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NOMINATIONS TO THE CONSUMER PRODUCT SAFETY COMMISSION, THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, THE PIPELINES AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION, AND THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED FIFTEENTH CONGRESS

FIRST SESSION

SEPTEMBER 27, 2017

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED FIFTEENTH CONGRESS

FIRST SESSION

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ROY BLUNT, Missouri
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NOMINATIONS TO THE CONSUMER PRODUCT SAFETY COMMISSION, THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, THE PIPELINES AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION, AND THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

WEDNESDAY, SEPTEMBER 27, 2017

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 10:33 a.m. in room SR–253, Russell Senate Office Building, Hon. John Thune, Chairman of the Committee, presiding.

Present: Senators Thune [presiding], Wicker, Inhofe, Fischer, Moran, Sullivan, Gardner, Young, Moore Capito, Nelson, Cantwell, Klobuchar, Blumenthal, Markey, Booker, Baldwin, Hassan, and Cortez Masto.

OPENING STATEMENT OF HON. JOHN THUNE, U.S. SENATOR FROM SOUTH DAKOTA

The CHAIRMAN. Good morning.

Today we welcome four well-qualified nominees to testify before the Committee as we consider their nominations to serve in important positions of responsibility at the Consumer Product Safety Commission, the National Institute of Standards and Technology or NIST, the Pipelines and Hazardous Materials Safety Administration or PHMSA, and the National Oceanic and Atmospheric Administration or NOAA.

Thank you, Chairman Buerkle, and Dr. Copan, and Mr. Elliott, and Dr. Gallaudet, as well as your families, for your presence today and for your willingness to serve the Nation.

I support each of these nominees and look forward to confirming them as quickly as possible.

The Honorable Ann Marie Buerkle, who currently serves as the Acting Chairman of the CPSC, has been nominated by President Trump to be the Chairman and also has been nominated to a new 7-year term as Commissioner at the CPSC.

Commissioner Buerkle's nomination is the first of several we are likely to see for the CPSC and other consumer protection agencies

under the Committee's jurisdiction, like the Federal Trade Commission, in the weeks and months ahead.

For example, current CPSC Commissioner Marietta Robinson's term will expire next month. And as I have noted in prior hearings, the FTC has only two of its five commissioners in place.

I am committed to making sure that these important, independent agencies, which are charged with the responsibility of protecting the American public, can operate at full capacity with senate-confirmed commissioners installed expeditiously.

Ms. Buerkle has served as the Commissioner at the CPSC since 2013, when she was confirmed by the Senate by voice vote. Prior to joining the CPSC, Ms. Buerkle represented New York's 25th Congressional District in the U.S. House of Representatives. Early in her career, Ms. Buerkle practiced law and worked as a registered nurse at Columbia Presbyterian Hospital in New York City.

She has done a great job during her time at the CPSC, and I am very happy to see her elevated to be the Chairman of the Commission.

Dr. Walter Copan is exceptionally well-qualified to serve as the Director of NIST; his broad background in science and technology, a history of working effectively with the U.S. Federal Labs, and significant cross-sector industry and leadership experience.

Dr. Copan is currently the President and CEO of IP Engineering Group Corporation. Before that, he served in leadership roles at Brookhaven National Laboratory and at the National Renewable Energy Laboratory.

Among his entrepreneurial ventures was Clean Diesel Technologies, Inc., where he served as Chief Technology Officer and that he helped go public on the NASDAQ. Before that, he worked for 28 years at Lubrizol Corporation where he held various leadership positions.

Howard "Skip" Elliott has been nominated to lead PHMSA at the Department of Transportation. He is a 40-year veteran of the U.S. freight rail industry serving over the last decade as Group Vice President of Public Safety, Health, Environmental, and Security for CSX Transportation in Jacksonville, Florida.

While at CSX, Mr. Elliott's portfolio of responsibility included hazardous materials transportation safety, crisis management, environmental compliance and operations, and continuity of business operations.

He is a pioneer in developing and implementing computer-based tools to assist emergency management officials, first responders, and Homeland Security personnel in preparing for, and responding to, railroad hazardous materials and security incidents.

Dr. Timothy Gallaudet has been nominated to be the Deputy Administrator of NOAA. He retired from the Navy earlier this month where he served for 32 years and reached the rank of Rear Admiral.

Most recently, Dr. Gallaudet was Oceanographer of the Navy and Commander of the Navy Meteorology and Oceanography Command.

Dr. Gallaudet has led teams of Navy sailors and civilians performing such diverse functions as overseeing aircraft carrier combat operations, planning and conducting humanitarian assistance

and disaster response efforts, and developing the Navy's annual $52 billion information technology, cyber security, and intelligence budget.

I know I speak for everyone on this panel, Dr. Gallaudet, when I thank you for your service to our country. Clearly, the Navy's loss is NOAA's gain.

As I have noted, all four of these nominees are well-qualified for the positions to which they have been nominated, and I look forward to their swift confirmation.

And once again, I would like to thank all of you for testifying today and for your willingness to fill all these very important posts.

I will now turn to Ranking Member Nelson for any opening remarks that he would like to make.

[The prepared statement of Senator Thune follows:]

PREPARED STATEMENT OF HON. JOHN THUNE, U.S. SENATOR FROM SOUTH DAKOTA

Good morning. Today we welcome four well-qualified nominees to testify before the Committee as we consider their nominations to serve in important positions of responsibility at the Consumer Product Safety Commission (CPSC), the National Institute of Standards and Technology (NIST), the Pipelines and Hazardous Materials Safety Administration (PHMSA), and the National Oceanic and Atmospheric Administration (NOAA).

Thank you Chairman Buerkle, Dr. Copan, Mr. Elliott, and Dr. Gallaudet, as well as your families, for your presence today and for your willingness to serve the Nation.

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For example, current CPSC Commissioner Marietta Robinson's term will expire next month. And, as I've noted in prior hearings, the FTC has only two of its five commissioners in place.

I am committed to making sure that these important independent agencies—which are charged with the responsibility of protecting the American public—can operate at full capacity, with Senate-confirmed commissioners installed expeditiously.

Ms. Buerkle has served as a Commissioner at the CPSC since 2013, when she was confirmed by the Senate by voice vote. Prior to joining the CPSC, Ms. Buerkle represented New York's 25th Congressional District in the U.S. House of Representatives.

Earlier in her career, Ms. Buerkle practiced law and worked as a registered nurse at Columbia Presbyterian Hospital in New York City. She has done a great job during her time at the CPSC, and I'm very happy to see her elevated to be the Chairman of the Commission.

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Most recently, Dr. Gallaudet was Oceanographer of the Navy and Commander of the Navy Meteorology and Oceanography Command.

Dr. Gallaudet has led teams of Navy sailors and civilians performing such diverse functions as overseeing aircraft carrier combat operations, planning and conducting humanitarian assistance and disaster response efforts, and developing the Navy's annual $52 billion information technology, cyber security, and intelligence budget.

I know I speak for everyone on this panel, Dr. Gallaudet, when I thank you for your service to our country. Clearly the Navy's loss is NOAA's gain.

As I've noted, all four of these nominees are well-qualified for the positions to which they have been nominated and I look forward to their swift confirmation. Once again, I would like to thank you all for testifying today and for your willingness to fill these important posts.

I will now turn to Ranking Member Nelson for any opening remarks he would like to make.

STATEMENT OF HON. BILL NELSON, U.S. SENATOR FROM FLORIDA

Senator NELSON. Yes, sir, Mr. Chairman.

Naturally, over the last few weeks, this senator has been dealing with some natural disasters. We have seen the devastation that has resulted. As recently as last evening, Senator Cruz and I had a conversation in-person with General McMaster. It is going to take getting the military into Puerto Rico in big numbers.

The food, the medicine is piling up at the docks. There is no way to distribute it and our United States military is especially capable of doing that. That has to be a decision by the White House with direction to FEMA which controls that, then requests that from the U.S. military.

Now, the storms have caused numerous deaths, and why I bring that up is for this reason. As we are picking up the pieces, not only in Texas and Florida, the Virgin Islands, and of course, now, Puerto Rico, we have surveyed all the damage and there is a long recovery ahead of us.

I am encouraged because we have seen extraordinary people helping others all throughout. We have a real challenge with Puerto Rico. And we are, and I think I can speak for the Committee, committed to help all of these folks including my state of Florida.

The connection with this hearing today is that the four agencies represented here play a very important role in the life and property around this country.

The Consumer Product Safety Commission, for example, plays a key role in ensuring the safety of consumer products. And one product that is often in high demand after hurricanes and severe storms is what? Portable generators. They can be very important because they bring a source of energy in the aftermath of a hurricane.

You remember the tragic situation that the rules did not require generators strong enough to run the air conditioners. And in one

nursing home, it turned into a hotbox and 11 people, unbelievably, 11 are dead because of overexposure to heat. But if you use one of those generators incorrectly, that is also deadly.

We have been pushing CPSC on this Committee for the last decade to enact a robust safety standard to either reduce the amount of carbon monoxide emitted by the portable generators or to cause the generators to automatically shutoff when the carbon monoxide in a closed room gets too high.

I was heartened last fall when the CPSC voted 4-to-1 to publish a draft standard for significantly reducing the amount of deadly carbon monoxide these machines emit.

And by the way, in the aftermath of Irma, just in my state alone, 11 deaths, the same as the number of seniors in that hotbox. Eleven deaths from carbon monoxide poisoning as a result of people putting a generator inside the house to give you power, and the carbon monoxide building up.

And now it appears that what was the first step of a rule last fall is being held up because of behind the scenes industry lobbying at both the CPSC and the EPA. And this is deadly. So as of last Friday, 11 deaths, numerous injuries; that is just in Florida.

But what in the world is going to happen in the aftermath as they are climbing out of this tragedy in Puerto Rico and the Virgin Islands?

Ms. Buerkle, while I appreciate your generator safety outreach messages prior to Irma, your efforts to delay this potentially lifesaving rule is quite concerning.

Now Admiral—and I noticed the Chairman called you doctor—Dr. Admiral, for years we have been trying to make sure that NOAA has reliable tools to forecast hurricanes and to better understand and predict weather patterns. Extreme events in this year alone include unprecedented wildfires and back-to-back record Atlantic hurricanes only to underscore that something is happening in the climate.

It is interesting while we praise NOAA of which the National Weather Service is a part, and the National Hurricane Center, because it has the tools and is so accurate now on not only the track, but the ferocity of the hurricane. At the same time, we have a President's budget that wants to take away some of those tools by cutting your NOAA budget.

Let us be consistent. In fact, we know in the measurements over decades of time, not on any one storm, that the global temperatures are rising. And therefore, as the earth heats up, and two-thirds of the earth is covered with water, 90 percent of that heat is absorbed by the oceans. When water is heated, it expands and that is the phenomenon we see in South Florida now.

On the six o'clock news, it is standard that the water is washing over the curbs in Fort Lauderdale and in Miami Beach. Oceans are warming and then that warm water is the fuel for these dizzying, extraordinary storms.

And so, Admiral, we need leaders at NOAA who understand the importance of what is going on and I hope you are going to take on NOAA in the same diligence that you had in your role in the United States Navy. And thank you for your service.

And speaking of the United States Navy, I want to point out that a member of our staff, a United States Navy Commander, Bale Dalton, a reservist, a helicopter pilot Special Forces, member of our staff for the last several years, he has been activated. He is going to the Middle Eastern theater as active duty reservist and he will be piloting the helicopters on the Special Forces missions.

Is Bale here? I want him to stand up and be recognized. OK. I brought him here. He did not know I was going to introduce him.

[Laughter.]

Senator NELSON. We are grateful to Navy Commander Bale Dalton.

Mr. Elliott, I want to welcome you, as a fellow Floridian. You know that safe and reliable transportation of hazardous materials across the country and into densely urban areas is critical.

I look forward to hearing from you about the work you did in overseeing the safety of transporting those hazardous materials within CSX. He is from Florida. CSX is based in Jacksonville.

And Dr. Copan, I have spent the last 2 weeks, as you and I have discussed about the science of hurricanes and what is happening. Thank you for bringing the expertise that you have to the job of NIST. It is a critical Federal agency and it not only contributes to the technology that we have, but it is an essential agency in our national security apparatus.

The devastation that we have seen to infrastructure in these natural events that have occurred is one of the reasons that Senator Rubio and I have authored the National Windstorm Impact Reduction Act. Consumer standards and building standards are a part of one job of NIST.

Under that program, NIST leads the Federal investigations after a hurricane. By the way, the building codes do work because where there was a new structure, according to the new codes, the international code standard, the structure is there. Where there was an old structure next door, it is gone.

The investigations and the research that you do to improve the building codes, it is absolutely critical for the next storm and you are going to base a lot of your decisions on scientific data. I look forward to that.

Thank you, Mr. Chairman.

[The prepared statement of Senator Nelson follows:]

PREPARED STATEMENT OF HON. BILL NELSON, U.S. SENATOR FROM FLORIDA

Mr. Chairman, over the past few weeks we have seen the devastation hurricanes can cause. Irma, Harvey, and Maria have been the most powerful storms we have seen in decades.

These storms have caused numerous deaths and our thoughts and prayers are with the families of Florida, Texas, Puerto Rico, Virgin Islands, and the rest of the Caribbean, who have lost so much.

Now it's time to start picking up the pieces. I have been down in Florida surveying the damage and hearing from local communities and I can tell you, we have a long recovery ahead of us.

But I am encouraged.

The strength and resilience of the Floridians I have met with never ceases to amaze me. I have seen neighbors and communities coming together to help each other while less affected areas in Florida are giving to those in dire need.

I am fully committed to doing everything that I can to aid my fellow Floridians and all others who have lost life and property in these storms.

This is why this hearing today is so important. The four agencies represented here play an integral role in protecting life and property around this country.

The Consumer Product Safety Commission, for example, plays a key role in ensuring the safety of consumer products. And one product that is often in high demand after hurricanes and severe storms is portable generators. They can be a very important source of emergency power after storms. But when used incorrectly, they can also be deadly.

For over ten years, I have been pushing the CPSC to enact a robust safety standard to either reduce the amount of carbon monoxide emitted by portable generators or to cause generators to automatically shut off when carbon monoxide concentrations in the area where they are being used reach toxic levels.

I was heartened when the CPSC voted four to one last year to publish a draft standard to significantly reduce the amount of deadly carbon monoxide these machines emit.

Sadly, it appears that this rule is being held up because of behind-the-scenes industry lobbying at both the CPSC and the EPA.

And this delay, quite frankly, is deadly.

As of last Friday, there have been at least eleven deaths and numerous injuries in Florida related to carbon monoxide poisoning from portable generators used in the wake of Hurricane Irma.

And I suspect we will see more in the coming weeks in Puerto Rico, the Virgin Islands, and other Caribbean countries decimated by Hurricane Maria.

Ms. Buerkle, while I appreciate your generator safety outreach messages prior to Hurricane Irma, I am deeply disappointed in your efforts to delay this potentially lifesaving rule.

Admiral Gallaudet, for years, I have been working to make sure that NOAA has reliable tools to forecast hurricanes and to better understand and predict weather patterns.

Extreme events in 2017 alone include unprecedented wildfires and back-to-back-to-back record Atlantic hurricanes and only underscore the growing impact of climate change.

Global temperatures are rising—and so are the seas. 2016 and 2017 have had the two highest global temperatures ever recorded since we began measuring in 1880.

Oceans are warming and fueling the dizzyingly fast intensification of hurricanes we saw in Harvey, Irma, Jose, and Maria.

We need leaders at NOAA who understand the importance of studying climate change, and I hope you, Admiral Gallaudet, will show the same diligence at NOAA in studying and preparing for climate change that you displayed in your role of oceanographer of the Navy.

Mr. Elliott, I want to welcome you to the committee as a fellow Floridian. As you know, the safe and reliable transportation of hazardous materials across the country and into densely populated regions is critical.

I look forward to hearing from you about the work you did overseeing the safety of transporting hazardous materials within CSX, which is based in our home state of Florida.

And Dr. Copan, I've spent the last two weeks crisscrossing Florida after Hurricane Irma devastated many parts of the state. Luckily, the devastation wasn't as bad as feared in some areas because of the improved building codes put in place after Hurricane Andrew.

In fact, the devastation to Florida's infrastructure after hurricanes is one of the reasons I authored the original legislation creating the National Windstorm Impact Reduction Act. Under that program, NIST leads the Federal investigations after a hurricane. Those investigations and research is used to improve building codes—so that communities are more resilient and ready for the next storm.

All of the agencies represented today base their work on one thing—scientific data. I look forward to hearing from each of you today on how we can protect scientific integrity and the many other issues I mentioned.

Thank you.

The CHAIRMAN. Thank you, Senator Nelson.

I think I can say that members of this Committee, and I daresay all Members of the Senate, stand ready to help and assist the citizens of your state and the many others who were impacted by these horrible, horrible storms. So thank you.

We now are going to have Senator Gardner, I think, is going to introduce Dr. Walter Copan, followed by Senator Wicker, who will introduce Dr. Timothy Gallaudet.

I will recognize Senator Gardner.

STATEMENT OF HON. CORY GARDNER, U.S. SENATOR FROM COLORADO

Senator GARDNER. Thank you, Mr. Chairman.

And thank you, to Senator Wicker. I have a Committee hearing that I have to chair, Foreign Relations Committee, so I appreciate the opportunity and I apologize for having to chair a committee at the same time as this Committee hearing.

I wanted to welcome all of the nominees today. Thank you for your willingness to serve. It is great to see Ann Marie here as well. We came into Congress together, so thank you for your willingness to serve in this new capacity as well.

Chairman Nelson, thanks for this hearing. It is great to be here with a fellow Coloradan. Honored to be here with Dr. Walter Copan—and for the information of all Senators, it is snowing Colorado. The ski slopes will open in mid-October—to be Director of the National Institute of Standards and Technology or NIST.

Dr. Copan has dedicated his life to expanding the reach of innovation and research during his time in both the private sector and the public sector. He began his career working in chemicals and material research for a firm that conducted business all over the world, all over the globe and focused on significant technology transfer initiatives as well.

From there, Dr. Copan spent time at the Department of Energy's National Renewable Energy Laboratory headquartered in Golden, Colorado—just down the mountain from the ski resorts that open in October—where he focused on improving commercialization of energy technologies developed in the lab. He performed similar work at Brookhaven National Laboratory where he launched efforts to boost entrepreneurial ventures.

In addition to the work he undertook at our Federal labs, Dr. Copan founded several companies and partnerships within the advanced materials manufacturing and clean fuels space.

In short, Dr. Copan understands the benefits of our Federal labs, the challenges that industry faces, and the importance of a robust Federal research enterprise, and the commercial transferability that occurs from both.

NIST is one of the hardest working agencies in the Federal Government made up of great people and employees and the groundbreaking research, productive relationships with industry and academia, and a critical role in the Federal Government should be applauded and emboldened.

In light of his experience across a wide range of laboratory and industry research projects, and his vision for promoting the great work that NIST undertakes, I believe Dr. Copan would be an excellent director of the agency and I hope that my colleagues will agree.

It is an honor to introduce you today. Welcome, congratulations, and I look forward to your service.

The CHAIRMAN. Thank you, Senator Gardner.

Senator Wicker.

STATEMENT OF HON. ROGER F. WICKER, U.S. SENATOR FROM MISSISSIPPI

Senator WICKER. Thank you, Mr. Chairman.

It is my pleasure to introduce Admiral Tim Gallaudet to be the Assistant Secretary of Commerce for Oceans and Atmosphere. President Trump has made an excellent nomination for NOAA Deputy Administrator.

Admiral Gallaudet is experienced and knowledgeable about oceans, coasts, and atmosphere having served 32 years in the Navy.

Dr. Gallaudet got one degree at Annapolis and two out in San Diego, but we consider him a Mississippian having finished his naval career at Stennis Space Center in my home State of Mississippi and serving as the Oceanographer of the Navy and Commander of the Naval Meteorology and Oceanography Command, and that is a mouthful. That post made him the highest ranking active naval officer in our State of Mississippi. So we claim him.

He knows firsthand the devastation caused by Katrina and the importance of NOAA's mission to provide accurate information and warnings.

Admiral Gallaudet has been a leader in the development of unmanned systems during his time in the Navy. And, of course, we are headed that way in a big way.

He participated in the first operational launch and recovery of an undersea glider on a naval oceanographic vessel aboard the USNS Bowditch. Like ships, unmanned systems are vital to the 21st Century Navy. These unmanned systems' capabilities are also needed outside our defense sector. So, no doubt, Admiral Gallaudet will incorporate this technology at NOAA.

Admiral Gallaudet's leadership in employing unmanned systems gave the Navy cutting edge environmental intelligence and was successful because of his ability to collaborate with industry, engage multiple branches of Government, and utilize our tremendous oceanography assets on the Mississippi Gulf Coast.

It is my hope that he will continue to draw on this expertise during his time at NOAA.

Mr. Chairman, President Trump has recognized the superb service of Admiral Gallaudet and he has given NOAA the leadership it needs at this opportune time.

So I thank the Admiral for his career of service and I am confident that he will have bipartisan support for confirmation very, very soon.

Thank you, sir.

[The prepared statement of Senator Wicker follows:]

INTRODUCTION OF ADMIRAL TIM GALLAUDET BY HON. ROGER F. WICKER, U.S. SENATOR FROM MISSISSIPPI

It is a pleasure to introduce Admiral Tim Gallaudet to be the Assistant Secretary of Commerce for Oceans and Atmosphere.

In Admiral Gallaudet, President Trump made an excellent nomination for NOAA's deputy administrator. He is experienced and knowledgeable about the oceans, coasts, and atmosphere from his 32 years of service in the Navy.

Admiral Gallaudet finished his naval career as the Oceanographer of the Navy and the commander of the Naval Meteorology and Oceanography Command. During this time, you were serving as the highest ranking active naval officer in my home state at Stennis Space Center in Mississippi. I also know that your family—like many Mississippians—lost your home during Hurricane Katrina, so you know the seriousness of NOAA's mission to provide accurate information and warnings.

I had the chance to spend some time with the Admiral this June in Gulfport, Mississippi, as we announced the launch of Governor Bryant's Ocean Task Force and showcased Naval Oceanography's work with unmanned systems.

Admiral Gallaudet has been a leader in unmanned systems throughout his time in the Navy, ever since the time he participated in the first operational launch and recovery of an undersea glider on a naval oceanographic vessel aboard the *USNS Bowditch*.

Like ships, unmanned systems are vital capabilities for the twenty-first century navy. The unmanned systems capabilities are also needed outside our defense sector, so I look forward to Admiral Gallaudet's incorporation of this technology at NOAA.

His leadership in employing unmanned systems to give the Navy cutting-edge environmental intelligence was visionary, and it is successful thanks to his ability to maximize collaboration among industry, multiple branches of government, and the tremendous oceanography assets on the Mississippi Gulf Coast. It is my hope you continue to draw on that expertise during your time at NOAA.

As the nominee for NOAA's deputy secretary, Admiral Gallaudet has the requisite strategic vision, operational experience, and leadership capabilities to fulfill the core missions of NOAA.

President Trump recognized the superb service of Admiral Galluadet, and he has given NOAA the leader it needs at this opportune time.

Thank you for your career of service, and I am confident that there will be bipartisan support for your confirmation after this hearing.

The CHAIRMAN. Thank you, Senator Wicker.

We will now proceed. I will start on my left and your right with the Honorable Ann Marie Buerkle of New York to be Chairman of the Consumer Product Safety Commission; followed by Dr. Walter Copan of Colorado to be Under Secretary of Commerce for Standards and Technology; Mr. Howard Elliott of Indiana to be Administrator of the Pipeline and Hazardous Materials Safety Administration; and Dr. Timothy Gallaudet of California to be Assistant Secretary of Commerce for Oceans and Atmosphere. So welcome.

Ms. Buerkle, please proceed.

STATEMENT OF HON. ANN MARIE BUERKLE, TO BE CHAIRMAN, CONSUMER PRODUCT SAFETY COMMISSION

Ms. BUERKLE. Thank you very much.

Good morning, Chairman Thune, and Ranking Member Nelson, and distinguished members of this Committee.

I am deeply honored and humbled by the President's nomination to be the Chairman of the United States Consumer Product Safety Commission as well as for the opportunity to address you here this morning.

Ranking Member Nelson and Senator Cruz, please know that my thoughts and prayers continue to be with your constituents recovering from the devastating hurricanes in Florida and Texas. I assure you that the CPSC will remain vigilant and continue to use every tool at its disposal to raise consumer awareness about post-storm hazards, particularly those related to the improper use of portable generators and the resultant carbon monoxide poisonings.

Along with promoting our safety messages through traditional and social media, we will continue to engage with CPSC field staff in the affected areas, other Federal agencies, State and local public

safety counterparts, and major retailers to educate the consumer and share this potentially lifesaving information.

I would like to express my thanks here this morning and my appreciation to my colleagues, Commissioners Robert Adler, Marietta Robinson, Elliot Kaye, and Joseph Mohorovic, for their support of my nomination as well as their friendship. In addition, I would like to thank CPSC's staff, who have assisted and supported me throughout this entire process including my Chief Counsel, Gib Mullan; my Chief of Staff, Nancy Lowery; and Katelyn Costello. I am honored to work alongside such talented and dedicated public servants.

Finally, I would like to thank my family for their continuous love and support. One of my six children is here today, my son, Tom from Texas. Also here is my brother, retired Marine Corps Colonel Tom Colella. Thank you both for being here.

For me, having the opportunity to lead the Consumer Product Safety Commission is the culmination of many aspects of my life. I began my professional career in nursing and then, at the age of 40, went to law school.

After receiving my law degree, I went on to work as a New York State Assistant Attorney General representing a Level 1 trauma hospital in upstate New York. In addition, for more than a decade, I was a strong advocate of the victims of domestic violence by providing pro bono legal counseling for residents at a local women's shelter.

I then had the honor and the privilege of serving the people of New York's 25th Congressional District in Congress and in 2013, President Obama appointed me to be a Commissioner at the Consumer Product Safety Commission.

My most important role throughout my life, has been raising my six children and being actively involved in the lives of my 17 grandchildren. Whether it is making sure that the grandchildren practice water safety or that my kids buy safe nursery products, as a mother, as well as a grandmother, safety is always on my mind.

I have spent my life in advocacy, and I believe that my background gives me a unique perspective as well as the ability to carry out CPSC's critical mission of keeping American consumers safe.

CPSC's priorities are ultimately guided by our regulatory agenda, strategic plan, and operating plan. And if confirmed, I will personally try to focus on areas where we can be most effective in carrying out our mission of safety.

Number one, by ensuring that our resources are dedicated to our highest priority risk and that we focus on emerging hazards from new technologies.

Two, is remaining vigilant in monitoring the safety of imported products, by continuing our excellent working relationship with Customs and Border Patrol, and enhancing our internal import surveillance program. One of the best ways we can keep consumers safe is by keeping unsafe products from entering the United States marketplace.

Maintaining robust engagement is my third effort in voluntary standards development and strengthening the agency's collaboration with manufacturers, retailers, consumer advocates, other Gov-

ernment agencies, academia, and all of the stakeholders to advance consumer safety.

And fourth, enhancing the agency's data capabilities by expanding both the sources and the types of data we receive, as well as increasing our analytical capabilities. Congress created the Consumer Product Safety Commission as a data-driven agency. Sound science and reliable data is critical to our safety mission and during my tenure I hope to further modernize CPSC.

The Consumer Product Safety Commission's mission is a critical one. Nothing is more important than the safety of our children and our families. And I do not take the responsibility to lead this agency and execute its mission lightly. I will do so with diligence and with the utmost humility if confirmed by this distinguished body.

Thank you again, Chairman Thune, Ranking Member Nelson, and members of the Committee. If confirmed, I hope this hearing will just be the beginning of a collaborative and productive relationship with Congress. Thank you for your service to our Nation.

I look forward to answering any questions you may have. Thank you.

[The prepared statement and biographical information of Ms. Buerkle follow:]

PREPARED STATEMENT OF ANN MARIE BUERKLE, NOMINEE FOR CHAIRMAN, U.S. CONSUMER PRODUCT SAFETY COMMISSION

Good morning, Chairman Thune, Ranking Member Nelson, and distinguished members of the Committee. I am deeply honored and humbled by the President's nomination to be Chairman of the U.S. Consumer Product Safety Commission (CPSC) and for the opportunity to address you this morning.

Ranking Member Nelson and Senators Rubio and Cruz, please know that my thoughts and prayers continue to be with your constituents recovering from the devastating hurricanes in Florida and Texas. I assure you that the CPSC will remain vigilant and continue to use every tool at its disposal to raise consumer awareness about post-storm hazards, particularly those related to the improper use of portable generators and resultant carbon monoxide poisonings. Along with promoting our safety messages through traditional and social media, we will continue to engage with CPSC field staff in the affected areas, other Federal agencies, state and local public safety counterparts, and major retailers to educate consumers and share potentially life-saving information.

I would like to express my thanks and appreciation to my colleagues, Commissioners Robert Adler, Marietta Robinson, Elliot Kaye, and Joseph Mohorovic, for their support of my nomination as well as their friendship. In addition, I would like to thank CPSC's staff who have assisted and supported me throughout this process. I am honored to work alongside such talented and dedicated public servants.

Finally, I would like to thank my family for their continuous love and support. Two of my six children are here today, my son Tom from Texas and daughter Caroline, from New York. Also here is my brother, Marine Corp Colonel Tom Colella. Thank you all for being here.

For me, having the opportunity to lead CPSC is the culmination of many aspects of my life. I began my professional career in nursing and then, at the age of 40, went to law school. After receiving my law degree, I went on to work as a New York State Assistant Attorney General representing a Level One Trauma Hospital in Upstate New York. In addition, for more than a decade, I was a strong advocate for victims of domestic violence by providing pro bono legal counseling for residents at a local women's shelter. I then had the honor of serving the people of New York's 25th Congressional District in Congress and in 2013, President Obama appointed me to serve as a Commissioner at CPSC.

My most important role, however, has been raising my six children and being actively involved in the lives of my seventeen grandchildren. Whether it is making sure the grandchildren practice water safety or that my kids are buying safe nursery products, as a mother and a grandmother, safety is always on my mind.

I have spent my life in advocacy and I believe that my background gives me a unique perspective as well as the ability to carry out CPSC's critical mission of keeping American consumers safe.

CPSC's priorities are ultimately guided by our regulatory agenda, strategic plan, and operating plan. If confirmed, I will personally try to focus on areas where we can be most effective in carrying out our safety mission, by:

(1) Ensuring that our resources are dedicated to the highest priority risks and that we focus on emerging hazards from new technologies.

(2) Remaining vigilant in monitoring the safety of imported products by continuing our excellent working relationship with Customs and Border Patrol and enhancing our import surveillance program. One of the best ways to keep consumers safe is to keep unsafe products from entering the U.S. marketplace altogether.

(3) Maintaining robust engagement in voluntary standards development and strengthening the agency's collaboration with manufacturers, retailers, consumer advocates, other government agencies, academia, and all stakeholders to advance consumer safety.

(4) Enhancing the Agency's data capabilities by expanding both the sources and the types of data we receive as well as our analytical capabilities. Congress created CPSC as a data-driven agency. Sound science and reliable data is critical to our mission of safety and during my tenure I hope to further modernize CPSC.

CPSC's mission is a critical one. Nothing is more important than the safety of our children and our families. I do not take the responsibility to lead this agency and execute its mission lightly, and I will do so with diligence and the utmost humility if confirmed by this distinguished body.

Thank you again, Chairman Thune, Ranking Member Nelson, and members of the Committee. If confirmed, I hope this hearing will be just the beginning of a collaborative and productive relationship with Congress. Thank you for your service to our Nation. I look forward to answering any questions you may have.

A. BIOGRAPHICAL INFORMATION

1. Name (Include any former names or nicknames used): Ann Marie Colella; Ann Marie Buerkle.

2. Position to which nominated: Chairman CPSC.

3. Date of Nomination: July 27, 2017.

4. Address (List current place of residence and office addresses):

Residence: Information not provided to the public.

Office: Information not provided at time of publication.

5. Date and. Place of Birth: Auburn, NY; May 8, 1951.

6. Provide the name, position, and place of employment for your spouse {if married) and the names and ages of your children (including stepchildren and children by a previous marriage).

I am divorced with no spouse or co-inhabitant; Children are as follows: August Roy III, 41 years; Elizabeth Buerkle Kunkel, 40 years; Thomas Buerkle, 38 years; Amelia Buerkle Littrell, 37 years; Christine Buerkle, 33 years; Caroline Buerkle, 30 years.

7. List all college and graduate degrees. Provide year and school attended.

St. Joseph's Hospital School of Nursing; 1969–1972; RN degree

LeMoyne College; 1976–1977; BS degree

Syracuse University College of Law; 1991–1994

8. List all post-undergraduate employment, and highlight all management level jobs held and any non-managerial jobs that relate to the position for which you are nominated.

Office of New York State Attorney General 1994–2010; Member of United States Congress 2011–2012; Commissioner at CPSC 2013–2017; Acting-Chair at CPSC February, 2017–present.

9. Attach a copy of your résumé. A copy is attached.

10. List any advisory, consultative, honorary, or other part-time service or positions with Federal, State, or local governments, other than those listed above, within the last ten years.

Please see résumé.

11. List all positions held as an officer, director, trustee, partner, proprietor, agent, representative, or consultant of any corporation, company, firm, partnership, or other business, enterprise, educational, or other institution within the last ten years.

Please see résumé.

12. Please list each membership you have had during the past ten years or currently hold with any civic, social, charitable, educational, political, professional, fraternal, benevolent or religious organization, private club, or other membership organization. Include dates of membership and any positions you have held with any organization. Please note whether any such club or organization restricts membership on the basis of sex, race, color, religion, national origin, age, or handicap.

Friends for Life; American Bar Association; St. Joseph Alumni Association; Former Member of Congress Association.

13. Have you ever been a candidate for and/or held a public office (elected, non-elected, or appointed)? If so, indicate whether any campaign has any outstanding debt, the amount, and whether you are personally liable for that debt.

Appointed to the Syracuse Common Council in 1994, ran for that position and lost; Candidate for Congress in 2010 and a Member of Congress 2011–2012; lost that re-election in 2014.

None of my campaigns have any debt.

14. Itemize all political contributions to any individual, campaign organization, political party, political action committee, or similar entity of $500 or more for the past ten years. Also list all offices you have held with, and services rendered to, a state or national political party or election committee during the same period.

None known.

15. List all scholarships, fellowships, honorary degrees, honorary society memberships, military medals, and any other special recognition for outstanding service or achievements.

Lists of all awards are listed in the attached CV.

16. Please list each book, article, column, or publication you have authored, individually or with others. Also list any speeches that you have given on topics relevant to the position for which you have been nominated. Do not attach copies of these publications unless otherwise instructed.

Over the past 4 years while a Commissioner, I have given several speeches to industry organizations and consumer groups.

17. Please identify each instance in which you have testified orally or in writing before Congress in a governmental or non-governmental capacity and specify the date and subject matter of each testimony.

18. Given the current mission, major programs, and major operational objectives of the department/agency to which you have been nominated, what in your background or employment experience do you believe affirmatively qualifies you for appointment to the position for which you have been nominated, and why do you wish to serve in that position?

I have served as a Commissioner for the past 4 years and believe that I will be able to enforce the law that we are charged to do. My healthcare background, as well as the last 4 years, is an excellent foundation to not only execute the CPSC mission, but also to do so in a fair, even and transparent manner.

19. What do you believe are your responsibilities, if confirmed, to ensure that the department/agency has proper management and accounting controls, and what experience do you have in managing a large organization?

I managed an office with the AG in NYS and was responsible for a staff of 12 and for the significant receivable issue with a major teaching hospital. In addition, managed a Congressional Office with a budget of $1.2 million. I successfully managed an office as a Commissioner for 4 years and for the last 6 months managed the CPSC as the Acting Chairman. I understand the high bar for accountability to the public that we serve.

20. What do you believe to be the top three challenges facing the department/agency, and why?

a. To find a balance between reasonableness and safety when considering regulations and protecting the consumer for an unreasonable risk of harm

b. Protect the consumer while not adversely affecting our industries with unfair and costly regulations.

B. POTENTIAL CONFLICTS OF INTEREST

1. Describe all financial arrangements, deferred compensation agreements, and other continuing dealings with business associates, clients, or customers. Please include information related to retirement accounts.

2. Do you have any commitments or agreements, formal or informal, to maintain employment, affiliation, or practice with any business, association or other organization during your appointment? 1f so, please explain.

No, I do not.

3. Indicate any investments, obligations, liabilities, or other relationships which could involve potential conflicts of interest in the position to which you have been nominated. None known.

4. Describe any business relationship, dealing, or financial transaction which you have had during the last ten years, whether for yourself, on behalf of a client, or acting as an agent, that could in any way constitute or result in a possible conflict of interest in the position to which you have been nominated. None known.

5. Describe any activity during the past ten years in which you have been engaged for the purpose of directly or indirectly influencing the passage, defeat, or modification of any legislation or affecting the administration and execution of law or public policy. None known.

6. Explain how you will resolve any potential conflict of interest, including any that may be disclosed by your responses to the above items.

I do not believe that I will have any potential conflicts of interest.

C. LEGAL MATTERS

1. Have you ever been disciplined or cited for a breach of ethics, professional misconduct, or retaliation by, or been the subject of a complaint to, any court, administrative agency, the Office of Special Counsel, professional association, disciplinary committee, or other professional group?

a. Provide the name of agency, association, committee, or group;

b. Provide the date the citation, disciplinary action, complaint, or personnel action was issued or initiated;

c. Describe the citation, disciplinary action, complaint, or personnel action;

d. Provide the results of the citation, disciplinary action, complaint, or personnel action.

No. If yes: N/A.

2. Have you ever been investigated, arrested, charged, or held by any Federal, State, or other law enforcement authority of any Federal, State, county, or municipal entity, other than for a minor traffic offense? If so, please explain. No.

3. Have you or any business or nonprofit of which you are or were an officer ever been involved as a party in an administrative agency proceeding, criminal proceeding, or civil litigation? If so, please explain. No.

4. Have you ever been convicted (including pleas of guilty or *nolo contendere*) of any criminal violation other than a minor traffic offense? If so, please explain. No.

5. Have you ever been accused, formally or informally, of sexual harassment or discrimination on the basis of sex, race, religion, or any other basis? If so, please explain. No.

6. Please advise the Committee of any additional information, favorable or unfavorable, which you feel should be disclosed in connection with your nomination.

Please see attached CV.

D. RELATIONSHIP WITH COMMITTEE

1. Will you ensure that your department/agency complies with deadlines for information set by congressional committees? Yes

2. Will you ensure that your department/agency does whatever it can to protect congressional witnesses and whistle blowers from reprisal for their testimony and disclosures? Yes

3. Will you cooperate in providing the Committee with requested witnesses, including technical experts and career employees, with firsthand knowledge of matters of interest to the Committee? Yes

4. Are you willing to appear and testify before any duly constituted committee of the Congress on such occasions as you may be reasonably requested to do so? Yes

CURRICULUM VITAE FOR ANN MARIE BUERKLE

U.S. CONSUMER PRODUCT SAFETY COMMISSION (CPSC)

Acting Chairman, February 2017 - Present
Commissioner, July 2013-Present

- Republican Commissioner appointed to a term that ends October 2018; confirmed by the United States Senate
- Designated Acting Chairman on February 9, 2017
- Administer laws that provide statutory authority to CPSC, including the Consumer Product Safety Act
- Work to strengthen relationships and engagement with manufacturers, retailers, consumer advocates, and other stakeholders to address safety issues jointly
- Champion fiscally conservative, pro-economic growth, smaller government policies that foster collaboration with the regulated community and reduce unnecessary regulatory burdens
- Advocate for education and voluntary consensus standards
- Favor a strong import surveillance program that ensures foreign manufacturers are held to the same standards as U.S. companies
- Honorary Chair of the Alliance for Consumer Education (ACE)

CONGRESSIONAL & POLITICAL EXPERIENCE

Member 112th United States Congress, 2011-2013
Representing the 25th District of the State of New York

CONGRESSIONAL COMMITTEES & APPOINTMENTS

Member, House Committee on Oversight & Government Reform
Vice Chair, Subcommittee on Regulatory Affairs, Stimulus Oversight, & Government Spending
Member, Subcommittee on TARP, Financial Services, Bailouts of Public and Private Programs

Member, House Committee on Foreign Affairs
Vice Chair, Subcommittee on Terrorism, Nonproliferation, & Trade
Member, Subcommittee on Africa, Global Health, & Human Rights
Member, Subcommittee on the Middle East & South Asia

Member, House Committee on Veterans' Affairs
Chair, Subcommittee on Health,
Subcommittee on Disability Assistance & Memorial Affairs

Member, Conference Committee on FY2012 National Defense Authorization Act

Congressional Delegate to the United Nations

Ann Marie Buerkle

I had the honor to represent the people of the 25th Congressional District of New York in the U.S. House of Representatives where I worked to improve the nation's economy and reduce wasteful government spending.

My work for good government, and effective policies continues as I now serve the American people at the U.S. Consumer Product Safety Commission (CPSC).

More than ever, courageous leadership is neccessary to restore the greatness of our nation.

LEGISLATIVE INITIATIVES & ACCOMPLISHMENTS

- Authored legislation to require the VA to correct safety and security problems that had left too many veterans and VA employees vulnerable. The legislation, which President Obama signed into law, requires the VA to implement a comprehensive policy to prevent, monitor, report, and track sexual assaults and other safety incidents that occur at VA medical facilities in order to hold accountable those responsible.

- Authored legislation that clarifies existing law and provides clear guidance to the Thrift Board on how to honor IRS levies as they arise. The legislation, which President Obama signed into law, treats Federal employees the same as private sector employees, whose 401K accounts are subject to IRS levy.

- Authored H.R. 6218, The Mary Colella Autoimmune Disease Awareness Act of 2012, will require an assessment of national progress on autoimmune disease research, an update of the national strategic plan, and recommendations that can be used to develop a national curriculum on autoimmune diseases.

- Authored or co-sponsored multiple pieces of legislation that would repeal or delay provisions in the Affordable Care Act that would negatively impact hospitals, physicians, small businesses, seniors, and the middle class.

- Founder of Operation S.E.R.V.I.C.E (Supporting, Engaging, and Respecting Veterans in Communities Everywhere), a national awareness campaign designed to accomplish a two-fold purpose: 1) raise awareness about the issues facing our returning veterans and their families, and 2) help identify, educate, and equip community-based partners to assist veterans.

