country. From my home state of Texas, all the way to Maine, hurricanes and tropical storms annually batter our coasts. Likewise, the central portions of our country, from Texas to Illinois are the most tornado prone areas in the entire world.

Unfortunately, all you've had to do over the last few weeks is pick up a newspaper or turn on the television to see the true impact tornadoes can have on American families. To help our citizens cope with these potentially devastating events, we need to have the very best weather forecasting and warning capabilities.

The National Weather Service and the Office of Oceanic and Atmospheric Research at NOAA play a central role in protecting the lives and property of every American.

The bill before us today will help accelerate innovation and the transition of cutting-edge weather research into essential weather forecasting tools and products.

The legislation accomplishes this goal by breaking down the barriers that exist between the weather research community, our nation's forecasters, and the private-sector weather enterprise. Improving collaboration and cooperation within NOAA, but also between the agency and the broader weather community will extend the accuracy and timing of our weather predictions. Such improvements will ultimately save lives and make our communities safer.

Mr. Speaker, the weather is a central part of everyday life and resiliency to severe weather events is an important part of strengthening the nation's economic security. H.R. 1561 will advance our weather forecasting capabilities and I urge my colleagues to support its passage.

Mr. SMITH of Texas. Mr. Speaker, I yield myself such time as I may consume.

H.R. 1561, ''The Weather Research and Forecasting Innovation Act of 2015,'' will greatly improve our severe weather forecasting capabilities. I thank the gentleman from Oklahoma, Mr. LUCAS, the Vice Chairman of the Science Committee, for introducing this bill.

Severe weather routinely affects large portions of the United States. This year we already have seen the devastating effects of tornados across our country, especially in Texas, Oklahoma, Missouri, Kansas, Alabama, and Mississippi among other states.

The deaths and the damage from severe weather underscore our need for a world-class weather prediction system that helps protect American lives and property.

Unfortunately, our leadership has slipped in severe weather forecasting. European weather models routinely predict America's weather better than we do. We need to make up for lost ground.

H.R. 1561 improves weather observation systems and next generation modeling capabilities.

This bill prioritizes weather research at the National Oceanic and Atmospheric Administration's (NOAA's) research agency. This will improve forecasts and warnings.

It prompts NOAA to actively engage new commercial data and private sector weather solutions through a corrimercial weather data pilot project.

The bill requires a cost-benefit analyses for the procurement of observing system data.

It increases forecast warning lead times for tornadoes and hurricanes. And it creates a joint technology transfer fund in NOAA's Office of Oceanic and Atmospheric Research to help speed technologies developed through NOAA's weather research into operation.

The enhanced prediction of major storms is of great importance to protecting the public from injury and loss of property.

In addition to Mr. LUCAS, I also want to thank the Chairman of the Environment Subcommittee, the gentleman from Oklahoma, Mr. BRIDENSTINE, and the Environment Subcommittee Ranking Member, the gentlewoman from Oregon, Ms. BONAMICI, for their sponsorship of this bipartisan bill.

I urge my colleagues to support this bill.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Texas (Mr. SMITH) that the House suspend the rules and pass the bill, H.R. 1561, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

DEPARTMENT OF ENERGY LABORATORY MODERNIZATION AND TECHNOLOGY TRANSFER ACT OF 2015

Mr. SMITH of Texas. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 1158) to improve management of the National Laboratories, enhance technology commercialization, facilitate public-private partnerships, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 1158

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''Department of Energy Laboratory Modernization and Technology Transfer Act of 2015''.

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

SEC. 2. DEFINITIONS.

In this Act:

(1) DEPARTMENT.—The term ''Department'' means the Department of Energy.

(2) NATIONAL LABORATORY.—The term ''National Laboratory'' means a Department of Energy nonmilitary national laboratory, including—

(A) Ames Laboratory;

(B) Argonne National Laboratory;

(C) Brookhaven National Laboratory;

(D) Fermi National Accelerator Laboratory;

(E) Idaho National Laboratory;

(F) Lawrence Berkeley National Laboratory;

(G) National Energy Technology Laboratory;

(H) National Renewable Energy Laboratory;

(I) Oak Ridge National Laboratory;

(J) Pacific Northwest National Laboratory;

(K) Princeton Plasma Physics Laboratory;

(L) Savannah River National Laboratory;

(M) Stanford Linear Accelerator Center;

(N) Thomas Jefferson National Accelerator Facility; and

(O) any laboratory operated by the National Nuclear Security Administration, but only with respect to the civilian energy activities thereof.

(3) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

SEC. 3. SAVINGS CLAUSE.