TASK FORCES & CAUCUSES

- Founder & Co-Chair, Caucus on Engaging Community Support for Veterans
- Co-Chair, Congressional Caucus on Women's Issues Human Trafficking Task Force
- Co-Vice Chair, Women's Policy Committee
- Congressional Taiwan Caucus
- The House Oceans Caucus
- Congressional Marcellus Shale Caucus
- Congressional Down Syndrome Caucus
- Congressional Victims' Rights Caucus
- Congressional Caucus on Unmanned Systems
- Congressional Native American Caucus
- GOP Doctors Caucus
- Bi-Partisan Congressional Pro-Life Caucus
- Congressional Military Family Caucus
- House Adult Literacy Caucus
- National Eating Disorders Awareness Caucus

ADDITIONAL PROFESSIONAL EXPERIENCE

New York State Assistant Attorney General, 1997-2010
Appointed by Attorney General Dennis Vacco

- Represented a major teaching Hospital in Upstate New York negotiating contracts with insurance companies, identifying and solving receivable issues; handling estate issues, workman's compensation issues, Medicaid, Medicare

ADDITIONAL PROFESSIONAL EXPERIENCE (continued from page two)

- Increased annual collections and revenues for Hospital from $4 million to $40 million
- Managed a staff of administrative assistants, paralegals and one attorney

Councilor-at-large Syracuse Common Council, 1994-1995
Appointed by Mayor Roy Bernardi to fill vacancy on City Council; served on Economic Development Committee

In-Service Instructor at St. Joseph's Hospital, 1978-1979
Managed and conducted evening continuing education courses for staff nurses regarding relevant and timely health and safety issues

EDUCATION

Syracuse University College of Law, JD
1991-1994

LeMoyne College, BS
1977-1978

St. Joseph's School of Nursing, RN
1969-1972

AWARDS & RECOGNITIONS

- The Toy Association's 2017 Champion of Play Award (2017)
- Central New York Conservatives, Inc. Torch Award (2015)
- Disabled American Veterans Congressional Leadership Award (2012)
- Friend of the Farm Bureau Congressional Award (2012)
- National Federation of Independent Business (NFIB) Guardian of Small Business Award (2012)
- Susan B. Anthony Distinguished Leader Award (2012)
- The Concord Coalition Paul E. Tsongas Economic Patriot Award (2012)
- US Chamber of Commerce Spirit of Enterprise Award (2012)
- International Foodservice Distributors Association Thomas Jefferson Award (2012)
- RetireSafe Standing Up for America's Seniors Award (2012, 2011)
- 60 Plus Association Guardian of Seniors' Rights Award (2012, 2011)
- NWYC Constituent Communications Award (2011)
- Century Council Distillers Fighting Drunk Driving and Underage Drinking (2011)
- Club for Growth Defender of Economic Freedom (2011)
- The Frederick Douglas Foundation Harriet Tubman Trailblazer Award (2011)
- Italian Heritage Society Christopher Columbus Outstanding Public Service Award (2011)
- West End Republican Committee 45th Annual Installation TIP of the Hat Award (2011)
- Leo Holmsten Human Life Award (2011)
- Wayne County Conservative Party Bush Award (2011)

PERSONAL

- Mother of six and grandmother of seventeen

The CHAIRMAN. Thank you, Ms. Buerkle.
Dr. Copan.

STATEMENT OF WALTER G. COPAN, NOMINEE TO BE UNDER SECRETARY OF COMMERCE FOR STANDARDS AND TECHNOLOGY; AND DIRECTOR, NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

Dr. COPAN. Thank you.

For my opening statement, I would like to thank Senator Gardner for his kind introduction, and together with Senator Bennet, for their message of support for me for NIST and for science. I am deeply grateful for the support of our Colorado congressional delegation in this journey.

I would like to introduce my wife, Mary Lynn, daughters Alexandra and Marissa, here from Colorado, as well as relatives, colleagues and friends from NIST, from the Departments of Energy, Defense, and Commerce, from the Federal labs, the National Science Foundation, and others who join with us in today's proceedings. Thanks to each one of you and now to my opening statement.

Chairman Thune, Ranking Member Nelson, and distinguished members of the Committee.

It is my great honor to appear to you today as nominee for the Director of the National Institute of Standards and Technology.

I am first and foremost a scientist. I believe in the power of basic research, its development and commercialization, and of standards to drive economic growth and improve our standards of living.

I am also a businessman, an entrepreneur, an investor, and an intellectual property and technology transfer professional. I am committed to NIST, and to America's treasure, our Federal research enterprise.

If confirmed as Director, I will look forward to leveraging my experiences with a passion to serve our Nation, and to lead NIST into its next era of impact for America.

I was born in New York and raised in Cleveland, Ohio. I went to college at Case Western Reserve University and completed a dual degree in chemistry and music. After beginning my professional career in physics and chemistry at the Lubrizol Corporation, I went back to graduate school at Case to complete my doctorate in physical chemistry, and carried out research that would establish the fundamental biochemical understanding of human vision. I returned to Lubrizol on a career journey that totaled 28 years with the company.

My science career progressed to research and development leadership in the U.S. and in the UK, senior business management, venture capital, mergers and acquisition, strategy, innovation, intellectual property and tech transfer.

As a national advisory council representative to the Federal Laboratory Consortium, I saw firsthand the value of Federal research, and within it, even greater potential for economic impacts. I was also one of the very few representatives from corporate America with the FLC then.

Since the beginning of my professional journey in 1975, I encountered NIST. I came to deeply respect and appreciate NIST's role, and its impact on every sector of U.S. commerce.

After years of serving as an advisor to the Department of Energy, it was Admiral Richard Truly who asked me if I ever considered working to advance the Federal labs from within. That conversation was a turning point for me. I joined Truly's team at the National Renewable Energy Lab in Colorado, with responsibilities for technology transfer.

After several years, I joined a tech company as its Chief Technology Officer and Head of North American operations. I led the change and growth of CDTI to its listing on NASDAQ, as well as preparing its merger.

That brought me back to the Department of Energy at Brookhaven National Lab in New York, to lead technology commercialization and partnerships, and also to provide leadership within the DOE to advance technology transfer mechanisms and policy.

Having returned to Colorado and family, I founded several companies and a nonprofit, and I continue in close engagement with the Federal labs to bring inventions to market.

As established in Article 1 of our Constitution, our Nation's founders saw the importance of standards to U.S. commerce, enabling America to take a leading role on the world stage. This was the birth of NIST.

Whether it is for mature or emerging technologies, NIST brings scientific rigor and practicality in serving the economy of our Nation. From the cyber security framework, advanced computing, quantum communications, the Internet of things, biomedical metrology, to advanced manufacturing excellence and operational quality, NIST is a cornerstone for American innovation, also providing stewardship for U.S. technology transfer policy and reporting.

It is my privilege and honor to have the President nominate me to serve as Director of NIST. I thank Secretary Ross for his strong support of NIST, and for his trust and confidence in me for this role.

If confirmed, I pledge to work closely with the members of this Committee, and with Congress, to ensure that NIST continues to perform its essential mission, that it is true to the principle of unbiased integrity in serving our Nation, and that NIST will continually adapt as an essential part of the leading edge of American progress.

Thank you. I look forward to your questions.

[The prepared statement and biographical information of Dr. Copan follow:]

PREPARED STATEMENT OF WALTER G. COPAN, NOMINEE FOR UNDER SECRETARY OF COMMERCE FOR STANDARDS AND TECHNOLOGY/DIRECTOR OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

Chairman Thune, Ranking Member Nelson, and distinguished members of the Committee, it is my great honor to appear before you today as nominee for Director of the National Institute of Standards and Technology.

I am first and foremost a scientist. I believe in the power of basic research, its development and commercialization—and of standards to drive economic growth and improve our standards of living. I am also a businessman, an entrepreneur, inves-

tor, and an intellectual property and technology transfer professional. I am committed to NIST, and to America's treasure—our Federal research enterprise. If confirmed as Director, I look forward to leveraging my experiences with a passion to serve our nation, and to lead NIST into its next era of impact for America.

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Several years later, I joined a tech company as Chief Technology Officer and head of North American operations. I led the change and growth of CDTI and to listing on NASDAQ, as well as preparing its merger. That brought me back to the Department of Energy at Brookhaven National Laboratory in New York, to lead technology commercialization and partnerships, and to provide leadership in the DOE to advance technology transfer mechanisms and policy. Having returned to Colorado and family, I founded several companies and a non-profit, and I continue in close engagement with Federal labs to bring inventions to market.

As established in Article 1 of the Constitution, our Nation's founders saw the importance of standards to U.S. commerce, enabling America to take a leading role on the world stage. This was the birth of NIST.

Whether it's for mature or emerging technologies, NIST brings scientific rigor and practicality in serving the economy of our Nation. From the cybersecurity framework, quantum computing and communications, to the Internet of Things to biomedical metrology, to advanced manufacturing excellence and operational quality, NIST is a cornerstone for American innovation, also providing stewardship for U.S. technology transfer policy and reporting.

It is a privilege and honor to have the President nominate me to serve as Director of NIST. I thank Secretary Ross for his strong support of NIST, and for his trust and confidence in me for this role. If confirmed, I pledge to work closely with the members of this Committee and with Congress to ensure that NIST continues to perform its essential mission, that it is true to the principle of unbiased integrity in serving our nation, and that NIST will continually adapt as an essential part of the leading edge of American progress.

Thank you. I look forward to your questions.

A. BIOGRAPHICAL INFORMATION

1. Name (Include any former names or nicknames used): Walter G. Copan.

2. Position to which nominated: Under Secretary of Commerce for Standards and Technology/Director, National Institute of Standards and Technology (NIST).

3. Date of Nomination: September 14, 2017.

4. Address (List current place of residence and office addresses):

Residence: Information not released to the public.
Office: Information not provided.

5. Date and Place of Birth: February 26, 1954 in Bronxville, NY.

6. Provide the name, position, and place of employment for your spouse (if married) and the names and ages of your children (including stepchildren and children by a previous marriage).

Spouse, Mary Lynn Copan, is a homemaker. Children: Elizabeth M. Copan (age 34); Alexandra H. Copan (age 31); Marissa E. Copan (age 28).

7. List all college and graduate degrees. Provide year and school attended.

BS/BA Chemistry & Music dual degree, 1975—Case Western Reserve University.
Ph.D. Physical Chemistry, 1982—Case Western Reserve University.

8. List all post-undergraduate employment, and highlight all management level jobs held and any non-managerial jobs that relate to the position for which you are nominated.

All of these roles listed in my professional background relate to the position of Director of the National Institute of Standards and Technology. Since 1983, all the positions held were management roles. Whether the positions involved executive leadership of technology-focused companies and organizations, analysis and measurements related to standards across a range of industries and technology domains, innovation leadership, technology transfer, research & development, new product development and commercial introduction, advanced manufacturing and process control technologies, quality systems development and implementation, economic development and/or commercialization—these all connect directly to the work and mission of NIST.

President & CEO, Board Director, IP Engineering Group Corporation, Monument, Colorado, Jan 2015–present

Founding Board Member & Director, Technology Transfer and Innovation, Rocky Mountain Innovation Partners, Colorado Springs, Colorado, 2014–present

Founding CEO & Chairman Of The Board, Impact Engineered Wood Corporation, Silicon Valley, California, May 2015–June 2017

Advisor & Managing Director, Technology Transfer, Tekcapital plc, Oxford, U.K., 2014–present

President, Copan Associates, LLC, and *Managing Director, EnergyInsight, LLC,* Monument, Colorado, 2009–present

President, TAEUS Corporation, Colorado Springs, Colorado, 2013–2014

Managing Director, Technology Commercialization & Partnerships, Brookhaven National Laboratory (BNL), Upton, New York, 2010–2013.

Executive Vice President and Chief Technology Officer, Clean Diesel Technologies, Inc. (CDTI), Bridgeport, Connecticut, 2005–2010

Principal Licensing Executive, Technology Transfer, National Renewable Energy Laboratory, U.S. Department of Energy, Golden, Colorado, 2003–2005

The following positions were held at The Lubrizol Corporation, Wickliffe, Ohio between 1998 and 2003.

Managing Director, Technology Transfer And Licensing, 1999–2003

Director, Technology Strategy & Commercial Manager, Europe, 1998–1999

Department Head, Application Technology/Physical & Analytical Sciences, 1993–1998

Manager, Lubrizol Petroleum Chemicals Technology, Derbyshire, U.K., 1989–1993

The following positions were held at The Lubrizol Corporation, Wickliffe, OH between 1982 and 1989:

Business Unit Manager, Polymers & Viscosity Modifiers, and Technology Manager, Engine Lubricants, Wickliffe, Ohio, 1987–1989

Group Leader—Molecular Spectroscopy, 1985–1987

Group Leader—Analytical Research & Competitive Intelligence, 1983–1985

Research Chemist—Polymer Characterization & Physical Chemistry. 1982–1983

On academic leave of absence from Lubrizol Corporation to complete Ph.D. in Physical Chemistry at Case Western Reserve University: 1978–1982

The following positions were held at The Lubrizol Corporation, Wickliffe, OH between 1975 and 1978:

Research Chemist—Competitive Intelligence Group, 1977–1978

Research Chemist—Physics & Analytical Chemistry Laboratory, 1975–1977

9. Attach a copy of your résumé.

Please see Attachment 1—WGCopan Résumé 062017.

10, List any advisory, consultative, honorary, or other part-time service or positions with Federal, State, or local governments, other than those listed above, within the last ten years. None.

11. List all positions held as an officer, director, trustee, partner, proprietor, agent, representative, or consultant of any corporation, company, firm, partnership, or other business, enterprise, educational, or other institution within the last ten years.

Please see all positions listed from 2005 to the present in my response to question 8, above.

12. Please list each membership you have had during the past ten years or currently hold with any civic, social, charitable, educational, political, professional, fraternal, benevolent or religious organization, private club, or other membership organization. Include dates of membership and any positions you have held with any organization. Please note whether any such club or organization restricts membership on the basis of sex, race, color, religion, national origin, age, or handicap.

Licensing Executives Society (Member, 1997 to present)

American Chemical Society (Member, 1975 to present)

Association of University Technology Managers (Member, 2000 to present)

Federal Laboratory Consortium for Technology Transfer (National . Advisory Council, 1998–2003; and Member, 1998–2005; 2010–2013)

Industrial Research Institute (Member representative from Lubrizol Corporation, 1994–2003; Member representative from Brookhaven National Laboratory, 2010–2013)

Innovators International (Representative on behalf of U.S. Department of Energy, 2012–2013)

National Business Incubation Association (Member, 2001–2005; 2010–present)

Society of Automotive Engineers (Member, 1983–2003; 2005–2010)

Manufacturers of Emission Controls Association (Member representative from Clean Diesel Technologies, Inc., 2005–2010)

Licensing Executive Society (LES)—Member, Executive Board (2003–2011) and Vice President for LES U.S.A. (2006–2011)

LES Board of Trustees, Chair—Strategic Planning (2006–2010)

LES Board of Trustees, Co-Chair—Mentorship Program and The Frank Barnes Mentorship Award Committee (2003–2011)

LES International (LESI)—International Delegate representing LES USA & Canada (2004–2011)

Vice-Chair-LES International (LESI) External Relations committee (2009–2012)

Chair—LES Cleantech Committee (2011–2012)

Chair—LES (USA-Canada) Annual Meeting Committee (2006–2008)

Chair—LES (USA-Canada) Industry/University and Government Laboratories Transactions Sector (2001–2002)

Chair LESI Industry/University and Government Transactions Sectors (2002–2005)

Chair—LES (USA-Canada) Energy, Chemicals, Petrochemicals, Polymers and Allied Industries Sector (2002–2004)

Chair—LESI Chemicals, Energy, Environment and Materials Sector (2005–2008)

LES Chair, Joint Task Force with the Association of University Technology Managers (ATM) on Academia-Industry Relations, and LES Board liaison with AUTM (2008–2010)

Founding partner and member of the Board of "Accelerate Long Island" Alliance for innovation, new business creation, investment and economic development (New York, 2010–2013)

Chair—Battelle Commercialization Council (Battelle Memorial Institute/U.S. Department of Energy National Laboratories, 2011–2012)

Member—U.S. Department of Energy Technology Transfer Working Group, Chair—Technology Transfer Mechanisms and Metrics (2012–2013}

None of these organizations restricts membership on the basis of sex, race, color, religion, national origin, age, or handicap.

13. Have you ever been a candidate for and/or held a public office (elected, non-elected, or appointed)? If so, indicate whether any campaign has any outstanding debt, the amount, and whether you are personally liable for that debt. No.

14. Itemize all political contributions to any individual, campaign organization, political party, political action committee, or similar entity of $500 or more for the past ten years. Also list all offices you have held with, and services rendered to, a state or national political party or election committee during the same period. None.

15. List all scholarships, fellowships, honorary degrees, honorary society memberships, military medals, and any other special recognition for outstanding service or achievements.

Honored by Case Western Reserve University as the University's Distinguished Alumnus of the Year (May, 2008}.

Battelle Memorial Institute Leadership Award, 2012 for service to the U.S. Department of Energy stakeholders in the development and implementation of the new technology transfer mechanism "Agreements for Commercializing Technology (ACT}".

Battelle Memorial Institute Outstanding Service Award as Chair of the Battelle Commercialization Council with the U.S. Department of Energy National Labs (2011–2012).

Recognition Awards from the World Intellectual Property Organization (WIPO} for service in support of global innovation and training for successful technology licensing (2004–2014}.

Listed in "Who's Who in U.S. Business," "Who's Who in Science and Technology," and Licensing Executives Society International "Who's Who in Global Licensing".

Recipient of Licensing Executives Society Distinguished Service Award in October 2010 for contributions and leadership roles in this professional society:

2003–2010 Board of Trustees; 2004–2010 LESI International Delegate; 2006–2010 Regional Vice President LES USA; 2005–6 Vice President—Member Interests; 2003–2005 Co-Chair Mentoring Committee; 2002–2004 Chair—Energy, Chemicals, Petrochemicals, Polymers and Allied Industries Sector; 2001–2002 Chair—Industry/University and Government Laboratories Transactions Sector

Recipient of Licensing Executives Society Service Awards in each year between 2001 and 2012 for committee and sector leadership, regional and annual meeting committee leadership, and Board of Directors committee leadership.

Lubrizol Corporation Commercial Development Award, 1997.

Lubrizol Corporation Innovation Award, 1995.

Lubrizol Corporation Recognition Award for Mergers & Acquisitions (Specialty Chemicals), 1994.

European Chemical Industry (CEFIC) Leadership Award for leading the Additive Technical Committee task force to document and analyze the environmental impacts of the transportation sector in Europe, 1991–1993.

Lubrizol Business Development Pioneer Award, for contributions leading to the launch of the Paints, Coatings and Inks business unit, 1987–1988.

Lubrizol Research & Development Recognition Award, for service as Founder and Chair of the Lubrizol Technical Symposium, 1985.

Lubrizol Corporate Service Recognition Awards, for service as Founder and Director of the "Lubrizol Chorale" from 1976 to 1988.

Reviewer for American Chemical Society journal "Macromolecules," 1984–1988.

Case Western Reserve University: Graduate Alumni Fund Award, 1981.

Graduate Teaching Award, 1979.

Undergraduate Presidential Scholar, 1971.

16. Please list each book, article, column, or publication you have authored, individually or with others. Also list any speeches that you have given on topics relevant to the position for which you have been nominated. Do not attach copies of these publications unless otherwise instructed.

Please see Attachment 2—WGCopan Publications and Presentations Summary 062017.

17. Please identify each instance in which you have testified orally or in writing before Congress in a governmental or non-governmental capacity and specify the date and subject matter of each testimony. None.

18. Given the current mission, major programs, and major operational objectives of the department/agency to which you have been nominated, what in your background or employment experience do you believe affirmatively qualifies you for appointment to the position for which you have been nominated, and why do you wish to serve in that position?

I believe that I am the right person to lead NIST at this time, and I'm pleased that the Department of Commerce and the Administration have recognized this strong fit. Leading NIST to the next level is my stated and deeply-felt goal. I will bring to NIST the benefit of my experience, insights and talents developed throughout my lifetime and across a broad, diverse career path to this point. This background has spanned success in large company, entrepreneurial small company, U.S. Federal laboratory, public and non-profit organization, educational and investment sector settings in the U.S. and internationally.

I have been familiar with NIST, and have engaged with the NIST people, technologies, materials and programs throughout my career. hold NIST in highest regard, as the national treasure upon which the country and our economy rely. NIST is at the heart of the U.S. innovation system, supporting the whole of the U.S. economy and our global leadership and competitiveness. As a scientist, first and foremost, I believe that NIST has an essential role that must continually adapt its capabilities, people and programs as economic dynamics and science & technology advance and change globally.

My own PhD studies were in a multidisciplinary setting, requiring partnerships, creative access to resources, and bold leadership of the project and its many interfaces to achieve success. I was the first graduate student in my class to complete the PhD program—through the dissertation, defense and graduation. I credit, in part, my background in business and industrial research & development for having equipped me with both the skills and determination to accomplish this outcome. This experience, having a clear focus on the goal and embracing collaborations to achieve it, have remained with me as important life lessons.

I care deeply about the mission of NIST and recognize clearly the scientific integrity, skills and capabilities needed to do its work. I believe that, with my strong background in science & technology, innovation, technology transfer, intellectual property and international business, that I will be an effective contributor to advance NIST, as well as the goals of the Department of Commerce.

NIST is an organization whose mission, capabilities and contributions enjoy broad support. I also bring a proven track record of achieving a positive difference while in the U.S. Federal laboratory system and as an advisor to the Federal labs, to improve their effectiveness and impacts for the U.S. economy. The technology transfer expertise and experience that I bring will also serve the Department of Commerce and our Federal laboratory system well, as I take on the role of NIST Director. My goal is to serve NIST and our Nation with distinction, and to support NIST in continuing to accomplish great things for America.

19. What do you believe are your responsibilities, if confirmed, to ensure that the department/agency has proper management and accounting controls, and what experience do you have in managing a large organization?

It will be my responsibility, upon confirmation to the position of Under Secretary and as Director of NIST, to ensure all appropriate management and accounting controls are in place, and effectively serving the requirements of NIST and stakeholders. I will review the NIST organization, systems and reporting functions, assessing their effectiveness, and will ensure that any necessary changes are made appropriately, with stakeholder inputs.

A significant portion of my career has involved executive organizational leadership with full budgetary authority, profit & loss responsibilities, and accountability for all essential functions of the organization. These responsibilities applied as I led a range of business units and functional organizations with over 400 personnel in large company settings (Lubrizol Corporation), in small companies with up to 50 employees and over 500 contract expert staff (including Clean Diesel Technologies Inc. and TAEUS Corp.), in the Department of Energy system at Brookhaven National Laboratory, and in startup companies such as the IP Engineering Group Corporation and Impact Engineered Wood Corp. I have had fiscal oversight and accountability as a Board member of multiple corporations and many non-profit organizations. My involvement in mergers & acquisitions as well as in venture capital investments during my career has further allowed me to develop a solid understanding of organization financials and forecasting, valuation and negotiations. This broad background translates directly to the responsibilities and understanding required of the Director of NIST.

20. What do you believe to be the top three challenges facing the department/agency, and why?

(1.) *Program Integrity:* It is critically important to maintain and develop the essential capabilities of NIST to effectively carry out its mission, while addressing the realities of budgetary allocations and constraints. This is a key challenge area that needs to take into account strategic national priorities.

(2.) *U.S. Cybersecurity Integration:* NIST has a major role in the cybersecurity of our Nation. Although the latest NIST Cybersecurity Framework (CSF) has been issued and new standards are being adopted, there is much work to be done. Not only does the CSF need to be adopted and integrated effectively across the Federal complex, but it needs to be adapted with a range of solutions for U.S. businesses and the non-profit sector. Small U.S. companies are at significant risk from cyberattacks. However, the CSF together with the related standards are most applicable to larger organizations with greater access to funding and resources. This gap needs to be addressed for smaller enterprises, which contribute significantly to U.S. economic growth and employment.

(3.) *Addressing Emerging Requirements for U.S. Industry and International Competitiveness:* As technologies and markets develop at ever-accelerating rates, NIST must adjust to address the increased demand for measurement science solutions. This is challenging to achieve both in terms of access to budget and to the necessary capabilities. NIST supports U.S. industrial competitiveness through measurements for standards setting, enabled by fundamental science and technology understanding, as well as by measurement capabilities, expertise and facilities. In doing so, NIST has a strong history of collaboration with industry, standards organizations and government agencies. Collaborative approaches are an essential and expanding part of delivering measurement solutions to growth areas including advanced communications, bioscience, resilient infrastructure, next generation computing, etc. The organization needs access to the required talent pool and resources, both directly and through new partnerships. To even more effectively do its work in the future, the NIST organization can expand its available "tool kit" of mechanisms for transactions, partnerships and technology transfer in accomplishing its mission and programs.

B. POTENTIAL CONFLICTS OF INTEREST

1. Describe all financial arrangements, deferred compensation agreements, and other continuing dealings with business associates, clients, or customers. Please include information related to retirement accounts.

I have already resigned as Chairman and Founding CEO of Impact Engineered Wood Corporation, effective June 14, 2017. In accordance with the Ethics Agreement I have entered with the Department of Commerce on June 22, 2017 I will resign the following positions immediately upon confirmation:

- President and CEO, and Board Director of IP Engineering Group Corporation.
- Board Director of Rocky Mountain Innovation Partners [501 (c)(3)].
- Advisor & Vice President—Technology Transfer, Tekcapital pie.

The payment of deferred compensation from the time of my employment with IP Engineering Group Corp. and Impact Engineered Wood Corp., or indeed any other payment for my services from any of these organizations listed that are not received by the date I assume the duties of the position of Under Secretary will be forfeited. I will also forfeit the potential value of the shares of the following companies of which I was founder and significant investor: IP Engineering Group and Impact Engineered Wood. My consulting companies (Copan Associates LLC and EnergyInsight LLC) have been inactive since March 1, 2015 as I focused on establishing the other companies and the non-profit organization. These consulting companies will be inactive during the time of my government service. I will have no ongoing business interactions with customers, clients or business associates from any of these companies during the time of my government service. These commitments are described in more detail in the Ethics Agreement referred above.

I do not have defined benefit retirement plans from former or current employers. My financial disclosure form OGE 278e submitted and approved in June 2017 details the assets I have in personal retirement accounts, including those in my IRAs and in the 401 (k) and other defined contribution retirement accounts I had with former employers—The National Renewable Energy Laboratory and Brookhaven National Laboratory.

The following table summarizes these arrangements.

#	Employer or Party	City, State	Status and Terms	Starting Date
1	Impact Engineered Wood Corporation	Campbell, California	Will forfeit company stock within 90 days of confirmation and will forfeit deferred compensation unless received prior to entering government service. No continuing benefits or involvement after confirmation as Under Secretary	5/2015
2	IP Engineering Group Corporation	Monument, Colorado	Will forfeit company stock within 90 days of confirmation and will forfeit deferred compensation unless received prior to entering government service. No continuing benefits or involvement after confirmation as Under Secretary	1/2015
3	Brookhaven Science Associates	Upton, New York	I will continue to participate in this defined contribution plan, but the plan sponsor no longer makes contributions.	4/2010
4	National Renewable Energy Laboratory	Golden, Colorado	I will continue to participate in this defined contribution plan, but the plan sponsor no longer makes contributions.	6/2003
5	Copan Associates LLC/EnergyInsight LLC	Monument, Colorado	These entities will be maintained in good standing with the State of Colorado, and will be inactive while I am in government service.	8/2009

2. Do you have any commitments or agreements, formal or informal, to maintain employment, affiliation, or practice with any business, association or other organization during your appointment? If so, please explain. None.

3. Indicate any investments, obligations, liabilities, or other relationships which could involve potential conflicts of interest in the position to which you have been nominated.

In connection with the nomination process, I have consulted with the Office of Government Ethics and the Department of Commerce ethics officials to identify any potential conflicts of interest. Any potential conflicts of interest will be resolved in accordance with the terms of the ethics agreement that I have entered into with the Department of Commerce and has been provided to this Committee. I am not aware of any other potential conflicts of interest.

4. Describe any business relationship, dealing, or financial transaction which you have had during the last ten years, whether for yourself, on behalf of a client, or acting as an agent, that could in any way constitute or result in a possible conflict of interest in the position to which you have been nominated.

As I had also indicated in my response to B.3, in connection with the nomination process, I have consulted with the Office of Government Ethics and the Department of Commerce ethics officials to identify any potential conflicts of interest. Any potential conflicts of interest will be resolved in accordance with the terms of the ethics agreement that I have entered into with the Department of Commerce and has been provided to this Committee. I am not aware of any other potential conflicts of interest.

5. Describe any activity during the past ten years in which you have been engaged for the purpose of directly or indirectly influencing the passage, defeat, or modification of any legislation or affecting the administration and execution of law or public policy. None.

6. Explain how you will resolve any potential conflict of interest, including any that may be disclosed by your responses to the above items.

As also indicated in my responses to B.3 and B.4 above, in connection with the nomination process, I have consulted with the Office of Government Ethics and the Department of Commerce ethics officials to identify any potential conflicts of interest. Any potential conflicts of interest will be resolved in accordance with the terms of the ethics agreement that I have entered into with the Department of Commerce and has been provided to this Committee. I am not aware of any other potential conflicts of interest.

C. LEGAL MATTERS

1. Have you ever been disciplined or cited for a breach of ethics, professional misconduct, or retaliation by, or been the subject of a complaint to, any court, administrative agency, the Office of Special Counsel, professional association, disciplinary committee, or other professional group?

No.

If yes:

a. Provide the name of agency, association, committee, or group;

b. Provide the date the citation, disciplinary action, complaint, or personnel action was issued or initiated;

c. Describe the citation, disciplinary action, complaint, or personnel action;

d. Provide the results of the citation, disciplinary action, complaint, or personnel action.

2. Have you ever been investigated, arrested, charged, or held by any Federal, State, or other law enforcement authority of any Federal, State, county, or municipal entity, other than for a minor traffic offense? If so, please explain. No.

3. Have you or any business or nonprofit of which you are or were an officer ever been involved as a party in an administrative agency proceeding, criminal proceeding, or civil litigation? If so, please explain.

Yes, involved in one matter to collect compensation due me from TAEUS International Corporation/TAEUS Corp. (Colorado Springs, CO). This arbitration process went through the discovery phase, and before arbitration proceedings were scheduled to begin, a fairly satisfactory settlement was offered to me and accepted in April 2016.

Lubrizol VS Exxon patent litigation: Early in my career at Lubrizol Corporation, the company's competitive intelligence team which I led in corporate Research & Development discovered that Exxon allegedly infringed one of Lubrizol's core patents (U.S. Patent 4,234,435 and foreign equivalents) . I provided documents and deposition statements in this matter. After extensive litigation in the U.S. and abroad, this case ultimately settled. *https://www.icis.com/resources/news/1999/04/01/77455/lubrizol-exxon-settle-patent-litigation/*

4. Have you ever been convicted (including pleas of guilty or *nolo contendere*) of any criminal violation other than a minor traffic offense? If so, please explain. No.

5. Have you ever been accused, formally or informally, of sexual harassment or discrimination on the basis of sex, race, religion, or any other basis? If so, please explain. No.

6. Please advise the Committee of any additional information, favorable or unfavorable, which you feel should be disclosed in connection with your nomination.

A former Director of NIST has told me that I was likely the best candidate ever to be nominated to serve as the Director of NIST. He said this because of my broad background in science and technology, innovation and technology transfer, a history of working effectively with the U.S. Federal Labs, and my cross-sector industry and leadership experience.

D. RELATIONSHIP WITH COMMITTEE

1. Will you ensure that your department/agency complies with deadlines for information set by congressional committees? Yes.

2. Will you ensure that your department/agency does whatever it can to protect congressional witnesses and whistle blowers from reprisal for their testimony and disclosures? Yes.

3. Will you cooperate in providing the Committee with requested witnesses, including technical experts and career employees, with firsthand knowledge of matters of interest to the Committee? Yes.

4. Are you willing to appear and testify before any duly constituted committee of the Congress on such occasions as you may be reasonably requested to do so? Yes.

RESUMÉ OF WALTER G. COPAN, PH.D.

EXECUTIVE LEADER—INNOVATION, RESEARCH, STRATEGY, BUSINESS OPERATIONS

Technology Commercialization • Intellectual Property • Entrepreneurship • Partnerships

Executive with more than three decades of successful experience leading technology transfer, corporations and organizations, spearheading R&D, product development and commercialization of innovative technologies—from concept to the commercial marketplace. Rich experience base spanning large company, entrepreneurial small company, U.S. national laboratory/academic sector settings, including policy, venture investment, capital markets, M&A. Visionary leader who develops, communicates and executes clear strategies for results. Internationally recognized expertise in innovation, tech transfer, commercialization, sustainability, new ventures, economic development and alliances.

- ***Established*** *technology transfer and licensing business for Lubrizol Corp., contributing over $150M/year profits.*
- ***Drove transformation and growth*** *for Clean Diesel Technologies, Inc., took CDTI onto NASDAQ, set up merger.*
- ***Led U.S. Dept. of Energy team*** *of national labs to establish DOE's first new tech transfer mechanism in over 25 years. Agreements to Commercialize Technology (ACT) enhanced industry access to the U.S. DOE Federal labs.*

Areas of Expertise

Executive Leadership • R&D • Intellectual Property • Strategy • Change Leadership • Alliances •Technology • Business Operations • Finance • Negotiations • Product Management • Standards • Quality • Energy • Cleantech • Environment • Chemicals, Catalysis & Polymers • Biotech • Advanced Materials • Transportation

PROFESSIONAL EXPERIENCE

PRESIDENT & CEO, IP Engineering Group Corporation, Monument, Colorado Jan 2015–present
Leader and co-founder, providing services for Intellectual property and strategy, IP transactions and investment. IPEGC helps clients maximize commercial and financial impacts from their inventions. www.ipegc.com

FOUNDING BOARD MEMBER & DIRECTOR, TECHNOLOGY TRANSFER and INNOVATION, Rocky Mountain Innovation Partners, Colorado Springs, Colorado 2014–present
Providing technology transfer and innovation services to research organizations, universities and companies, together with venture investment, business incubation/accelerator programs. www.rmipartners.org

CHAIRMAN & CTO, Impact Engineered Wood Corporation, Silicon Valley, California May 2015–present
Development and commercialization of high performance products with positive environmental impacts for commercial and residential building materials markets worldwide. www.impactengineeredwood.com

ADVISOR & MANAGING DIRECTOR, TECHNOLOGY TRANSFER, Tekcapital plc, Oxford, UK 2014–present
Connecting emerging technologies and market insights with corporate strategic investors. Tekcapital helps clients profit from university intellectual property globally. www.tekcapital.com

PRESIDENT, Copan Associates, LLC, Monument, Colorado 2009–present
MANAGING DIRECTOR, EnergyInsight, LLC Monument, Colorado
Leader of consulting groups providing services in business strategy and innovation, technology development and commercialization, with expertise across a wide range of technology domains and markets. EnergyInsight, LLC subsidiary provides consultation and services focused on energy and environment. www.waltercopan.com

PRESIDENT, TAEUS Corporation, Colorado Springs, Colorado 2013–2014
TAEUS is an intellectual property and engineering company that helps clients defend, assert, manage, and monetize intellectual property to realize value for their assets in the global market for innovation. www.taeus.com

Recruited to lead the company through restructuring, to develop sales, and to reposition the company brand.

- Successfully completed turn-around of this privately-held company; secured financing commitments.

MANAGING DIRECTOR, TECHNOLOGY COMMERCIALIZATION & PARTNERSHIPS 2010–2013
Brookhaven National Laboratory (BNL), Upton, New York
Premier national laboratory of the U.S. Department of Energy (DOE). Major thrust areas include Energy, Climate, Nuclear Physics, Accelerator Science & Instrumentation, Human Health & Environment, and National Security. Advanced materials, buildings systems and renewable resources. www.bnl.gov.

Leader to transform BNL organization for technology transfer and industry collaboration. Led investor interface. More startup companies were formed from BNL in this period than in the Lab's entire prior history.

EXECUTIVE VICE PRESIDENT AND CHIEF TECHNOLOGY OFFICER 2005–2010
Clean Diesel Technologies, Inc., Bridgeport, Connecticut
Technology innovation focused on clean energy, energy efficiency, and environmental technologies for the global emissions control market, vehicles and power generation. www.cdti.com NASDAQ: CDTI

Recruited based on industry-wide reputation to lead CDTI, an entrepreneurial technology company, through significant business change and redefinition. Reporting to the CEO, spearheaded company transformation from research focus to successful commercial enterprise. Full P&L responsibilities.

- Developed supply chain, commercial partnerships and restructured the business to effectively address market opportunities with global vehicle and engine OEMs, and Tier One suppliers.
- Spearheaded successful NASDAQ listing of CDTI in October 2007.
- Key contributor to growing total company revenues 15x over 4 years.
- Established framework for CDTI company merger in 2010.

PRINCIPAL LICENSING EXECUTIVE, TECHNOLOGY TRANSFER 2003–2005
National Renewable Energy Laboratory (NREL), U.S. Department of Energy, Golden, Colorado
Leading DOE laboratory for renewable energy and energy efficiency research and development; www.nrel.gov

Joined NREL in expressly-created position, to increase the National Lab's effectiveness in developing and commercializing clean energy technologies. Served as change agent to enhance partnerships with industry, investors and entrepreneurs. Negotiated major IP license deals with industry partners for technologies including buildings systems, bioproducts and renewables, cellulosic materials biorefinery, solar, wind, energy storage, biotech, fuels and vehicles. Implemented licensing program for Sustainable Buildings Industry Council.

MANAGING DIRECTOR, TECHNOLOGY TRANSFER AND LICENSING 1999–2003
The Lubrizol Corporation, Wickliffe, OH
World leader in specialty chemicals, systems and services focused on transportation, energy and industrial sectors. www.lubrizol.com

Established and led new business unit with P&L responsibility for technology licensing, corporate venturing, intellectual property management, technology strategy and global external relationships for technology. Led M&A, strategic alliances and new business development with partners including Caterpillar, BASF, BP, Chevron.

- Negotiated major transactions and licensing agreements, with contribution income over $150M, including the most financially significant license and technology transfer agreements in Lubrizol history.
- Developed & launched new product ranges for significant market share increase, including establishing the Lubrizol Paints Coatings & Inks business unit and related M&A transactions: Becker GmbH, Noveon.

DIRECTOR, TECHNOLOGY STRATEGY & COMMERCIAL MANAGER, EUROPE 1998–1999
Developed and implemented disciplined management processes for Lubrizol's $400M+ technology investment portfolio, and for new ventures, M&A. Spearheaded new market introduction of novel clean fuels and systems to reduce vehicle emis-

sions. Developed fuel technology business for EU markets, established market channel partnerships, and built organization to implement. Integrated Lubrizol acquisition of BP Chemicals-Adibis.

DEPARTMENT HEAD, APPLICATION TECHNOLOGY / PHYSICAL & ANALYTICAL SCIENCES 1993–1998
Led two corporate R&D departments totaling more than 120 staff in research, new products and applications development. Directed Lubrizol Global Physical & Analytical Science management team. Managed, worldwide manufacturing interface, new product and process technology introduction, and technical service, with 300+ personnel at international research, testing and manufacturing facilities. Leader, Corporate New Product Introduction team.

- Established Corporate Ventures and business incubation to spin-out and spin-in new tech companies.
- Managed interface with JV partners and portfolio companies including Genentech, Cetus, Agrigenetics.

MANAGER, LUBRIZOL PETROLEUM CHEMICALS TECHNOLOGY, DERBYSHIRE, U.K. 1989–1993
Established and directed new department of 35 staff in product development, program management and technical service in EMEA and the Former Soviet Union.

- Increased sales and market share in highly competitive marketplace.
- Led European-wide industry initiative to quantify the environmental impacts from vehicles sectors.

Previous professional experience with Lubrizol: **Business Unit General Manager—Polymers & Viscosity Modifiers; Partner—Lubrizol Enterprises Inc.** venture capital group; **Technology Manager—Engine Oils; Department Head—Molecular Spectroscopy;** and **Manager, Competitive Intelligence.**

- Led preparations resulting in successful global patent infringement litigation for Lubrizol vs Exxon.

EDUCATION and PROFESSIONAL DEVELOPMENT

Executive Business Administration and Leadership Program, Harvard Business School

Ph.D. Physical Chemistry, Case Western Reserve University—Cleveland, Ohio USA
(In collaboration with CWRU School of Medicine and the University of Guelph, Ontario, Canada).
Dissertation: "Carbon-13 and Nitrogen-15 NMR Studies of Rhodopsin and Bacteriorhodopsin."

B.S./B.A. Chemistry and Music, Dual Degree, Case Western Reserve University

Leadership studies at CWRU Weatherhead School of Management, and the Management Centre Europe—Brussels. Advanced studies in New Product Development, Innovation Leadership, Marketing, Finance and Business Management; Negotiations, Strategic Alliances, Competitive Intelligence; Media Relations; Seed and Venture Capital Investment, Mergers & Acquisitions, Valuation, Corporate Board Governance, Due Diligence, International Business, etc.

SELECTED PROFESSIONAL SOCIETIES, HONORS AND ACTIVITIES

Licensing Executive Society (LES)—Member, Executive Board and Vice President for LES U.S.A.
LES Board of Trustees, Chair—Strategic Planning; Chair—Mentorship Program, Frank Barnes Mentorship Award Committee. Vice-chair—LES International (LESI) External Relations committee, Founder and Chair—LES Cleantech Committee.
Chair—LES (USA-Canada) and LESI Industry/University and Government Transactions Sector
Chair—LES (USA-Canada) and LESI Chemicals, Energy, Environment and Materials Sector and other Board and professional society leadership roles.

LES Chair, Joint Task Force with the Association of University Technology Managers (AUTM) on Industry-Academic Relations. LES Board liaison with AUTM.

Led Task Force with LESI, the European Patent Office, the United Nations Environment Programme, the International Centre for Trade and Sustainable Development, OECD, U.S. Chamber of Commerce, the International Chamber of Commerce,

and others on the development, transfer and licensing of new energy technologies and intellectual property, and their impact potential for economic development. Reports were presented and used by the UN and EPO in policy forums 2007–2010.

Founding partner and member of the Board of "Accelerate Long Island" alliance for innovation, new business creation, investment and economic development (New York)

Chair—Battelle Commercialization Council (Battelle Memorial Institute/U.S. DOE)
Chair—Task Force to establish new Agreements to Commercialize Technology (ACT)—National Laboratory Directors Council, U.S. DOE. Designed, negotiated and implemented this new DOE tech transfer mechanism.
Chair—Technology Transfer Mechanisms and Metrics—U.S. DOE Technology Transfer Working Group

Professional Affiliations: Industrial Research Institute, Association of University Technology Managers, Licensing Executives Society, Innovators International, Directors of Industrial Research, American Chemical Society, National Business Incubation Association, Society of Automotive Engineers.

- Author, patent holder, and frequent speaker.
- Service on non-profit and corporate boards.
- Invited expert and consultant on intellectual property matters, energy, sustainability and economic development with the United Nations and the World Intellectual Property Organization (WIPO).
- Contributor to U.S. Council on Competitiveness on innovation and economic development
- Member, National Advisory Council to the U.S. Federal Laboratory Consortium.
- Advisor to the U.S. Department of Energy, "Inventions and Innovations" program
- Contributor to the U.S. National Academy of Sciences on innovation and technology transfer matters.

Honored by Case Western Reserve University as the University's Distinguished Alumnus of the Year (May, 2008).
Listed in "Who's Who in U.S. Business, "Who's Who in Science and Technology," and LESI "Who's Who in Global Licensing".

Certified Licensing Professional (CLP™)

Corporate Boards: Clean Diesel Technologies, Inc., TAEUS Corp., IP Engineering Group Corp., Impact Engineered Wood Corporation, Nova Lignum, B.V.

Non-Profit Boards: Cleveland Orchestra/Advisory Council; Cleveland Music School Settlement/Chair—External Relations; Case Western Reserve University board of advisors; University of Akron—Macromolecular Science and Engineering board of advisors; Licensing Executives Society (LES) and Licensing Executives Society International (LESI) officer and board member; Clean Energy Alliance Advisory board; Accelerate Long Island—Founding Board Member; Colorado Springs Technology Incubator—Advisory board; Rocky Mountain Innovation Partners—Founding Board member; Church, Educational and Civic organizations Board member.

LANGUAGES

German—fluent; Russian and Ukrainian—conversant; French and Italian—basic.

Summary of Walter G. Copan Skill Sets, Qualifications and Competencies

Active Listening
Adaptability
Budget Development & Management
Collaboration
Critical Thinking
Effective Communications
Experienced Executive Leadership
Financial Planning & Analysis
Foreign Relations
Honesty and High Integrity
Media & Public Relations
Negotiations
Operations Management
Planning and Organization
Positive "Can-Do" Attitude
Problem Solving
Professionalism
Project & Program Management
Results Oriented
Self-Motivated & Confident
Strategy & Leadership
Strong Work Ethic
Team Player
Visionary Leader

Chairman THUNE. Thank you, Dr. Copan.
Mr. Elliott.

STATEMENT OF HOWARD R. "SKIP" ELLIOTT, NOMINEE FOR ADMINISTRATOR, PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Mr. ELLIOTT. Chairman Thune, Ranking Member Nelson, and members of the Committee.

I am grateful for the opportunity to appear before you today. I appreciated the opportunity to meet with many of the Committee members, and, if I am confirmed, I look forward to working with you to enhance safety in the transportation of hazardous materials and energy-related products.

This morning, I am pleased to introduce my wife, Jacqueline, my daughter Jessica and her husband Brendan, who is an active duty Coast Guard officer. I am also pleased to have here today my youngest granddaughter, Elizabeth. My son Joshua, a teacher, and his family, who live in Pennsylvania, were not able to be with us today.

I am humbled that President Trump and Secretary Chao have asked me to lead the team of dedicated professionals in the Department's Pipeline and Hazardous Materials Safety Administration, known as PHMSA.

I see this task as delivering safety enhancements that protect the public and the environment, while allowing for the uninterrupted, multimodal transportation of energy products and other hazardous commodities that are necessary and essential to our daily lives.

In addition to oil and chemicals for manufacturing, Americans depend on PHMSA for the safe transportation of a wide variety of everyday needs, including gasoline for their cars, natural gas to heat their homes, fertilizer for their gardens, cleaning solutions, and propane for their backyard barbeques.

My forty-year career in the U.S. railroad industry, much of it leading critical safety programs, has prepared me for this challenge. From 2004 until my retirement from CSX Transportation in Jacksonville, Florida in March of this year, I served as Vice President of Public Safety, Health and Environment. In that role I led a highly skilled team that was responsible for hazardous material transportation safety, homeland security and railroad policing, environmental compliance and protection, crisis preparedness and response, and occupational health.

I am a practitioner whose role and responsibilities required me to respond to many major hazardous material incidents during my career, and I have witnessed firsthand the severe impacts to the public and the environment these incidents can have.

This experience has led me to the belief that inspections and worker training are paramount in preventing accidents. In the same vein, I have worked tirelessly during my career to ensure that America's emergency first responders are trained and prepared to handle such events safely.

I am especially proud of the innovative technology we developed and provided to State emergency management and Homeland Security officials, starting more than 15 years ago. This technology has

allowed these officials to track, in near real time, CSX trains traversing their state and to quickly identify the commodities, hazardous and non-hazardous, that these trains are transporting so they can better prepare to respond to a security event or a train emergency.

I am interested in exploring how technology can be deployed in other ways to enhance safety on pipelines and other forms of transportation. If confirmed, I would seek to encourage research and development efforts that will create and apply new and cutting edge technology and automation to safety solutions.

Second, I would promote innovations and improvement in communications and outreach with all PHMSA stakeholders, ensuring regular, face to face interaction at all levels of Government, industry, and the public.

Third, but not least, is to reinforce the necessity for quality and the sense of urgency of PHMSA's safety inspection mandates and to enhance the value and support the Agency provides to its partners at the State level.

As I close, I want to assure you of my absolute commitment to this role if confirmed. I began my railroad career as a railroad police officer working the midnight shift in Emhart, Indiana. Never did I imagine I would end that career 40 years later as a vice president of a major railroad company responsible for important public safety, security, and environmental programs. Nor could I have envisioned sitting here today in front of an important Senate committee as the President's nominee for PHMSA Administrator.

I continue to believe in the value of hard work, perseverance when things get tough, never compromising my ethical values, and in being a compassionate and a strong leader. I realize too how thankful I am to have a loving and understanding family, and many wonderful friends and colleagues, some here today, who have helped and guided me along the way.

If confirmed, I will do my very best to earn the confidence placed in me by the President, by the Secretary, and by the members of this Committee.

Thank you.

[The prepared statement and biographical information of Mr. Elliott follow:]

PREPARED STATEMENT OF HOWARD R. "SKIP" ELLIOTT, NOMINEE FOR ADMINISTRATOR, PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Chairman Thune, Ranking Member Nelson, and Members of the Committee:

I am grateful for the opportunity to appear before you today. I appreciated the opportunity to meet with many of the Committee members, and, if I am confirmed, I look forward to working with you to enhance safety in the transportation of hazardous materials and energy related products.

This morning I am pleased to introduce my wife, Jacqueline, my daughter Jessica and her husband Brendan, who is an active duty officer in the U.S. Coast Guard. I am also pleased to have here today my youngest granddaughter Elizabeth. My son Joshua and his family, who live in Pennsylvania, were not able to be with us today.

I am humbled that President Trump and Secretary Chao have asked me to lead the team of dedicated professionals in the Department's Pipeline and Hazardous Materials Safety Administration, known as PHMSA. I see this task as delivering safety enhancements that protect the public and the environment, while allowing for the uninterrupted, multi-modal transportation of energy products and other hazardous commodities that are necessary and essential to our daily lives. In addition

to oil and chemicals for manufacturing, Americans depend on PHMSA for the safe transportation of a wide variety of everyday needs, including gasoline for their cars, natural gas to heat their homes, fertilizer for their gardens, cleaning solutions, and propane for their backyard barbeques.

My forty-year career in the U.S. railroad industry, much of it leading critical safety programs, has prepared me for this challenge. From 2004 until my retirement from CSX Transportation in Jacksonville, Florida, in March of this year, I served as Vice President of Public Safety, Health and Environment. In that role I led a highly-skilled team that was responsible for hazardous materials transportation safety, homeland security and railroad policing, environmental compliance and protection, crisis preparedness and response, and occupational health. I am a practitioner whose role and responsibilities required me to respond to many major hazardous materials incidents during my career. I have witnessed first-hand the severe impacts to the public and the environment these incidents can have.

This experience has led me to the belief that inspections and worker training are paramount in preventing accidents. In the same vein, I have worked tirelessly during my career to ensure that America's emergency first responders are trained and prepared to handle such events safely. I am especially proud of the innovative technology we developed and provided to state emergency management and homeland security officials, starting more than 15 years ago. This technology has allowed these officials to track in near real-time CSX trains traversing their state and to quickly identify the commodities, hazardous and non-hazardous, the trains are transporting so they could be better prepared to respond to a security event or train emergency.

I am interested in exploring how technology can be deployed in other ways to enhance safety on pipelines and other forms of transportation. If confirmed, I would seek to encourage research and development efforts that will create and apply new and cutting-edge technology and automation to safety solutions.

Second, I would promote improvements in communications and outreach with all PHMSA stakeholders, ensuring regular, face-to-face interaction at all levels of government, industry, and the public.

Third, but not least, is to reinforce the necessity for quality and the sense of urgency of PHMSA's safety inspection mandates and to enhance the value and support the Agency provides to its partners at the state level.

As I close, I want to assure you of my absolute commitment to this role if confirmed. I began my railroad career as a railroad police officer working the midnight shift in Elkhart, Indiana. Never did I imagine I would end that career 40 years later as a Vice President of a major railroad company responsible for important public safety, security and environmental programs. Nor could I have envisioned sitting here today in front of an important Senate Committee as the President's nominee for PHMSA Administrator. I continue to believe in the value of hard work, perseverance when things get tough, never compromising my ethical values, and in being a compassionate and strong leader. I realize too how thankful I am to have a loving and understanding family and many wonderful friends and colleagues—some of whom are here today—who have helped and encouraged me along the way.

If confirmed, I will do my best to earn the confidence placed in me by the President, the Secretary, and by this Committee. Thank you.

A. BIOGRAPHICAL INFORMATION

1. Name (Include any former names or nicknames used): Howard R. "Skip" Elliott.

2. Position to which nominated: Administrator, Pipeline and Hazardous Materials Safety Administration (PHMSA).

3. Date of Nomination: September 11, 2017.

4. Address (List current place of residence and office addresses):

Residence: Information not released to the public.
Office: Information not provided.

5. Date and Place of Birth: 11/14/1954; Elkhart, IN.

6. Provide the name, position, and place of employment for your spouse (if married) and the names and ages of your children (including stepchildren and children by a previous marriage).

Spouse: Jacqueline L. Elliott, retired. Children: Joshua B. Elliott, 38; Jessica E. Hughes, 34.

7. List all college and graduate degrees. Provide year and school attended.

MS, Columbia Southern University, 2011

BA, Indiana University, 1977

8. List all post-undergraduate employment, and highlight all management-level jobs held and any non-managerial jobs that relate to the position for which you are nominated.

2004 to 2017—*VP-Public Safety, Health and Environment, CSX,* Jacksonville, FL

2003 to 2004—*AVP-Public Safety and Environment, CSX,* Jacksonville, FL

2002 to 2003—*General Mgr.—Environmental and HazMat Systems, CSX,* Jacksonville, FL

2002 to 2002—*Assistant GM—Hazardous Material Systems, CSX,* Jacksonville, FL

1998 to 2002—*Director—Hazardous Materials, CSX,* Jacksonville, FL

1997 to 1998—*Director—Hazardous Material Systems, Conrail,* Philadelphia, PA

1995 to 1997—*Director—Field Services, Hazardous Materials, Conrail,* Philadelphia, PA

1994 to 1995—*Senior Environmental Area Manager, Conrail,* Mt. Laurel, NJ

1992 to 1994—*Environmental Area Manager, Conrail,* Mt. Laurel, NJ

1992 to 1998—*Emergency Management Coordinator,* City of Woodbury, NJ (part time)

1988 to 1992—*Supervisor—Hazardous Materials,* Conrail, Philadelphia, PA

1985 to 1988—*Safety Superintendent—Eastern Region,* Conrail, Philadelphia, PA

1984 to 1985—*Division Safety Supervisor, Conrail,* Chicago, IL

1977 1984—*Police Officer, Conrail,* Elkhart, IN

9. Attach a copy of your resumé. Copy attached as requested.

10. List any advisory, consultative, honorary, or other part-time service or positions with Federal, State, or local governments, other than those listed above, within the last ten years.

12/2006 to 01/2014: Special Deputy U.S. Marshal

11. List all positions held as an officer, director, trustee, partner, proprietor, agent, representative, or consultant of any corporation, company, firm, partnership, or other business, enterprise, educational, or other institution within the last ten years.

03/2014–10/2016: Director, Indiana Chapter, Delta Upsilon Fraternity Alumni Association

11/2007–Present: Trustee of Howard R. Elliott Revocable Trust, and Trustee of Jacqueline L. Elliott Revocable Trust

12. Please list each membership you have had during the past ten years or currently hold with any civic, social, charitable, educational, political, professional, fraternal, benevolent or religious organization, private club, or other membership organization. Include dates of membership and any positions you have held with any organization. Please note whether any such club or organization restricts membership on the basis of sex, race, color, religion, national origin, age, or handicap.

- Executive Dean's Advisory Council, College of Arts and Sciences, Indiana University, 2010 to present (educational-member).
- Joint FBI–DHS Domestic Security Alliance Council, 2013 to 2017 (professional-member).
- American Society of Industrial Security, 2010 (est.) to present (professional-member).
- Association of American Railroads, Risk Management Committee, 2007 to 2017 (professional-member).
- Association of American Railroads, Security Committee, 2002 to 2015 (professional-member)
- Delta Epsilon Tau Honor Society, 2016 to present (educational-member)
- Omicron Sigma-Sigma, 2016 to present (professional-member)
- Delta Upsilon Fraternity, 1973 to present (social-member).
- Cabana Club, Ponte Vedra Beach, FL, 1999 to present (private club-member).

- TPC Sawgrass, Ponte Vedra Beach, FL, 2016 to present (private club-social member).

None of the above organizations restrict membership on the basis of sex, race, color, religion, national origin, age, or handicap.

13. Have you ever been a candidate for and/or held a public office (elected, non-elected, or appointed)? If so, indicate whether any campaign has any outstanding debt, the amount, and whether you are personally liable for that debt.

1992 to1998: Emergency Management Coordinator, City of Woodbury, NJ (part time). Appointed position. No campaign or debt incurred.

14. Itemize all political contributions to any individual, campaign organization, political party, political action committee, or similar entity of $500 or more for the past ten years. Also list all offices you have held with, and services rendered to, a state or national political party or election committee during the same period.

2017: CSX Good Government Fund—$1,250.00

2016: CSX Good Government Fund—$10,000.00*
06/2016: Angela Corey for State's Attorney—$1,000.00
02/2016: Representative Jeff Denham—$500.00

2015: CSX Good Government Fund—$10,000.00
09/2015: Angela Corey for States Attorney—$500.00
06/2015: Shuster for Congress—$500.00
04/2015: Randy Royal for Sheriff—$500.00

2014: CSX Good Government Fund—$10,000.00
09/2014: Ken Jefferson for Sheriff—$500.00

2013: CSX Good Government Fund—$10,000.00

2012: CSX Good Government Fund—$5,000.00
10/2012: Peter King for Congress—$1,000.00

2011: CSX good Government Fund—$10,000.00
09/2011: Bill Nelson for U.S. Senate—$500.00

2010: CSX Good Government Fund—$10,000.00

2009: CSX Good Government Fund—$2,875.76

2008: CSX Good Government Fund—$5,000.00

*CSX Good Government Fund contributions were via monthly payroll deduction and a one-time $5,000.00 contribution from spouse for years 2010 through 2016.

15. List all scholarships, fellowships, honorary degrees, honorary society memberships, military medals, and any other special recognition for outstanding service or achievements.

- Indiana University, Department of Criminal Justice, Distinguished Alumni Award, 2009
- Association of American Railroads, Lifetime Achievement Award in Hazardous Material Transportation, Safety, 2001
- President's Circle, Indiana University, 2016

16. Please list each book, article, column, or publication you have authored, individually or with others. Also list any speeches that you have given on topics relevant to the position for which you have been nominated. Do not attach copies of these publications unless otherwise instructed.

- An Unlikely Training Partner: CSX Railroad. Tactical Response, 01/2010.
- Getting Tough on Environmental Crimes—Railway Age Magazine, 05/2009.

17. Please identify each instance in which you have testified orally or in writing before Congress in a governmental or non-governmental capacity and specify the date and subject matter of each testimony.

U.S. House of Representatives Committee on Homeland Security, May 31, 2012, rail security.
U.S. Senate Committee on Commerce, Science, and Transportation April, 2010, rail security.

18. Given the current mission, major programs, and major operational objectives of the department/agency to which you have been nominated, what in your background or employment experience do you believe affirmatively qualifies you for appointment to the position for which you have been nominated, and why do you wish to serve in that position?

I spent the majority of my 40 year professional career striving to improve the safe transportation of hazardous materials. I am a practitioner who has responded to many major hazardous incidents and has seen first-hand the severe impacts to the public and the environment. I have worked tirelessly to ensure that America's emergency responders are prepared to handle such incidents safely because, ultimately, they are the ones we depend upon to protect us when a hazardous material incidents occurs. I understand the hazardous materials transportation and energy supply chain and the efforts being made by manufacturers, shippers and transporters to improve their safety records. And, while I have witnessed significant improvements in hazardous materials transportation safety across all transportation modes during my career, there is more that can be done to improve safety further while, at the same time, ensuring the viability of America's reliance on these commodities. During my career, I have worked closely with many of the Federal agencies responsible for hazardous materials transportation safety, policy and regulation and I am now deeply honored to have the opportunity to apply my knowledge, experience and unwavering commitment to safety as the PHMSA Administrator.

19. What do you believe are your responsibilities, if confirmed, to ensure that the department/agency has proper management and accounting controls, and what experience do you have in managing a large organization?

Proven leadership, unwavering integrity, demonstrated accountability and strong financial acumen are critical attributes required of a successful PHMSA Administrator. It is the PHMSA Administrator's responsibility to utilize these skills to lead the Agency and ensure that along with its employees, deliver a strong and sustainable strategic initiative that provides tangible year-over-year improvements in hazardous materials transportation safety across all modes of transportation. A strong PHMSA Administrator must have proven hands-on experience in hazardous materials transportation safety, regulation and policy; coupled to deep and abiding personal commitment to the safety of the employees involved in the transportation of these products, the communities through which they travel, and our nationwide network of dedicated emergency responders who are there to protect us when an accident occurs.

My 40 year professional business career has allowed me to develop and demonstrate the skills and attributes necessary to lead a vital and critical safety agency such as PHMSA. I was a successful senior executive at a major freight railroad responsible for a multi-faceted organization of over 300 employees and with corporate-wide program responsibilities affecting the company's estimated 18,000 employees. My role was responsible for a diverse range of departments ranging from hazardous materials transportation safety, crisis management and response, the environment, homeland security, railroad police, medical, industrial hygiene, and employee assistance programs.

I have found that it is, in fact, possible to work for a major public corporation with its dependency on profits and meeting shareholder expectations, and still be a strong and vocal advocate for the environment, employee and community safety, and emergency responder readiness, although it sometimes generated criticism from other company leaders. I am proud of my conviction and dedication to public safety and the environment and my record of accomplishments in these areas.

20. What do you believe to be the top three challenges facing the department/agency, and why?

1. *Improving the effectiveness and efficiency of PHMSA's safety mission:* Each day over one million shipments of hazardous materials traverse the United States by all modes of transportation, and millions of gallons of energy related products move through a network of pipelines extending more than 2.5 million miles. Ultimately, *prevention is key* and PHMSA must quickly and without hesitation improve its responsiveness in resolving critical hazardous materials transportation safety issues, and in establishing a solid reputation for demanding that all entities that manufacture, ship and transport hazardous materials and energy products are fully accountable to their responsibilities prevent to mitigate the most serious deficiencies before they can escalate into major incidents impacting the public and the environment. Should, however, a serious incident occur, those same stakeholders must also be prepared to meet their obligation to respond quickly, minimize the impact to the public and the environment, and to remain until all impacts are resolved.

2. *Enhancing communications and transparency with all PHMSA stakeholders:* To effectively and successfully carry-out the PHMSA mission, the Agency must improve its communications and outreach with all stakeholders and concerned entities at all levels of government, industry and the public. Furthermore, PHMSA must clearly articulate its intentions and priorities with regards to implementing standards and regulations, applying consistent but fair enforcement measures, and setting expectations for tangible and ongoing safety improvements in the transportation of hazardous materials across all transportation modes. To obtain the best possible pathway to enhanced hazardous materials transportation safety in the United States, PHMSA must actively and regularly engage and listen closely to all stakeholders, respecting all points of view, and then act in a prudent, fact-based manner to establish clear expectations that will achieve a higher level of safety.
3. *Building a sustainable record of tangible year-over-year safety improvement:* While the United States has seen significant safety improvements in the transportation of hazardous materials, PHMSA must continue to work with manufacturers, shippers and transporters of hazardous commodities to ensure it achieves a reliable and sustainable record of year-over-year safety improvements. PHMSA must also work closely with other transportation agencies at the state and Federal level to ensure consistency and clarity of regulatory requirement and enforcement practices. Accomplishing this goal also means ensuring that PHMSA improves its safety inspection mandate working closely with state partners to apply inspection procedures that focus-in on the most critical safety deficient areas.

B. POTENTIAL CONFLICTS OF INTEREST

1. Describe all financial arrangements, deferred compensation agreements, and other continuing dealings with business associates, clients, or customers. Please include information related to retirement accounts.

I retired from CSX Transportation on March 17, 2017. At the time of my retirement, I held CSX Transportation common stock, vested restricted stock, vested and unvested restricted stock units, unvested performance stock units, and unvested stock options. I do not hold unvested restricted stock, or vested stock options. Pursuant to the company's compensation plan, I was able to retain these financial interests when I retired. Prior to assuming the duties of the position of Administrator, CSX Transportation accelerated the vesting of my unvested performance stock units and unvested restricted stock units, and in lieu of issuing me common stock, I received a lump sum cash payment.

CSX Transportation also accelerated the vesting of my unvested stock options. I will divest the stock options by exercising them, and I will divest the resulting stock within 90 days of my confirmation. I will also receive CSX restricted stock as part of an executive employment retention agreement that began on November 15, 2014 and ended on March 17, 2017. These shares ( ) are governed by IRS Regulation 409A and therefore subject to a six-month delay in distribution. These shares ( ) will be distributed on September 17, 2017, and I will divest that stock within 90 days of my confirmation. Furthermore, my vested restricted stock units are also subject to IRS Regulation 409A. These units will become exercisable on September 17, 2017 or upon CSX's notification of confirmation, whichever occurs first, and I will divest that stock within 90 days of my confirmation.

I also have a deferred compensation plan and defined benefit plan with CSX Transportation. Additionally, as a retired executive of the company, I am entitled to receive health coverage for both me and my spouse for the rest of our lives, but I pay the plan premiums, consistent with the company's practice for retired executives. If confirmed, I will retain those benefits.

At that time of my retirement from CSX Transportation, I held a 401k plan with CSX. In April 2017, I rolled that over to my individual retirement accounts (IRAs). If confirmed, I will retain my IRAs.

I will retain my position as trustee of my revocable living trust. I will not receive any fees for the services that I provide as a trustee during my appointment to the position of Administrator.

I anticipate receiving Federal U.S. Railroad pension payments commencing in 2020. If confirmed, I will retain this Federal benefit.

2. Do you have any commitments or agreements, formal or informal, to maintain employment, affiliation, or practice with any business, association or other organization during your appointment? If so, please explain. No.

3. Indicate any investments, obligations, liabilities, or other relationships which could involve potential conflicts of interest in the position to which you have been nominated.

In connection with the nomination process, I have consulted with the Office of Government Ethics and the Department of Transportation's Designated Agency Ethics Official to identify potential conflicts of interest. Any potential conflicts of interest will be resolved in accordance with the terms of an ethics agreement that I have entered into with DOT's Designated Agency Ethics Official and that has been provided to this Committee. I am not aware of any other potential conflicts of interest.

4. Describe any business relationship, dealing, or financial transaction which you have had during the last ten years, whether for yourself, on behalf of a client, or acting as an agent, that could in any way constitute or result in a possible conflict of interest in the position to which you have been nominated.

In connection with the nomination process, I have consulted with the Office of Government Ethics and the Department of Transportation's Designated Agency Ethics Official to identify potential conflicts of interest. Any potential conflicts of interest will be resolved in accordance with the terms of an ethics agreement that I have entered into with DOT's Designated Agency Ethics Official and that has been provided to this Committee. I am not aware of any other potential conflicts of interest.

5. Describe any activity during the past ten years in which you have been engaged for the purpose of directly or indirectly influencing the passage, defeat, or modification of any legislation or affecting the administration and execution of law or public policy.

During my employment with CSX Transportation I directly or indirectly provided opinion to legal and legislative areas of the company on proposed rail safety and security legislation. I have personally testified at the local, state and Federal level in support of or opposition against certain proposed safety and security regulations involving rail transportation.

6. Explain how you will resolve any potential conflict of interest, including any that may be disclosed by your responses to the above items.

In connection with the nomination process, I have consulted with the Office of Government Ethics and the Department of Transportation's Designated Agency Ethics Official to identify potential conflicts of interest. Any potential conflicts of interest will be resolved in accordance with the terms of an ethics agreement that I have entered into with DOT's Designated Agency Ethics Official and that has been provided to this Committee. I am not aware of any other potential conflicts of interest.

C. LEGAL MATTERS

1. Have you ever been disciplined or cited for a breach of ethics, professional misconduct, or retaliation by, or been the subject of a complaint to, any court, administrative agency, the Office of Special Counsel, professional association, disciplinary committee, or other professional group? If yes:

a. Provide the name of agency, association, committee, or group;

b. Provide the date the citation, disciplinary action, complaint, or personnel action was issued or initiated;

c. Describe the citation, disciplinary action, complaint, or personnel action;

d. Provide the results of the citation, disciplinary action, complaint, or personnel action.

No.

2. Have you ever been investigated, arrested, charged, or held by any Federal, State, or other law enforcement authority of any Federal, State, county, or municipal entity, other than for a minor traffic offense? If so, please explain. No.

3. Have you or any business or nonprofit of which you are or were an officer ever been involved as a party in an administrative agency proceeding, criminal proceeding, or civil litigation? If so, please explain.

Yes. My former employer, CSX Transportation, as a major freight railroad, was involved in instances of civil litigation. Examples are employees claiming disability due to a work-related illness or injury or wrongful termination, or members of the public involved in a highway-railroad grade crossing collision. However, I was never individually named as a defendant in any action.

4. Have you ever been convicted (including pleas of guilty or *nolo contendere*) of any criminal violation other than a minor traffic offense? If so, please explain. No.

5. Have you ever been accused, formally or informally, of sexual harassment or discrimination on the basis of sex, race, religion, or any other basis? If so, please explain. No.

6. Please advise the Committee of any additional information, favorable or unfavorable, which you feel should be disclosed in connection with your nomination. None.

D. RELATIONSHIP WITH COMMITTEE

1. Will you ensure that your department/agency complies with deadlines for information set by congressional committees?

Yes, to the best of my ability.

2. Will you ensure that your department/agency does whatever it can to protect congressional witnesses and whistle blowers from reprisal for their testimony and disclosures? Yes.

3. Will you cooperate in providing the Committee with requested witnesses, including technical experts and career employees, with firsthand knowledge of matters of interest to the Committee? Yes.

4. Are you willing to appear and testify before any duly constituted committee of the Congress on such occasions as you may be reasonably requested to do so? Yes.

RESUMÉ OF HOWARD R. "SKIP" ELLIOTT

Summary

Senior executive with a successful and proven track record spanning 40 years in the areas of public safety, hazardous materials transportation safety, security, occupational health and the environment. A highly respected senior leader at a Fortune 250 freight rail transportation company with a reputation for developing best-in-class organizations and implementing innovative and sustainable solutions. Proven experience in the boardroom, on Capitol Hill, state houses and city halls. Effective in building and leading diverse, multi-functional, high-performing teams, and in developing key talent.

Areas of Expertise

- Hazardous materials transportations safety
- Crisis management and emergency planning
- Environmental policy and regulation
- Risk management
- Police and security management
- Occupational health management

Business Acumen

- Strategic planning
- Innovative solution design
- Developing and leading high-performing teams
- Applying financial rigor and accountability
- Business Continuity
- Proven track record of success

Professional Experience

CSX Transportation, Jacksonville, FL
Vice President, Public Safety, Health and Environment, 2004 to 2017
Recently retired Vice President of Public Safety, Health and Environment for CSX Transportation (CSX), one of North America's largest freight railroads with operations in 23-states and two Canadian provinces. Responsible for managing a number of critical departments including police, infrastructure protection, hazardous materials transportation safety, environmental, medical, industrial hygiene and employee assistance. Oversaw corporate crisis management, emergency planning and continuity of operations.

Education

Columbia Southern University, MS in Criminal Justice Administration
Indiana University, BA, double major in English and Forensic Studies

Business and Professional Affiliations

FBI–DHS Domestic Security Alliance Council (DSAC)
American Society of Industrial Security (ASIS)
National Defense Transportation Association (NDTA)
Association of American Railroads (AAR) Risk Management Working Committee
Association of American Railroads Security Committee
Executive Dean's Advisory Council, Indiana University, College of Arts and Sciences
Delta Epsilon Tau Honor Society
Omicron Sigma Sigma Academic and Professional Honor Society

Awards and Recognitions

AAR Lifetime Achievement Award in Hazardous Materials Transportation Safety
Distinguished Alumni Award, Indiana University, Department of Criminal Justice
President's Circle, Indiana University

The CHAIRMAN. Thank you, Mr. Elliott.

Dr. Gallaudet.

STATEMENT OF RDML TIM GALLAUDET, U.S. NAVY, NOMINEE TO BE ASSISTANT SECRETARY OF COMMERCE FOR OCEANS AND ATMOSPHERE/DEPUTY ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

Admiral GALLAUDET. Thank you.

Chairman Thune, Ranking Member Nelson, and members of the Committee.

I would also like to thank Senator Wicker for your gracious introduction. I would also like to thank the President and Secretary Ross for their trust and confidence in me for this nomination as Assistant Secretary of Commerce for Oceans and Atmosphere, also serving as the Deputy Administrator of the National Oceanic and Atmospheric Administration, or NOAA.

If I have the honor of being confirmed by this Committee, I look forward to working with all of you on the very important work that NOAA does for our Nation and including such aspects as weather forecasting, storm warning, fisheries and coastal zone management, ocean exploration, and climate monitoring.

I have spent the past 32 years in the U.S. Navy studying and applying the knowledge of earth sciences. My experience in the Navy has touched everything that NOAA does for the Nation, specifically the practical aspects of meteorology, oceanography, hydrography, and even developing policies to counter illegal fishing.

During my last tour as Oceanographer of the Navy, I served as the Navy Deputy to the NOAA Administrator. And in this position, I directed the extensive partnership activities between the Navy and NOAA. And it was this experience which exposed me to the many significant contributions that NOAA makes for national security.

These include severe weather warnings for Navy bases that NOAA's National Weather Service issues that protects life and property of our sailors. These also include ocean observing activities that helps reinforce our Navy's undersea war fighting capability and allows them to maintain a competitive advantage against our adversaries.

I also saw firsthand how NOAA contributes to our Nation's economic, homeland, and natural resource security. Every day, NOAA's information impacts hundreds of billions of dollars of activity and infrastructure, and tens to hundreds of millions of lives. This occurs in all sectors of our Nation, which include manufacturing, defense, transportation, agriculture, energy, and trade. Thus, NOAA is critical to the effective functioning of Government at all levels from local, State, to Federal.

And I do not need hurricanes Irma, Harvey, Jose, or Maria to reinforce this understanding to me. My family lost our entire home in Hurricane Katrina. And as you mentioned, Senator Wicker, it was the timely and accurate forecast provided by NOAA's National Weather Service which allowed my family to escape from harm. And even though it did not prevent us from losing our house, it very well kept us alive.

Of the many exciting opportunities that NOAA has today, I see three that interest me most.

First, it is implementation of the Weather Research and Forecasting Innovation Act of 2017. This will enable NOAA's combined atmospheric sensing and modeling capabilities to be the best in the world, and therefore continue to protect lives and property, and enhance the national economy.

Second, advancing fisheries management under the Magnuson-Stevens Act, or any potential reauthorization of it. This, along with promoting aquaculture within the U.S. will help us eliminate our over $13 billion seafood trade deficit.

And third, focusing NOAA's ocean observation, mapping, exploration, and prediction activities will not only help us expand our Nation's blue economy, but also ensure U.S. competitive advantage in maritime trade, transportation, energy, business development, and defense.

So last, I would like to talk about the most important part of NOAA, and that is their people. This extraordinary team of 12,000 professionals serves all across the country and world, and includes 6,000 scientists and engineers that are the world leaders in what they do, including some Nobel Prize winners.

They also have a first-rate uniformed officer corps that do such amazing activities as fly hurricane hunter aircraft, operate a fleet of oceanographic vessels, conduct scuba and deep sea dives with remotely operated vehicles.

If confirmed, I would be absolutely honored and thrilled to help lead this terrific team, champion their cause, and ensure they have what they do to do their work more effectively.

So, I would like to end by thanking the Chief of Naval Operations, Admiral John Richardson, and then Acting Secretary of the Navy, Sean Stackley, for supporting me in my decision to retire so that I could go on to this and potentially serve in this opportunity of further public service.

I would also like to thank my wife Caren, and my three daughters, two of whom are here today, and my mother-in-law, Jan, for supporting me in all I have done in the past and hopefully doing more of this in the future.

Thank you again, Committee members, for this great opportunity and I look forward to taking your questions.

[The prepared statement and biographical information of Admiral Gallaudet follow:]

PREPARED STATEMENT OF RDML TIM GALLAUDET, U.S. NAVY, NOMINEE TO BE ASSISTANT SECRETARY OF COMMERCE FOR OCEANS AND ATMOSPHERE/DEPUTY ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

Thank you Chairman Thune, Ranking Member Nelson, and Members of the Committee. I'd also like to thank Senator Wicker for his gracious introduction.

I would like to thank the President and Secretary Ross for their trust and confidence in me with this nomination to be the Assistant Secretary of Commerce for Oceans and Atmosphere which also serves as the Deputy Administrator of the National Oceanic and Atmospheric Administration (NOAA). If I have the honor of being confirmed by this Committee, I look forward to working with all of you on the important work performed by NOAA in such areas as weather forecasting, storm warning, fisheries and coastal zone management, ocean exploration, and climate monitoring.

I have spent the past 32 years in the Navy studying and applying the knowledge of earth sciences. My experience in the Navy has touched everything that NOAA does for the nation, from the practical aspects of meteorology, oceanography, and hydrography, to developing policies on illegal fishing.

During my last tour in the Navy as Oceanographer of the Navy, I also served as the Navy Deputy to the NOAA Administrator. In this position, I directed the extensive partnership activities between the Navy and NOAA. It was this experience which exposed me to the many significant contributions that NOAA makes to our national security, these included severe weather warnings at Navy bases that allowed the Navy to plan and minimize damage and prevent loss of life. Also, the Navy partnered with NOAA to share ocean observations and models that are critical to ensuring our undersea forces maintain their war fighting superiority over our adversaries.

I also saw first-hand how NOAA contributes to our Nation's economic, homeland, and natural resource security. Every day, NOAA's information impacts hundreds of billions of dollars of activity and infrastructure, and tens to hundreds of millions of lives in American states and territories. These impacts occur in nearly every possible sector: homeland defense, energy, transportation, agriculture, and manufacturing. Thus, NOAA is critical to the effective functioning of government: at the local, state and Federal levels. And I did not need Hurricanes Harvey, Irma, Jose, or Maria to reinforce this understanding. My family lost our entire home to storm surge during Hurricane Katrina. The timely and accurate storm predictions from NOAA's National Weather Service allowed us to evacuate early, and although that did not prevent us from losing our home, it very well kept us alive.

Of the many exciting opportunities that face NOAA today, three interest me most. First, implementing the Weather Research and Forecasting Innovation Act of 2017. This will enable NOAA's combined atmospheric sensing and modeling capabilities to be the best in the world, and continue to protect lives and property while enhancing the national economy. Second, advancing fisheries management under the Magnuson-Stevens Act and any potential reauthorization. This, along with supporting the growth of aquaculture in the U.S. will help to eliminate our $13 billion seafood trade deficit. Third, focusing NOAA's ocean observations, mapping, and exploration activities will not only expand the Nation's blue economy, but also ensure U.S. competitive advantage in maritime trade, transportation, energy, business development, and defense.

Lastly, I'd like to talk about the most important part of NOAA—their people. This extraordinary team of 12,000 professionals serve all across the country and the world. It includes over 6,000 scientists and engineers that are world leaders in their fields, even a few Nobel Prize winners. They also have a first rate uniformed officer corps that fly Hurricane Hunter aircraft, operate a Fleet of oceanographic vessels, and conduct scuba and deep sea dives along with remotely operated and unmanned vehicles. If confirmed, I would be absolutely honored to help lead this amazing Team, champion their cause, and ensure they have what they need to do their work more effectively.

I want to thank the Chief of Naval Operations, Admiral John Richardson and then Acting Secretary of the Navy Sean Stackley for supporting my request to retire from the Navy, allowing me to serve in this position if confirmed.

I also want to thank my wife Caren and 3 daughters, who have supported me in choosing to continue in public service.

Thank you again Committee Members, for the opportunity to be here. I look forward to your questions.

A. BIOGRAPHICAL INFORMATION

1. Name (Include any former names or nicknames used): Timothy Cole Gallaudet (Tim).

2. Position to which nominated: Assistant Secretary of Commerce for Oceans and Atmosphere/Deputy Administrator, National Oceanic and Atmospheric Administration.

3. Date of Nomination: 28 August 2017 (estimated).

4. Address (List current place of residence and office addresses):

Residence: Information not released to the public.
Office: Information not provided.

5. Date and Place of Birth: March 18, 1967; Los Angeles CA.

6. Provide the name, position, and place of employment for your spouse (if married) and the names and ages of your children (including stepchildren and children by a previous marriage).

Spouse: Caren Marie Ritter Gallaudet, Self-employed Pet Sitter, North Beach MD.

7. List all college and graduate degrees. Provide year and school attended.

- BS in Oceanography: U.S. Naval Academy, 1989
- MS in Oceanography: UC San Diego, Scripps Institution of Oceanography, 1991
- PhD in Oceanography: UC San Diego, Scripps Institution of Oceanography, 2001

8. List all post-undergraduate employment, and highlight all management level jobs held and any non-managerial jobs that relate to the position for which you are nominated.

2015–2017: Chief of Naval Operations Staff, Washington, D.C.

- *Oceanographer of the Navy:* Oversee an annual $350M budget to program and direct all policy for U.S. Navy oceanography, meteorology, oceanography, astrometry, and precise timing capability which is used by all Navy ships, aircraft, submarines and SEAL Teams to safety and successfully operate.
- *Navigator of the Navy:* Oversee a 5 year budget of $1.68 for directing all policy, research, development,. and integration of navigation equipment on all Navy ships, submarines, and aircraft.
- *Naval Deputy to the NOAA Administrator:* Coordinate cooperative efforts between the Navy and NOAA on sea floor charging, and weather modeling, ocean and weather observations, technology development and research, and personnel exchanges.
- *Director, U.S. Navy Task Force Climate Change:* Direct all Navy policy and plans regarding climate change impacts to facilities, and strategic plans, and capability development, with a focus on the Arctic. Authored the U.S. Navy Arctic Roadmap of 2010, and reviewed and approved the U.S. Navy Arctic Roadmap for 2014–2030.
- *Director of the Office of the DoD Executive Agent for Maritime Domain Awareness (MDA):* Directed all DoD strategic planning, partnerships, and system development MDA. Signed the DoD MDA Strategic Plan, Architecture, and Vessel of Interest Lexicon.
- *DoD Precise Time and Time Interval Manager and DoD Celestial Reference Frame and Earth Orientation Manager:* Oversee a $20M annual budget that allows the U.S. Naval Observatory to provide the absolute fundamental spatial and temporal references needed for U.S. DoD network and space operations, targeting, and command, control, communications, computers, intelligence, surveillance and reconnaissance.

2014–2017: Naval Meteorology and Oceanography Command, Stennis Spaoe Center, MS

- *Commander, Naval Meteorology and Oceanography Command/Commander, Task Group 80.7:* Direct the operations of 14 subordinate commands comprised of over 2,500 military and civilian personnel who provide weather, ocean, seafloor, precise time, and astrometry information to all Navy operating units afloat, aloft, and ashore. These commands continuously deploy all over the globe on Navy ships, submarines, aircraft, and with SEAL Teams, and include reachback centers that assimilate environmental information from satellites, underwater floats and drones, and other sensors worldwide into cyber secure supercomputers that predict the best routes, timelines, weapons setting, sensor configurations, and equipment loads for Navy units to operate safely and effectively.
- *Hydrographer of the Navy:* Develop and direct all U.S. Navy hydrographic survey plans, partnerships, and operations using a Fleet of six $250M Oceanographic survey vessels as well as a rapidly deplorable Team that uses jet skis equipped with echosounders, sunderwater drones, and small boats to identify safe routes and harbor berths after natural disasters. The hydrographic partnerships and engagements that I direct include over 60 nations and are highly praised by Geographic Combatant Commanders for contributing to their Theater Security Cooperation (TSC) objectives.

2013–2014: Chief of Naval Operations Staff, Washington, D.C.

- *Deputy Oceanographer of the Navy:* Deputy to the senior Oceanography officer in the Navy, directing the daily actions of a staff of 90 personnel that oversee $350M of annual resources for the Navy's operational oceanography, meteorology, hydrography, precise time, and astrometry capabilities. Duties also included oversight of the Navigation capabilities, Navy climate change policy and plans. DoD's Maritime Domain Awareness Program, the Navy Space Program, and a variety of classified space rested intelligence programs.

2011–2013: U.S. Naval Observatory, Washington, D.C.

- *Superintendent/Commanding Officer:* Commanded a team of over 100 atomic physicists, astrophysicists, astronomers, mathematicians and engineers who develop, maintain, and modernize the DoD's precision time keeping and astrometric observing capabilities. The Master Clock atomic clock ensemble and telescope data processing computers at the U.S. Naval Observatory are designated national critical infrastructure because all U.S. satellites, ballistic missiles, and national defense and economic computer networks would fail to operate without the information they provide.

2008–2011: Chief of Naval Operations Staff, Washington, D.C.

- *Deputy Navigator of the Navy:* Assisted with management of a 5 year budget of $1.68 for directing all policy, research, development, and integration of navigation equipment on all Navy ships, submarines, and aircraft.
- *Deputy Director. U.S. Navy Task Force Climate Change:* Established a Task Force of over 120 individuals representing all Navy operating forces, headquarters, system commands, all Federal agencies, and numerous universities and labs. Directed all Navy policy and plans regarding climate change impacts to facilities, and strategic plans, and capability development, with a focus on the Arctic. Authored the U.S. Navy Arctic Roadmap of 2010.

2005–2008: Naval Oceanography Special Warfare Center, Coronado, CA

- *Commanding Officer.* Commanded 120 personnel who deployed with U.S. Navy SEAL Teams in Iraq, Afghanistan, Africa, and Southeast Asia to forecast weather, sea state, ocean and river currents, and operate unmanned aerial and underwater vehicles and other technical sensors to detect and locate enemy forces.
- *Technical Special Reconnaissance Officer, Commander, Naval Special Warfare Command:* Established the first Navy SEAL program for unmanned aerial and underwater vehicles and other technical sensors to detect and locate enemy forces.

2004–2005: Naval Oceanographic Office, Stennis Space Center, MS

- *Anti-Submarine Warfare (ASW) Program Manager:* Coordinated the undersea data collection of 8 Oceanographic Survey Ships deployed worldwide, the processing of this data into geophysical databases used by Navy ships, aircraft, and submarines to operate their sonars/sonobuoys effectively, and direct teams of deploying Military and civilian personnel to advise these units during ASW exercises and operations. Deployed on the USNS Bowditch during the first operational deployment of an ocean glider underwater drone from a Navy ship.

2003–2004: Commander, Naval Meteorology and Oceanography Command, Stennis Space Center, MS

- *Plans and Programs Officer.* Oversaw the budget and plans for a highly classified unmanned underwater program executed at a subordinate command (Naval Oceanographic Office).

2001–2003: USS KITTY HAWK (CV–63), Yokosuka, Japan

- *Meteorology and Oceanography Division Officer:* Led 18 personnel to forecast wind, weather, sea state, and ocean currents for the KITTY HAWK Carrier Strike Group (CSG) composed of an air wing of 60 aircraft, and 5 escort ships which conducted the first strikes into Afghanistan during Operation Enduring Freedom in October 2001. Also conducted first strikes into Iraq during Operation Iraqi Freedom in March 2003.
- *Officer of the Deck:* Directed all aircraft carrier movements and all aircraft launches and recoveries for two 4-hour periods each day.

- *INSURV Coordinator.* Developed and executed a 6 month plan for the 3,000 person crew to prepare the ship for its inspection by the Board of Inspection and Survey (INSURV). This involved tens of thousands of maintenance actions precisely coordinated across a dozen departments.