Nothing in this Act or an amendment made by this Act abrogates or otherwise affects the primary responsibilities of any National Laboratory to the Department.

TITLE I—INNOVATION MANAGEMENT AT DEPARTMENT OF ENERGY

SEC. 101. TECHNOLOGY TRANSFER AND TRANSITIONS ASSESSMENT.

Not later than 1 year after the date of enactment of this Act, and annually thereafter, the Secretary shall transmit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report which shall include—

(1) an assessment of the Department's current ability to carry out the goals of section 1001 of the Energy Policy Act of 2005 (42 U.S.C. 16391), including an assessment of the role and effectiveness of the Director of the Office of Technology Transitions; and

(2) recommended departmental policy changes and legislative changes to section 1001 of the Energy Policy Act of 2005 (42 U.S.C. 16391) to improve the Department's ability to successfully transfer new energy technologies to the private sector.

SEC. 102. SENSE OF CONGRESS.

It is the sense of the Congress that the Secretary should encourage the National Laboratories and federally funded research and development centers to inform small businesses of the opportunities and resources that exist pursuant to this Act.

SEC. 103. NUCLEAR ENERGY INNOVATION.

Not later than 180 days after the date of enactment of this Act, the Secretary, in consultation with the National Laboratories, relevant Federal agencies, and other stakeholders, shall transmit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report assessing the Department's capabilities to authorize, host, and oversee privately funded fusion and non-light water reactor prototypes and related demonstration facilities at Department-owned sites. For purposes of this report, the Secretary shall consider the Department's capabilities to facilitate privately-funded prototypes up to 20 megawatts thermal output. The report shall address the following:

(1) The Department's safety review and oversight capabilities.

(2) Potential sites capable of hosting research, development, and demonstration of prototype reactors and related facilities for the purpose of reducing technical risk.

(3) The Department's and National Laboratories' existing physical and technical capabilities relevant to research, development, and oversight.

(4) The efficacy of the Department's available contractual mechanisms, including cooperative research and development agreements, work for others agreements, and agreements for commercializing technology.

(5) Potential cost structures related to physical security, decommissioning, liability, and other long-term project costs.

(6) Other challenges or considerations identified by the Secretary, including issues related to potential cases of demonstration reactors up to 2 gigawatts of thermal output.

TITLE II—CROSS-SECTOR PARTNERSHIPS AND GRANT COMPETITIVENESS

SEC. 201. AGREEMENTS FOR COMMERCIALIZING TECHNOLOGY PILOT PROGRAM.

(a) IN GENERAL.—The Secretary shall carry out the Agreements for Commercializing Technology pilot program of the Department, as announced by the Secretary on December 8, 2011, in accordance with this section.

(b) TERMS.—Each agreement entered into pursuant to the pilot program referred to in subsection (a) shall provide to the contractor of the applicable National Laboratory, to the maximum extent determined to be appropriate by the Secretary, increased authority to negotiate contract terms, such as intellectual property rights, payment structures, performance guarantees, and multiparty collaborations.

(c) ELIGIBILITY.—

(1) IN GENERAL.—Any director of a National Laboratory may enter into an agreement pursuant to the pilot program referred to in subsection (a).

(2) AGREEMENTS WITH NON-FEDERAL ENTITIES.—To carry out paragraph (1) and subject to paragraph (3), the Secretary shall permit the directors of the National Laboratories to execute agreements with a non-Federal entity, including a non-Federal entity already receiving Federal funding that will be used to support activities under agreements executed pursuant to paragraph (1), provided that such funding is solely used to carry out the purposes of the Federal award.

(3) RESTRICTION.—The requirements of chapter 18 of title 35, United States Code (commonly known as the ''Bayh-Dole Act'') shall apply if—

(A) the agreement is a funding agreement (as that term is defined in section 201 of that title); and

(B) at least 1 of the parties to the funding agreement is eligible to receive rights under that chapter.

(d) SUBMISSION TO SECRETARY.—Each affected director of a National Laboratory shall submit to the Secretary, with respect to each agreement entered into under this section—

(1) a summary of information relating to the relevant project;

(2) the total estimated costs of the project;

(3) estimated commencement and completion dates of the project; and

(4) other documentation determined to be appropriate by the Secretary.

(e) CERTIFICATION.—The Secretary shall require the contractor of the affected National Laboratory to certify that each activity carried out under a project for which an agreement is entered into under this section—

(1) is not in direct competition with the private sector; and

(2) does not present, or minimizes, any apparent conflict of interest, and avoids or neutralizes any actual conflict of interest, as a result of the agreement under this section.

(f) EXTENSION.—The pilot program referred to in subsection (a) shall be extended until October 31, 2017.