1997–2001: UC San Diego, Scripps Institution of Oceanography, La Jolla, CA

- *PhD Student:* Completed course work on underwater acoustics, digital signal processing, and computer programming. Performed research at Scripps' Marine Physical Laboratory (MPL). Participated on a research cruise on the RN New Horizon.

1995–1997: USS PELELIU (LHA–5), San Diego, CA

- *Meteorology and Oceanography Division Officer:* Led 15 personnel to forecast wind, weather, sea state, and ocean currents for the PELELIU Amphibious Ready Group (ARG) composed of a Marine Aviation Combat Element of 25 aircraft, 2 escort ships, and a Marine Expeditionary Unit. Conducted Operation Southern Watch in the Northern Arabian Gulf,
- *Officer of the Deck:* Directed all ship movements and all aircraft launches and recoveries for two 4-hour periods each day.

1993–1995: Naval European Meteorology and Oceanography Center, Rota, Spain

- *Command & Forecast Duty Officer:* Lead weather and ocean forecaster of a watch team supporting Navy, Joint, and Allied Maritime forces operating in Europe and the Mediterranean. Supported NATO operations in Bosnia, and participated in Operation Deny Flight.

1994: Commander, U.S. 6th FLEET, USS LASALLE (LCC–20) Gaeta, Italy

- *Assistant Fleet Oceanographer:* Assistant to the senior oceanographer on the staff of the Commander of the U.S. 6th Fleet. Led a division of 10 personnel who prepared the weather and ocean forecasts for the Fleet Commander daily. Coordinated with staff planners and operations officers to ensure all 6th Fleet operations were conducted safely and effectively. Routed dozens of ships around hazardous seas.

1993: Naval European Meteorology and Oceanography Detachment, Sousa Bay, Greece

- *Officer in Charge:* Led 14 personnel who provided weather and ocean forecasts for Navy, Joint, and NATO ships and aircraft using the port and air field on the island of Crete.

1991–1993: Oceanographic Unit FIVE, USNS HARKNESS (T–AGS 32), Manama, Bahrain

- *Operations Officer/Boat Division Officer:* Led 60 personnel who maintained $5M in hydrographic survey equipment Also planned, participated in, and directed over 15 hydrographic surveys in the Arabian Sea and Arabian Gulf immediately after the first Gulf War. These surveys were essential to hundreds of future ship and submarine deployments to the region by U.S. and Allied Naval forces.

1989–1991: UC San Diego, Scripps Institution of Oceanography, La Jolla, CA

- *Master's Degree Student:* Completed academic course work in oceanography, digital signal processing, artificial intelligence, machine learning, computer science, and linear algebra. Performed research on oceanography, remote sensing, and digital signal processing. Participated in an underwater acoustic research cruise onboard the USNS DeSteiger.

9. Attach a copy of your résumé.

My CV is attached.

10. List any advisory, consultative, honorary, or other part-time service or positions with Federal, State, or local governments, other than those listed above, within the last ten years. None.

11. List all positions held as an officer, director, trustee, partner, proprietor, agent, representative, or consultant of any corporation, company, firm, partnership, or other business, enterprise, educational, or other institution within the last ten years. None.

12. Please list each membership you have had during the past ten years or currently hold with any civic, social, charitable, educational, political, professional, fraternal, benevolent or religious organization, private club, or other membership orga-

nization. Include dates of membership and any positions you have held with any organization. Please note whether any such club or organization restricts membership on the basis of sex, race, color, religion, national origin, age, or handicap.

- US Naval Institute, Lifetime Member, 1989–2017
- US Navy league, Lifetime Member, 1989–2017
- US Naval Weather Service, Lifetime Member, 1989–2017
- US Naval Academy Alumni Association, Lifetime Member, 1989–2017
- UC San Diego Alumni Association, Member, 1989–2017
- Acoustical Society of America, Member, 1997–2001
- International Hydrographic Organization, Member, 2014–2017
- Marine Technology Society, invited speaker
- American Geophysical Union, invited speaker
- American Meteorology Society, invited speaker
- Oceanology International, invited speaker

None of these restrict membership on the basis of sex, race, color, religion, national origin, age or handicap; however the UC San Diego Alumni association and USNA Alumni Association restrict membership to alumni of their respective institutions.

13. Have you ever been a candidate for and/or held a public office (elected, non-elected, or appointed)? If so, indicate whether any campaign has any outstanding debt, the amount, and whether you are personally liable for that debt. No.

14. Itemize all political contributions to any individual, campaign organization, political party, political action committee, or similar entity of $500 or more for the past ten years. Also list all offices you have held with, and services rendered to, a state or national political party or election committee during the same period. None.

15. List all scholarships, fellowships, honorary degrees, honorary society memberships, military medals, and any other special recognition for outstanding service or achievements.

Military

- Legion of Merit (2)
- Meritorious Service Medal (3)
- Navy and Marine Corps Commendation Medal (5)
- Navy and Marine Corps Achievement Medal
- Joint Unit Commendation Medal
- Meritorious Unit Commendation Medal
- Navy Unit Commendation Medal
- Humanitarian Service Medal
- Global War of Terror Service Medal
- Southwest Asia Service Medal
- National Defense Service Medal

Professional

- Commander, Naval Air Forces Leadership Award, 2002

Academic

- UC San Diego Distinguished Alumni Award, 2016

Athletic

- U.S. Swimming Master's National Record Holder, 1,500 m freestyle, 2008
- U.S. Naval Special Warfare Command Superfrog Half Iron Man Triathlon Relay Course Record Holder, 2006
- U.S. Naval Academy Record Holder, 500 yd; 1,000 yd; 1,650 yd; 400 m; 800 m; 1,500 m freestyle, 1985–1989
- Bronze Medalist, National Sports Festival, 400 m freestyle, 1985
- Junior National Swimming Champion, 500 yd freestyle, 1984
- #1 National Prep School All American Swimmer, 500 yd freestyle, 1984

16. Please list each book, article, column, or publication you have authored, individually or with others. Also list any speeches that you have given on topics relevant to the position for which you have been nominated. Do not attach copies of these publications unless otherwise instructed.

Academic

- *Detection of sonar induced measurement uncertainties in environmental sensing: a case study using the Toroidal Volume Search Sonar,* in Impact of Littoral Environmental Variability of Acoustic Predictions in Environmental Sensing, pp. 571–577, Springer, 2002, (C de Moustier, lead author)
- *Multi beam volume acoustic backscatter imagery and reverberation measurements in the northeastern Gulf of Mexico,* J. Acoustic. Soc. Am., 2002 (with C. De Moustier)
- *Shallow water acoustic backscatter and reverberation measurements using a 68 kHz cylindrical array,* Ph.D. Dissertation, Univ. Calif. San Diego, 2001
- *On optimal amplitude shading for arrays of irregularly spaced or non coplanar elements,* IEEE J. Oceanic Eng., *25,* 553–567, 2000 (with C, de Moustier)
- *An empirical orthogonal function analysis of remotely sensed sea surface temperature variability and its relation to interior oceanic processes off Baja California,* Remote Sensing of the Environment, *47*(3), pp.375–389, 1994.
- *Automated cloud screening of AVHRR imagery using split and merge clustering,* Remote Sensing of the Environment, *44*(4), 1991

Professional

- *Naval Oceanography Information Warfare Strategy,* U.S. Navy, 2017
- *Securing The Weather Gauge of the 21st Century,* Navy Live, 2017
- *Naval Oceanography Electromagnetic Maneuver Warfare Strategy,* U.S. Navy, 2016
- *Exploring Our Past, Forging Our Future: Diving on the USS Independence,* The Sextant, Naval Historical and Heritage Command, 2016
- *US Navy Ocean Gliders: Unmanned Underwater Vehicles That Are Improving Our Understanding of the World's Oceans,* DOD Live, 2016
- *Navy Meteorology and Oceanography Makes It Real During RIMPAC 2016,* DOD Live, 2016
- *Naval Oceanography Unmanned Systems Strategy,* U.S. Navy, 2015
- *Chatting the Invisible Terrain,* U.S. Naval Institute Proceedings, 2015
- *Keeping the Fleet Safe Through Inclusion, Diversity, and Innovation,* DOD Live, 2015
- *Honoring Our Veterans,* USNA Alumni Magazine Shipmate, 2015
- *Department of the Navy and the Arctic, Statement to the Joint Subcommittee Hearing on Foreign Affairs, U.S. House of Representatives, Subcommittee on Europe, Eurasia, and Emerging Threats and Subcommittee on the Western Hemisphere,* November 17, 2015

PRESENTATIONS: A select list of the hundreds of formal presentations over my academic and professional career include:

Congressional

- Oral Testimony to the U.S. House of Representatives Joint Subcommittee Hearing on Charting the Arctic: Security, Economic, and Resource Opportunities, November 2015

Academic

- UC San Diego/Scripps Institution of Oceanography, U.S. Navy actions to address sea level rise, 2014
- University of Maine, U.S. Navy actions to address climate change in the Arctic, 2010
- Meetings of the Acoustical Society of America, Seattle WA, 1999, Berlin GE, 2000

Professional: Keynote and invitational addresses at major conferences/meetings hosted by:

- AFCEA Intelligence, Surveillance, and Reconnaissance Conferences, 2014–2017
- NDIA's Undersea Warfare Conferences, 2015–2017
- AUSVI Conferences, 2014–2017
- US State Department's Our Oceans Conference, 2016
- Marine Technology Society/IEEE Oceans Conferences, 2014–2016
- Maury Project for Ocean Educators, sponsored by ONR, 2014–2016

- National Ocean Sciences Bowl, hosted by NOAA and the Office of Naval Research
- ONR Program Meeting on International Cooperation and Engagement on Polar Programs and Research presentations on U.S. Navy Arctic research activities, 2015
- Naval Studies Board presentations on unmanned systems technology, operations, 2015
- Defense Science Board presentations on unmanned systems technology, operations, 2014–2016
- Defense Science Board presentations on U.S. Navy actions to address climate change, 2010–2014
- National Research Council presentations on U.S. Navy actions to address climate change, 2010–2014

17. Please identify each instance in which you have testified orally or in writing before Congress in a governmental or non-governmental capacity and specify the date and subject matter of each testimony.

Oral Testimony to the U.S. House of Representatives Joint Subcommittee Hearing on Charting the Arctic: Security, Economic, and Resource Opportunities, November 2015

18. Given the current mission, major programs, and major operational objectives of the department/agency to which you have been nominated, what in your background or employment experience do you believe affirmatively qualifies you for appointment to the position for which you have been nominated, and why do you wish to serve in that position?

(a) I believe I am qualified for this position because I have 28 years of experience in the Navy doing exactly the same work that NOAA does for the nation, including practical, policy, and leadership experience in weather forecasting, ocean forecasting, hydrographic survey and charting, and counter-illegal fishing policy and planning.

(b) I wish to serve in this position because I have a lifelong commitment to serve my country, as well as an intellectual passion for the earth sciences. I would be honored to serve in a similar capacity that I have served in the Navy, but at a higher level.

19. What do you believe are your responsibilities, if confirmed, to ensure that the department/agency has proper management and accounting controls, and what experience do you have in managing a large organization?

(a) If confirmed as the Assistant Secretary and Deputy Administrator, I would make it one of my top responsibilities to ensure the proper management and accounting controls of NOAA, and to ensure that our Nation's taxpayer dollars are used as effectively and efficiently as possible. To do this, if confirmed, I would ensure NOAA has a rigorous programming, planning, budgeting, and execution process that is tied to well defined requirements which are derived from a comprehensive NOAA Strategic Plan that is informed by input from external and internal stakeholders.

(b) I have experience managing large organizations as detailed above in question A(8) and my attached CV. Specifically, I led the Navy equivalent to NOAA, the Naval Meteorology and Oceanography Command from 2014–2017, and I served as the Oceanographer of the Navy from 2015–2017.

20. What do you believe to be the top three challenges facing the department/agency, and why?

I believe the top 3 challenges facing NOAA are:

(a) Implementing the requirements of the Weather Research and Forecasting Innovation Act of 2017: The Congress passed this legislation, and the President signed it for a very clear reason: to improve our hazardous weather and tsunami prediction capability that can impact our Nation by billions of dollars each year. If confirmed, I will conduct a review of our Nation's approach to weather modeling to determine if we can improve alignment between, NOAA, the Navy and the USAF and ensure that we have a plan with a clearly articulated pathway to ensure the United States regains preeminence in weather modeling in the defense and non-defense sectors. If confirmed, I would make it my top priority to meet the intent of this law, especially the aspects concerning improvement to severe weather, tornado and hurricane warnings, and satellite data collection program management. I would also increase focus on cybersecurity for all NOAA information systems as these directly underpin it's effective hazardous weather warning capabilities. Finally, I will need to work with the NOAA Administrator as well as NESDIS and NWS leadership to

focus on the NOAA satellite programs which are growing at an unsustainable rate and that have been delayed numerous times.

(b) Ensuring National Marine Fisheries, National Marine Sanctuary, and National Ocean Service policies and efforts that successfully balance the economic, conservation, national security, and homeland security requirements for our nation: I share the view of many Americans that we need to preserve our natural marine resources and undertake any development or activity (military, law enforcement, etc) in these regions in a sustainable, environmentally conscious way. I do believe we can do this while simultaneously benefiting from the vast energy, mineral, and fishery resources that exist within our Exclusive Economic Zones. NOAA is a critical enable to economic development in the United States, especially in the rapidly expanding "blue economy" sector. If confirmed, I would ensure NOAA increases focus on this aspect of its mission to ensure the United States retains its competitive advantage over other nations that are expanding their maritime activities and investments (*e.g.,* aquaculture, shipping, offshore energy, etc).

(c) Organizing and resourcing NOAA to more effectively and efficiently achieve its mission and meet legislative and legal requirements. As I indicated in my response to A(19), if confirmed I would immediately review NOAA's planning, programming, budgeting, and execution process to ensure every single tax dollar is optimally allocated to effectively achieve NOAA's mission. To do this effectively requires reviewing NOAA's current processes to determine if they are rigorous and to then determine if NOAA's approach requires changes to support this critical objective. Of these processes, improving how NOAA hires, trains, and retains its highly talented workforce would receive my focused attention.

B. POTENTIAL CONFLICTS OF INTEREST

1. Describe all financial arrangements, deferred compensation agreements, and other continuing dealings with business associates, clients, or customers. Please include information related to retirement accounts. None.

2. Do you have any commitments or agreements, formal or informal, to maintain employment, affiliation, or practice with any business, association or other organization during your appointment? If so, please explain. No.

3. Indicate any investments, obligations, liabilities, or other relationships which could involve potential conflicts of interest in the position to which you have been nominated. None.

4. Describe any business relationship, dealing, or financial transaction which you have had during the last ten years, whether for yourself, on behalf of a client, or acting as an agent, that could in any way constitute or result in a possible conflict of interest in the position to which you have been nominated. None.

5. Describe any activity during the past ten years in which you have been engaged for the purpose of directly or indirectly influencing the passage, defeat, or modification of any legislation or affecting the administration and execution of law or public policy.

Between 2009–2017, as part of my official duty in the Navy, I have prepared submissions for the Navy Meteorology and Oceanography Command's portion of each annual National Defense Authorization Act (NOAA). These submissions averaged approximately $350M each year, and included budget requests for weather and ocean sensors, supercomputers for weather and ocean modeling, hydrographic survey ships, and the funding for operations and salaries for approximately 2,500 Navy Sailor and civilian oceanographers, meteorologists, chirographers, atomic physicists, engineers, and support personnel.

6. Explain how you will resolve any potential conflict of interest, including automat may be disclosed by your responses to the above items.

Any potential conflict of interest will be resolved in accordance with the terms of my ethics agreement. I understand that my ethics agreement has been provided to the Committee. I am not aware of any potential conflict of interest other than those that are the subject of my ethics agreement.

C. LEGAL MATTERS

1. Have you ever been disciplined or cited for a breach of ethics, professional misconduct, or retaliation by, or been the subject of a complaint to, any court, administrative agency, the Office of Special Counsel, professional association, disciplinary committee, or other professional group? No/Not applicable.

2. Have you ever been investigated, arrested, charged, or held by any Federal, State, or other law enforcement authority of any Federal, State, county, or munic-

ipal entity, other than for a minor traffic offense? If so, please explain. No/Not applicable.

3. Have you or any business or nonprofit of which you are or were an officer ever been involved as a party in an administrative agency proceeding, criminal proceeding, or civil litigation? If so, please explain. No/Not applicable.

4. Have you ever been convicted (including pleas of guilty or *nolo contendere*) of any criminal violation other than a minor traffic offense? If so, please explain. No/Not applicable.

5. Have you ever been accused, formally or informally, of sexual harassment or discrimination on the basis of sex, race, religion, or any other basis? If so, please explain. No/Not applicable.

6. Please advise the Committee of any additional information, favorable or unfavorable, which you feel should be disclosed in connection with your nomination. None.

D. RELATIONSHIP WITH COMMITTEE

1. Will you ensure that your department/agency complies with deadlines for information set by congressional committees? Yes.

2. Will you ensure that your department/agency does whatever it can to protect congressional witnesses and whistle blowers from reprisal for their testimony and disclosures? Yes.

3. Will you cooperate in providing the Committee with requested witnesses, including technical experts and career employees, with firsthand knowledge of matters of interest to the Committee? Yes.

4. Are you willing to appear and testify before any duly constituted committee of the Congress on such occasions as you may be reasonably requested to do so? Yes.

RESUMÉ OF REAR ADMIRAL TIMOTHY COLE GALLAUDET, PH.D., U.S. NAVY

Focus

I have a lifelong commitment to serve my country, and an intellectual passion for the physical sciences of oceanography, meteorology, and hydrography. I owe this to my father, a retired U.S. Navy Captain, and mother, a lifelong member of the Daughters of the American Revolution. They inspired me towards a professional career in the U.S. Navy's Oceanography community, in which I have served since 1989 and have led since 2014. I would be honored to continue to serve our great nation at an even higher level in a similar capacity.

Expertise

Leadership: broad experience ranging from small Navy units of a few dozen personnel conducting tactical-scale scientific support missions, to large enterprises of thousands of military and civilian teams providing ocean, weather, and sea floor information to every Navy ship, submarine, aircraft, and SEAL Team to ensure their safe and effective mission accomplishment.

Management: diverse portfolio to include: running the pre-inspection maintenance program for a $7 billion Navy aircraft carrier (as a collateral duty); coordinating a $5 billion 5-year budget submission for all U.S. Navy's Information Warfare programs, and planning and executing the research, development, and integration of over $1.6 billion dollars of navigation equipment on all U.S. Navy ships, aircraft, and submarines.

Strategy: far reaching results in developing U.S. Navy strategy for environmental support Naval Special Warfare, Anti-submarine Warfare, Electromagnetic Manuever Warfare, and Information Navy Warfare; Unmanned systems development and operations, Arctic research, development, capability development, and operations; and adaptation of Naval facilities and operational planning to climate change.

Science & Technology: proven expertise in the skillful oversight and direction of research, development, acquisition, and transition of capabilities covering multiple disciplines, to include: digital signal processing, information technology, cyber security, machine learning, artificial intelligence, remote sensing, underwater acoustics, atomic physics, astrophysics, astrometry, oceanography, meteorology, and hydrography.

Partnerships: widely recognized initiative and support to academic, research, and operational partnerships across the U.S. Federal agencies, domestic and international research institutions and universities, and the Joint U.S. DoD force.

Education

Degrees

- *PhD* Oceanography, UC San Diego, Scripps Institution of Oceanography, 2001
- *MS.* Oceanography, UC San Diego, Scripps Institution of Oceanography, 1991
- *BS.* Oceanography, U.S. Naval Academy, 1989

Courses

- *Harvard Business School:* Executive Cyber Security Course, 2016
- *Air War College:* Executive Cyber Security Course, 2015
- *MIT:* Summer Seminar, 2013
- *Naval Post Graduate School:* Effects Based Strategy Course, 2009

Experience

2015–2017: Chief of Naval Operations Staff, Washington, D.C.

- *Oceanographer of the Navy:* oversee an annual $350M budget to program and direct all policy for U.S. Navy oceanography, meteorology, oceanography, astrometry, and precise timing capability which is used by all Navy ships, aircraft, submarines and SEAL Teams to safety and successfully operate.
- *Navigator of the Navy:* oversee a 5 year budget of $1.68 for directing all policy, research, development, and integration of navigation equipment on all Navy ships, submarines, and aircraft.
- *Naval Deputy to the NOAA Administrator:* coordinate cooperative efforts between the Navy an NOAA on sea floor charging, and weather modeling, ocean and weather observations, technology development and research, and personnel exchanges.
- *Director, U.S. Navy Task Force Climate Change:* direct all Navy policy and plans regarding climate change impacts to facilities, and strategic plans, and capability development, with a focus on the Arctic. Authored the U.S. Navy Arctic Roadmap of 2010, and reviewed and approved the U.S. Navy Arctic Roadmap for 2014–2030.
- *Director of the Office of the DoD Executive Agent for Maritime Domain Awareness (MDA):* directed all DoD strategic planning, partnerships, and system development MDA. Signed the DoD MDA Strategic Plan, Architecture, and Vessel of Interest Lexicon.
- *DoD Precise Time and Time Interval Manager and DoD Celestial Reference Frame and Earth Orientation Manager:* oversee a $20M annual budget that allows the U.S. Naval Observatory to provide the absolute fundamental spatial and temporal references needed for U.S. DoD network and space operations, targeting, and command, control, communications, computers, intelligence, surveillance and reconnaissance.

2014–2017: Naval Meteorology and Oceanography Command, Stennis Space Center, MS

- *Commander, Naval Meteorology and Oceanography Command/Commander, Task Group 80.7:* Direct the operations of 14 subordinate commands comprised of over 2500 military and civilian personnel who provide weather, ocean, seafloor, precise time, and astrometry information to all Navy operating units afloat, aloft, and ashore. These commands continuously deploy all over the globe on Navy ships, submarines, aircraft, and with SEAL Teams, and include reachback centers that assimilate environmental information from satellites, underwater floats and drones, and other sensors worldwide into cyber secure supercomputers that predict the best routes, timelines, weapons setting, sensor configurations, and equipment loads for Navy units to operate safely and effectively.
- *Hydrographer of the Navy:* Develop and direct all U.S. Navy hydrographic survey plans, partnerships, and operations using a Fleet of six $250M Oceanographic survey vessels as well as a rapidly deplorable Team that uses jet skis equipped with echosounders, underwater drones, and small boats to identify safe routes and harbor berths after natural disasters. The hydrographic partnerships and engagements that I direct include over 60 nations and are highly praised by Geographic Combatant Commanders for contributing to their Theater Security Cooperation (TSC) objectives.

2013–2014: Chief of Naval Operations Staff, Washington, D.C.

- *Deputy Oceanographer of the Navy:* Deputy to the senior Oceanography officer in the Navy, directing the daily actions of a staff of 90 personnel that oversee $350M of annual resources for the Navy's operational oceanography, meteorology, hydrography, precise time, and astrometry capabilities. Duties also included oversight of the Navigation capabilities, Navy climate change policy and plans, DoD's Maritime Domain Awareness Program, the Navy Space Program, and a variety of classified space rested intelligence programs.

2011–2013: U.S. Naval Observatory, Washington, D.C.

- *Superintendent/Commanding Officer:* Commanded a team of over 100 atomic physicists, astrophysicists, astronomers, mathematicians and engineers who develop, maintain, and modernize the DoD's precision time keeping and astrometric observing capabilities. The Master Clock atomic clock ensemble and telescope data processing computers at the U.S. Naval Observatory are designated national critical infrastructure because all U.S. satellites, ballistic missiles, and national defense and economic computer networks would fail to operate without the information they provide.

2008–2011: Chief of Naval Operations Staff, Washington, D.C.

- *Deputy Navigator of the Navy:* Assisted with management of a 5 year budget of $1.6B for directing all policy, research, development, and integration of navigation equipment on all Navy ships, submarines, and aircraft.
- *Deputy Director, U.S. Navy Task Force Climate Change* Established a Task Force of over 120 individuals representing all Navy operating forces, headquarters, system commands, all Federal agencies, and numerous universities and labs. Directed all Navy policy and plans regarding climate change impacts to facilities, and strategic plans, and capability development, with a focus on the Arctic. Authored the U.S. Navy Arctic Roadmap of 2010.

2005–2008: Naval Oceanography Special Warfare Center, Coronado, CA

- *Commanding Officer:* Commanded 120 personnel who deployed with U.S. Navy SEAL Teams in Iraq, Afghanistan, Africa, and Southeast Asia to forecast weather, sea state, ocean and river currents, and operate unmanned aerial and underwater vehicles and other technical sensors to detect and locate enemy forces.
- *Technical Special Reconnaissance Officer, Commander, Naval Special Warfare Command* Established the first Navy SEAL program for unmanned aerial and underwater vehicles and other technical sensors to detect arid locate enemy forces.

2004–2005: Naval Oceanographic Office, Stennis Space Center, MS

- *Anti-Submarine Warfare (ASW) Program Manager:* Coordinated the undersea data collection of 8 Oceanographic Survey Ships deployed worldwide, the processing of this data into geophysical databases used by Navy ships, aircraft, and submarines to operate their sonars/sonobuoys effectively, and direct teams of deploying military and civilian personnel to advise these units during ASW exercises and operations. Deployed on the USNS Bowditch during the first operational deployment of an ocean glider underwater drone from a Navy ship.

2003–2004: Commander, Naval Meteorology and Oceanography Command, Stennis Space Center, MS

- *Plans and Programs Officer:* Oversaw the budget and plans for a highly classified unmanned underwater program executed at a subordinate command (Naval Oceanographic Office).

2001–2003: USS KITTY HAWK (CV–63), Yokosuka, Japan

- *Meteorology and Oceanography Division Officer:* Led 18 personnel to forecast wind, weather, sea state, and ocean currents for the KITTY HAWK Carrier Strike Group (CSG) composed of an air wing of 60 aircraft, and 5 escort ships which conducted the first strikes into Afghanistan during Operation Enduring Freedom in October 2001. Also conducted first strikes into Iraq during Operation Iraqi Freedom in March 2003.
- *Officer of the Deck:* Directed all aircraft carrier movements and all aircraft launches and recoveries for two 4-hour periods each day.
- *INSURV Coordinator:* Developed and executed a 6 month plan for the 3,000 person crew to prepare the ship for its inspection by the Board of Inspection

and Survey (INSURV). This involved tens of thousands of maintenance actions precisely coordinated across a dozen departments.

1997–2001: UC San Diego, Scripps Institution of Oceanography, La Jolla, CA

- *PhD Student:* Completed course work on underwater acoustics, digital signal processing, and computer programming. Performed research at Scripps' Marine Physical Laboratory (MPL). Participated on a research cruise on the RN New Horizon.

1995–1997: USS *PELELIU* (LHA–5), San Diego, CA

- *Meteorology and Oceanography Division Officer:* Led 15 personnel to forecast wind, weather, sea state, and ocean currents for the PELELIU Amphibious Ready Group (ARG) composed of a Marine Aviation Combat Element of 25 aircraft, 2 escort ships, and a Marine Expeditionary Unit. Conducted Operation Southern Watch in the Northern Arabian Gulf.
- *Officer of the Deck* Directed all ship movements and all aircraft launches and recoveries for two 4-hour periods each day.

1993–1995: Naval European Meteorology and Oceanography Center, Rota, Spain

- *Command & Forecast Duty Officer:* lead weather and ocean forecaster of a watch team supporting Navy, Joint, and Allied Maritime forces operating in Europe and the Mediterranean. Supported NATO operations In Bosnia, and participated in Operation Deny Flight.

1994: Commander, U.S. 6th *FLEET,* USS LASALLE (LCC–20) Gaeta, Italy

- *Assistant Fleet Oceanographer:* Assistant to the senior oceanographer on the staff of the Commander of the U.S. 6th Fleet. Led a division of 10 personnel who prepared the weather and ocean forecasts for the Fleet Commander daily. Coordinated with staff planners and operations Officers to ensure all 6thFleet operations were conducted safely and effectively. Routed dozens of ships around hazardous seas.

1993: Naval European Meteorology and Oceanography Detachment, Sousa Bay, Greece

- *Officer in Charge:* Led 14 personnel who provided weather and ocean forecasts for Navy, Joint, and NATO ships and aircraft using the port and air field on the island of Crete.

1991–1993: Oceanographic Unit FIVE, USNS HARKNESS (T–AGS 32), Manama, Bahrain

- *Operations Officer/Boat Division Officer:* Led 60 personnel who maintained $5M in hydrographic survey equipment. Also planned, participated in, and directed over 15 hydrographic surveys in the Arabian Sea and Arabian Gulf immediately after the first Gulf War. These surveys were essential to hundreds of future ship and submarine deployments to the region by U.S. and Allied Naval forces.

1989–1991: UC San Diego, Scripps Institution of Oceanography, La Jolla, CA

- *Master's Degree Student:* Completed academic course work in oceanography, digital signal processing, artificial intelligence, machine learning, computer science, and linear algebra. Performed research on oceanography, remote sensing, and digital signal processing. Participated in an underwater acoustic research cruise onboard the USNS DeSteiger.

References

Federal

- *Congressman Ryan Zincked*—(R–MO); fellow staff officer at the Headquarters of the Naval Special Warfare Command, 2007
- *Dr. Kathy Sullivan*—Under Secretary of Commerce for Oceans & Atmosphere/NOAA Administrator, partner in a Navy-NOAA MOA

Military

- *ADM John Richardson*—Chief of Naval Operations (CNO); I served on his staff, away 2015–2017
- *ADM William Moran*—Vice Chief of Naval Operations; I coordinated with him on U.S. Navy Navigation and Oceanography policy while serving on the CNO's staff, 2016–2017

- *ADM Michelle Howard*—Commander, Naval Forces Europe; I coordinated with her on U.S. Navy Navigation and Oceanography policy, 2015–2016
- *ADM Scott Swift*—Commander, U.S. Pacific Fleet; I deployed my units and reported to him to support his operations, 2015–2017
- *ADM Harry Harris*—Commander, U.S. Pacific Command; I deployed my units to support his operations, 2015–2017
- *VADM Nora Tyson*—Commander, U.S. 3" Fleet; I deployed my units to support her operations, 2015–2016
- *VADM Jan Tighe*—Deputy Chief of Naval Operations for Information Warfare; I report to her as my immediate superior officer, 2016–2017
- *VADM Gardner Howe*—Military aide to the Director, CIA; I reported to him on the staff of the Commander, Naval Special Warfare Command, 2007
- *GEN (ret) John Kelly*—former Commander, U.S. Southern Command; he served as my senior mentor during the Chairman of the Joint Chiefs of Staff CAPTSTONE training program, 2016
- *ADM (ret) William Gortney*—former Commander, U.S. Northern Command; I reported to him as my immediate superior officer, 2014–2015
- *VADM (ret) Paul Gaffney*—former Chief of Naval Research; I continue to coordinate with him on ocean science outreach efforts
- *VADM (ret) Joseph Kernan*—former Deputy Commander, U.S. Southern Command; I reported to him while serving on his staff at the Naval Special Warfare Command, 2007
- *RADM (ret) Jon White*—former Oceanographer of the Navy, CEO Consortium for Ocean Leadership; I served as his Executive Aide and Deputy on the CNO staff, 2013
- *RADM (ret) David Tilley*—former Oceanographer of the Navy, Director Pennsylvania State University Center for Climate and Weather Security; I served as his Deputy on CNO staff, 2009

Academic

- *Dr. Margery Lienen*—Director, Scripps Institution of Oceanography
- *Dr. Walter Munk,* Professor, UC San Diego, Scripps Institution of Oceanography
- *Dr. Bill Kuperman*—Professor, Director, Marine Physical Laboratory, UC San Diego, Scripps Institution of Oceanography
- *Dr. Marc Abbott*—Director, MIT/Woods Hole Oceanographic Institution
- *Dr. Robert Ballard*—Ocean Exploration Trust, University of Road Island

Awards

Military

- Legion of Merit (2)
- Meritorious Service Medal (3)
- Navy and Marine Corps Commendation Medal (5)
- Navy and Marine Corps Achievement Medal
- Joint Unit Commendation Medal
- Meritorious Unit Commendation Medal
- Navy Unit Commendation Medal
- Humanitarian Service Medal
- Global War of Terror Service Medal
- Southwest Asia Service Medal
- National Defense Service Medal

Professional

- Commander, Naval Air Forces Leadership Award, 2002

Academic

- UC San Diego Distinguished Alumni Award, 2016

Athletic

- U.S. Swimming Master's National Record Holder, 1500 m freestyle, 2008
- U.S. Naval Special Warfare Command Superfrog Half Iron Man Triathlon Relay Course Record Holder, 2006

- U.S. Naval Academy Record Holder, 500 yd, 1000 yd, 1650 yd, 400 m 800 m, 1500 m freestyle, 1985–1989
- Bronze Medalist, National Sports Festival, 400 m freestyle, 1985
- Junior National Swimming Champion, 500 yd freestyle, 1984
- #1 National Prep School All American Swimmer, 500 yd freestyle, 1984

Associations

- U.S. Naval Institute, Lifetime Member, 1989–2017
- U.S. Navy League, Lifetime Member, 1989–2017
- U.S. Naval Weather Service, Lifetime Member, 1989–2017
- U.S. Naval Academy Alumni Association, Lifetime Member, 1989–2017
- UC San Diego Alumni Association, Member, 1989–2017
- Acoustical Society of America, Member, 1997–2001
- International Hydrographic Organization, Member, 2014–2017
- Marine Technology Society, invited speaker
- American Geophysical Union, invited speaker
- American Meteorology Society, invited speaker
- Oceanology International, invited speaker

Publications

Academic

- *Detection of sonar induced measurement uncertainties in environmental sensing: a case study using the Toroidal Volume Search Sonar,* in Impact of Littoral Environmental Variability of Acoustic Predictions in Environmental Sensing, pp. 571–577, Springer, 2002, (C de Moustier, lead author)
- *Multi beam volume acoustic backscatter imagery and reverberation measurements in the northeastern Gulf of Mexico,* J. Acoustic. Soc. Am., 2002 (with C. De Moustier)
- *Shallow water acoustic backscatter and reverberation measurements using a 68 kHz cylindrical array,* Ph.D. Dissertation, Univ. Calif. San Diego, 2001
- *On optimal amplitude shading for arrays of irregularly spaced or non-coplanar elements,* IEEE J. Oceanic Eng., *25,* 553–567, 2000 (with C, de Moustier)
- *An empirical orthogonal function analysis of remotely sensed sea surface temperature variability and its relation to interior oceanic processes off Baja California,* Remote Sensing of the Environment, *47*(3), pp. 375–389, 1994.
- *Automated cloud screening of AVHRR imagery using split and merge clustering,* Remote Sensing of the Environment, *44*(4), 1991

Professional

- *Naval Oceanography Information Warfare Strategy,* U.S. Navy, 2017
- *Securing The Weather Gauge of the 21st Century,* Navy Live, 2017
- *Naval Oceanography Electromagnetic Maneuver Warfare Strategy,* U.S. Navy, 2016
- *Exploring Our Past, Forging Our Future: Diving on the USS Independence,* The Sextant, Naval Historical and Heritage Command, 2016
- *U.S. Navy Ocean Gliders: Unmanned Underwater Vehicles That Are Improving Our Understanding of the World's Oceans,* DOD Live, 2016
- *Navy Meteorology and Oceanography Makes It Real During RIMPAC 2016,* DOD Live, 2016
- *Naval Oceanography Unmanned Systems Strategy,* U.S. Navy, 2015
- *Charting the Invisible Terrain,* U.S. Naval Institute Proceedings, 2015
- *Keeping the Fleet Safe Through Inclusion, Diversity, and Innovation,* DOD Live, 2015
- *Honoring Our Veterans,* USNA Alumni Magazine Shipmate, 2015
- *Department of the Navy and the Arctic, Statement to the Joint Subcommittee Hearing on Foreign Affairs, U.S. House of Representatives, Subcommittee on Europe, Eurasia, and Emerging Threats and Subcommittee on the Western Hemisphere,* November 17, 2015

Presentations: *A select list of the hundreds of formal presentations over my academic and professional career include:*

Congressional

- Oral Testimony to the U.S. House of Representatives Joint Subcommittee Hearing on Charting the Arctic: Security, Economic, and Resource Opportunities, November 2015

Academic

- UC San Diego/Scripps Institution of Oceanography, U.S. Navy actions to address sea level rise, 2014
- University of Maine, U.S. Navy actions to address climate change in the Arctic, 2010
- Meetings of the Acoustical Society of America, Seattle WA, 1999, Bertin GE, 2000

Professional: Keynote and invitational addresses at major conferences/meetings hosted by:

- AFCEA Intelligence, Surveillance, and Reconnaissance Conferences, 2014–2017
- NDIA's Undersea Warfare Conferences, 2015–2017
- AUSVI Conferences, 2014–2017
- U.S. State Department's Our Oceans Conference, 2016
- Marine Technology Society/IEEE Oceans Conferences, 2014–2016
- Maury Project for Ocean Educators, sponsored by ONR, 2014–2016
- National Ocean Sciences Bowl, hosted by NOAA and the Office of Naval Research
- ONR Program Meeting on International Cooperation and Engagement on Polar Programs and Research presentations on U.S. Navy Arctic research activities, 2015
- Naval Studies Board presentations on unmanned systems technology, operations, 2015
- Defense Science Board presentations on unmanned systems technology, operations, 2014–2016
- Defense Science Board presentations on U.S. Navy actions to address climate change, 2010–2014
- National Research Council presentations on U.S. Navy actions to address climate change, 2010–2014

The CHAIRMAN. Thank you, Dr. Gallaudet, and well done getting your mother-in-law in there too.

[Laughter.]

The CHAIRMAN. This question is for all of you. I know each of you appreciates the importance of cooperation between the Executive Branch and Congress. Nevertheless, these confirmation hearings give us an opportunity to underscore that point.

So the question is, if confirmed, will you pledge to work collaboratively with this Committee, and its members, and to provide thorough and timely responses to our requests for information?

Ms. BUERKLE. I do.

Dr. COPAN. I will.

Mr. ELLIOTT. Yes, sir.

Admiral GALLAUDET. Yes, Senator.

The CHAIRMAN. Thank you.

I want to ask Dr. Gallaudet, this Congress with strong bipartisan support from members of this Committee, particularly Senators Nelson and Schatz, passed my Weather Research and Forecasting Innovation Act, and it was signed into law by the President.

The bill included a focus on data improvements to support seasonal and sub-seasonal forecasting of temperature and precipitation.

The question is, if confirmed, will you commit to fully implementing this important piece of legislation so that Americans, including the farmers and ranchers in my state of South Dakota, will have the benefit of long-term forecasts when making important decisions such as when and what crops to plant?

Admiral GALLAUDET. Yes, Senator. As I indicated in my opening statement, that will be my top priority if confirmed.

The CHAIRMAN. Good. Thank you.

Dr. Copan, what do you see as NIST's most important contributions to promoting U.S. innovation and industrial competitiveness both in the recent past and going forward? And how do you plan to prioritize NIST's resources across its various research standards and services portfolios?

Dr. COPAN. Thank you, very much, Mr. Chairman.

I believe that the contributions that NIST has made recently with the development of the cyber security framework for this Nation is an essential underpinning for both national security and economic security.

Every day, we hear more examples of the risk that our infrastructure, our data, our systems, and our corporations face.

If confirmed, I look forward to leading this organization to further develop and communicate the cybersecurity framework, as well as adapting tools to the changing competitive landscape for both economic reasons, as well as for national security reasons.

NIST also has the mission to appropriately support U.S. commerce in all of its sectors. So this requires flexibility and access to capabilities, technologies, and talent as the organization must move in line with the requirements of our economy.

In order to maintain a position of global leadership economically, we look at the future of biological sciences and what is necessary for biomedical advances to be supported. We also look at the future of spectrum utilization in this Nation and NIST plays a very critical role.

Because NIST touches on so many aspects of the U.S. economy, those are certainly amongst the top. But I would also underscore the role of NIST in supporting advanced manufacturing leadership.

Our Administration, indeed our Nation, is looking to strengthen its position globally with respect to manufacturing and job creation here, and NIST has an important role to play there.

I also believe that NIST has a pivotal position for our Nation in looking at technology transfer and commercialization from the Federal sector into all aspects of our economy. And with my background in both intellectual property and tech transfer, I believe that that will be a special focus for NIST to enhance what goes on across the Federal sector.

The CHAIRMAN. Good. Thank you.

Mr. Elliott, as you may know, this Committee included several provisions in the FAST Act to enhance the information that is made available to emergency responders in the event of an accident or an incident.

Could you speak to your work with emergency responders over the course of your career? Any ideas you have for ensuring that those responders have the right information when they need it?

Mr. ELLIOTT. Well, thank you for the question, Senator.

I have had a long, strong belief that we can never do enough to help improve and enhance the capability of our emergency first responders. And there are two particular developments, sets of technologies that we were able to develop and employ while I was at CSX.

The first I mentioned in our opening comments that actually going back more than 15 years ago, we provided computer-based technology at State Homeland Security fusion centers, emergency management centers that allowed folks at those centers to track in real time CSX trains—every CSX train—and to quickly identify all of the commodities within those trains.

What that allowed both on the emergency management and the security side to have that real time situational awareness either if it was concern about a security incident or about a potential incident involving rail. The system also allowed those users to actually set up alerts.

More recently, we have had concerns about shipments of petroleum crude oil that could actually allow the state to actually set up an alert when this train was beginning to enter their state. So we really believe in the necessary good of transparency and that technology.

More recently, the rail industry as a whole started to promote technology that would provide emergency first responders on their handheld devices, their iPads, their laptops with the ability without having to seek information from the railroads to identify the contents of railroad tank cars.

The CSX system was called Rail Respond. Today, the rail industry system is called AskRail, and is widely promoted throughout this country, and it does give emergency responders that information when they need it. Whether or not when they get to the scene of an emergency or as they are pulling out of the station, if they have information about railcar initials and numbers, they can find out.

The system is even sophisticated enough that you can put in a locomotive number and give you the entire train contents.

I am proud from the rail industry perspective that this was something that was done voluntarily. Basically, we were working on it before the FAST Act. The FAST Act will help us make sure that we complete that mission and complete our mission of providing good quality training, education, and technology tools to our emergency first responders.

The CHAIRMAN. Good. Thank you.

Ms. Buerkle, my time has expired, so I will submit a question for the record. My wife and I are expecting our third grandchild. You have 17. So the question could be, how are you going to be Chairman of the CPSC and manage 17 grandkids?

[Laughter.]

The CHAIRMAN. I found that my kids take full advantage of the babysitting services, so.

I will submit a question for the record.

Ms. BUERKLE. Thank you, Senator.

The CHAIRMAN. Senator Nelson.

Senator NELSON. Mr. Chairman, I want to enter into the record something that would help us, a statement from "The Washington Post," a piece on shrinking the National Weather Service staff, and how that is inimical to our interest with regard to predicting the weather.

[The information referred to follows:]

The Washington Post—September 27

THE ENERGY 202: TRUMP'S HIRING FREEZE SHRANK NATIONAL WEATHER SERVICE STAFF BEFORE HURRICANES HIT

By Dino Grandoni

THE LIGHTBULB

Ahead of what would turn out to be a potentially record-breaking hurricane season the National Weather Service had 216 vacant positions it could not fill due to a governmentwide hiring freeze imposed by the Trump administration, according to a recently released document.

Some of those Weather Service vacancies listed in the document, obtained by the Sierra Club through a Freedom of Information Act and shared with The Washington Post, were in *locations that would be hit by the major hurricanes* that barreled through the Gulf of Mexico and Caribbean.

Staffing levels at the federal government's weather bureau, responsible for tracking hurricanes and warning the public about hazardous weather, have fallen since 2010 when the agency employed more than 3,800 nonmanagerial and nonsupervisory employees. Staffing had declined so much that the Government Accountability Office wrote in May that employees were challenged in their ability "to complete key tasks."

The Weather Service's head count finally stabilized in 2016, with the forecasting agency starting and ending the year with about 3,400 on-the-ground workers.

But the staffing dip resumed in 2017, falling from 3,425 in December to 3,368 in August, according to data from the National Weather Service Employees Organization, a union representing meteorologists and other NWS employees.

"There's no question that the hiring freeze had an effect," said Dan Sobien, NWSEO president "But really it was the straw that broke the camel's back."

He added, "The camel was already weighed down to the ground."

The National Oceanic and Atmospheric Administration, the Weather Service's parent agency, said the hiring freeze played a part in the recent decline in the agency's ranks ahead of the triplet of intense storms—Hurricanes Harvey, Irma and Maria,

"Yes, the hiring freeze was a contributing factor" for renewing that decline, NOAA spokesman Christopher Vaccaro wrote in an e-mail.

But NOAA said its forecasting ability was not hampered by the shrunken staff.

"As already demonstrated during Harvey, Irma, Jose and Maria, NOAA is prepared for the hurricane season and is operating at full tempo," Vaccaro said. "Our forecasters at NOAA's National Hurricane Center, local Weather Service offices, and river forecast centers and elsewhere in the agency are fulfilling the agency's mission of protecting lives and property as they issue timely and accurate forecasts."

The Weather Service vacancies that could not be filled because of the hiring freeze, which ended for the agency in April, include two meteorology positions at the National Hurricane Center in Miami. Those posts remained unfilled as of mid-August, the agency said, right before Hurricane Harvey struck Houston.

The freeze also prevented the Weather Service from hiring for two meteorology positions in Jacksonville, Fla., one meteorology position in Tampa and an electronics technician in Key West. NOAA said all those posts, each in cities hit by Hurricane Irma, have been fil1ed.

Ahead of the storms, the Weather Service readied "preselected backup offices" to handle forecasting for offices in the path of hurricanes in case communication was severed, Vaccaro said. For example, the field office near San Antonio covered the duties of the Key West office when Irma hit. The Miami office stepped in for the San Juan office in Puerto Rico when Hurricane Maria struck.

The Weather Service said that 248 positions remain vacant at the agency. Six of those vacancies are at offices in Florida.

"I continue to be deeply troubled by the number of unfilled positions at the National Weather Service and fatigued employees working overtime to compensate for these vacancies," Rep. Charlie Crist (D-Fla.) said in a statement Crist, who served at Florida's Republican governor from 2007 to 2011, added that he shared his concerns with the president earlier this year.

The empty desks are not limited to low-level employees.

The National Hurricane Center, a Weather Service division, has been led by an acting director since May. An acting career official is heading NOAA until President Trump nominates and the Senate confirms a permanent replacement. Trump has waited longer than any other president to fill that role.

The union, however, contends there are actually 665 vacancies at the Weather Service as of July, far more than the agency claims, based on its own Freedom of Information response.

In either case, the vacancies at the Weather Service were numerous enough, even before Trump was inaugurated, for the GAO to audit the agency's hiring practices.

In May, it concluded that managers and employees "have experienced stress, fatigue, and reduced morale" because of the staff shortages. Because NOAA higher-ups make only "limited information" available on the status of hiring requests to those running Weather Service field offices, managers cannot "effectively plan and distribute workloads," the internal government watchdog office found.

"People were literally getting sick from the workload," Sobien, the union president, maintained.

GAO counted 455 open jobs as of September 2016 at the Weather Service, excluding headquarters positions, adding that worker data the agency provided "did not provide an accurate reflection of vacancies."

In, July, the Senate Appropriations Committee wrote in a report that lawmakers are "very concerned with the continued number of employee vacancies" even though Congress has provided enough money to fill them.

"Morale is at an all-time low and these dedicated public servants are exhausted," said Sen. Bill Nelson (D-Fla.), who is not a member of the committee. "The president's hiring freeze only further compounded the vacancies."

But if the new administration gets its way, the Weather Service's budget will not remain as flush. The White House has proposed cutting the agency's funding by 6 percent, which would include the loss of $62 million being used to update weather models and enable the agency to predict changing weather further out.

So far, the federal government has received positive marks from the public for its hurricane response. Seven in 10 call the overall response as "excellent" or "good," according to a *Post-ABC poll* conducted Sept. 18–21.

—The Cabinet secretary with a double-digit security team will now have a nearly $25,000 secure phone booth in his office. My colleague Brady Dennis reported that the Environmental Protection Agency signed a $24,570 contract with Acoustical Solutions for a "privacy booth" for head Scott Pruitt. The booth will be completed next month.

"They had a lot of modifications" Steve Snider, an acoustic sales consultant with the company, told Dennis about the EPA's order. "Their main goal was they wanted essentially a secure phone booth that couldn't be breached from a data point of view or from someone standing outside eavesdropping."

EPA spokeswoman Liz Bowman said it was a "secured communication area in the administrator's office so secured calls can be received and made. . . Federal agencies need to have one of these so that secured communications, not subject to hacking from the outside, can be held."

None of Pruitt's predecessors in the agency have had a similar setup, Dennis noted.

Here's how Sen. Brian Schatz (D-Hawaii) responded to the news:

And from the nonprofit American Oversight:

—More on Pruitt: Like fellow Cabinet secretary Tom Price, the EPA chiefs flying habits have fallen under scrutiny too. CBS News reports that Pruitt flew between Cincinnati and New York on an Air Force jet, passing on to taxpayers at least a $20,000 bill. "He then flew to Italy for an international summit that didn't start until three days later, and he left that meeting a day early," the network's Julianna Goldman and Laura Strickler write. "It's unclear why he was in a rush."

—Trump vs. California: The New York Times' Hiroko Tabuchi has a front-page story today detailing exactly where a potentially legal fight between the Trump administration and California might go down:

> *[A] peculiar confluence of history, legal precedent and regulatory defiance has given California unique authority to write its own air pollution rules. And because 12 other states now follow California's standards, the state finds itself in*

an extraordinary position to stage a regulatory mutiny of sorts—with much of the country's car market in tow.

At stake in the dispute between officials in Sacramento, the state capital, and Washington is a measure that the Obama administration estimated would eliminate as much as six billion metric tons of greenhouse gas emissions and save consumers more than $1 trillion at the pump over the lifetime of the cars affected.

For now, Scott Pruitt, the administrator of the E.P.A., has said that he will not seek to revoke the Federal waiver that allows California to set" auto emissions standards . . . Still, the auto industry has hardly conceded defeat.

A Republican rebuke on renewable fuels: In yet another sign of a growing rift between Republican senators and the president, Sen. Charles E. Grassley (R-Iowa) went on the Senate floor Tuesday to rip into the Trump administration for weakening the renewable fuel standard.

Background: Begun in 2005, the RFS requires refiners to blend ethanol and other biofuels into gasoline and other transportation fuels sold in the United States. In a notice on Tuesday, the EPA outlined a number of options to cut the amount of blending required for 2018 and 2019.

Traditionally, the RFS has divided Republicans from oil-producing states, who find the requirements burdensome for companies in their states, from GOP members representing corn-growing states like Iowa, which benefit from the standards.

On the campaign trail in Iowa and elsewhere, Trump promised to support ethanol producers. As recently as June, Trump told Iowans, "we're saving your ethanol industries."

On Tuesday, Grassley accused Trump of going back on that promise.

"About a month ago, the president even called me to say he still supports renewable fuels and that he will keep his word on the Renewable Fuel Standard," Grassley said on the Senate floor. "He said I was free to tell Iowans of his ongoing support. I've gladly done so."

"So you can imagine my surprise today," he continued, "when I see that the EPA has released a proposal, out of the blue, to reduce the volume requirements for biodiesel for 2018 and 2019 under the Renewable Fuel Standard. *This action today has come out of nowhere.*"

He added, *"It's outrageous that the EPA would change course and propose a reduction in renewable fuel volumes in this way. This seems like a bait-and-switch from the EPA's prior proposal and from assurances from President Trump himself and Cabinet secretaries in my office."*

THE LATEST ON PUERTO RICO:

—President Trump, who has been criticized for not paying enough attention to Puerto Rico following Maria, said there were challenges involved in getting food, water and other supplies to the battered island because of a *"verybig ocean"* between here and there. Philip Bump has the comments:

'"It's very tough, because it's an island," Trump said during a meeting with members of the House. 'In Texas, we can ship the trucks right out there.' And you know, we've gotten A-pluses on Texas and on Florida, and we will also on Puerto Rico. *But the difference is, this is an island sitting in the middle of an ocean. And it's a big ocean; it's a very big ocean. And we're doing a really good job.'"*

Later: "Frankly we're doing—and it's the most difficult job because it's on the island—it's on an island in the middle of the ocean," he said. *"It's out in the ocean. You can't just drive your trucks there from other states."*

Bump says: "That's true. Instead, supplies must be transported by airplane or ship instead of by truck. But that's still not a great excuse for why the island is awaiting supplies."

—*Facts on the ground:* The island remains mostly without electricity. There are food and water shortages. The faltering Guajataca Dam, which has forced evacuations, has not been inspected since 2013.

—*Trump said his planned Oct. 3 visit is "the earliest I can go because of the first responders, and we don't want to disrupt the relief efforts."*

—*Carmen Yulín Cruz, mayor of the capital City of San Juan, told ABC News about the unbearable heat the residents are facing.* "What's out there is total devastation. Total annihi1ation. People literally gasping for air. I personally have taken people out and put them in ambulances because their generator has run out," she said.

Here's an interview the San Juan mayor did with CBS News:

Here's footage from CNN of flooded streets and lines for gas in Puerto Rico:

And images from Toa Baja, Puerto Rico from the New York Times' Luis Ferré-Sadurní:

—*Here's a breakdown on the numbers:* FEMA and Federal partners said they have so far brought in 4 million meals, 6 million liters of water, 70,000 tarps, and 15,000 rolls of roof sheeting with 7 million meals and 4 million liters of water on its way. *It's still not enough.*

Further staggering data from the Department of Defense, per BuzzFeed News:

- 1.5 million people are without drinking water; 44 percent of the island's 3.4 million people
- The local power grid faced damage to So percent of the transmission system and 100 percent of the distribution system
- Just 11 of the 69 hospitals have fuel or power

And from the New York Times a debrief on the status of the hospitals on the island.

> *The hospitals have been crippled by floods, damage and shortages of diesel. The governor said that 20 of the island's hospitals are in working order. The rest are not operational, and health officials are now trying to determine whether it is because they lack generators, fuel or have suffered structural damage.* ***All five of the hospitals in Arecibo, Puerto Rico's largest city in terms of size, not population, are closed.***
>
> *Making matte1·s worse, 911 still does not work, officials said.*

—*But Trump refused to ease one regulation on shippers.* Following Harvey and Irma (which hit Texas and Florida, respectively), the Trump administration waived the, Jones Act—which requires all ships transporting goods between U.S. shores be owned and manned by U.S. citizens—for affected areas.

The Department of Homeland Security, however, declined to grant an exemption for Puerto Rico, where the law has historically driven up the costs of goods, according to Jones Act opponents. The department argued that the issue wasn't that there weren't enough ships to bring in goods—it was that there aren't enough working ports on the island.

The action drew a rebuke from Sen. John McCain (R-Ariz.), long an opponent of the Jones Act, writing in a letter to the administration that he is "very concerned by the Department's decision:"

—*"Logistically challenging:"* During a news conference on Tuesday, FEMA administrator Brock Long said the United States is "dramatically increasing the federal footprint" in Puerto Rico following the storm. But he noted it was a "logistically challenging and very unique event that the United States has not seen in a very, very long time, if ever."

"It's an island. We don't just drive trucks and resources onto an island," Long said. "You have to prioritize who accesses the island and what you're sending."

Watch some of Long's remarks below:

—*Here's a scene-setter from The Post's Samantha Schmidt from Morovis when FEMA officials arrived on Monday:*

> *Manolo Gonzalez, who owns one of the only restaurants in the village in San Lorenzo, near the river. asked FEMA officials for fuel for his generator, so he could power his ice-maker. He hoped to set up his restaurant as a place for local residents to get ice—particularly his diabetic neighbors who are unable to keep their insulin cold.*
>
> *Other members of the FEMA team helped replace the utility cable stretching across the river with a stronger wire. But that wire was among the only supplies they would be able to leave with the town: They were unable to cross the river. They brought no food or water and had only minimal medical supplies for emergencies.*

—*About that dam:* Every single one of the 38 dams in Puerto Rico has been rated by the Army Corps of Engineers as having a "high hazard potential," reports The Post's Steven Mufson. This particular 120-foot Guajataca Dam has not been inspected in four years, and the damage it endured after Maria could put tens of thousands of people in danger. One dam safety expert told Mufson that the time between inspections was surprising,

"Since this is clearly a high hazard dam (one for which loss of life is likely if the dam were to fail), it would be typical for an inspection of some type to be done once every one or two years," John W. France, vice president for the dams and hydropower technical practice of the engineering firm AECOM, told The Post in an e-mail.

—*It will likely take weeks* for a formal aid request from lawmakers for the territory. Politico reported Tuesday that Senate Minority Leader Charles E. Schumer (D–N.Y.) wants an aid package for Puerto Rico and the U.S. Virgin Islands this week. But administration aides are not sure that timeline is realistic.

"The thing is, funding doesn't help them. Getting people and supplies there is what needs to happen," one administration aide told Politico. "There's no crunch in the short term for cash."

—*And a Republican warns of a potential "Katrina-style event:"* Sen. Marco Rubio (R-Fla.) sounded off a dire pleas after his visit to the territory, saying a "more aggressive" federal government response was necessary to help with recovery.

"We need to lean into this a lot more than we traditionally would because Puerto Rico's government says their own capacity has been tested by two storms and a fiscal crisis," Rubio said at a news conference on Tuesday. In an interview with Politico, he urged a prompt government response. "What I'm more concerned about in the next 48 to 72 hours is ensuring that we don't have a Katrina-style event. I'm not claiming that's where we're heading. I'm saying I want to avoid that from being even a possibility," he said.

Rubio also expressed concern over the state of area medical facilities.

> *"If you have a stroke or heart attack right now in some remote part of Puerto Rico, you're probably going to die. There's no cath labs or open heart surgery happening. I hate to sound alarmist. But having lived through multiple storms and knowing what it's like in overdeveloped communities 72 hours after there's no food or fuel or electricity, imagine being isolated like that for weeks," Rubio said.*
>
> *"I hope I am overstating. I am deeply concerned about everything outside of San Juan," he said."We have a couple million people in areas cut off from power and communications for a week, [there are] individuals with refrigerated medications that are spoiled now. We have diabetics who are not getting insulin. We have a food crisis. We have senior citizens who are being challenged."*

Puerto Rico Gov. Ricardo Rosselló tweeted his thanks to former Florida Gov. Jeb Bush and former President George H.W. Bush for their support:

—*As for the status of Maria itself, which was downgraded to a tropical storm on Tuesday afternoon:* The storm is expected to slowly move away from the U.S. East Coast in the next day or so, the National Hurricane Center reports. With the latest advisory, the storm was located 145 miles east of Cape Hatteras, N.C. with 70 mph maximum sustained winds. Storm surge flooding is expected, "especially along the sound side of the North Carolina Outer Banks," according to the hurricane center.

The storm is expected to erode more than half of the sand dunes along North Carolina's coast, the Associated Press reports, and beaches in Maryland and Virginia "a could fare even worse, with two-thirds seeing erosion and the ocean washing over the dunes on one-third of them." Officials estimated about 10,000 to 12,000 visitors evacuated North Carolina barrier islands of Hatteras and Ocracoke ahead of the storm.

ZINKE SAYS A THIRD OF INTERIOR'S STAFF IS DISLOYAL TO TRUMP AND PROMISES 'HUGE' CHANGES

"I got 30 percent of the crew that's not loyal to the flag," Interior Secretary Ryan Zinke said in an address to the oil industry.

Darryl Fears and Juliet Pelerine

CLINTON PRESSED TRUMP TO DEPLOY HOSPITAL SHIP COMFORT TO PUERTO RICO. NOW IT'S PREPARING TO GO.

The cry for the USNS Comfort appeared to stand in as a symbol for something broader.

Dan Lamothe

THERMOMETER

—*Would it surprise you to hear that this hurricane season broke a record?* September has produced the most ACE—or Accumulated Cyclone Energy—on record in

the Atlantic Ocean. ACE, Matthew Cappucci writes for The Post, is a measure of every hurricane's energy put together during its lifespan.

Here's some more context:

> *In a given year, ACE across the Atlantic Basin stacks up to an average in the 90s. It's not terribly unusual for ACE to rise into the triple digits, and the National Oceanic and Atmospheric Administration classifies any season that tops 111 as "above average."*

And on Monday, meteorologist Phil Klotzbach from Colorado State University tweeted that the ACE in the Atlantic this month was so far at 155.4:

And the hurricane activity could contribute to breaking a record for 2017 overall, Cappucci writes: "Even with the forecast drop-off of cyclone activity over the next few weeks, we still may approach record territory."

The CHAIRMAN. Entered without objection.

And I will add too. I asked UC to submit. There are nine letters of support for the nomination of Ann Marie Buerkle.

Enter those as well without objection.

[The letters referred to follow:]

AMERICAN HOME FURNISHINGS ALLIANCE
High Point, NC, July 26, 2017

Hon. JOHN THUNE,
Chairman,
U.S. Senate Committee on Commerce, Science, and Transportation,
Washington, DC.

Dear Senator Thune:

The American Home Furnishings Alliance (AHFA) is writing in support of the Trump Administration's announcement and intent to nominate Ann Marie Buerkle to be the Chairman of the Consumer Product Safety Commission and to be a Commissioner of the CPSC for a term of seven-years beginning October 27, 2018.

The AHFA believes her diverse background as a Congresswoman, Assistant Attorney General of New York, and as a registered nurse, provide a broad spectrum of experience and expertise that will allow her to approach her role of Chairman with balance and pragmatism.

Respectfully,

ANDY S. COUNTS,
Chief Executive Officer.

NATIONAL ASSOCIATION OF MANUFACTURERS
Washington, DC, July 27, 2017

Hon. JOHN THUNE,
Chairman,
Committee on Commerce, Science, and Transportation,
U.S. Senate,
Washington, DC.

Hon. BILL NELSON,
Ranking Member,
Committee on Commerce, Science, and Transportation,
U.S. Senate,
Washington, DC.

Dear Chairman Thune and Ranking Member Nelson:

On behalf of the National Association of Manufacturers, the largest manufacturing association in the United States representing manufacturers in every industrial sector and in all 50 states, I request that you and your colleagues confirm Ann Marie Buerkle, who currently serves as Acting Chairman of the U.S. Consumer Product Safety Commission (CPSC), to serve as the permanent Chairman. Throughout her service on the Commission, Acting Chairman Buerkle has exhibited an unwavering commitment to protecting consumers.

The CPSC is an independent regulatory agency tasked with regulating thousands of consumer products. The Commission wields enormous power and significant regulatory authority over a large sector of the economy. Manufacturers of consumer products share the CPSC's commitment to protecting consumers, and the cooperative relationship between the CPSC and its stakeholders is unique in that the Commission and the private sector are partners in effectively promoting consumer protection. As permanent Chairman of the Commission, Ann Marie Buerkle will

strengthen this relationship and enhance the CPSC's ability to better protect consumers.

On behalf of our members and for the benefit of consumers, I urge you to quickly confirm Acting Chairman Buerkle to serve as permanent Chairman. Thank you for your consideration.

Sincerely,

ERIK GLAVICH,
Director, Legal & Regulatory Policy.

HOME FURNISHINGS ASSOCIATION
Roseville, CA, August 4, 2017

Hon. JOHN THUNE,
Chairman,
U.S. Senate Committee on Commerce, Science, and Transportation,
Washington DC.

Dear Chairman Thune,

The Home Furnishings Association supports the Trump Administration's announcement and intent to nominate Ann Marie Buerkle to be the permanent Chairman of the Consumer Product Safety Commission and the Administration's intent to begin her new seven-year term beginning October 27, 2017. In working with Commissioner and now-Acting Chairman Buerkle, she has broad experience that will allow her to operate CPSC in an effective manner.

Sincerely,

SHARRON BRADLEY,
CEO,
Home Furnishings Association.

SAFE KIDS WORLDWIDE
Washington, DC, August 4, 2017

Hon. JOHN THUNE,
Chairman,
Committee on Commerce, Science, and Transportation,
Washington, DC.

Hon. BILL NELSON,
Ranking Member,
Committee on Commerce, Science, and Transportation,
Washington, DC.

Dear Chairman Thune and Ranking Member Nelson:

We write in strong support of the nomination of Acting Chair Ann Marie Buerkle to be Chairman of United States Consumer Product Commission (CPSC) and respectfully urge the Committee to confirm her. We believe Congresswoman Buerkle possesses the skills and experience necessary to lead the CPSC.

It should come as no surprise that at Safe Kids we place a special emphasis on the agency's indispensable role in both improving product safety and addressing emerging risks to children posed by new products. We believe it was important when Congress directed the CPSC to put special emphasis on child product safety. The CPSC is a vital part of the indispensable Federal umbrella that protects our kids and helps parents do the best they can to keep their kids safe.

We look forward to working with the Chair to improve the effectiveness of this very effective agency. For one, we agree with many that the recall process needs to improve. We are encouraged that Acting Chairman Buerkle recently committed to working with all stakeholders to improve the process at a recall effectiveness workshop held by the CPSC in July. We worked hard on the passage of the Virginia Graeme Baker Pool & Spa Act, and hope to work with the agency to build on its success.

Acting Chair Buerkle has the range of experiences necessary to lead the CPSC at this critical time. She truly understands the concerns of parents trying to keep their kids safe because she raised six of her own. In addition to her roles in public service as an Assistant State Attorney General and U.S. Congresswoman, Ms. Buerkle has served on the front lines of health care as a nurse, and many of our grass roots leaders around the U.S. have that role in common.

We are grateful to Acting Chairman Buerkle for her commitment to preventing injury and keeping our children safe. She has demonstrated strong, inclusive leadership during her time as a Commissioner and now as Acting Chairman and we hope

you will confirm her so she may continue with her efforts to move forward with her vision and goals for the CPSC.

Sincerely,

TORINE CREPPY,
Acting President,
Safe Kids Worldwide.

AMERICAN OF HOME APPLIANCE MANUFACTURERS
Washington, DC, September 25, 2017

Hon. JOHN THUNE,
United States Senate,
Chairman,
Committee on Commerce, Science, and Transportation,
Washington, DC.

Hon. BILL NELSON,
United States Senate,
Ranking Member
Committee on Commerce, Science, and Transportation,
Washington, DC.

RE: Nomination of Ann Marie Buerkle—Chairman, Consumer Product Safety Commission.

Dear Chairman Thune and Ranking Member Nelson:

On behalf of the Association for Home Appliance Manufacturers (AHAM), I write in strong support of the nomination of Ann Marie Buerkle to Chair the Consumer Product Safety Commission (the Commission). Currently, Ms. Buerkle serves as acting-Chair of the Commission, has restored agency transparency, and opened the lines of communication between all stakeholders and the Commission during her brief tenure as acting-Chair.

AHAM believes that acting-Chair Buerkle brings the requisite level of expertise and appreciation of the intersection that exists between consumer health and safety and appropriate regulatory response. Serving in state and local governments, the U.S. Congress, and as a nurse gives acting-Chair Buerkle the capability to carry out the mission of the Commission in a fair and equitable manner.

The experience that AHAM has had in working with the acting-Chair bears this out. Acting-Chair Buerkle was instrumental in allocating resources so that Commission staff were able to engage with the Underwriters Laboratories (UL) to evaluate safety standards for alternative refrigerants that have very low Global Warming Potential. In fact, she has been broadly supportive of work to proactively improve upon voluntary standards. In addition, she has shown support for engaging with AHAM on stopping the import of potentially dangerous counterfeit water filters for refrigerators. These are merely a few reasons AHAM strongly supports acting-Chair Buerkle's nomination to become the next Chair of the Commission and urge her quick confirmation.

Chairman Thune and Ranking Member Nelson, thank you for considering the views of the home appliance industry as you evaluate acting-Chair Buerkle's nomination. We urge the Committee's strong support and that her nomination be submitted favorably to the U.S. Senate for confirmation.

Sincerely,

JOSEPH M. MCGUIRE,
President and CEO.

UPHOLSTERED FURNITURE ACTION COUNCIL
High Point, NC, September 26, 2017

Hon. JOHN THUNE,
Chairman,
Committee on Commerce, Science, and Transportation,
U.S. Senate,
Washington, DC.

Hon. BILL NELSON,
Ranking Member,
Committee on Commerce, Science, and Transportation,
U.S. Senate,
Washington, DC.

Dear Chairman Thune and Ranking Member Nelson:

We wish to express our support for the confirmation of Ann Marie Buerkle, who currently serves as Acting Chairman of the U.S. Consumer Product Safety Commission (CPSC), to serve as the permanent Chairman.

In her years of service on the Commission, Acting Chairman Buerkle has impressed our organization and our membership with her dedication to protecting con-

sumers and her willingness to listen and consider all points of view in making thoughtful, well-reasoned, and data-driven decisions.

The Upholstered Furniture Action Council (UFAC) was founded in 1978 by manufacturers to develop and design construction for upholstered furniture to make the furniture more resistant to ignition from smoldering cigarettes, which has been the leading cause of upholstery fires in the home. Household fires from smoldering ignition have been reduced substantially since its inception. According to the latest figures there has been a 79.3 percent decline in the number of upholstered furniture fires from cigarette ignition. UFAC is proud of its work contributing, in part, to that dramatic decline.

The complexity of furniture construction and the disparities in available fire-ignition data from fire departments around the country demand that Commissioners at the CPSC be fully engaged and willing to carefully parse and dissect the complex technical data used to inform policymaking. Acting Chairman Buerkle has consistently engaged with the furniture industry, consumer groups, firefighters, and others in continuing to promote decision-making that protects consumers and recognizes the complex nature of furniture design, construction, and performance.

Acting Chairman Buerkle has demonstrated time and again her willingness to collaborate with all interested stakeholders to promote effective consumer protection. As permanent Chairman of the Commission, we believe that Ann Marie Buerkle will continue to raise the level of discourse using data-based, science-driven decision making that American consumers expect.

On behalf of our members and for the benefit of consumers, we urge you to confirm Acting Chairman Buerkle to serve as permanent Chairman. Thank you for your consideration.

Sincerely,

DON COLEMAN,
President.

RETAIL INDUSTRY LEADERS ASSOCIATION
Arlington, VA, September 26, 2017

Hon. JOHN R. THUNE,
Chairman,
Senate Committee on Commerce,
Science, and Transportation,
United States Senate,
Washington, DC.

Hon. BILL NELSON,
Ranking Member,
Senate Committee on Commerce,
Science, and Transportation,
United States Senate,
Washington, DC.

Dear Chairman Thune and Ranking Member Nelson:

Thank you for holding a hearing on the President's nominee to the chairmanship of the Consumer Product Safety Commission (CPSC), Ann Marie Buerkle. The Retail Industry Leaders Association (RlLA) fully supports Ms. Buerkle's confirmation as permanent Chairman of the CPSC.

By way of background, RlLA is the trade association of the world's largest and most innovative retail companies. RILA members include more than 200 retailers, product manufacturers, and service suppliers, which together account for more than $1.5 trillion in annual sales, millions of American jobs and more than 100,000 stores, manufacturing facilities and distribution centers domestically and abroad.

The CPSC has the critically important mission of protecting consumers and ensuring the safety of consumer products sold in the U.S. marketplace. RlLA members share the CPSC's commitment to safety and have worked cooperatively with the Commission to address consumer product safety issues in areas of import surveillance, incident data collection through retailer reporting programs, third-party product recalls, and consumer education efforts. Inherent to its safety mission, the CPSC wields significant power over a large sector of the U.S. economy, including product manufacturers, service providers, and retailers. It is important that the CPSC develop common sense solutions to address product safety issues. Ms. Buerkle, throughout her time at the CPSC, has been a tireless advocate for regulatory approaches that are science-based and data-driven with a priority on stakeholder collaboration. As permanent Chairman, she will further strengthen the agency's ability to develop comprehensive solutions that protect consumers.

We strongly encourage the Senate to swiftly confirm Ms. Buerkle, and we look forward to a smooth confirmation process. Thank you for your consideration.

Sincerely,

KATHLEEN MCGUIGAN,
Senior Vice President & Deputy General Counsel.

POLYURETHANE FOAM ASSOCIATION
Loudon, TN, September 26, 2017

Hon. JOHN THUNE,
Chairman,
Senate Committee on Commerce,
Science, and Transportation,
Washington, DC.

Hon. BILL NELSON,
Ranking Member
Senate Committee on Commerce,
Science, and Transportation,
Washington, DC.

Dear Chairman Thune and Ranking Member Nelson:

The Polyurethane Foam Association (PFA) requests that you and your colleagues confirm Ann Marie Buerkle, who currently serves as Acting Chairman of the U.S. Consumer Product Safety Commission (CPSC), to serve as the permanent Chairman.

PFA has a long track record of informed engagement in product safety issues, sponsoring research, participating in inter-lab studies, and working constructively with government agencies, NGOs and standard organizations. In our experience, Commissioner Buerkle stands out as one of the most knowledgeable CPSC commissioners. She has taken time to become familiar with the often technical details of product regulatory issues, and has demonstrated a commitment to hear all sides of these complex matters to achieve science-based solutions.

PFA believes Commissioner Buerkle is equipped to provide excellent leadership of the agency.

Please contact me if I can be of further support to her nomination.

Sincerely,

BOB LUEDEKA,
Executive Director.

September 26, 2017

Hon. JOHN THUNE,
Chairman,
Committee on Commerce, Science, and
Transportation,
U.S. Senate
Washington, DC.

Hon. BILL NELSON,
Ranking Member,
Committee on Commerce, Science, and
Transportation,
U.S. Senate
Washington, DC.

Dear Chairman Thune and Ranking Member Nelson:

The undersigned organizations request that you and your colleagues confirm Ann Marie Buerkle, who currently serves as Acting Chairman of the U.S. Consumer Product Safety Commission (CPSC), to serve as the permanent Chairman. Throughout her service on the Commission, Acting Chairman Buerkle has exhibited an unwavering commitment to protecting consumers.

The CPSC is an independent regulatory agency tasked with regulating thousands of consumer products. The Commission wields enormous power and significant regulatory authority over a large sector of the economy. Our members share the CPSC's commitment to protecting consumers, and the cooperative relationship between the CPSC and its stakeholders is unique in that the Commission and the private sector are partners in effectively promoting consumer protection. As permanent Chairman of the Commission, Ann Marie Buerkle will strengthen this relationship and enhance the CPSC's ability to better protect consumers.

On behalf of our members and for the benefit of consumers, we urge you to confirm Acting Chairman Buerkle to serve as permanent Chairman. Thank you for your consideration.

Sincerely,

Air-Conditioning, Heating, and
Refrigeration Institute
American Apparel & Footwear
Association
American Chemistry Council
American Cleaning Institute
American Fiber Manufacturers
Association
American Home Furnishings Alliance
American Pyrotechnics Association
American Supply Association
Architectural Woodwork Institute
The Art and Creative Materials Institute
Associated Builders and Contractors
Association of Home Appliance
Manufacturers
Baby Carrier Industry Alliance
Bicycle Product Suppliers Association
Builders Hardware Manufacturers
Association
Consumer Healthcare Products
Association

Consumer Specialty Products Association
Cookware Manufacturers Association
Fashion Accessories Shippers Association
Fashion Jewelry & Accessories Trade Association
Footwear Distributors & Retailers of America
Gemini Shippers Association
Halloween Industry Association
Home Furnishings Association
INDA, Association of the Nonwoven Fabrics Industry
Information Technology Industry Council
Institute of Scrap Recycling Industries
International Light Transportation Association, Inc.
International Sleep Products Association
International Wood Products Association
IPC—Association Connecting Electronics Industries
Juvenile Products Manufacturers Association
Kitchen Cabinet Manufacturers Association
Lighter Association
Mississippi Manufacturers Association
National Association of Manufacturers
National Association of Printing Ink Manufacturers
National Candle Association
National Confectioners Association
National Council of Textile Organizations
National Glass Association
National Retail Federation
North Carolina Chamber
Off-Road Business Association
Outdoor Industry Association
Outdoor Power Equipment Institute
Plastic Shipping Container Institute
Plastics Industry Association
Polyurethane Foam Association
Portable Fuel Container Manufacturers Association
Portable Generators Manufacturers' Association
Power Tool Institute
Printing Industries of America
Recreational Off-Highway Vehicle Association
Specialty Equipment Market Association
Specialty Graphic Imaging Association
Specialty Vehicle Institute of America
Sports & Fitness Industry Association
Synthetic Turf Council
The Toy Association
Travel Goods Association
Upholstered Furniture Action Council
The Vinyl Institute
Window Covering Manufacturers Association
Wisconsin Manufacturers & Commerce
Writing Instrument Manufacturers Association

The CHAIRMAN. Senator Nelson.

Senator NELSON. Thank you.

In my opening comments, I mentioned that one of the tragedies of a hurricane is the aftermath and the deaths of 11 people just in Florida from carbon monoxide poisoning as a result of generators. No telling what we are going to see with the situation being where they are expecting maybe nine months without power in Puerto Rico.

The deaths included children. You get into a closed room and you do not have a lot of minutes before you are overcome with a generator pumping out CO_2.

Now, last fall, the CPSC voted 4-to-1 to come forth with a new standard by a design which would eliminate a good portion of the carbon monoxide put out, therefore lengthening the number of time—in a report from the Committee—to 96 minutes in a closed room that you would have a chance to get out without being overcome.

Ms. Buerkle, you were the one vote against that rule. Do you want to explain it?

Ms. BUERKLE. Yes. Thank you very much, Senator Nelson. Thank you for your question.

As you pointed out in your opening statement, the portable generators have such a value because they save lives, and in the other end, they can kill people because of carbon monoxide poisoning.

I voted against it because I think there is a jurisdictional issue with the EPA, as they control emissions. But I am very pleased to

tell you this morning that the agency, since we began rulemaking, our agency is as engaged now as it has ever been on this issue.

As we speak, Commissioner Kaye and Commissioner Adler are out visiting the manufacturers out in Wisconsin. Our staff has been out there. They have had tech to tech meetings. I have been out there. I was out there in June and I know that Commissioner Mohorovic was and Commissioner Robinson.

The commissioners, this is the most, I would say, the issue that the agency is most highly engaged in.

Senator NELSON. OK. Let me just cut through this because time is expiring.

You are saying that you voted against it for the reason that you think that the EPA has the jurisdiction?

Ms. BUERKLE. I do, and the reason I am optimistic is because currently, as we speak, industry and the consumer groups and our staff have come together, and they have developed, what I believe, will be a more effective technology. Hopefully, it will be balloted.

Senator NELSON. You are talking about a shutoff valve?

Ms. BUERKLE. I am talking about the shutoff valve.

Senator NELSON. OK.

Ms. BUERKLE. That is correct.

Senator NELSON. Now, let us get into that because your agency, the CPSC, is for consumer safety. The EPA looks at clean air.

And I have the conversation going back and forth between you and the head of the EPA, Scott Pruitt. In your letter, pointing out that the industry trade association is developing a voluntary standard that would require portable generators to shut themselves off if the carbon monoxide gets too high.

And I quote from your letter of August 16, 2017, "The manufacturers believe that the shutoff approach will actually be more effective." And you go on to say, "I hope the industry trade association will be able to finalize a standard quickly making it unnecessary for your agency to regulate."

A voluntary standard of a shutoff, a voluntary standard versus one that would reduce the amount of carbon dioxide as carbon monoxide as proffered by your agency of which you are going to be the Chairman. You take that approach?

Ms. BUERKLE. I am not sure I understand your question, but I can explain my thinking on this issue. I think, and our staff agrees—this is not my opinion. I am not a scientist, but our staff has been out to the manufacturers and the belief is that this shutoff technology, because it will absolutely cut off the CO_2——

Senator NELSON. I understand.

Ms. BUERKLE.—will be more effective.

Senator NELSON. But that is a voluntary standard.

Ms. BUERKLE. Well, sir.

Senator NELSON. So you want to leave it up to the EPA to do a voluntary standard instead of CPSC, your agency——

Ms. BUERKLE. Oh, no.

Senator NELSON.—looking out for their safety?

Ms. BUERKLE. No, sir. Our agency would be doing the voluntary standard. Our staff participates in the voluntary standard process. With the shutoff technology, the EPA is out of the picture because there is no jurisdictional issue.

The shutoff technology, our staff would be doing the voluntary standard work. And voluntary standards are what Congress has directed us to do. It is the opportunity where we have consensus building. And I am so encouraged because the industry, WCMA, has said to us, "We think we can ballot this voluntary standard by the end of this year." That is far quicker than we could ever get a mandatory standard in place.

Senator NELSON. I am certainly trying to give you the time to answer, but basically your answer is you want a voluntary standard that is proffered by the EPA instead of your agency as indicated in your letter, instead of the promising technology that would be a requirement.

And I just point out to you, Ms. Buerkle, there are 11 deaths already and that is just in my state. How many more deaths in the aftermath of this hurricane are we going to have to see before we finally get the regulatory process of the U.S. Government off its posterior and start doing something about protecting the safety, in fact, of the people, the consumers, who have a huge desire now to buy generators? That if we have another hurricane season like this year next year, how many more deaths?

What other kinds of regulatory matters do you intend to coordinate with the EPA as you have indicated in this letter basically ceding your jurisdiction to the EPA? What other regulatory matters do you have in mind?

Ms. BUERKLE. Senator Nelson, just to clarify, the voluntary standards work, and the shutoff technology, and all the work that is being done at this present moment is being done by the Consumer Product Safety Commission.

The issue arose regarding the jurisdictional issue when it came to the shutoff technology and whether or not we have jurisdiction over emissions.

And so with this technology that we are taking about, the shutoff technology, which potentially has the ability to be even more effective than the low emission CO_2, I think that if the CPSC has jurisdiction, we will control that voluntary standards process along with the other members of that group.

Senator NELSON. Well, having said that, would you vote for a mandatory shutoff valve in the CPSC?

Ms. BUERKLE. I would have to see the proposed rule, but currently, there is no mandatory standard being proposed to the shutoff technology.

I think that the most expeditious route is this voluntary standard that we can have a ballot out—well, I cannot—but WCMA and the industry and the voluntary standards committee can have a ballot out by the end of this year. That is far quicker, and sooner, and more efficient than we could ever promulgate a mandatory standard.

Senator NELSON. So, a voluntary standard would mean that the manufacturers, which is what they want, as indicated by your letter to the EPA, they want a voluntary standard, which means that the manufacturers would not do it because it is voluntary. You are not requiring them to.

So how many more deaths from generators in the aftermath of hurricanes are we going to have to see before the Consumer Prod-

uct Safety Commission looking out for consumer safety finally gets around to saying, "Enough,"?

Ms. BUERKLE. Senator, with all due respect, our agency could not be more engaged on this issue and our staff has been out there, as I mentioned, commissioners are out there. This is an issue that is front, first and foremost for the agency.

We understand the hazard, but we believe, and it is not me, again, it is the staff, that if the shutoff technology can be potentially more effective. And so, it is certainly the most expedient way to proceed with this hazard in order to address it as quickly as we can rather than the mandatory standard.

Senator NELSON. Ms. Buerkle, are you hiring a General Counsel that is the Vice President of the Portable Generator Manufacturers Association, one of the main opponents of the rule that was promulgated? Is that going to be your General Counsel?

Ms. BUERKLE. At this time, she is a candidate for the office of general counsel. She has not been approved by the Commission.

Senator NELSON. What is your intent?

Ms. BUERKLE. Well, quite frankly, it is up to my colleagues to make the choice. The commissioners vote on any candidate that I might have for the general counsel position.

Senator NELSON. Will you argue for her hiring?

Ms. BUERKLE. I am the one that suggested her name.

Senator NELSON. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Nelson.

Senator Fischer.

STATEMENT OF HON. DEB FISCHER,
U.S. SENATOR FROM NEBRASKA

Senator FISCHER. Thank you, Mr. Chairman.

Mr. Elliott, the Pipeline Safety Act of 2011 included 42 mandates related to studies, rules, maps, and other regulatory proceedings at PHMSA. And to date, only 30 of those 42 mandates have been completed and a lot of deadlines have been missed.

For example, PHMSA is late in issuing mandates regarding shutoff valves, leak detection, accident notification, among many others.

If confirmed, what would you do to ensure that these mandates are completed?

Mr. ELLIOTT. Senator, thank you for the question.

I fully understand the importance of all these congressional mandates. And at least in the discussions I have had early on with the PHMSA staff, I know they understand the importance of those congressional mandates as well.

If I am confirmed, one of the top priorities will be to work with PHMSA staff and work with members of this Committee to fully understand which of those mandates are the most critical. So perhaps we can identify those and move those forward off the table to ensure that those that have the greatest impact to safety can be completed.

Obviously, we have a lot of work ahead of us, but I am excited for the opportunity, if confirmed, to get in. I will learn more about the issues, work more with members of this Committee, and move forward in completing those mandates.

Senator FISCHER. I realize you are not in the position yet, but there are 12 mandates that are late.

Do you think it is a staffing issue? Is it a case of not enough staff? Is it a case of putting the focus elsewhere?

They all need to be done. I appreciate you wanting to prioritize certain ones, but they all have to be done and they are all late.

Any other ideas?

Mr. ELLIOTT. Well, if confirmed, what I would really like to do is go in and see how each one of those mandates are being handled, whether or not there was an attempt to try and compress or bundle mandates together. Should we separate the important ones out and move those forward?

I really need to get in and understand more of how each one of those uncompleted mandates are being handled, and again, learning more from members of this Committee about the importance of each one that you hold near and dear to your heart.

Senator FISCHER. OK. PHMSA has struggled to fill in and keep inspectors on pipelines.

Senator Booker and I, with the support of our Subcommittee, but also the Full Committee, we passed the SAFE PIPES Act that requires more inspectors to make sure that we do have safe pipelines.

Will you work to ensure that PHMSA has the staff necessary so that they can complete the inspection requirements that they are under?

Mr. ELLIOTT. Yes, I think it is well known that, first and foremost, PHMSA has some tremendously talented people out in the field. Many of the field inspectors are engineers and they compete with the issues in private industries.

One of the frustrations is the process of hiring at the Government level. So we are going to look, if confirmed, to figure out how we can compress that timeline so people do not get frustrated in the process.

Again, in kind of the brief discussions I have had with PHMSA, one thing that I came away with is just how unbelievably good they feel about the quality of the staff that they do have, both here at headquarters and in the field. If confirmed, I really look forward to getting to know those teams, both here and in the field more.

And again, to your point, to figure out how we can aggressively recruit and fill any openings that we might have for these very, very important jobs.

Senator FISCHER. OK.

Some of our stakeholders have raised concerns with the rulemaking process that we have at PHMSA and they argue that PHMSA has attempted to merge what could be several different rulemakings into one mega rule. The result has been that rules are delayed by years and the stakeholders are being left out of the process.

What will you do to ensure that PHMSA has a more efficient and a more transparent rulemaking process?

Mr. ELLIOTT. And again, Senator, thank you for the question.

First and foremost, if confirmed, my focus is going to be aggressively pursuing those mandates, those regulations that deliver the greatest safety, whether or not it is on pipeline distribution or surface transportation, rail, highway, air, water.

I think similar to what I responded to your question about the mandates is that we have to basically peel back each individual regulation and find those that deliver the greatest safety measures to the public and to the transporting folks in the United States, and work hard to get those regulations in place.

I think it is fair to say that when you look at the mandates, when you look at the regulations, there is probably a prioritization that can be done. But those that deliver the greatest safety benefits are the ones that, if confirmed, I hope to work hard to move forward.

Senator FISCHER. OK. Thank you.

Mr. ELLIOTT. Thank you, Senator.

The CHAIRMAN. Thank you, Senator Fischer.

Senator Inhofe.

STATEMENT OF HON. JIM INHOFE,
U.S. SENATOR FROM OKLAHOMA

Senator INHOFE. Thank you, Mr. Chairman.

Ms. Buerkle, let me address a little friendlier jurisdiction question to you.

Last week, the Consumer Product Safety Commission set a major, new precedent by granting a petition to ban the use of an entire class of chemicals, organohalogen, which is a flame retardant. In taking the action, I believe the Commission is moving to regulate what the EPA is better equipped to review.

With the passage of TSCA, and you are very familiar with that, and I was the author. In fact, all nine members of this committee, who are also on Environment and Public Works, supported it. A flame retardant chemical is one of the first ten priority substances to be evaluated by the EPA.

So I would ask you the question, who do you think is better equipped to take the lead on the review of organohalogen flame retardants, the Commission or the EPA?

Ms. BUERKLE. Thank you, Senator Inhofe.

My belief is that—and we partner with EPA on many different issues—but in this situation, given the resources and the amount of staff that the EPA has, I think they are in a better position to handle this issue that I did not disagree with because I do not think we should be in the business of banning classes of chemicals. We should be looking at chemicals individually. And I think in this instance, EPA certainly, from a resource perspective, certainly has the resources.

Senator INHOFE. And a talent perspective because that was considered to be the first major environmental achievement in the last decade. We were all very proud and very much bipartisan, I might add.

Ms. BUERKLE. Thank you. And you should be.

Senator INHOFE. Yes.

Ms. BUERKLE. It was quite an accomplishment.

Senator INHOFE. Dr. Gallaudet, with your background as a naval officer, you know how important it is to have accurate weather predictions.

I am sure that you are familiar with the Oklahoma University, the National Weather Center and the National Severe Storms Laboratory. We have a very strong presence and a lot of talent there.

What are some of the ways that you would work to ensure that NOAA can continue to focus on this mission?

But before answering that, are you familiar with what we are doing at Oklahoma University?

Admiral GALLAUDET. Yes, Senator. Very, very much. In my last job, my deputy commander was a graduate of Oklahoma.

Senator INHOFE. I am aware of that, yes.

[Laughter.]

Admiral GALLAUDET. Thank you for your question.

What is terrific about the Weather Research and Forecasting Innovation Act is it calls out specifically improving our tornado warning, severe storm warning, hurricane warnings as well as forecasting.

And so, I see a great opportunity to implement the provisions of that Act——

Senator INHOFE. Good.

Admiral GALLAUDET.—specifically with respect to severe storm warnings.

Senator INHOFE. Yes. We hear a lot of talk about the tragedy of the hurricanes recently, but we are used to tornadoes. What they have done now is just miraculous in their prediction capabilities there. I am very proud of them.

Mr. Elliott, you have had a long career and have seen the day to day operations in moving hazardous material on railroads. And you have seen firsthand how the new technology, and new designs, and new materials contribute to improving the safety of transporting hazardous materials.

How would you, as the PHMSA Administrator, encourage the development and use in the field of new technology designs and materials in support of their safety and mission?

Mr. ELLIOTT. Thank you for that question, Senator Inhofe.

There is probably one great benefit of being a long-tenured railroad employee is that you have seen how much technology has really improved safety and efficiency in that industry.

Senator INHOFE. Yes, in your discussion with us, we really do appreciate the fact that you have. I do not know of anyone who could have a better background than you have.

Mr. ELLIOTT. Well, thank you. I always made a point of every new employee that came to work in my group to talk to them, and one of the points I always made, I told them that I was envious of them.

I wish I were younger so I could start my career all over again. Not because of my time on the railroad, but because of what I see will be the advancements over the next 5 to 10 to 15 years in technology, automation, research, and development that will promote safety.

So to your question, how would I, if I am confirmed, promote that as the Administrator of PHMSA? I think it is absolutely critical. Again, I will talk perhaps from the industry I know best, the railroad, but I really do believe it is a perfect storm of safety.

I really do believe with some of the work that is being done now in some of the research labs that many of the causes of some of the major incidents that we see today—and it is not just the railroad, but the pipeline industry is following this too—we will be able to identify and allow for correction of defects and deficiencies long before they can ever turn into a catastrophic incident.

Senator INHOFE. Yes.

Mr. ELLIOTT. I think one of the important roles of PHMSA working with our colleagues at the Federal Railroad Administration is to continually promote the advancements that research and development, that automation, that technology, that innovation so that we can see the results of all of that great work in the not too near distance future.

Senator INHOFE. Well, that is good. Well, Mr. Elliott, I wish I were younger, again, but not necessarily to start a new career all over again.

[Laughter.]

Senator INHOFE. Thank you, Mr. Chairman.

Mr. ELLIOTT. Thank you, Senator.

The CHAIRMAN. Thank you, Senator Inhofe.

Senator Klobuchar.

STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Thank you very much, Senator Thune.

Congratulations to all of you.

Ms. Buerkle, I will start with some of your issues, since I have been really involved in consumer issues, as you know. One of the things that I have worked on with a family in Minnesota is the issue of the MALM dresser, the IKEA dresser that fell over on little Teddy McGee, 22-month-old, from Apple Valley. I have gotten to know his parents.

As you know the story, June 2016 after three deaths like this and literally the dresser was just there. He pulled it down. IKEA stopped selling the dressers and issued a recall of 29 million of them, the biggest in our Nation's history.

Earlier this month, the CPSC issued a recall on another set of dressers over similar issues.

What steps would you take to improve CPSC communications with consumers when we know originally a notice had gone out on this, but they did not know it? And so, how can we improve that situation?

Ms. BUERKLE. Thank you, Senator Klobuchar.

Recall effectiveness has been a long, difficult issue to deal with and it is difficult to measure. We recently just had a workshop about this and how can we get to the consumer? How can we have them pay attention?

We recently had a number of focus groups, the issue of the recall, the MALM dresser recall was brought up. Each and every one of those participants knew about the recall, but did not participate and did not return it.

So how do we get the consumer to respond to all of the options that are being offered in a recall? That is a challenge, but the agency and the staff has done just a remarkable job. Having a work-

shop, there was a high level of engagement and we will proceed from there to begin to address how we can get the consumer more engaged.

And certainly, technology is on our side. There are development of applications that can begin to give the consumer direct notice that a recall is occurring on a product that they might have.

Senator KLOBUCHAR. It just seems in today's world, there has to be a way to figure it out.

In July 2016, the CPSC announced after their investigation, there were close to 100 incidents of hover board fires and that they were recalling 500,000 hover boards made by ten different manufacturers.

As you know, they caused fires, caused deaths. In many cases, malfunctioning lithium ion battery packs were the cause of the overheating, and these are common, as we know, in children's toys.

What steps is the CPSC taking to ensure low cost, imported lithium ion battery packs are safe for consumers?

Ms. BUERKLE. Thank you.

The agency has made a priority of lithium ion batteries and we are using a multipronged approach. Our staff is very involved in the voluntary standards process. Staff is involved, both domestically and internationally, regarding education.

Because this is a product that transcends—it was in hover boards. It has been in phones—and it transcends across product lines. So our staff is highly engaged.

At midyear, we designated quite a large amount of funds, considering our budget, to deal with this issue and to pay close attention to it.

Senator KLOBUCHAR. Thank you.

One thing that I will not ask about, but just for you to keep in your mind, is the swimming pool safety with the drains. That is a bill that we passed here and I worked with Senators Pryor and Stevens at the time, and we are really proud of that work.

I know two years ago with the Consumer Product Safety Commission, we had not heard of any deaths since that passed, which was extraordinary given what we had been seeing before. And some of it was education efforts and the agency was really involved in that, and then some of it was, of course, the Taylor family from Minnesota and others who have really been out there on it. I think it is a good, positive result without costing that much money.

Ms. BUERKLE. Yes, and thank you for your support on that because that is one of our hallmark educational campaigns. That is probably one of the broadest campaigns we have.

Thank you.

Senator KLOBUCHAR. Thank you. That is good to hear.

Dr. Copan, I am the co-chair of the NextGen 9–1–1 Caucus in the Senate with Senator Burr and we know how important it is to get our first responders the information they need. As FirstNet is being deployed, NIST will play an important role in supporting the development of new communications.

What actions will you take to help ensure FirstNet is able to provide reliable priority service to first responders?

Dr. COPAN. Thank you very much for that question, Senator.

I believe, indeed, NIST's role there in understanding the allocation of spectrum and the supporting technologies for FirstNet is a high priority for the NIST organization.

I look forward to being fully briefed on the situation, and will do whatever is necessary to ensure that appropriate steps are taken, and I look forward to working with you and this Committee.

Senator KLOBUCHAR. I am out of time, but Mr. Elliott, on the record, I will ask you some questions. Minnesota is at a very key point there of, as you know, materials coming in from North Dakota, Canada.

Mr. ELLIOTT. Yes.

Senator KLOBUCHAR. A lot of train travel, pipelines, and so put some questions on the record. We have had some rail safety issues and I have worked with the past agencies on this. So I appreciate hearing from you via writing or we will come and talk in my office.

Mr. ELLIOTT. Appreciate that.

Senator KLOBUCHAR. All right. Thank you.

The CHAIRMAN. Thank you, Senator Klobuchar.

Next up, Senator Cortez Masto.

STATEMENT OF HON. CATHERINE CORTEZ MASTO, U.S. SENATOR FROM NEVADA

Senator CORTEZ MASTO. Thank you.

Thank you all. Welcome. And thank you for your willingness to serve.

Let me start, Ms. Buerkle. I know that the CPSC is focused on particularly products that create an immediate physical risk of serious injury or death, and we have talked a little bit about them today.

Have you thought about where your interests, though, need to be expanded, when we are talking about this new technological age? And I agree with you. I tell my nieces and nephews all the time, I wish I was part of their generation, because it is an exciting time.

But with the Internet of things, with digital products, are you prepared or is your staff prepared to also start taking a look at and expanding into those product areas as well?

Ms. BUERKLE. Thank you for that question.

And we are beginning our inquiry. Dr. Borlase, who is the head of our Hazard Identification Unit and he directs it, he presents on this topic. But understanding how it will change the way we look at products. It will change the way we do recalls. There are so many aspects of this.

But yes, it is something that we are paying attention to and will look to invest some funds into it so we can be prepared. Again, 3-D technology another emerging hazard——

Senator CORTEZ MASTO. Right.

Ms. BUERKLE.—associated with the development of technologies.

Senator CORTEZ MASTO. Great. That is great to hear. Thank you.

And then Admiral, pronounce your last name for me.

Admiral GALLAUDET. It is Gallaudet, Senator.

Senator CORTEZ MASTO. Gallaudet. Thank you very much.

The National Weather Service plays an indispensable role in protecting people from both routine and severe weather events around

the country. Every year, as we know, lives are saved thanks to timely and accurate forecasts provided by the skilled forecasters.

As the Weather Service continues to evolve, it is critical that all decisions that may impact its ability to provide reliable forecasts be transparent, supported by evidence, and not result in the degradation of the current services.

Last week, in response to an inquiry by my colleagues in the House, the National Weather Service publicly released a number of documents related to its operations and workforce analysis. And recently, I have spoken with one of my colleagues, Congressman Tonko, that many questions still remain that need to be answered.

Will you commit to fully providing all of the materials requested so that we can all be certain that proposed actions are indeed supported by evidence and will not result in a degradation of current services and unnecessary impacts on the NWS workforce?

Admiral GALLAUDET. Senator, thank you for the question.

And absolutely, we will be very transparent, if I am confirmed, in how we are running the Weather Service and evolving it, and executing their evolved program right now, which I think is terrific, under the larger umbrella of implementing the Weather Research and Forecasting Innovation Act.

Senator CORTEZ MASTO. And you will commit to fully providing all of the material to my colleagues in the House and continue to work with them?

Admiral GALLAUDET. We will provide information as required by the House and others who are interested in seeing the Weather Service do the best it can.

Senator CORTEZ MASTO. Thank you. I appreciate that.

Mr. Elliott, as you likely know, the NTSB has studied and identified 148 rail safety incidents, many major disasters, which were preventable if the PTC technology were in place.

Given the lack of implementation of these technologies, would you feel comfortable transporting nuclear waste through communities and across the country before we have even proved our safety technology?

I raise this because a recent study had noted that 44 states and over 300 congressional districts could see nuclear waste transported through their backyards, many of which do not have any waste in their communities.

Mr. ELLIOTT. Senator, thank you for the question.

If confirmed, one of the items I am really interested in getting into is the result of the National Academy of Science's study on ECP brakes, understanding, too, that there is some interrelationship with our colleagues over at FRA.

You bring up an interesting topic on spent nuclear fuel. Again, having a long tenure, I actually remember it has been 12, 15 years when we had the West Valley move out of New York that was actually the test bed of moving spent nuclear fuel casks from the East Coast out to the West Coast repositories.

If confirmed as PHMSA Administrator, I look forward to working with you and your staff to understand all of the concerns and issues, and looking at all of the recommended technology in moving these cask shipments when that day comes, and I do believe that it will come.

Senator CORTEZ MASTO. Well, we are doing everything to prevent it because my concern is just that; the technology is not there.

And I also question, after some of the conversation today, where first responders and the training that is going to be necessary should there be, God forbid, some accident along the way. I think that is going to be part of your role as well, and that is why I asked the question.

I do not think it is a foregone conclusion, but at the same time, I think we need to understand that there are so many communities that are involved and would be involved. And so, we really have to be smart about what we are doing here for the future.

So I would look forward to working with you.

Mr. ELLIOTT. Thank you, Senator.

Senator CORTEZ MASTO. Thank you.

I notice my time is just about up. So I would just submit the rest of my questions for the record as well.

Thank you.

The CHAIRMAN. Thank you, Senator Cortez Masto.

Senator Markey.

STATEMENT OF HON. EDWARD MARKEY, U.S. SENATOR FROM MASSACHUSETTS

Senator MARKEY. Thank you, Mr. Chairman.

Mr. Elliott, aging, leaking natural gas distribution pipelines cost consumers billions of dollars, contribute to global warming, and pose a threat to public health, and safety, and the environment.

Over the past decade, consumers nationwide have paid roughly $20 billion and Massachusetts may contribute $1.5 billion to that problem, just in natural gas leaking out of old, aging pipelines. So that natural gas never is received by consumers, and yet, they are paying for it.

So the work on actually repairing aging pipelines could create more than 300,000 good paying jobs, according to the AFL and the Blue-Green Alliance.

The PIPES Act, that passed through this Committee and signed into law last year, included two provisions, which I authored, directing PHMSA to evaluate reporting requirements for leaks from natural gas distribution pipelines, as well as State level policies that may create incentives or barriers to repairing and replacing leaking natural gas pipelines.

As a result of those requirements, number one, PHMSA concluded that it should harmonize its reporting requirements for lost and unaccounted-for natural gas with the Energy Information Administration.

Will you commit to completing that harmonization swiftly, Mr. Elliott?

Mr. ELLIOTT. Well, Senator Markey, first of all, I would like to thank you and your staff. When we met last week, it was really my first exposure to the topic of lost and unaccounted-for natural gas. So I do want to thank you for that education.

Senator MARKEY. Well, thank you.

Mr. ELLIOTT. And I do know that report has been submitted to you and Congress.

If I am confirmed, I look forward to more aggressively looking into this topic.

Senator MARKEY. But will you commit to completing the harmonization swiftly?

Mr. ELLIOTT. If I am confirmed as PHMSA Administrator I will look into this with great haste. I look forward to working with you and your committee to better understand all of the issues.

Senator MARKEY. No, I appreciate that. But we are already far down the track here and this harmonization is absolutely critical. So I wish "yes" was the answer.

PHMSA also found that nearly half of states want an ability to accelerate repairs and replacement of pipelines to improve safety. PHMSA plans an additional study to determine if more requirements to repair all leaks would improve safety.

Will you commit to completing that study in a timely fashion?

Mr. ELLIOTT. Again, Senator, I look forward to being confirmed so that I can get in and understand all of the issues with these concerns, and then take the right steps to promote the safety of these issues.

Senator MARKEY. I appreciate that, but it is a mega-issue. This is $20 billion every 10 years that is just lost to consumers. There are not many issues that you can actually put that kind of a price tag on. So I, again, I wish that "yes" was the answer.

PHMSA has long refused to provide my staff or the minority with redacted copies of pipeline oil spill response plans when there is a spill. In fact, during the Santa Barbara pipeline spill, PHMSA withheld unredacted spill response plans from Congress even as a more complete version of the plan was posted online by news outlets, not to Congress.

In response last year, Chairman Thune and Ranking Member Nelson sent PHMSA a letter requesting that the Chair and Ranking Member have equal access to information about pipeline infrastructure. And I thank both Chairman Thune and Ranking Member Nelson for working with me on this important issue.

It is imperative that Congress has the ability to review these documents so that we can conduct proper oversight of these programs.

Will you commit to honoring the request made by Chairman Thune and Ranking Member Nelson regarding congressional access to pipeline oil spill response plans?

Mr. ELLIOTT. Again, let me say. I appreciated the education that I got last week on this topic.

If confirmed, it is important that I be able, then, to get in and understand all of the issues that have created the fact that you are getting redacted copies of the plan. I do not know all the issues that have prohibited——

Senator MARKEY. Do you think that Congress should have access to those documents?

Mr. ELLIOTT. I am very interested in learning all of the elements behind why Congress has not been able to receive what they have requested.

Senator MARKEY. Well, again, there is a bipartisan agreement on this committee that this committee is entitled to the documents in an agency over which this committee has oversight and responsibility.

So I do not think that should be an issue that has to be studied. I think that is just part of the normal oversight responsibilities and the need for an agency to give us those documents.

So, again, it is my hope that "yes' becomes your answer in the agency because that is critical for us to be able to do our job, and we cannot do it without the information from the agency over which we are given responsibility.

Thank you, Mr. Chairman.

Mr. ELLIOTT. Thank you.

The CHAIRMAN. Thank you, Senator Markey.

Senator WICKER. Mr. Elliott, my question to you is going to deal with toxic inhalation hazard materials on railcars.

As I understand it, the Department of Transportation promulgated a rule that established enhanced safety standards for tank cars and a phase-in period for getting these tank cars in compliance.

In April of this year, the American Association of Railroads came out with its own schedule for tank car phase-outs which is said to be more stringent and actually quicker than the DOT regulation.

Now, you come to us from the rail industry. I understand that. But have you looked into this? Is this something you are familiar with? And do you have an opinion as to whether a private association of railroads can promulgate a requirement that supersedes the regulation of the Department?

Mr. ELLIOTT. Senator Wicker, thank you for this important question.

In my experience, I am aware of the role of the tank car committee, and the history, and the impact of its recent actions.

If I am confirmed, I will be approaching this recommendation, this issue and the recommendations made by the Committee including the phase-in of new tank cars from a much different perspective as PHMSA Administrator as I would have from a railroad perspective.

I believe that PHMSA has a duty to consider all views when making decisions that affect both railroad and the shipping community, I think, which is your point.

I am not prepared today at this hearing to say where I would come down on recommending the DOT provide a new requirement for phasing in new tank cars—TIHPI tank cars—the enhanced DOT–105 tank car that is used today to move those commodities. But I promise to evaluate this matter fairly, impartially, and comprehensively consistent with my ethical agreement.

I understand it is an important topic. I think it is one that needs to be addressed and it needs to be addressed thoughtfully.

Senator WICKER. But at this point, you do not have an opinion as to whether a committee of a private association can promulgate a rule that supersedes the Department of Transportation regulation. You do not have an opinion on it?

Mr. ELLIOTT. Again, if confirmed, I think it is important that I evaluate all the contemporary views and perspectives on the role of the tank car committee before I make any kind of conclusion.

Senator WICKER. All right.

Well, Chairman Buerkle, let me ask you about mandatory standards versus industry voluntary standards. And particularly with

regard to power sports, which is a very important industry in my State of Mississippi and more specifically, recreational off-highway vehicles.

There is a difference of opinion, and I think it is among democrats, between democrats and republicans on the Commission as to whether to keep going with a mandatory rule in this regard or whether to work toward voluntary standards. So give us thoughts about that.

Where are we particularly when it comes to the recreational off-highway vehicle issue?

Ms. BUERKLE. Thank you, Senator Wicker.

The recreational off-highway vehicle, that situation really could be the poster child for voluntary standards versus mandatory standards.

That was a situation where we started out with a mandatory standard, but staff, our staff along with consumer groups, along with industry, sat down to figure out a way and a methodology of testing for lateral stability and accident protection to make sure we could get a consensus standard. And a voluntary standard was achieved and our staff felt that it did address the hazard.

That, to me, is the quintessential safety way to go and the process that we should be following, and not the least of which Congress directed us to pursue voluntary standards when they will adequately address a hazard, and whether there will be compliance.

I think in the four years I have been at the Consumer Product Safety Commission, I have not seen any evidence that industry does not want to follow or will not follow the voluntary standards. That is a process where they are engaged and involved. And collectively we can come up with a way, a path forward, for safety.

And so, when we can, voluntary standards, I think, are the way to go.

Senator WICKER. In those situations, when there is a consensus achieved, who are the parties, typically, of that consensus?

Ms. BUERKLE. Well, the consensus is the voluntary standards organization and within that group, there will be consumer groups. There will be our staff. We have voted as a Commission to give our staff voting rights, leadership rights, so they can participate more vigorously.

Senator WICKER. So consumer groups would be part of this consensus as well?

Ms. BUERKLE. Yes, as well as industry.

Senator WICKER. Thank you.

Thank you, Mr. Chairman.

Ms. BUERKLE. Thank you, Senator Wicker.

The CHAIRMAN. Thank you, Senator Wicker.

Senator Baldwin.

STATEMENT OF HON. TAMMY BALDWIN, U.S. SENATOR FROM WISCONSIN

Senator BALDWIN. Thank you, Mr. Chairman.

Mr. Elliott, thank you for meeting with me prior to this hearing. I wanted to just cover a couple of things that we spoke about at

that meeting starting with some FAST Act provisions to improve oil train safety that I worked with this committee to include.

After trains carrying hazardous materials derailed in Wisconsin, I worked with the Commerce Committee to include reforms that improve safety, transparency, and communication between railroads, and local first responders, and the communities that they serve as a part of the FAST Act.

We passed that bill at the end of 2015 and I got to work urging the previous administration to act quickly to implement my reforms. Unfortunately, a number of those initiatives are still awaiting action by PHMSA.

If confirmed, will you commit to implementing, without further delay, FAST Act requirements for real time train information?

Second, rulemaking for oil spill response plans?

Number three, the hazardous materials by rail liability study?

Mr. ELLIOTT. Senator Baldwin, nice to see you again, and thank you for the question.

As we discussed, the importance of transparency to emergency responders is something that I have believed in for a long time.

If I am confirmed, I will work quickly with the staff at PHMSA to understand why these requests, these mandates have not been completed.

I understand that they are looking at a lot of issues, but those that promote the safety of the public and the emergency responders really need to be the ones that PHMSA really takes and moves forward as quickly as possible.

And I hope that I can continue to work with you and your staff on these issues. Not only the transparency to the emergency responders, but also the insurance issues, and other FAST Act requirements.

Senator BALDWIN. Thank you.

I also want to raise another issue we talked about last week. Earlier this year, I called on the Department of Transportation to investigate three barrel refurbishing plants owned by Greif in the State of Wisconsin.

I did so after a whistleblower brought to my attention allegations of hazardous material transportation violations, as well as other practices that put workers, and the communities in which these businesses reside, at risk.

PHMSA has investigated and is working to bring the company into compliance. But I bring this to your attention so that you will know that it is a very high priority for me and for residents in my state.

If confirmed, can I count on you to enforce, and where necessary, recommend strengthening hazardous material transportation laws and regulations, and aggressively pursue investigation into the company's operations?

Mr. ELLIOTT. Senator Baldwin, thank you for the question, and I appreciated our conversation about the container lifecycle management company, that is the LCM.

I do know, and after our discussion, that PHMSA has issued an NOV against. And I appreciate the comments from your staff about the thoroughness of the investigation that the PHMSA staff did.

Again, if confirmed, I think the role of PHMSA to aggressively investigate and pursue the appropriate recourses of companies such as this is one of the paramount responsibilities of the agency.

Again, if confirmed, I look forward to understanding more about how PHMSA can do a better job of addressing incidents like that that might happen.

But more importantly, I think it is important for us to focus on how we can keep these types of incidents from manufacturers, or companies such as Greif, to basically ever keep them from happening in the first place. And that is, I think, a more laudable kind of goal for PHMSA, but it is certainly one that I want to pursue.

And again, I very much appreciated your comments about the impact to your state because of this company.

Senator BALDWIN. Yes, thank you.

Mr. Gallaudet, is it day or debt?

Admiral GALLAUDET. You can pick it, ma'am.

Senator BALDWIN. How do you do it?

Admiral GALLAUDET. Gallaudet.

Senator BALDWIN. Gallaudet. In 2013, I successfully worked to reopen the process at NOAA that allowed states to nominate their nationally significant marine areas for Federal protection as National Marine Sanctuaries.

Wisconsin has nominated an area of Lake Michigan. The proposal has tremendous local support and bipartisan support from Wisconsin's congressional delegation and Governor Walker.

Do you support the mission of NOAA's Marine Sanctuaries program? And if confirmed, would you ensure that the pending designation process for Wisconsin marine sanctuary moves forward without delay?

Admiral GALLAUDET. Thank you, Senator.

To answer your first question, yes. I wholeheartedly support the Marine Sanctuaries program at NOAA. It does great things. I grew up in a coastal state in California, and so, I look forward to engaging and leading that program forward, if confirmed.

And second, I have been aware of Wisconsin's Marine Sanctuary proposal and I know a little bit about that, and I am almost certain there really are no concerns at NOAA. And so, if confirmed, I look forward to moving that forward as quickly as I can.

The CHAIRMAN. Thank you, Senator Baldwin.

Senator Blumenthal.

STATEMENT OF HON. RICHARD BLUMENTHAL, U.S. SENATOR FROM CONNECTICUT

Senator BLUMENTHAL. Thank you, Mr. Chairman.

And thank you all for your willingness to serve.

Admiral Gallaudet, the Seafood Import Monitoring Program is a program overseen by NOAA. As you know, it established reporting and recordkeeping requirements for certain kinds of fish, but the program only applies to 13 species.

I am concerned that by enforcing regulations on only one part of the world's seafood supply, the market is really placed at-risk as a result of fraudulent and illegal activity by leaving space for wrongdoing and perpetrators of seafood fraud and human trafficking—human trafficking is a tremendous threat around the

world—to continue illegal activities by harvesting fish outside the rules designated group.

The rule put out by NOAA during the Obama Administration that implements the Program explains there is room to eventually expand the program to include all species, but it does not provide the timeframe for expanding it or include accountability measures to ensure species outside of the priority list that are not fraudulent or illegal.

Seafood fraud, human trafficking, both tremendously important. Would you agree?

Admiral GALLAUDET. Yes, Senator.

Senator BLUMENTHAL. And do you believe that additional resources are necessary to help with enforcement efforts?

Admiral GALLAUDET. Senator, I have not really done a cost benefit analysis and seen what kind of resources are needed or allocated. But as I mentioned in my opening statement, reducing our seafood trade deficit is a top priority of Secretary Ross and I would like to move that forward as quickly as possible. So seafood fraud is an important element of that.

And so I would like to study that issue, if confirmed, and really work to accelerate——

Senator BLUMENTHAL. I would like you to study it before you are confirmed for me to vote for you. I need to know what your views are on that issue.

Admiral GALLAUDET. Yes, Senator.

Senator BLUMENTHAL. So could you get back to me? I would appreciate it.

Admiral GALLAUDET. Yes, and I will, sir.

Senator BLUMENTHAL. Thank you.

Commissioner Buerkle, thank you for visiting Connecticut not long ago; great to have you there and hope to continue working together.

I would like to ask about the CPSC's crumb rubber study. This issue has aroused great interest and contention, and I am very concerned about the potential risks of exposure to crumb rubber used in playgrounds in Connecticut and elsewhere.

The CPSC is part of a multi-agency Federal research action plan on recycled tire crumb rubber used on playing fields and playgrounds. I think I got that right.

The important point is I would like for your commitment that the CPSC will continue to fully fund and support this research.

Ms. BUERKLE. Thank you, Senator Blumenthal.

And I agree with you. There is so much uncertainty out there about the crumb rubber. Our agency is part of, and working with the EPA and CDC to move forward this intergovernmental study.

Senator BLUMENTHAL. And you are committed to fully funding the research necessary to get to the bottom of these questions.

Correct?

Ms. BUERKLE. Within the framework of our agency, the tension always is between acute hazards and chronic hazards. And in a situation where we have to make a choice, sometimes funding can move around to address——

Senator BLUMENTHAL. Well, I am going to take that as a yes.

Ms. BUERKLE. If I can, sir, yes.

Senator BLUMENTHAL. Well, you can and I really hope that you will because applying science to this issue is important for all sides. And I hope that the findings and conclusions will be available, also, as soon as possible.

Let me move on to portable generators. I understand your point that there is possibly a jurisdictional question as to the EPA and the emission levels. I disagree that there is actually a jurisdictional issue. I think your agency has authority to set emissions levels, but put that issue aside.

Would you agree with me that portable generators ought to be sold with extension cords that permit them to be used outside homes and also CO_2 detectors that enable people using them to know whether or not CO_2 levels are unsafe?

Ms. BUERKLE. Thank you, Senator.

And I am in receipt of a copy of your letter that went to WPGMA where you lay out all of the concerns that you have.

I do believe that the voluntary standards committee is looking at the length of cords currently and so, I do not have knowledge where that issue is at, but I do know that it is under consideration given the fact that if the cord is not long enough it cannot.

Senator BLUMENTHAL. Should'nt the sales of detectors and cords with the portable generators be mandated as a matter of product safety in light of the deaths and injuries that have occurred already, and are likely to occur in even greater and unacceptable numbers in Puerto Rico and the Virgin Islands because they are without electric power right now?

Ms. BUERKLE. Thank you, Senator.

I think that the most promising way to address those issues is what is on the table right now; a voluntary standard that will have shutoff technology, a CO_2 sensor. And when the CO_2 level gets to a certain level, that generator will shutoff.

Senator BLUMENTHAL. When will that happen?

Ms. BUERKLE. I am very hopeful, and I will encourage industry, to the best of my ability, to circulate a ballot on that by the end of this fiscal year or by the end of this calendar year.

Senator BLUMENTHAL. But they have no expectation about when it will actually be available.

Correct?

Ms. BUERKLE. Well, I think that is another topic to be discussed with the industry, with all of the participants in that voluntary standard.

Senator BLUMENTHAL. Well, let me just—my time has expired—so let me just cut right through it.

People are dying as a result of these generators through no fault of their own. They are unaware of the danger. They have no means of detecting it because they have no sensors that will shut off the machines. They have no detectors that will alert them as to the dangers. And so, even more people are likely to die in the meantime.

I would respectfully request that you address this issue with the urgency that I think is required here.

So thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Blumenthal.

I just want to come back to this issue of voluntary standards one more time, just for the record, to clarify it.

It is my understanding that with respect to mandatory versus voluntary standards, Congress actually directs CPSC to first pursue a voluntary standard and pursue a mandatory standard only if there is a problem with the voluntary process.

Is that correct?

Ms. BUERKLE. Yes, Senator Thune.

Some of our mandatory standards are required by our Consumer Product Safety Improvement Act, Consumer Product Safety Act. They require us, whether it is on ATVs or bicycle helmets, we are required to promulgate a mandatory standard.

But in most of the other products that we have jurisdiction over, Congress has directed us, if we can address the hazard and there will be substantial compliance with that voluntary standard, then that is the course that Congress has directed us to take.

The CHAIRMAN. When you have a voluntary standard in place, are those standards enforceable?

Ms. BUERKLE. The consensus process that is the voluntary standard, by the very nature of what it is, where you get buy-in from the industry, along with the consumer groups, along with our staff, I think is far more conducive to compliance because there is buy-in. There is recognition that this is technology that we can achieve, and it is a way for everyone to move forward to effect safety.

So what we find is that there is substantial compliance otherwise our staff would come to us and say, "There is a problem here."

The CHAIRMAN. OK. All right. I think that is everything we have.

We want to move as quickly as we can to expedite the process for these nominees. So I would ask members of the Committee to submit their questions, if they have questions, for the record by Friday, this Friday, the 29th. And ask the nominees, if possible, to get your responses back as quickly as you can, preferably by October 2 because we hope to mark up a number of these nominees at our next mark up.

So with that, if there is nothing else, this hearing is adjourned.

Thank you.

[Whereupon, at 12:24 p.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. MICHAEL F. BENNET, U.S. SENATOR FROM COLORADO, ON BEHALF OF DR. WALTER COPAN, NOMINEE TO BE UNDER SECRETARY OF COMMERCE FOR STANDARDS AND TECHNOLOGY

Chairman Thune, Ranking Member Nelson: thank you for inviting me to share a few words on behalf of my fellow Coloradan, Dr. Walter Copan, who will serve our country with distinction as director of the National Institute of Standards and Technology.

Dr. Copan has the same pioneering spirit that has driven generations of Coloradans and Americans to innovate. He is a distinguished Ph.D. chemist and expert in technology transfer. As president and CEO of the Colorado-based IP Engineering Group Corporation, he helps intellectual property owners maximize the value of their innovations. He has previously served our Nation in roles at Brookhaven National Laboratory and Colorado's own National Renewable Energy Laboratory, and continues to serve our community as a board member of Rocky Mountain Innovation Partners, providing guidance and support to Colorado's entrepreneurs.

With origins dating back as far as the Articles of Confederation, NIST serves a critical role in our economic competitiveness and national security. For instance, as recent hurricanes and extreme weather in the southeastern United States makes clear, climate change is continuing to affect our safety, livelihoods, and our broader economy. NIST's Disaster and Failure Studies Program provides important information that will help us rebuild, setting standards, codes, and practices necessary to develop resilient infrastructure to mitigate damage to at-risk coastal communities. In addition, NIST's leadership in establishing a cybersecurity framework for government and businesses is critical to ensuring our personal information is protected from hackers and terrorists that seek to exploit our information and security.

I congratulate Dr. Copan on his nomination, thank him for willingness to serve, and look forward to his leadership at NIST.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JIM INHOFE TO HON. ANN MARIE BUERKLE

Question. The Consumer Product Safety Commission (CPSC) set a major new precedent by voting to grant a petition to ban the use of an entire class of chemical—organohalogen flame retardants. At this time, the CPSC is planning to issue proposed guidance urging consumers and businesses to avoid the use of a broad range of flame retardant chemicals. The CPSC voted to take this action despite the fact that the agency's own technical staff recommended against this and despite the fact the Commission has launched an extensive review process to further evaluate these products.

Furthermore, the CPSC voted to take this action despite the fact that the Commission has not fully considered the impact of this action on fire safety with hundreds if not thousands of products being impacted—some of which have been the subject of product recalls from the CPSC due to fire hazards. Furthermore, it is my understanding that this action runs counter and may be in conflict with the decisions and ongoing work by U.S. EPA under the new Lautenberg Chemical Safety act which Congress overwhelmingly supported and was signed into law by President Obama just last year.

Can you please clarify this issue for us and what actions you are planning to take on this issue to avoid duplicating and conflicting with other government agencies and ensure the CPSC operates within its appropriate jurisdiction?

Answer. On September 20, 2017, the Commission majority voted to grant Petition HP 15–1, Requesting Rulemaking on Certain Products Containing Organohalogen Flame Retardants and directed staff to convene a Chronic Hazard Advisory Panel (CHAP) to assess and issue a report on the risks to consumers' health and safety from the use of additive, non-polymeric organohalogen flame retardants, as a class

of chemicals in: (1) durable infant or toddler products, children's toys, child care articles or other children's products (other than children's car seats); (2) upholstered furniture sold for use in residences; (3) mattresses and mattress pads; and (4) plastic casing surrounding electronics. The Commission majority also directed staff to publish in the Federal Register a Guidance Document on Hazardous Additive, Non-Polymeric Organohalogen Flame Retardants in Certain Consumer Products.

My preference would have been to vote to defer the petition until the Commission had the benefit of the CHAP's analysis. I believe it made more sense to defer the petition and convene a CHAP than launch rulemaking in spite of the data gaps identified by our staff. If this approach had been approved, it would have allowed us to hear from the independent scientific experts before deciding whether we should overrule our own staff toxicologists and commit to the unprecedented regulation of a large and disparate class of chemicals.

I look forward to working with the Senate on this important issue.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO HON. ANN MARIE BUERKLE

Question 1. In your oral testimony to the Committee, you stated that the CPSC is currently working with the Portable Generator Manufacturers Association (PGMA) and stakeholders on a voluntary standard that would require shut-off switches for all new portable generators. Please provide a detailed explanation of this voluntary standard, along with a proposed timeline for adoption.

Answer. There already is a voluntary standard applicable to portable generators, called ANSI/PGMA G300–2015. The current version was adopted in 2015 (attached at Tab A). It establishes many different safety requirements, particularly in the realm of electrical safety. There is also a mandatory CPSC standard which establishes each portable generator to be prominently marked with a specified DANGER label. 16 C.F.R. § 1407.

The PGMA is now working on a revision of the G300 standard that would add new requirements aimed specifically at the carbon monoxide (CO) hazard. The concept of the revised voluntary standard is relatively simple. It would establish requirements for (1) sensing CO buildup in an enclosed or partially enclosed space; and (2) shutting off the generator if local CO concentrations reach dangerous levels.

On March 17, 2016 the PGMA held a technical summit at which time they committed to "create a performance-based standard that addresses the CO hazard as its top priority, for possible inclusion in the ANSI/PGMA G300 standard." PGMA also held technical summits on April 3, 2017 (hosted at CPSC); June 2, 2017 (webinar); July 13, 2017 and August 16, 2017 (webinar). CPSC staff has attended and is an active participant in PGMA's steering committee in providing feedback during development of the ANSI/PGMA G300 standard. To address the CO hazard associated with the misuse of portable generators in enclosed spaces, the current draft of the standard requires the portable generator to shut off once a CO sensor measures a certain concentration. The PGMA has committed to balloting the standard by the end of the calendar year.

To avoid nuisance shutoffs (for example, shutoffs when the portable generator is being properly used outdoors), the revised voluntary standard would establish two different CO levels for shutoff. One level is a short-term (essentially instantaneous) peak, and the other is an average level over a few minutes.

The revised voluntary standard would also establish requirements for alerts to the user, for the reliability and durability of the CO sensor, and for end-of-life of the CO sensor. These requirements help to ensure that if a generator shuts down, the user will understand why, and that the generator will not operate if the CO sensor is no longer detecting dangerous CO levels reliably.

Staff, as well as four of the five Commissioners, have traveled to Wisconsin and met with several of the manufacturers who are working on this technology for the voluntary standard. In addition, staff has traveled to South Carolina to meet another manufacturer who has developed a low CO engine and a different type of shutoff technology. CPSC staff and Commissioners are highly engaged in this issue and are optimistic regarding these new developments.[1]

Question 2. In a February 1, 2016, statement on the Commission's adoption of the final rule to amend 16 C.F.R. Part 1031 to allow staff to participate as voting members of voluntary standards organizations, you noted that you proposed a successful amendment to the ballot package requiring "the Executive Director to provide an early report to the Commission regarding the voting and leadership activities al-

[1] The records provided in response to this request are retained in the Committee's files.

lowed by the final rule." With regard to the proposed PGMA portable generator voluntary standard, have you requested that the Executive Director and/or Commission staff provide other Commissioners with frequent updates on staff activities before that standards committee? If so, please detail all requests.

Answer. The CPSC staff is involved with over 70 voluntary standards. Congress, recognizing the strength and enormous value of the standard development organizations and consensus standards, has expressed a strong preference for developing safety standards through the voluntary standards process rather than through rulemaking. 15 U.S.C. § 2058(a), (b), (f)(3), . The effect of these provisions is to preclude CPSC from adopting a mandatory standard for a particular product risk if a voluntary standard adequately reduces the risk and there is substantial compliance with the voluntary standard. Therefore, taking part in the voluntary standards process is one of CPSC staff's most important roles.

The package to amend 16 C.F.R. Part 1031 came before the Commission in September 2013. In February 2016, the Commission voted unanimously to approve a final rule allowing greater participation by CPSC staff in the voluntary standard committees. Specifically, the Commission authorized the Executive Director to permit CPSC staff to vote on standards and/or assume leadership roles on a case-by-case basis. Staff must apply for permission to the Executive Director, and she makes a determination regarding whether to allow staff either the leadership or voting rights.

My amendment requires the CPSC Executive Director to provide a report to the Commission concerning the activities of the staff that are authorized by the amendments to part 1031. That report must be submitted no later than 14 months after the Executive Director first authorized any staff member to vote or to assume a leadership position in a voluntary standard committee. The motion I offered was unanimously supported by the Commission.

To date, the Executive Director has authorized several CPSC staff members to vote on various voluntary standards. Similarly, she has approved several staff requests to assume leadership positions on voluntary standard subcommittees or task groups.

On November 1, 2016, the Executive Director approved staff requests to vote on two voluntary standards related to portable generators, namely ANSI/PGMA G300 and UL 2201.

CPSC staff provides the Commission with frequent updates on staff activities on all voluntary standards. On a weekly/bi-weekly basis, the Office of Hazard Identification and Reduction provides an activities report to all Commission offices with updates on voluntary standards activities. In addition, each Commissioner has weekly or bi-weekly meetings with the Director of the Office of Hazard Identification and Reduction, who oversees voluntary standard activities. In addition several Commissioners have sent their own personal staff to observe voluntary standards meetings, including voluntary standard activities involving portable generators. CPSC staff also responds to requests from Commission offices for briefings on voluntary standards activities as they come up. Staff planning to attend voluntary standard meetings are required to provide public notice ahead of time through the Commission's public calendar.

The Commissioners meet on a weekly or bi-weekly basis with the Executive Director and with other senior staff, and they are routinely briefed on staff activities, including those relating to portable generators. Four of the five Commissioners have traveled outside of Maryland to meet with portable generator manufacturers and see demonstrations of prototype generators featuring the shut-off technology. Most if not all of the Commissioners have met regularly with representatives of PGMA, PGMA member companies, or other portable generator manufacturers at CPSC headquarters or at CPSC's research laboratory. CPSC staff hosted a day-long public meeting relating to CO emissions from portable generators and shutoff technology in April 2017. In addition, most or all of the Commissioners have sent staff to the public meetings convened by PGMA to discuss the CO shutoff technology and revision of the G–300 standard. Finally, CPSC staff documents all voluntary standards work on portable generators twice a year in the publicly available Voluntary Standards Activity Report (VSTAR).

Question 3. Please explain why your August 16, 2017, letter to Administrator Scott Pruitt is not included in the docket for the mandatory portable generator standard Notice of Proposed Rulemaking (NPRM) (CPSC Docket No. CPSC–2006–0057).

Answer. A copy of my letter to Administrator Pruitt was forwarded to each of the Commissioners and the General Counsel. I will make sure that a copy of the letter is included in the rulemaking docket.

Question 4. Please provide a copy of all documents and correspondence (including e-mails, memoranda, white papers, meeting presentations, notes, and phone logs) between you, your office staff, and CPSC staff working at your direction and PGMA and any individual portable generator manufacturer regarding the portable generator NPRM and the proposed PGMA portable generator voluntary standard.

Answer. Tab B contains copies of documents and correspondence between Commissioner Buerkle or her personal staff and PGMA or any of its member companies. The time range for this search was from Commissioner Buerkle's arrival at the Commission in [July?] 2013 to present. Business confidential documents and attachments are included at the end of Tab B under a separate divider page.

Tab C contains copies of documents and correspondence between CPSC career staff and PGMA or any of its member companies. The time range for this search was from the date Commissioner Buerkle became Acting Chairman (February 9, 2017) to present.[2]

Question 5. Please provide a copy of all documents and correspondence (including e-mails, memoranda, white papers, meeting presentations, notes, and phone logs) between you, your office staff, and CPSC staff working at your direction and the Environmental Protection Agency, the Office of Management and Budget, the Executive Office of the President, and any other Federal or state agency regarding the portable generator NPRM and regarding the proposed PGMA portable generator voluntary standard.

Answer. Tab D contains a copy of a letter to me from Administrator Pruitt of the Environmental Protection Agency (EPA) regarding portable generators and my response. These are the only documents and correspondence that are responsive to your request. Neither I nor my staff have had any contacts with the Office of Management and Budget, the Executive Office of the President or any other Federal or state agency concerning these matters. I have not asked the CPSC staff to contact EPA or any other Executive Branch agency concerning these matters, and they have not reported any such contacts from other agencies.[3]

Question 6. Please identify and provide a copy of all records detailing all travel by you, your staff, and CPSC staff working at your direction to PGMA, any PGMA member, and any other portable generator manufacturer to discuss either the portable generator NPRM or the proposed PGMA portable generator voluntary standard.

Answer. Tab E contains a copy of all records detailing travel by me and my staff with respect to CPSC's proposed portable generator standard or the proposed PGMA portable generator voluntary standard.

Tab F contains a copy of all records detailing travel by CPSC career staff with respect to CPSC's proposed portable generator standard or the proposed PGMA portable generator voluntary standard.[4]

Question 7. Please provide a copy of all documents and correspondence from February 7, 2017 to the present (including e-mails, memoranda, white papers, meeting presentations, notes, and phone logs) between you and your office staff and CPSC staff directing them to take or withhold any action on the portable generator NPRM or the proposed PGMA portable generator voluntary standard.

Answer. There has been no direction to withhold any action on the portable generator NPRM from my office. The Commission directed staff to publish the NPRM. It appeared in the Federal Register at 81 Fed. Reg. 83556 (Nov. 21, 2016). CPSC staff, as planned and approved by the Commission in the FY17 operating plan, have been working on the post-NPR rulemaking activities reviewing public comments as well as participating in the voluntary standards process.

Question 8. Please provide a copy of all documents and correspondence (including e-mails, memoranda, white papers, meeting presentations, notes, and phone logs) between you and your office staff and Patricia Hanz regarding her potential hiring as CPSC General Counsel.

Answer. Tab G contains a copy of all documents between me or my office staff and Patricia Hanz regarding her potential hiring as CPSC General Counsel.[5]

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[2] The records provided in response to this request are retained in the Committee's files.
[3] The records provided in response to this request are retained in the Committee's files.
[4] The records provided in response to this request are retained in the Committee's files.
[5] The records provided in response to this request are retained in the Committee's files.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO HON. ANN MARIE BUERKLE

Question 1. Portable Generators: What specific assurances have you sought from portable generator manufacturers to make sure their products do not lead to anymore unnecessary deaths in the wake of all the recent natural disasters?

Answer. I have urged portable generator manufacturers to introduce carbon monoxide shut-off technology as quickly as they can. I have personally seen prototype generators that do shut off rapidly in these dangerous situations, and I am confident the manufacturers are committed to addressing the hazard.

In addition, I have asked for and received assurances that the voluntary standard requiring shutoff technology will be complete and ready for balloting no later than the end of this calendar year. I expect PGMA to follow through on that commitment.

CPSC staff will continue their robust participation in voluntary standards development with PGMA. Staff will also continue their review of the comments submitted on the Notice of Proposed Rulemaking for Portable Generators, as well as other data analysis and technical work related to both voluntary standard development and CPSC's Notice of Proposed Rulemaking.

In anticipation of power outages often resulting from hurricanes and leading to increased generator sales, CPSC has been proactive and strongly committed to transmitting life-saving safety information to residents living in affected areas.

CPSC positioned thousands of CO safety publications with CPSC investigators to distribute at FEMA disaster centers. Additionally, CPSC participated in FEMA's daily teleconference with other Federal agencies and is working closely with our state and local public safety counterparts in affected states.

The agency has been promoting our hurricane safety messages through traditional and social media platforms, which include using our social media accounts and website to disseminate CO safety information to a wide audience. In addition, we reached out to hundreds of media outlets.

Our agency has also been working with major retail industry leaders. We have engaged with retailers to share and re-tweet our public safety messages and have also provided them with copies of our public safety literature to be distributed to consumers who come in to buy a portable generator.

Question 2. Portable Generators: Do you agree that all portable generators should include extension cords no shorter than 25' so they can actually be used outside, as instructed?

Answer. I agree that consumers should be warned as we recommend, to place generators OUTDOORS ONLY, preferably at least 20 feet away from a residence. I am concerned that depending on the needs of the consumer to power certain appliances, 25 feet may not be long enough. We need to educate consumers on the safe placement of the portable generator and provide guidance to select the correct length and gauge of extension cords.

I believe that all portable generators should be capable of being used safely outdoors and at a safe distance from homes. I support any and all steps that manufacturers and retailers can take to make sure that generator purchasers have all the equipment they need to operate a generator safely. Unfortunately, there is no data that suggests a longer cord would be instrumental in saving lives. I believe that staff would have included such a requirement in the proposed mandatory standard if it could be justified on safety grounds. Educating the consumer regarding the danger of placing a generator too close to their dwelling is an important component of portable generator safety, but ultimately it will be the successful development of the shutoff technology that will save lives.

Question 3. Portable Generators: In the absence of an effective voluntary or mandatory safety standard for portable generators that reduces consumer injury or death, do you agree that the purchase of portable generators should include CO alarms?

Answer. Carbon monoxide is called the "Invisible Killer" because it's a colorless, odorless, poisonous gas. More than 150 people in the Unites States die every year from accidental non-fire related CO poisoning associated with consumer products. I believe every home should install battery-operated CO alarms or CO alarms with battery backup outside sleeping areas.

CPSC strongly supports the use of CO alarms. The Agency has invested in educational campaigns not only with smoke detectors but also with CO alarms. We recommend that all dwellings be equipped with them. If in place before an emergency, they can prevent some CO-related deaths or injuries. Unfortunately, most of the problems we see with portable generators occur when they are purchased under exigent circumstances. We have found that very few consumers who purchase generators in a difficult time take the trouble to obtain and install CO alarms if they have

not already done so. CPSC believes that nearly all CO poisoning victims are harmed because they do not understand the risks, despite the very prominent warnings that are required on the generator and its packaging (CPSC's mandatory "danger" label, 16 C.F.R. part 1407, warns of the hazard in stark terms).

The revised PGMA standard would include a CO detector on the generator and the deployment of shut-off technology would stop the generator engine if there is a buildup of local CO concentrations.

Question 4. Portable Generators: When do you expect a new voluntary standard for portable generators to be completed?

Answer. I expect PGMA to issue a proposed standard for canvas no later than the end of this calendar year.

Question 5. Portable Generators: What data do you have that the new proposed voluntary standard will be effective at reducing consumer risk of injury or death?

Answer. In essence, we currently have two forms of preliminary data. The first is modeling data. CPSC staff worked with the National Institute for Standards and Technology (NIST) to develop a modeling program whereby CO concentrations in a home can be accurately predicted if a portable generator is located in various inappropriate locations (such as in a basement, a garage, or shed). CPSC staff used the NIST model to predict that the CPSC-proposed mandatory standard would save approximately 41 percent of the CO-related deaths that would occur in the absence of such a standard. See 81 Fed. Reg. at 83570. PGMA used the same model to show that a portable generator meeting the performance requirements of the revised voluntary standard would save a much higher percentage of lives than the CPSC proposal (more than 95 percent).

The second form of data we have is performance data from portable generators equipped with prototype shut-off systems. These data typically include real-world measurements of CO concentrations in various locations throughout a home or garage when a generator is placed in an inappropriate location.

CPSC staff is working with the PGMA voluntary standard committee to establish the standard. Only when the standard is finalized will CPSC staff be able to assess its effectiveness. The PGMA has stated they are planning to address all of the deaths associated with enclosed or partially enclosed use of portable generators.

Question 6. Portable Generators: What is your position on the Sensenbrenner and Duffy appropriations rider (Amendment #208 of H.R. 3354), which seeks to limit CPSC's right to finalize a safety standard on portable generators?

Answer. I have been very supportive of the collaborative approach that happens in the voluntary standard process. One such success has been the work in the voluntary standards area of Recreational off Highway vehicles (ROVs). I am confident CPSC staff can work with PGMA to solve this portable generator problem by developing a voluntary standard that will be effective in reducing deaths and injuries associated with the use of portable generators in enclosed or semi-enclosed spaces. I take no position on the appropriations rider. I do not believe it would interfere with the CPSC's planned activities regarding portable generators in Fiscal Year 2018.

Question 7. Flame Retardants: The Consumer Product Safety Commission recently voted to grant a Petition requesting the CPSC initiate rulemaking to ban toxic flame retardants in children's products, upholstered furniture, electronic casings, and mattresses. Did this vote ban flame retardants?

Answer. No, the vote did not ban flame retardants. The Commission voted to grant the petition; this begins the rulemaking process. The Commission's recent vote did not ban any flame retardants. The petition before us applied to a large class of flame retardants called organohalogens, and it sought a ban of all non-polymeric, additive organohalogen flame retardants (OFRs) in four specific categories of consumer products. The Commission voted (1) to grant the petition and commence a rulemaking to ban these chemicals; (2) to convene a Chronic Hazard Advisory Panel (CHAP) to provide advice to the Commission on the same chemicals; and (3) to issue guidance concerning these chemicals to the public, including manufacturers, retailers and consumers. The guidance requests manufacturers to discontinue use of these chemicals in the four types of products voluntarily.

Question 8. Flame Retardants: What parties did you hear from that most informed your vote?

Answer. My vote was most influenced by the CPSC staff, who recommended against granting the petition. CPSC career scientists recommended against the class-wide approach that a majority of the Commission approved. Staff indicated that there were limited data on OFRs that show varying toxicity and exposure potential among individual OFR compounds. These varying properties of individual OFR compounds indicate that OFRs, in fact, represent several subclasses of chemicals that should be examined separately. Due to the varying toxicological properties

among OFR subclasses (and even within those subclasses) and because of the many data gaps relating to toxicity, staff advised that insufficient data exists to assess OFRs as a class under FHSA, and one could not conclude that they all would be "hazardous substances". In addition, staff advised that although there were studies demonstrating human exposure to OFRs, most studies cited by the petitioners could not be linked to specific products. Staff cited that the mere presence of a chemical, including those that may be considered toxic under the FHSA, in a person's blood or urine is not enough to demonstrate that an adverse health effect or disease may occur because levels may indicate exposures that are too low to cause these effects in humans. The petitioner asked the Commission to conclude that OFRs, where limited or no data are available, possess the same toxicity and exposure potentials as OFRs for which data exists.

Staff also cited ongoing market and regulatory changes affecting the use of OFRs in the four product categories and the staff's intention to continue the ongoing FR work in the operations plan to assess the presence of and the exposure to OFRs along with the voluntary standard organizations and other Federal agencies.

Question 9. Flame Retardants: What was your reason for voting against allowing scientists to study an immensely consequential issue to the health of all Americans, and especially children?

Answer. My objection was to granting the petition, which commences the rulemaking process, without having the data needed to move forward as advised by CPSC staff. I had no objection to study of the issue. Indeed, I proposed an amendment that would have allowed a vote on convening a Chronic Hazard Advisory Panel (CHAP) prior to the vote on disposition of the petition. I believed that it made more sense to defer the petition and convene a CHAP than to launch rulemaking in spite of the data gaps identified by our staff. If this approach had been approved, it would have allowed us to hear from the independent scientific experts before deciding whether we should overrule our own staff toxicologists and commit to the unprecedented regulation of a large and disparate class of chemicals.

Question 10. Early this year, President Trump issued an Executive Order that for every one new regulation issued, at least two prior regulations be identified for elimination. Your colleague Commissioner Kaye was Chairman at the time, and he said the following in a statement: "This Executive Order does not apply to independent agencies, including the Consumer Product Safety Commission. While we have looked to follow in spirit EOs that advance sound public policy and do not conflict with our critical public health and safety mission, this EO clearly fails on both accounts. To voluntarily follow it would lead to poor public policy decisions by ignoring the many necessary benefits provided by consumer protections that save lives and protect all of America's families. It would also be counter to our safety mission, as it would cruelly and unfairly have us pit vulnerable populations against each other when it comes to making safety decisions." Is the CPSC under any obligation to follow Executive Orders?

Answer. CPSC is an independent agency, and while not legally required to comply with executive orders, has historically tried to meet the spirit of such orders, within the framework of our governing statutes. Many Executive Orders distinguish between Executive agencies and independent agencies, and they merely encourage independent agencies to do what they require Executive agencies to do. There are some Executive Orders, particularly those dealing with budgetary matters, that make no distinction between Executive agencies and independent agencies or that expressly apply to independent agencies. In these rarer cases, CPSC would treat the order as obligatory unless a statute requires otherwise.

Question 11. What factors will guide you, as Chair, in determining whether to follow an Executive Order?

Answer. I believe we should attempt to follow Executive Orders to the extent they are not inconsistent with the statutes applicable to us. In the case of the "one in, two out" Executive Order, I understand it would apply only if CPSC adopts a "major" regulation, which has occurred only a couple of times in CPSC's 44 year history. For the same reason, it is unlikely that our statutes would permit the outright repeal of two major regulations. I will be guided by the intent and spirit of any executive order, but always in balance with our safety mission, of keeping the consumer safe from unreasonable risk of injury and harm.

Question 12. Civil Penalty Votes: Please provide information on all civil penalty votes since you joined the Commission in July 2013, as compiled by the Office of the Secretary. This information should include how each Commissioner voted.

Answer. Tab H contains a Record of Commission Action (RCA) for each civil penalty vote since I joined the Commission. These documents reflect how each Commissioner voted on each penalty settlement. In some cases, a Commissioner may vote

to approve a different penalty amount than the settlement reached by the Office of the General Counsel.

Question 13. Please provide information on all votes, other than civil penalty votes, since you joined the Commission in July 2013, as compiled by the Office of the Secretary. This information should include how each Commissioner voted.

Answer. Tab I contains a Record of Commission Action (RCA) on all public votes taken by the Commission since my arrival. Some votes, such as those to refer a penalty case to the U.S. Department of Justice, are not immediately made public.

Tab J contains an RCA on all non-public votes. These are marked "For Official Use Only" and should be treated as confidential.[6]

Question 14. Civil Penalties: What do you view is the purpose of civil penalties?

Answer. In my view, civil penalties serve three main purposes: (1) to punish unlawful behavior; (2) to deter further unlawful behavior by the company paying a penalty; and (3) to deter unlawful behavior by other firms.

Question 15. Civil Penalties: Why do you think Congress gave the CPSC this authority?

Answer. Congress refused to give CPSC authority to impose civil penalties. Instead, CPSC was given authority to compromise civil penalties. I believe Congress wanted CPSC to have a range of different solutions for firms that violate CPSC statutes and regulations, particularly for recalcitrant companies who fail to learn from their mistakes.

Question 16. Civil Penalties: If civil penalties represent just a drop in the bucket for companies, what is their purpose?

Answer. In addition to the financial toll, I believe there is a stigma associated with paying any civil penalty that most companies strive to avoid. I also believe that small penalties can be appropriate, and that if a firm continues to act unlawfully, higher penalties would be warranted.

Question 17. Civil Penalties: Should paying civil penalties just be the cost of doing business?

Answer. Absolutely not.

Question 18. Transparency: Do you commit to help increase transparency at CPSC and make publicly available and searchable all votes that take place at the Commission?

Answer. Yes, where legally appropriate. There are certain actions, such as referral of a case for prosecution by the U.S. Department of Justice, where the Commission's vote is considered to be For Official Use Only (see the response to Question 5 and Tab J).

CPSC may be among the most transparent agency in the Federal government. Our transparency is enhanced by an open meetings policy, whenever CPSC staff meet with outside parties on matters of substantial interest, the meeting must be announced in our public calendar and allows any member of the public to attend.

CPSC has a liberal FOIA policy, when the disclosure is not prohibited by law or is not against public interest.

When rulemaking occurs under section 9, the public has an opportunity to make an oral presentation.

The CPSC also maintains a Publicly Available Data Base, which is a user friendly product safety database where the consumer is able to report and read about an hazards or risks associated with consumer products.

The CPSC is required to establish an agenda at least 30 days before the beginning of each Fiscal Year. The Priorities Hearing is an opportunity for the submission of comments either in writing or via an oral presentation by the public.

I have encouraged the transparency and engagement since I have been at the Agency. I believe that our best efforts to keep the consumer safe, pursuant to our mission, results from an open and transparent environment and where we engage with all of the stakeholders.

Question 19. Transparency: Will you work to make sure live and archived webcasts for all public hearings and workshops are made available on CPSC's website?

Answer. Yes, absolutely to public hearings. Workshops can be somewhat more challenging, as we have found that those with multiple breakout sessions do not lend themselves to live video webcast. I commit to the extent practical to continue to webcast all public meetings the Commission has. I want to hear from the public and all of the stakeholders.

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[6] The records provided in response to this request are retained in the Committee's files.

Question 20. As Permanent Chair, you will have a hand in making a number of key appointments within the agency. This is an important responsibility. Based on who you appoint, you will be able to guard against the CPSC becoming a "captured agency" and protect the agency's independence. What is your philosophy in making appointments?

Answer. My philosophy on making appointments reflects my sense of responsibility and steadfastness to carry out our agency's mission of keep consumers safe from unreasonable risk of injury or harm. We are public servants. We work for the American people and therefore, accountable to them. I believe anyone who has the privilege to serve in this capacity makes a commitment to our fellow citizens to carry out our important safety mission.

Carrying out this important charge requires dedication and fidelity to this mission. As Chairman I believe it is critical to lead by example. Those who have the honor to serve in leadership shape the culture of the agency or organization in which they work. Qualities such commitment to excellence, a sense of humility and a strong sense of purpose contribute to a climate that promotes a sense of duty to carry out the important mission of the Consumer Product Safety Commission.

Those who serve in these appointments share in the opportunity to foster an open and transparent government. I believe that we can best achieve our mission of safety, through collaboration and engagement where stakeholders from diverse perspectives are welcome and encouraged to participate in their government.

Question 21. What are your personal hiring criteria?

Answer. On February 9th I was honored to become Acting Chairman of the CPSC. In the spirit of bi-partisanship, I worked with my predecessor's political appointees towards favorable employment transitions. In fact, in the case of my predecessor's Executive Director, I have appreciated the opportunity to have her remain at the Agency until a mutually agreed upon end date. She has been an invaluable to me, the mission of CPSC and a well-respected leader at the agency.

My hiring criteria includes finding the best possible talent to fill my political appointments. It is essential that candidates understand and are committed to the critical safety mission of safety at the CPSC. Individuals with a superior level of integrity and dedication to public service are key qualities. In addition to the requisite qualification of each specific job description, candidates need proven leadership abilities, strong communication and interpersonal skills as well collaborative problem-solving skills.

Question 22. In what way would a candidate's industry experience be relevant to you?

Answer. I do not regard industry experience as a prerequisite for candidates. Indeed, none of my personal staff come from industry. Nevertheless, I think that industry experience would be a plus for a candidates because it would bring a different perspective on regulatory matters. Indeed, some of the career staff who have come to the Agency from the private sector, bring with them an important perspective.

Question 23. How do you intend to protect the CPSC from becoming a "captured agency"?

Answer. I recognize the risk of agency capture, although I think CPSC is far from succumbing. I intend to maintain and strengthen my contacts with all CPSC stakeholders, including consumers and their representatives, independent safety consultants, academics, medical professionals, state and local officials and Congress. I believe that the structure of our Commission makes agency capture more difficult than it may be at some agencies. I prize the constructive input I receive from my colleagues on a daily basis. I value the letters of support from various consumer groups and will continue to work to strengthen those relationships.

Question 24. Recall Effectiveness: On Tuesday, July 25, 2017, you hosted a "Recall Effectiveness Workshop." What did you learn from this workshop?

Answer. There were many interesting ideas for enhancing recall effectiveness raised at the workshop. In my view, the single most important point relates to the significance of direct contact with consumers. This factor is so important that I believe CPSC should work on identifying and implementing approaches to increase direct contact as a top priority.

Question 25. Recall Effectiveness: How do your views on recall effectiveness diverge from the industry?

Answer. I have found that industry does not have monolithic views on recall effectiveness, nor do the views of industry all conflict with those of consumers and their representatives. Retailers often have different views than manufacturers. There are certainly some propositions advanced by industry representatives as to which I am not yet convinced. For example, some companies have urged CPSC to adopt a

"tiered" recall system, with greater attention to recalls involving greater risks. In principle, I agree that the degree of risk should play a major role in our decisions. I also agree that "recall fatigue" can result from an endless stream of undifferentiated recalls. Nevertheless, I believe that a tiered system may be difficult to implement without undercutting our highly successful "Fast Track" recall system. Therefore, I have asked our Compliance staff to get more information about the success of tiered recall systems at other agencies.

Question 26. Recall Effectiveness: Do you believe that the CPSC has been successful at achieving acceptable recall return and repair rates on children's products?

Answer. I am not satisfied with CPSC's recall effectiveness; however, I believe that the return rate is often a misleading indicator of recall effectiveness. I would like to see greater emphasis on the reduction of incidents and injuries. Many people who become aware of a CPSC recall do not bother to take advantage of the available remedy. Often, they simply discard the product. This is particularly true when the product was inexpensive to begin with or if it has seen considerable use. In these cases, the safety purpose of the recall has been achieved, even though the recall return rate may be low.

Question 27. Recall Effectiveness: As Chairman, what tools would you like to see used to assure a robust response to recall announcements—both from the agency and the recalling company?

Answer. I would like to see new technologies aimed at increasing direct notice of recall to the consumer. These might include the development of cellphone applications that recognize when a consumer product has been recalled and provide direct notice to the owner.

Question 28. Furniture Tip-Over: The vast majority of recalled IKEA dressers are still in people's homes, posing potential risks to consumers. What will you do to improve this recall?

Answer. We are currently negotiating with IKEA to improve certain aspects of the recall communications. We also intend to re-announce the recall to update the hazard information.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CATHERINE CORTEZ MASTO TO HON. ANN MARIE BUERKLE

Question 1. Protecting Children in Hot Cars: Obviously I don't have to tell you we have seen far too many unfortunate and often preventable deaths and injuries of children in overheated cars, like an innocent Las Vegas three year-old who died in July on a day with temperatures reaching as high as 114 degrees. Many of the tragic reports are of parents leaving children strapped into their car seats, windows up, in often times triple-digit temperatures that are very common in my state of Nevada. Please provide me an update on what can be done universally about this horrifying concern, and specifically what you and the CPSC are doing to address this problem.

Answer. CPSC does not have jurisdiction of motor vehicle issues, which are within the purview of the National Highway Traffic Safety Administration.

Question 2. Protecting Industry from Regulations: In your questionnaire, you note the challenge of "finding a balance between reasonableness and safety when considering regulations and protecting the consumer", as well as referencing protecting industries from "unfair and costly regulations."

I was hoping you could elaborate on this sentiment. And please confirm for me that there are higher priorities than simply cost-benefit ratios when we're talking about protecting our children and families.

Answer. Most of the standards and safety work done at this Agency is through the voluntary standards process. Our staff participates in over 70 voluntary standard committees. The cost benefit analysis is only required to conduct rulemaking under section 7 and 9 of the CPSA, not the voluntary standards process. In our history, there have been very few mandatory standards promulgated.

In 2008, Congress passed the Consumer Product Safety Improvement Act (2008) that provided additional protections for children. Included in the CPSIA are provisions addressing lead, phthalates, toy safety, durable nursery products, third party testing and certification. When we are promulgating a standard that is related to a durable nursery product, no cost benefit analysis is required. Congress, recognizing the need to prioritize children's safety, removed that requirement in CPSIA.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO DR. WALTER G. COPAN

Question 1. NIST scientists are integral to improving the tools and instruments used to measure greenhouse gases, which contribute to our warming planet and the strength of the storms we have seen this hurricane season. Meanwhile, the administration is seeking to cut this program by 40 percent. Accurate measurements grow our understanding of climate change and weather so that policy makers and citizens can make informed decisions to protect life and property. It is critical that scientists are allowed to do their jobs without political interference.

If confirmed, will you commit to protecting NIST scientists from political interference and censorship?

Answer. Yes. I fully support open science, free from political interference. If confirmed, I will remain committed to the ability of NIST researchers to communicate freely about their work, without censorship. I was also very pleased to learn that NIST and the Department of Commerce have strong policies in place, which explicitly allow scientists to "speak to the media and the public about their official work freely, and openly discuss scientific and technical ideas, approaches, findings and conclusions based on their official work."

Question 2. NIST researchers perform investigations after disasters like Hurricane Irma and Hurricane Maria to improve building codes and standards for other infrastructure. It is clear to me that climate change is making these storms more intense.

Should factors like climate change modeling and other longer-term weather predictions be incorporated into our research to improve resilience to natural disasters?

Answer. NIST works closely with other Federal agencies in disaster preparedness and resilience, and with public and private sector stakeholders to improve building codes and standards for a more robust and resilient infrastructure. The collaborative approach NIST utilizes allows NIST to take full advantage of modeling and other longer-term predictive tools relevant to the next generation of standards and guidelines for hazard mitigation and recovery. If confirmed, I look forward to working with this Committee and being briefed on the efforts to integrate the NIST research efforts with complementary modeling and prediction tools, as well as to ensure that the processes used by NIST consistently considers such tools.

Question 3. If enacted, over the next decade, the president's budget would produce a forty-year low for Federal research and development dollars. The FY 2018 request alone cuts more than fifteen percent from federally funded basic research.

Given your experience with commercialization in both government labs and the private sector, what role do you believe government should play in the innovation ecosystem?

Answer. The government has a series of roles that are critical to the effective functioning of the Nation's innovation ecosystem. These begin with Federal sponsorship and funding of the majority of U.S. basic research, providing the seed-corn of innovation. The U.S. corporate sector has progressively stepped back from basic research, and is increasingly reliant on a pipeline of valuable discoveries arising from federally funded research at universities, Federal labs, and research organizations. The development and demonstration of the potential value of these discoveries through early-stage applied research is another key area where Federal funding plays an essential role. Without such research in areas that industry does not have a strong incentive to invest in, there is often insufficient data available for companies, entrepreneurs, and investors to commit the necessary resources for advancing discoveries through the development cycle toward commercialization. Government support for intellectual property protection, for the effective communication of the discoveries and developments to both scientific and business communities, and for effective interfaces between public and private sector interests, including consortia for applied R&D, sponsored research programs including cooperative research and development agreements (CRADAs), as well as for SBIR/STTR investments to stimulate entrepreneurial development, are also essential elements. For certain types of developments arising from applied R&D, such as cybersecurity tools or defense-related applications, the government is also an important customer. If confirmed, I look forward to working with this Committee on these and related innovation ecosystem matters, toward assuring increasingly effective technology transfer and public—private sector collaboration capabilities to enhance U.S. national security and economic competitiveness.

Question 4. Federal investments to improve manufacturing innovation are widely supported among industry as a way to promote American competitiveness. NIST manages the Manufacturing USA program, a network of public-private institutes

across the country working to advance manufacturing in fields critical for national security, health, and commerce. Would you look favorably on awarding another institute if the funds were available?

Answer. Yes. If confirmed, I look forward to being fully briefed on the status of the Manufacturing USA Institutes and also of their transitions toward self-sustaining funding models. I support the Federal role of creating a collaboration space for industry-led applied academic research on the most important opportunities facing U.S. manufacturers. If confirmed, I will work with this Committee and NIST leadership to provide an assessment of the status of these programs, and to adapt them for greatest impact moving forward, subject to funding.

Question 5. Since 2002, NIST research has helped to improve the security of our Nation's voting systems.

Given the increased threat of interference with this critical infrastructure, what role should NIST play moving forward in safeguarding the integrity of our voting systems?

Answer. Our American democracy relies on the integrity of the voting system, and freedom from interference or tampering by others who would seek to undermine this institution. NIST has done excellent work to provide rigorous standards for our States, and for assuring national quality and reliability of election results, in a manner consistent with its non-regulatory function. If confirmed, I look forward to being fully briefed on this subject and to working with this Committee, stakeholders, and NIST leadership to address any further matters required to strengthen support for voting systems deployed across the Nation.

Question 6. What are the critical areas of research for NIST in this endeavor?

Answer. If confirmed, I look forward to being briefed on the details of the NIST research in support of the security of the Nation's voting systems as designated by the 2002 Help America Vote Act, including the development of voluntary voting system guidelines, and to eliminate any threats to voting integrity in a landscape of evolving risks and emerging technologies.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. GARY PETERS TO DR. WALTER G. COPAN

Question 1. Manufacturing Extension Partnership: Manufacturing is a critical industry to the state of Michigan and to our national economy. If we want to grow our auto and defense sectors, we have to do more to support the small manufacturers supply chain that serves as their bedrock. NIST's Manufacturing Extension Partnership is the one Federal program that provides technical assistance to the Nation's small manufacturing community, including many defense, auto, transportation and electronics suppliers. However, President Trump's Fiscal Year 2018 budget request tries to shut down this successful and critical program.

Can you commit to growing the Manufacturing Extension Partnership over your tenure to improve the competitiveness of these small manufacturing companies?

Answer. The NIST Manufacturing Extension Partnership (MEP) plays a critical role in driving innovation and enabling small and medium sized businesses to grow and thrive in a global economy. The MEP has had substantial positive effects on company advancement and manufacturing employment in every State of the Union, and in Puerto Rico. The Administration's FY 2018 budget prioritizes rebuilding the military, making critical investments in the Nation's security, and providing savings and efficiencies needed to keep the Nation on a responsible fiscal path. If confirmed, I look forward to developing a more complete understanding the status of the MEP program and to implement the planned transition to non-federal funding. I will work closely with this Committee and with the leadership of NIST and MEP stakeholders, to ensure that appropriate actions are taken for the future of the MEP.

Question 2. NIST Cybersecurity Framework: The NIST Cybersecurity Framework has become the singular reference point for organizations seeking to manage cybersecurity risks. According to many industry experts, the next step in the evolution of the framework should be a metrics-driven effort to determine which elements of the framework are most effective in addressing cybersecurity risks. The private sector is making progress in this area. For example, The Open Group, an international consortium that includes companies such as HP, IBM, Oracle, and Accenture, have partnered with the FAIR Institute to develop a methodology that helps organizations focus their security resources on the most important and critical assets. I would offer this is the essence of security and an approach that warrants additional consideration across our critical infrastructure sectors. I am told NIST

will address the measurement issue in the forthcoming update to the Framework for Improving Critical Infrastructure Cybersecurity.

Based on your experience, what are the principal challenges we face in developing the quantifiable metrics necessary to identify the most effective and cost-efficient cybersecurity controls?

Answer. If confirmed, I look forward to being briefed on the status as well as any remaining challenges in the NIST efforts to develop quantitative metrics for cybersecurity controls, and I also look forward to working with you, with this Committee, and stakeholders for their effective use.

Question 3. NIST Cybersecurity Framework: How do you counter the argument that the development of cybersecurity performance metrics will ultimately lead to additional regulation and compliance requirements?

Answer. The effectiveness of NIST, as this Committee and our Nation have come to appreciate, is rooted in its science-based non-regulatory role. Through collaboration with industry, appropriate authorities and standards bodies, NIST successfully translates its findings into meaningful and technologically-sound standards. NIST develops metrics in all fields important to the U.S. economy and our Nation. If confirmed, I look forward to working with you, this Committee, and stakeholders to ensure the integrity of the NIST mission and function.

Historically, NIST has prided itself on creating standards frameworks and serving in an advisory capacity for cybersecurity best practices. However, in March, our Republican colleagues in the House introduced a bill that would direct NIST to perform several new duties to promote and audit the compliance of Federal agencies with current cybersecurity requirements. The stated rationale is that DHS has failed to perform this function and we need a new mechanism to ensure cybersecurity progress is being measured and tested.

Question 4. NIST Cybersecurity Framework: What are your thoughts on NIST assuming audit responsibilities?

Answer. The mission of NIST is centered upon promoting U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology. An audit role for NIST is outside the organization's charter, and would convey a regulatory function that may undermine NIST's role and independence. If confirmed, I look forward to being briefed on this matter, and to work with this Committee based on the findings to identify alternate solutions to the problems Congress is working to address.

Question 5. NIST Cybersecurity Framework: Does NIST, as currently resourced, have the expertise and personnel to perform this function?

Answer. If confirmed, I look forward to being briefed on this matter. The NIST organization addresses the needs of every sector of the U.S. economy, and its resources are spread very thinly, to the point of being under-resourced in key areas, as reported by the Visiting Committee on Advanced Technology (VCAT) that regularly reviews the NIST organization and key elements of its function.

Question 6. Science Funding: From advanced nanomaterials to advanced manufacturing techniques, the National Institute of Standards and Technology invests in a range of basic and applied research that is critical to our Nation's safety and prosperity. I am a firm believer that scientific research and innovation are the foundation of a strong economy, and am proud to have worked on the bipartisan the American Innovation and Competitiveness Act, which passed the Senate with a 4 percent increase for NIST and NSF.

Given existing budgetary constraints, what research areas will you prioritize at NIST? How will you balance short-term versus long-term funding?

Answer. In the current budget environment, we are all asked to make difficult decisions. I will do everything in my power to ensure that NIST is able to maintain and to adapt its core capabilities in measurement sciences so that NIST can continue to effectively and efficiently meet its mission and provide the measurement capabilities necessary in the most important technological areas facing our country. Drawing on my experience of working with the private sector, I will work to strengthen existing partnerships with industry and to build new ones so NIST programs have a sharp focus and continue to provide excellent value to industry and taxpayers, as well as to responsibly serve and advise Congress. If confirmed, I will review the portfolio of core research areas with NIST leadership and stakeholders, to assure appropriate priorities are applied in its program areas including cybersecurity, biological sciences and healthcare applications, quantum computing, communications technologies and spectrum utilization, cryptography, forensic sciences, building systems standards, disaster resilience, advanced manufacturing, and quality. Maintaining a robust and high impact R&D program at NIST that meets the needs of our Nation must also be balanced appropriately with the need

for facilities are that are safe, secure, and fully functional for the 21st Century. I'm pleased that funds have been appropriated in the past, as well as in the currently proposed FY 2018 budget for NIST facilities development, and maintenance. I am also aware that there is significantly more to be done, based on many years of deferred maintenance and delayed investment at NIST due to budget limitations. If confirmed, I look forward to working with this Committee, appropriators, NIST leadership, and stakeholders to prioritize and address these requirements.

Question 7. Manufacturing USA: Detroit is home to the Lightweight Innovations for Tomorrow (LIFT), which is one of the original institutes of NIST's National Network for Manufacturing Institutes (NNMI)—or as it's called today, the Manufacturing USA program. This public-private partnership, founded by the University of Michigan, is focused on the applied development for lightweight metal alloy production and manufacturing technologies for defense and commercial transportation applications. Michigan State University is also a key partner in the Institute for Advanced Page Composites Manufacturing Innovation (IACMI), another outpost of Manufacturing USA, which is focused on accelerating development of manufacturing technologies for low-cost energy-efficient manufacturing of composites for vehicles, wind turbines, and compressed gas storage.

This work that is critical to our manufacturing sector and to our international competitiveness. What do you see as the future of Manufacturing USA? How can Congress and the Administration work together to reach the goal of 45 institutes?

Answer. I have seen that the Manufacturing USA program and institutes across the Nation have delivered substantial value to America's manufacturing base, employment, and the economy. If confirmed, I also look forward to being fully briefed on the status of the Manufacturing USA Institutes and of the plans and initiatives for the future. I support the Federal role of creating a collaboration space for industry-led applied academic research on the most important opportunities facing U.S. manufacturers. This Administration and Congress have similar stated goals to strengthen U.S. manufacturing, jobs, and competitiveness. If confirmed, I will work with this Committee to provide an assessment of the status of these programs, and to adapt them for greatest impact moving forward, subject to funding.

Question 8. Commercialization: On your questionnaire, you listed past experiences where you worked on the commercialization of technology and other research, and as you know, bridging the "Valley of Death" between scientific discovery and application is critical to moving science forward and ensuring our economic competitiveness.

Can you tell me what role NIST will play in the commercialization of new technology and discoveries if you are confirmed?

Answer. On behalf of the Department of Commerce, NIST has a unique role in promoting and reporting on the overall strength of Federal efforts in technology transfer, including:

- Promulgation of technology transfer regulations, including the Bayh Dole Act and the Stevenson Wydler Act;
- Coordination of the Interagency Working Group for Technology Transfer, consisting of eleven agencies across the Federal government;
- Delivering annual reports to the President, OMB, and Congress on utilization of technology transfer by DOC and across all Federal agencies; and
- The NIST statutory role to provide support to the Federal Laboratory Consortium for Technology Transfer.

The NIST Lab to Market program has also played a role in enhancing interagency coordination and efforts to enhance the commercialization of the results of our Nation's roughly $140 billion investment in R&D. If confirmed, I will work with NIST, with these and other stakeholders across the Federal government, and with industry, academia, the investment community and others to assess the performance of the Federal technology transfer efforts, and to identify, prioritize and address opportunities to substantially enhance the return on investment from Federal research to benefit U.S. innovation, our economy and global competitiveness.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TAMMY DUCKWORTH TO DR. WALTER G. COPAN

Question 1. President Trump's FY 2018 budget proposed the elimination of the Hollings Manufacturing Extension Partnership (MEP) program, requesting $6 million in funding for the program's "orderly wind down." According to NIST, MEP served more than 25,000 small and medium-sized manufacturers (SMMs) in FY

2016, and a survey of MEP clients found that companies reported $9.3 billion in new and retained sales, $1.4 billion in cost savings, $3.4 billion in new client investment, and the creation and retention of 86,602 jobs in FY 2016. In 2017, Congress increased the Federal cost share to 50 percent of the capital and annual operating and maintenance funds for each MEP Center in its fourth and subsequent years of operation; the limitation on the number of years a center may receive funding was eliminated in 1998.

What do state government officials say about their ability and willingness to replace the Federal share of funding? If state governments and user fees did not replace Federal funding, what services would most likely be scaled back or eliminated? What network activities supported by the NIST MEP Center program might be lost? What would be the impact on the centers and SMMs?

Answer. The NIST Manufacturing Extension Partnership (MEP) has helped to drive innovation and enable small and medium sized businesses to grow and thrive in a global economy. Small business drives American innovation and employment, and a significant portion of my career has involved supporting the success of entrepreneurs and SMMs. The Administration's FY 2018 budget prioritizes rebuilding the military, making critical investments in the Nation's security, and providing savings and efficiencies needed to keep the Nation on a responsible fiscal path. If confirmed, I look forward to developing a more complete understanding the status of the MEP program, and to implement the planned transition to non-federal funding. I will work closely with this Committee and with the leadership of NIST and MEP stakeholders, including State governments, to ensure that appropriate actions are taken for the future of the MEP.

Question 2. If Congress continues funding for MEP at or near its FY 2017 level, what are the key challenges faced by America's SMMs that MEP can help them overcome? What are the key management challenges faced by NIST in the administration of the MEP program?

Answer. Small and medium sized companies face a vast array of challenges, ranging from access to leadership talent and management training, technology, and intellectual property issues, to securing financing, skilled workforce, lean manufacturing expertise, supply chain, sales, marketing, distribution, and quality systems. NIST, the MEP, and Manufacturing USA provide a strong core expertise in most of these dimensions needed by businesses, with particular emphasis on advanced manufacturing techniques, management systems, and quality measures. I am aware of many companies, small, medium and large in size, that have benefited from the expertise offered through the NIST programs and network of expertise. I look forward to being briefed on the status of the MEP program, any management challenges faced, and the plans going forward. If confirmed, I will work with this Committee, NIST leadership and stakeholders to continue moving forward in supporting the SMMs of America, in a manner consistent with the mission of NIST, and subject to funding allocation.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CATHERINE CORTEZ MASTO TO DR. WALTER G. COPAN

Question 1. MEP Program Support:

- As you know, NIST's Manufacturing Extension Partnership (MEP) works with small and mid-sized U.S. manufacturers to help them create and retain jobs, increase profits, and save time and money.
- In my home state, the Nevada Industry Excellence (NVIE), a NIST MEP affiliate, has helped bolster Nevada's industrial manufacturers to achieve their goals of enhanced productivity and improved global competitiveness.
- It was recently announced earlier this September that the Nevada Industry Excellence will receive one of 12 awards through the U.S. Commerce Department's National Institute of Standards and Technology to support Manufacturing Extension Partnership pilot projects.
- The $1 million funding-opportunity award—one of only two awarded in the western U.S.—will support the further development of NVIE staff and programs.
- While this award is helpful, according to NIST regional reporting Nevada is leading the American west in manufacturing since the Great Recession at a growth rate of 6.6 percent.
- Can manufacturers and Nevadans count on the Commerce Department and NIST continued commitment to the MEP program?

Answer. The NIST Manufacturing Extension Partnership (MEP) helped to drive innovation and enable small and medium sized businesses to grow and thrive in a global economy. The Administration's FY 2018 budget prioritizes rebuilding the military, making critical investments in the Nation's security, and providing savings and efficiencies needed to keep the Nation on a responsible fiscal path. If confirmed, I look forward to developing a more complete understanding the status of the MEP program, and to implement the planned transition to non-federal funding. I will work closely with this Committee and with the leadership of NIST and MEP stakeholders, including those in Nevada, to ensure that appropriate actions are taken for the future of the MEP.

Question 2. Smart Communities Data and Cybersecurity:

- I have recently introduced legislation, *the Moving FIRST Act,* which would expand a Federal competition to create more "smart" communities, where innovative technologies will save lives, address the specific local challenges, including in rural America, and utilizes a public and private sector collaboration to improve citizen's quality of life.
- I am aware that "since its founding, NIST has supported safety, interoperability, and resilience of the Nation's core infrastructure, including power, transport, water and waste, and telecommunications." (*https://www.nist.gov/topics/infrastructure*)
- Can you talk to me about where you see the benefit of collecting and analyzing the kind and amount of data that smart communities produce?

Answer. I look forward to being more fully briefed on this legislation, and to work together with you, NIST leadership, and stakeholders in establishing the appropriate roles for NIST to play, upon the legislation's passage. The NIST mandate to provide the scientifically-based measurements that America needs is a key to our quality of life by supporting the technologies and systems to be designed and implemented in our "smart communities."

Question 3. Smart Communities Data and Cybersecurity: Do you envision a specific way that NIST can help with the transportation future we are headed into?

Answer. Yes. If confirmed, I look forward to being fully briefed on the status of the NIST work in relation to future transportation modes, systems, and their underpinning technologies. For many decades, NIST has worked closely with America's transportation sectors in delivering measurements science and reference materials in support of standards. For example, as we look to the future of autonomous vehicles and systems, NIST will contribute to the development of cybersecurity, systems integrity, and interoperability standards in collaboration with industry and other stakeholders.

Question 4. Cybersecurity and Innovations:

- Can you lay out for me where we may need to strengthen our resolve, or NIST can be helpful in working to ensure the cybersecurity of our personal information online, our use of innovations like drones or autonomous vehicles, and the overall Internet of things?
- These technologies hold bright futures, but only in a safe manor.

Answer. If confirmed, I look forward to being fully briefed on the status of the NIST work and goals related to cybersecurity programs and standards, unmanned aerial vehicles (UAVs), ground-based autonomous vehicle systems, the Internet of Things, and related innovations. The reach of the Internet through connected devices and systems continues to expand. While this expansion creates new efficiencies in many dimensions affecting the lives and livelihoods of Americans, it also creates new risks and vulnerabilities that must be addressed and mitigated. In addition to the role of NIST in developing measurements and standards, I believe NIST must take on an expanded, proactive role of relevant, accessible, and timely communications with Congress, stakeholders, and the public to build awareness and instill a sense of urgency to implement solutions for the security of personal information and assets. NIST cannot take on this communications challenge alone, but must do so in collaboration with its wide network of public and private sector stakeholders, and subject to funding appropriations.

Question 5. Cybersecurity and Innovations:

- And along those lines, please describe how you are focusing on how you can help small businesses with their cyber security needs.
- Given what kind of job creators they are, they unfortunately don't have the resources or expertise to be as safe as possible.

Answer. If confirmed, I look forward to being fully briefed on the initiatives of NIST in support of small businesses and their cybersecurity requirements. I will champion these programs on behalf of NIST for small business, and will seek to adapt them together with NIST leadership for greatest impact moving forward, subject to funding. Small business drives American innovation and employment, and a significant portion of my career has involved supporting the success of entrepreneurs as well as small and medium sized businesses (SMMs). Statistics show that when SMMs are the victims of a cyberattack, the majority are unable to recover. These attacks result in substantial losses of business value and of employment in our Nation. The NIST Cybersecurity Framework (CSF) is designed for organizations large and small, and yet many small businesses have inadequate protections in place to prevent cyberattacks and related losses. There is much yet to be done in support of small business cybersecurity. If confirmed, I will work diligently to ensure NIST outreach and assistance to the SMM sector with collaborators, subject to funding availability.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. DEB FISCHER TO HOWARD R. ELLIOT

Question. Mr. Elliott, the Transportation Security Administration is the lead agency in pipeline security. However, PHMSA maintains an important security role related to the movement of hazardous materials, including through pipelines. What do you see as the key security issues you will face at PHMSA, and how will you address them? Additionally, will you work closely with other Federal agencies to address pipeline and hazardous material security, including the TSA?

Answer. PHMSA has a responsibility to balance the safety and security of hazardous materials across all modes of transportation. If confirmed, I will work to promote interagency and industry collaboration and information sharing.

There are two key security issues to note in particular. The first is cyber-security where control systems are vulnerable to cyber-attack from inside and outside the control system network. A person who is knowledgeable in process equipment, networks, operating systems, software applications, and other technologies could gain access to a control system and cause harm to transportation infrastructure. The second concern is those who plan and commit criminal activities. If confirmed, I will evaluate current efforts to combat cyber attacks as well as physical attacks on pipeline or transportation infrastructure, and will recommend any other action that is effective and prudent.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DAN SULLIVAN TO HOWARD R. ELLIOT

PHMSA Role in IMO Polar Code

The International Maritime Organization (IMO) is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships.

In 2014 and 2015, the IMO adopted the International Code for Ships Operating in Polar Waters (Polar Code) and added its requirements to two existing IMO Conventions—SOLAS, and the International Convention for the Prevention of Pollution from Ships (MARPOL)—in consideration of hazards and conditions unique to polar waters, and an expected increase in traffic in Arctic and Antarctic waters.

The associated risks with operating in polar waters that were taken into account during the development of the Polar Code include: operations in ice and low temperatures, high latitude and remoteness from resources, limited charting, and the pristine environment. In order to account for these risks, the Polar Code includes add-on technical requirements that apply in addition to the existing international safety and maritime pollution regulations.

The Polar Code, developed by the International Maritime Organization, brings together maritime regulations from multiple international conventions to support safe and environmentally-friendly shipping in the Arctic and Antarctic waters. With more and more ships navigating in polar waters, the Polar Code aims to address international concern about the protection of the polar environment and the safety of seafarers and passengers with the introduction of new regulations that all ships operating in these harsh and challenging waters must comply.

Question 1. The Polar Code came into force on Jan. 1, 2017, and countries have until the end of the year to bring their regulations in line. Given that PHMSA plays a vital role in the safe transportation of energy and other hazardous materials, if

confirmed, will you engage to ensure the views of PHMSA are taken into account on the implementation of the Polar Code?

Answer. Yes. PHMSA will take this opportunity to build on successful partnerships with the U.S. Coast Guard, Department of the Interior, and other Federal and state agencies. If confirmed, I will ensure that PHMSA's views are provided.

Question 2. Will you engage to determine the proper role of PHMSA with the U.S. delegation for any future discussions on the Polar Code to ensure regulation to safe Arctic transportation of hazardous materials?

Answer. Yes. If confirmed, I will work with Department leadership to engage relevant parties on this issue.

Question 3. If confirmed, will you engage to determine the proper role of PHMSA in the Arctic Regulators Forum that is presently led by DOI's Bureau of Safety and Environmental Enforcement?

Answer. Yes. If confirmed, I will work with DOT's leadership to ensure that PHMSA's perspective on safety is represented at this forum.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. DEAN HELLER TO HOWARD R. ELLIOT

Mr. Elliott—one of my greatest responsibilities in the Senate is to protect and secure Nevadans. That includes fighting against the proposed Yucca Mountain Waste Repository. This project poses a serious threat to Nevadans and anyone else along the proposed waste transportation routes.

That's why, in August, I asked Mr. Batory—the nominee for the Federal Rail Administration—whether it was possible there could be a rail accident with an ensuing radiological release?

And he told me this—"I do not believe anyone, no matter how expert, can say with 100 percent certainty that an accident could never occur. Accidents are often caused by human beings. While technology, including modern trains with computerized controls and elaborately engineered special containers, goes a long way to prevent accidents, humans make mistakes and miscalculations that can result in accidents ranging from minor to tragic."

Question. Given that an accident is possible and that it could result in radiological release—can you tell me what the health and safety impact of that radiological release could be, especially if it occurs near a large city like Las Vegas?

Answer. Radioactive waste accounts for a very small proportion of all hazardous materials shipped each year, and is one of the most highly regulated commodities transported. Overall, I believe the odds of such an accident are very small.

Transportation containers for shipping radioactive waste are designed with rigorous safety standards to protect the public from releases in the unlikely event of an accident. The designs must meet stringent design, fabrication, use, and maintenance requirements to demonstrate the ability to endure worst-case accident conditions, including high-speed crashes and fire accidents without leaking or release of its contents.

I also believe in rigorous inspections of equipment used in the transport of radiological materials and in training protocols for crews handling such materials.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JIM INHOFE TO HOWARD R. ELLIOT

Question 1. As the PHMSA Administrator, you have significant responsibility regarding the safety of the transport of hazardous materials throughout the Nation. With the extended DOT–117compliance dates, and in consideration of the shipper's responsibility for selecting tank car specifications for Class 3 Flammable Liquid shipments, would you support a progressive shipper compliance schedule? If so, can this be accomplished by the PHMSA Rulemaking process or other means?

Answer. The FAST Act mandates a revised phase-out schedule for tank cars that do not meet the DOT 117 standard. However, if confirmed, I will work with shippers, car owners, and tank car manufacturers to identify opportunities that encourage more rapid shifts to DOT 117 tank cars.

Question 2. Both the executive and legislative branches have shown support for the emerging LNG export industry, recognizing its importance to our economy and to national security by offering reliable energy choices to our allies. Would you be willing to ensure that PHMSA evaluates its current regulations to take advantage of proven industry best practices and risk based approaches that can improve the safety and efficiency of the emerging LNG export industry?

Answer. If confirmed, I will work collaboratively with stakeholders to advance the work already underway that supports the safe development of the LNG industry, including the adoption of relevant safety standards.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO HOWARD R. ELLIOTT

Question 1. Last year, the Senate passed a bill that would give the Ranking Member the same access to unredacted oil spill response plans. This can be a critical oversight tool, as these plans have been severely flawed in the past. Will you commit to providing me the same access to these plans as the Chairman?

Answer. If confirmed, it would be my intention to share information with both the Chairman and Ranking Member of the committee unless there was a compelling reason or prohibition against doing so. In the case of the oil spill response plans, I would have to inquire about the reasons for the redactions made in the past.

Question 2. PHMSA has been tasked with many pipeline safety regulations and requirements. However, many of these are yet to be completed despite being required since 2011, when the Pipeline Safety Act was passed. Further, the DOT Inspector General previously found that PHMSA provides insufficient guidance, oversight, and coordination, which hinders its ability to fully implement mandates. What steps will you take to ensure these Congressional requirements are completed in a timely manner?

Answer. I appreciate the importance of addressing Congressional requirements. I will focus on addressing these mandates in as timely a manner as possible. If confirmed, I commit to keeping this Committee updated on the progress being made.

Question 3. Whenever there is a pipeline incident, we hear about the amount of time it took the operator to respond and shut down the flow through the affected pipeline. What steps should we take to ensure a faster response time?

Answer. If confirmed, I will continue to emphasize PHMSA's priority of accident prevention. The prompt and timely response with appropriate resources to pipeline releases is essential to providing safety to the public and safeguarding the environment, and PHMSA should always be attuned to ways in which response times can be made faster.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO HOWARD R. ELLIOTT

Question 1. The 2011 Pipeline Safety Act included 42 new mandates for PHMSA, of which 27 have been completed. These mandates are critical to the safety of nation's 2.6 million mile pipeline transportation network.

I am concerned with the serious safety concerns surrounding PHMSA's inability to get moving on its pending rulemakings.

Do you agree that the agency's lack of rulemaking poses serious safety concerns?

Answer. PHMSA's regulatory structure underpins what is arguably the safest, most efficient energy transportation system in the world. However, PHMSA and the industry must not rest on that record and must do everything reasonable to further enhance safety performance. If confirmed, I will use the agency's strong oversight tools, including inspections and information sharing, in an effort to improve safety performance in the industry.

Question 2. If you are confirmed, what will you do to ensure that the agency moves ahead with the completion of these outstanding mandates?

Answer. If confirmed, I will focus on addressing these actions in as timely a manner as possible. I commit to keeping this Committee updated on the progress being made.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. GARY PETERS TO HOWARD R. ELLIOTT

Question 1. Great Lakes as Unusually Sensitive Area: In the PIPES Act of 2016, I worked hard to include text designating the Great Lakes as an "Unusually Sensitive Area" making pipelines in the region subject to higher standards for operating safely. In the past few weeks, we have learned of damage to the protective coatings that prevent corrosion to the Line 5 pipeline running along the bottom of the Straits of Mackinac where Lake Huron and Lake Michigan meet. The fact that some of this damage was inflicted during maintenance tasks is even more concerning.

How will you work with me to ensure that this 64 year old pipeline is safe to be operating in an area where an incident could impact the drinking water of 40 million people along with the sensitive and unique freshwater ecosystems of the Great Lakes?

Answer. Thank you for sharing your concerns. If confirmed, PHMSA will continue to monitor and oversee the pipeline operator's activities to help ensure the integrity of the pipeline. It is my understanding that PHMSA plans to conduct a comprehensive inspection of the pipeline system during the next Fiscal Year.

Question 2. PHMSA Response Plans: Response plans reviewed by PHMSA are critical to ensuring we are prepared and ready for any incident that may occur. The Straits of Mackinac pose a unique challenge to being prepared for an incident because of the cold winters and harsh conditions creating ice cover over the Great Lakes. In the 2015 SAFE PIPES Act, I introduced provisions that would require PHMSA to make sure response plans address ice cover and the challenges it poses to spill response. The Coast Guard has stated in the past that it does not have the technology or capacity to address worst-case spills under solid ice in the Great Lakes. I have been working with the Coast Guard and others to pursue technology and build the necessary capacity to be able to respond no matter the circumstances.

How will you work with Coast Guard, EPA, other Federal and state agencies, and additional entities to coordinate on response plans and ensure that they address spill response even under harshest conditions including solid ice cover?

Answer. If confirmed, I will continue to promote coordination among our Federal and state agencies to fulfill PHMSA's responsibilities in prevention and response.

Question 3. PHMSA Response Plans: Would reviews of PHMSA approved response plans by the agencies in charge of response (specifically EPA and Coast Guard) help in your efforts to coordinate between agencies?

Answer. If confirmed, I will continue to promote coordination among our Federal and state partners to fulfill PHMSA's responsibilities. Sharing information across agencies fosters consistency at all levels of prevention and response. It is my understanding that PHMSA already collaborates with its partners in this area, and it would be my intention to see that such collaboration continues.

Question 4. Emergency Order Authority: The PIPES Act of 2016, also, established an emergency order authority for PHMSA to impose "restrictions, prohibitions, and safety measures" without prior warning when a condition and/or a practice pose an imminent hazard. Given the increasingly concerning discoveries coming from inspections of the Line 5 pipeline at the Straits of Mackinac throughout this summer, I want to be certain that this authority will be used if needed.

Under what circumstances can you envision using this authority? And what degree of "imminent hazard" would it take for you to exercise this authority?

Answer. It is my understanding that emergency order authority is one of several enforcement tools available to PHMSA. I am supportive of appropriate use of the emergency order authority provided by Congress to address imminent hazards. If confirmed, I would not hesitate to exercise this authority if circumstances warranted it.

Question 5. Emergency Order Authority: Do you feel that PHMSA needs any further tools or any further clarity in its current authorities to be able to address an imminent threat posed by a pipeline or other infrastructure that would be under your jurisdiction?

Answer. PHMSA's current authorities provide a broad array of tools to address emerging and identified threats to pipeline integrity and safety. If confirmed, I will work to make sure PHMSA continues to carry out a balanced yet comprehensive approach to safety oversight. At this time, I do not anticipate the need for further tools, but I would certainly recommend additional authorities if I believed they were necessary to carry out PHMSA's mission.

Question 6. Potential for Technology: At the hearing, the potential for technology to improve safety was raised during some of the questions from my colleagues.

In what ways do you see the potential for up and coming technologies to improve safety for oil and natural gas pipelines?

Answer. I strongly support the advancement and use of new technologies to improve transportation safety. One example of industry's use of technology involves using robots to inspect pipelines inaccessible to conventional inspection methods. I would encourage PHMSA's continued collaboration and engagement with industry on many projects that can advance safety through new technology.

Question 7. Potential for Technology: In what ways do you see the potential for up and coming technologies to improve response plans and response abilities for incidents along oil and natural gas pipelines?

Answer. I strongly support the advancement and use of new technologies to improve transportation safety. There are likely more ways that technology can improve response plan activities. If confirmed, I will continue to promote the use of technology in this critical area.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TAMMY DUCKWORTH TO HOWARD R. ELLIOTT

Question 1. There is ongoing debate about the publics' and local governments' need to know about safety risks from hazardous materials shipped by rail and pipeline through residential communities. Due to concerns about security and corporate proprietary data, key information about railcar shipments and pipeline emergency response plans is not widely disclosed. Do you believe current PHMSA policies strike an appropriate balance between protecting operator information and the public's need to know?

Answer. I strongly support information sharing consistent with maintaining proper security of information that could be used by terrorists or criminals to compromise safety and with the protection of industry's proprietary information. If confirmed, I hope to build on the information sharing successes I experienced during my career in working with communities. I look forward to advancing collaboration with the industry to adopt innovations that provide accurate real-time information to communities and responders.

Question 2. Transportation of crude oil, industrial chemicals, and other hazardous liquids presents different safety risks across different transportation modes. Do you think these considerations are properly factored into safety standards for the different transportation modes?

Answer. The Hazardous Materials Regulations (HMR) are structured to factor in the different risks posed by the material as well as by the mode of transportation. While the structure addresses these differences, it is important to note that risks can change, for instance in the growth of petroleum products shipped by rail. If confirmed, I will ensure that PHMSA is proactive in considering changes in the risk profile as it carries out its safety mission.

Question 3. The boom in domestic oil and natural gas production from shale has been driving a rapid expansion of the U.S. pipeline network. Much of this expansion is in relatively more populated areas than in the past. Do you think this expansion poses new pipeline safety concerns—and if so—are they being appropriately addressed by Federal policies and PHMSA regulations?

Answer. I understand that PHMSA has broad authority to address safety for pipelines, including new infrastructure. New pipeline systems are constructed using sound safety principles and are then integrated into PHMSA's existing safety oversight program. Thus, if properly inspected and maintained, they should not pose undue additional concerns to the public. If confirmed, I will promote continued assessment to identify any risk that this increase in infrastructure may present and guide appropriate actions.

Question 4. Likewise, as a result of the U.S. shale gas boom, the American Chemistry Council is expecting a substantial increase in U.S.-based chemical production and shipments, as inexpensive supplies of natural gas are now available as an energy source and feedstock for chemical plants. Based on your experience in moving hazardous materials by rail, do you share this expectation of an increase in shipments from chemical plants, and if so, what is your sense as to whether the Federal regulatory framework is properly positioned? Do you feel this development warrants any shift in priorities or direction by PHMSA in the years to come?

Answer. I have no reason to doubt the industry's expectation. History has shown the need for PHMSA to continually assess the industry's direction to determine needed adjustments that will maintain safety through the existing regulatory framework governing the transportation of hazardous materials. If confirmed, I look forward to learning more about PHMSA's current priorities and how the agency can promote innovation that improves safety.

Question 5. Federal funding for PHMSA has increased substantially over the last ten years, in particular for its pipeline safety program. Nonetheless, pipeline and other surface transportation of oil and natural gas products continues to grow as well. Do you think PHMSA will have adequate resources to fulfill its mission in the near term and in the long term? Why or why not?

Answer. I understand and appreciate the significant investment Congress has made that allows PHMSA to address growing and aging infrastructure. It is my un-

derstanding that the current budget allows PHMSA to meet its safety mission. I will be reticent about requesting further resources if it does not.

Question 6. As the overseer of hazardous materials transportation at CSX Railroad, can you share your experiences as to where you found PHMSA to be effective as well as ineffective in promoting transportation safety? For example, can you identify regulations you found to be effective in preventing accidents and those you found to be ineffective and burdensome? How effective are PHMSA fines and penalties in deterring accidents? Do you have an overall philosophy as to whether the "carrot" or "stick" approach is best for promoting safe transportation?

Answer. In my experience, PHMSA has been very effective in promoting transportation safety because it collaborates with stakeholders to find solutions that consider the complexity of the transportation system. For example, the rail routing requirements for high hazard materials and departmental collaboration with industry to develop a single analysis tool exemplifies effective accident prevention efforts.

My overall enforcement philosophy blends both the "carrot" and the "stick." PHMSA recognizes companies that make substantial investments in tangible safety improvement and should continue to incentivize these efforts. At the same time, PHMSA identifies and takes the necessary actions against companies that choose not to focus on safety or who put the public at risk. Fines and penalties are some of the oversight tools available to PHMSA.

Question 7. The recent hurricanes in the Gulf of Mexico, Florida, and the Caribbean had a dramatic impact on the transportation networks in those regions. Are there any lessons to be learned from the effects of—or response to—these incidents that may pertain to transportation safety? Did the design and operating standards for infrastructure and vehicles effectively prevent safety incidents? Did rules for fuel truck drivers, for instance, appropriately balance safety and emergency response?

Answer. From what I know of the response efforts, PHMSA's collaborative approach to the preparedness, response, and recovery of the transportation network during significant events seems to be effective. If confirmed, disaster response, including to the recent hurricanes, will be among the first issues I plan to assess. There will always be lessons learned on how agencies can improve, and I expect that once the near-term activities of recent events are concluded, an after-action review will be conducted.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CATHERINE CORTEZ MASTO TO HOWARD R. ELLIOTT

Question 1. Rail Transport of Nuclear Waste: While I appreciate our brief conversation during your hearing, please provide me specifics to these similar questions.

Are we ready for the rail movement of additional large qualities of hazardous materials, including the proper fail safe tank cars?

Answer. PHMSA and industry continue to assess and better understand rail risk. If confirmed, I will support efforts to foster construction enhancements, technology and innovation that, if applied to railroad tank cars or other areas of the transportation system, can advance safety.

Question 2. Rail Transport of Nuclear Waste: Are the first responders who need training on how to respond in a position to properly react to the potential of derailment of nuclear waste?

Answer. I am aware that the Railroad Emergency Services Preparedness, Operational Needs, and Safety Evaluation (RESPONSE) Subcommittee under the Federal Emergency Management Agency's National Advisory Council (NAC), of which PHMSA is co-chair, is looking into this issue.

Question 3. Rail Transport of Nuclear Waste: In your experience, are train crews trained and protected with the proper equipment to react to an incident involving a derailment of nuclear waste?

Answer. The Hazardous Materials Regulations include several requirements that help ensure train crews and other transport workers are properly trained to carry out their responsibilities and have the necessary information to take the appropriate precautions that protect themselves and the public, should an incident occur. I am a believer in proper training and support these provisions

Question 4. Rail Transport of Nuclear Waste: How about autonomous trucks, what can you say to their ability to perhaps haul hazmat like nuclear waste in the future?

Answer. The hazardous materials safety system in this country and across the globe continues to evolve, and, of course, autonomous vehicle technology, while advancing rapidly, is still not ready for wide use on our roads. The ability to transport

hazardous materials with these vehicles requires careful consideration. If confirmed, I will work with the Administration and the Department's leadership as they develop an autonomous vehicle policy.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JOHN THUNE TO RDML TIMOTHY GALLAUDET

Question. There have been calls for increased flexibility in the Magnuson-Stevens Act to better allow fishermen to reach the full fishing potential of the stock without impacting sustainability of the species. Director Oliver and others have indicated that there is the possibility for additional flexibilities in annual catch limits, stock rebuilding plans and accountability measures to enforce annual catch limits. In what parts of the law does NOAA have the greatest need for increased flexibility, and are there any specific stocks or fisheries that require additional flexibility? Do you commit to working with this Committee as we work to amend and reauthorize the Magnuson-Stevens Act?

Answer. A strength of the MSA is that is utilizes a bottom up approach where fishermen and stakeholders provide input into a regional management approach that is flexible to determine what approach will be most effective for their fishery. The parts of MSA which has the greatest need for increased flexibility are those which affect fish stocks for which there is limited data and where commercial and recreational user groups have fundamentally different goals and objectives. Another emerging challenge is for those species that are migrating due to changing environmental factors.

Examples include the Red Snapper fishery in the Gulf of Mexico and the Black Sea Bass fishery in the Atlantic.

We also need to improve the regulatory process by which the MSA interacts with other environmental statues, such as NEPA, ESA and MMPA. I look forward to working with you to find more efficient mechanisms to meet the mandates of these statutes.

If confirmed, I will commit to working with the Committee on developing the most effective legislative approach to increase flexibility in fishery management, a goal that Secretary Ross also supports.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ROGER F. WICKER TO RDML TIMOTHY GALLAUDET

Question 1. You recognize that NOAA's marine observations, mapping, and ocean exploration activities can expand the Nation's blue economy. How important is developing and utilizing unmanned systems to improving NOAA's technical capacity?

Answer. NOAA has already experimented with unmanned systems for ocean sensing, and it will be important for NOAA to use them more in the future to increase its technical capacity at a reduced cost compared to manned systems.

Question 2. Given your experience, in what ways can you use your role at NOAA to leverage the collaboration between the Navy and other partners to advance the use of unmanned maritime systems? How do you see the role of unmanned systems to meet mission requirements and provide cost effective solutions to taxpayers?

Answer. NOAA has begun exchanging personnel and information with the Navy to advance its use of unmanned systems. If confirmed, I would continue this collaboration and seek to leverage the Navy's expertise, training, education, and equipment to continue the advancement of unmanned systems at NOAA. The role of unmanned systems at NOAA, as with the Navy and other Federal Agencies, will grow in applications of ocean observation and mapping, as well as atmospheric sensing.

Question 3. Does the Administration support marine aquaculture? How do you think NOAA can better support growth for the aquaculture industry?

Answer. The President and Secretary Ross have both publicly expressed their support of increasing aquaculture in the U.S.

NOAA can support the growth of aquaculture in the U.S. by providing data and predictions of ocean conditions to best develop and operate aquaculture facilities.

NOAA can also leverage its experience with Regional Fisheries Councils to assist with permitting, development, and management. We also need to support research to ensure we act prudently to leverage regional scientific and outreach capabilities. We must also streamline regulatory processes related to aquaculture. NMFS has recently entered into a MOU with six other Federal agencies related to permitting offshore aquaculture facilities in the Gulf of Mexico. By supporting our sustainable

wild-stock harvests and expanding aquaculture production, we can make inroads into the seafood supply deficit.

Question 4. My bill, S. 1520, the Modernizing Recreational Fisheries Management Act aims to improve fisheries management under the Magnuson-Stevens Act for saltwater recreational fisheries. In your testimony, you expressed a keen interest in "advancing fisheries management under the Magnuson-Stevens Act."

Do you agree that commercial and recreational fishing are fundamentally different enterprises, requiring different approaches to management? If so, how would you work to improve saltwater recreational fishery management?

Answer. I agree that commercial and recreational fishing are fundamentally different, but both share the common need for science-based management for sustainable access. Different management approaches are not only useful for these different types of fishing, but also for different regions and different fish stocks. Saltwater recreational fishery management can be improved with better data collection and models used for stock assessments. NOAA is already moving in this direction by adding additional flexibility for fishery managers, such as determining rebuilding timelines, as NOAA revised the National Standard 1 Guidelines. Increasing flexibility in the tools used for fishery management would also help, and I echo Secretary Ross's support for including provisions to do this in any future legislation that seeks to improve upon the MSA.

Question 5. You rightly note in your testimony that NOAA impacts "hundreds of billions of dollars of activity and infrastructure." After the expansion of the Panama Canal, our port infrastructure needs to respond to the larger container ships to take advantage of the new trade efficiencies.

However, in recent years, ports in my state have been hampered by the lack of timely responses from NOAA, particularly NMFS, in dealing with Section 7 Endangered Species Act permits. Other agencies are ready to allow the permitting process to proceed, but NOAA continues to hold up the process. If confirmed in your role at NOAA, will you work to make sure that our ports can promptly receive the permits they need to expand?

Answer. If confirmed, I am eager to explore opportunities to improve permitting through the Administration's efforts under Executive Order 13807 to have "One Federal Decision." Furthermore, I am interested in increasing the efficiency of section 7 consultation process, which ensures actions taken by agencies do not threatened endangered species. These efforts could facilitate the need development of our Nation's Maritime Transportation System, and therefore is consistent with the Administration's economic agenda.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DAN SULLIVAN TO RDML TIMOTHY GALLAUDET

Hydrographic Surveying

There is a significant backlog of hydrographic charting nationwide, which can adversely affect maritime commerce and increase the risk of marine casualties. This is a huge problem in Alaska where some areas off our coast have chart data collected back in the 1800s when Russia still owned the territory. There is potential to address this backlog through contracting with the private sector, but there is a need for leadership to make this happen. Chairman Thune and I commissioned a GAO report that recommended that NOAA needs better data and a strategy for expanding private sector data collection for hydrographic surveying. Secretary Ross responded to this report with a statement of actions to be taken by NOAA, with associated dates for execution of the actions.

Question 1. If confirmed, will you work with me to aggressively reduce this charting backlog using both public and private assets to achieve this goal? Will you track and execute the action items committed to by NOAA as outlined in the statement of actions in response to the GAO report on private sector involvement in hydrographic surveying?

Answer. If confirmed, I will work with you to reduce this charting backlog using both public and private assets, and I will track and execute the action items committed to NOAA as outlined in the statement of actions in response to the GAO report on private sector involvement in hydrographic surveying. This would support development of our Nation's Maritime Transportation System, and therefore is consistent with the Administration's economic agenda.

Alaska Based Staffing

For Alaska, NOAA's missions—managing our Nation's fisheries, charting our waters, and providing accurate weather forecasting—are of significant importance.

Yet, much of the NOAA staffing and infrastructure for Alaska is located elsewhere. For example, by law one of the survey vessels is homeported in Ketchikan, but it actually resides in Oregon. And, the Alaska Fisheries Science Center is located in Washington State.

Question 2. If confirmed, will you work with me to ensure NOAA personnel and assets are deployed in a manner that makes sense for both completing the mission and the taxpayers?

Answer. If confirmed, I will work with you to ensure NOAA personnel and assets are deployed in states and territories in a manner that makes sense for both completing the mission and the taxpayers.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. TODD YOUNG TO RDML TIMOTHY GALLAUDET

Question. Admiral Gallaudet, NOAA is beginning to reap the benefits of the investments in our country's next generation of weather satellites. Some of these satellites, such as the GOES–R satellite, recently provided amplifying imagery and data as Hurricanes Harvey, Irma, and Maria bore down on the Texas, Florida, and Puerto Rico. For longer-term weather forecasting, NOAA and NASA are constructing the Joint Polar Satellite System (JPSS) and the Polar Follow On system (PFO), a combined set of four satellites slated for use in the polar orbit.

With respect to the Polar Follow On program, the acquisition plan in the FY17 budget request stretches out the need dates for JPSS 3 and JPSS 4. On paper, such budgetary shifts can save money in the near term. However, delaying procurement of the third and fourth satellites could prevent the government from realizing cost savings that come from economies of scale. Programs that are stretched out can result in increased total costs, as the price of components increase over time. Will you pledge to work with NOAA leadership to review the acquisition strategy for the Polar Follow On program to ensure Americans are getting the most bang for our government buck?

Answer. If confirmed, I will pledge to work with NOAA leadership to review the acquisition strategy for the Polar Follow On program to ensure Americans are getting the most bang for our government buck.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO RDML TIMOTHY GALLAUDET

Question 1. By flying into and above storms, hurricane hunter aircraft collect critical data for NOAA's forecasts. Although these aircraft are vital to NOAA's forecasting capabilities, they are growing old and there is no backup capability.

That is why I worked with colleagues in the Senate and the House to pass a law to require a backup for the hurricane hunters. There have already been multiple emergency repairs this season. Earlier this week, we learned that the main cabin door on the Gulfstream started leaking at 45 thousand feet, and the aircraft had to make an emergency landing for the second time in eight days. As a result, the Gulfstream was scheduled to be down for three days in the middle of hurricane season.

Despite all this, NOAA has still not come up with the statutorily required backup plan. Will you commit to providing this plan before the end of the hurricane season?

Answer. If I am confirmed, I will ensure NOAA will complete and provide Congress a plan to back up their Hurricane Hunter aircraft as required by the Weather Research and Forecasting Innovation Act of 2017 (Public Law: 115–25), and implementing its provisions would be one of my top priorities at NOAA.

Question 2. When a hurricane like Irma strikes, we need satellite data to accurately predict the hurricane track, effects, and intensity and to conduct search and rescue efforts. However, several of our satellite systems are aging and must be replaced. The administration's budget would severely cut funding for many of our satellite systems, including the Polar Follow-On program.

What will you do as Assistant Secretary of Commerce for Oceans and Atmosphere to ensure that we maintain a fully operational weather satellite system for future generations?

Answer. If I am confirmed, I would conduct the following actions to ensure NOAA maintains a fully funded weather satellite system:

- First, I would examine NOAA's Planning, Programming, Budgeting, and Execution (PPBE) Processes to ensure every penny NOAA programs for satellites is

effectively and efficiently used. VADM Lautenbacher did this with considerable success.

- I would also consider new public-private partnerships for acquiring satellite data for a lesser cost. I believe NOAA needs to conduct rigorous business case analyses for all of its data sources to evaluate the optimum combination of government, academic, and private sector sources.
- I would continue current partnerships to share satellite data, such as those with DOD, NASA, and partners in Europe, and identify new partners, including commercial satellite data providers, if possible.
- Lastly, I would work with the Commerce Department, Congress, and the Office of Management and Budget to follow recommendations from the Government Accounting Office to request sufficient funding for NOAA satellite systems during future budget submissions.

Question 3. To save lives and property, we must have good forecasts so that people can take action to protect themselves. This is the core function of the National Weather Service. As of July, however, the National Weather Service had over six hundred vacant positions, out of a workforce of over four thousand.

Will you commit to addressing the employment vacancies and exempting weather service public safety employees from any hiring delay or freeze?

Answer. If I am confirmed, I will take into account the recent NOAA Workforce Analysis to create, hire, train, and retain the modern workforce that can most effectively accomplish the NWS mission to protect lives and property and enhance the national economy.

Question 4. As we have seen repeatedly this season, hurricanes have the potential to wreak devastation. This potential is magnified when we have inaccurate or badly communicated forecasts. The more accurate and trustworthy the forecast is, the more lives, property, and precious preparation time we save. While the forecasting record so far for this season has been generally good, we need to continue to improve our forecasting capabilities.

The goal of NOAA's Hurricane Forecast Improvement Program is to do just that. In recent years, unfortunately, the budget for this program has been cut. This is why I fought to include a provision in the Weather Research and Forecasting Innovation Act, signed by the president in April, that protects and formally establishes the Hurricane Forecast Improvement Program.

Do you promise to ensure the Hurricane Forecast Improvement Program gets the resources it needs to complete its important mission?

Answer. If I am confirmed, I will make the Hurricane Forecasting Improvement Program a top funding priority, along with implementing the other provisions of the Weather Research and Forecasting Innovation Act of 2017.

Question 5. Florida is ground zero for climate change. For example, the rate of sea level rise in Southeast Florida is triple the global average of 3 millimeters a year. It is clear that climate change poses a grave threat.

Given the vital role NOAA plays in monitoring, planning for, and responding to climate change, can you give us a clear commitment that, if confirmed, you will support the continuation of NOAA's climate research and monitoring programs?

Answer. If I am confirmed, I will continue NOAA's Climate Research and Monitoring Programs to the furthest extent allowable when balanced against other priorities of the agency.

Question 6. Additionally, will you protect department scientists from political interference, intimidation, and censorship?

Answer. If I am confirmed, I will protect NOAA scientists, ensuring they comply with NOAA's Scientific Integrity Policy, which promotes transparency, objectivity, and reproducibility of NOAA research. I saw the value of scientific integrity when I earned my PhD, and in the Navy where integrity and honesty were central tenets to my service as a Naval officer.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO RDML TIMOTHY GALLAUDET

Question 1. The Trump Administration's budget would cut funding to NOAA by 16 percent, including $250 million in coastal research programs.

The President would cut the entire $73 million budget for the 33 Sea Grant programs in states across the country. In Connecticut, the work of Sea Grant and NOAA is vital to the fishing industry, shipping, navigation, and storm preparedness and response.

Other cuts to NOAA include programs that are developing advanced modeling to make weather and storm forecasts more accurate and reliable. This would slow the transition of such advanced forecasting models into real-life warning systems—directly affecting families and business owners who must prepare for severe storms.

Do you join me in my concern regarding cuts to coastal research programs that prepare communities for rising seas and worsening storms?

Answer. I agree that the NOAA coastal research programs are important, and I would continue to manage and improve performance in these programs should Congress appropriate funds for them.

Question 2. Given cuts to these critical programs, how can you ensure that coastal states, like Connecticut, will have proper warning and be prepared for future storms?

Answer. If I am confirmed, I would seek to ensure that coastal states, like Connecticut, will have proper warning and be prepared for future storms by prioritizing funding for implementing the Weather Research and Forecasting Innovation Act of 2017. Its provisions will ensure all states have the best weather forecasts and storm warnings in the world.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. EDWARD MARKEY TO RDML TIMOTHY GALLAUDET

Question 1. The Gulf of Maine is the fastest warming body of water in the United States and fishermen are already seeing the effects of climate change. Lobster populations are moving north while southern species like Black Sea Bass are appearing in greater numbers off the coast of Massachusetts. Under the Magnuson-Stevens Act, what tools do the Regional Councils and State Commissions have to adapt to climate change? What are Councils and Commissions already doing to adjust for these changes?

Answer. The Regional Fisheries Management Councils and State Commissions have a variety of tools under the Magnuson-Stevens Act (MSA) to adapt to changes in fish stocks, whether those changes are related to climate, overfishing, or other factors. These include annual catch limits, catch shares, individual fish quotas, season lengths, as well as permitting and regulations for different fishing equipment. The Councils and Commissions have successfully used these in their fishery management plans, which are informed by their Scientific and Statistical Committees. These tools have allowed most of our Nation's fisheries to rebound from the declines in the 1980s and 1990s.

I acknowledge that movement of fish species north has challenged fisheries management in the Northeast, and if confirmed, I would continue the three efforts underway at NOAA that will address this:

1. Improving data collection and modeling by using advanced sensing and processing capabilities; this will improve stock assessments and ensure the Councils and Commissions develop the most effective fishery management plans.
2. Exploring all flexibilities afforded by the Magnuson-Stevens Act to provide access to migrating fish stocks, including mechanisms that would allow for fishermen in the mid-Atlantic to transfer allocation to interested fishermen in the Northeast.
3. Working with the Commerce Department and Congress to include provisions in a reauthorization of the MSA to make fishery management by the Councils and Commissions more flexible, and increase access for as many as possible, while still preventing overfishing and stock depletion.

Question 2. In 2013, the Obama administration released the National Ocean Policy Implementation Plan to improve coordination between government, industry, and local stakeholders, better manage resources, improve gathering and communication of scientific information, to increase the resilience of our oceans, and promote the blue economy. The Northeast Ocean Plan has been signed and implementation has begun. Will you continue to support the Northeast efforts to manage their plan?

Answer. If I am confirmed, I will continue to support the Northeast efforts to manage their oceans. I share your interest in fostering regional partnerships and look forward to working with you to expand blue economic development and resiliency.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. GARY PETERS TO RDML TIMOTHY GALLAUDET

Question 1. Importance of Data to NOAA: The most recent extreme weather events have only served to underscore the importance of environmental observations from buoys in the ocean to sensors on the ground to planes flying literally through the storm to satellites viewing from above. Of concern is the fact that the President's budget cut funding for critical satellite programs like the Polar Follow-On and the next generation of polar-orbiting satellites. These satellites are crucial to providing the data needed for weather forecasts, natural disaster warnings and response, predictions for water supplies, electricity demands, and more. You have said that your priorities include atmospheric sensing and ocean observations to which the NOAA satellites are critical, and you have shared that it is a priority of yours to work with NESDIS and the National Weather Service leadership to "focus on the NOAA satellite program".

How do you plan to leverage the NOAA satellite program and deal with the various delays while still providing the critical data and observation that we need for forecasts, warnings, and predictions as our satellite fleet ages?

Answer. If I am confirmed, I would take the following actions regarding NOAA satellite programs:

- First, I would examine NOAA's Planning, Programming, Budgeting, and Execution (PPBE) Processes to ensure every penny NOAA programs for satellites is effectively and efficiently used. VADM Lautenbacher did this with considerable success.
- I would also consider new public-private partnerships for acquiring satellite data for a lesser cost. I believe NOAA needs to conduct rigorous business case analyses for all of its data sources to evaluate the optimum combination of government, academic, and private sector sources.
- I will continue current partnerships to share satellite data, such as those with DOD, NASA, and counterparts in Europe, and identify new partners if possible.
- Lastly, I would work with the Commerce Department, Congress, and the Office of Management and Budget to consider recommendations from the Government Accountability Office to request sufficient funding for NOAA satellite systems during future budget submissions.

Question 2. Preserving Natural Marine Resources: National Marine Sanctuaries are a critically important marine protected areas not just for natural resources, conservation, and biodiversity, but also for the coastal communities located on the nearby shores. The Thunder Bay National Marine Sanctuary is a tremendous source of income, jobs, economic activity, and pride for Alpena, Michigan and the surrounding communities. In 2005, before Thunder Bay's expansion, the Sanctuary generated $100 million in sales, $39.1 million in personal income, and 1,704 jobs. In your questionnaire, you prioritize striking a balance between economic and conservation interests. As community and stakeholder-driven processes, the nomination and designation of national sanctuaries provide one way to balance the many interests of communities and various stakeholders.

How do you envision the role of national marine sanctuaries in meeting the needs of many stakeholders and helping to balance conservation and economic interests?

Answer. National Marine Sanctuaries are invaluable to meeting the needs of many Americans. I was raised in Southern California and enjoyed many days visiting the Channel Islands National Marine Sanctuary. There I saw first-hand how effective Marine Sanctuaries can be in preserving natural Marine resources. If I am confirmed, I will support continuation of the National Marine Sanctuary Program.

I acknowledge that Secretary Ross has initiated a review of Marine Sanctuaries in accordance with Executive Order 13975. I will seek to ensure that Secretary Ross has the most complete data and information about the benefits of each Sanctuary, and clearly explain the return on investment of maintaining each Sanctuary compared to the opportunity costs of not developing or extracting resources in each.

Question 3. Aquaculture: The United States has an incredible sea food deficit, and aquaculture has been one mechanism proposed to close this gap and is a priority of Secretary Ross. Several groups have called for clearer guidelines for aquaculture while others have called for banning particular aquaculture practices. NOAA's Office of Aquaculture has the goal of fostering aquaculture to create economic opportunities within communities.

What role do you see for aquaculture in closing the sea food deficit?

Answer. Aquaculture growth is absolutely essential for the U.S. to correct its seafood trade deficit. 91 percent of the seafood (by value) we consume originates

abroad—half of which is from aquaculture. Additionally, the U.S. is a major player in global aquaculture, supplying a variety of equipment, feed, investment, and advanced technologies to other producers throughout the world. When considering this and the fact that the U.S. has the largest EEZs in the world, it is clear the economic potential of aquaculture for the Nation is enormous.

Question 4. Aquaculture: How do envision balancing conservation, economic, and other interests while increasing our capacity for aquaculture?

Answer. Three factors are critical for effectively balancing conservation, economic, and other interests while increasing our capacity for aquaculture:

- Improvements in data collection and models: by having a highly resolved, highly accurate picture of the physical and biological environment in and around any given site (or planned site), managers will be able to better anticipate and prevent any negative effects on the environment. The National Marine Fisheries Service (NMFS), the National Weather Service, and National Ocean Service under NOAA are already moving in this direction.
- Coordinated, deliberate, transparent and institutionalized communication between stakeholders: this must occur between Federal departments and agencies, local, state, and tribal groups, NGOs, and private sector stakeholders. I am eager to explore opportunities to improve permitting through the Administration's efforts under Executive Order 13807.
- A proper regulatory framework that does not stifle growth and ensures environmental protection. The NMFS has extensive experience in this area.

Question 5. Aquaculture: What guidance do you think is necessary to make sure aquaculture is done right to avoid many of concerns raised including escapement of domesticated or non-native species, spread and incubation of diseases and parasites, and untreated waste from aquaculture production?

Answer. As with any industry, aquaculture should be regulated to prevent escapement, the spread and incubation of diseases and parasites, and discharge of untreated waste from aquaculture production. Numerous authorities including the National Environmental Policy Act, Endangered Species Act, and the Marine Mammal Protection Act, address many of these concerns. Where they do not, we should consider potential new regulation and penalties for aquaculture operations and infractions, which I understand both the industry and environmental groups support.

Question 6. Flexibility in Fisheries Management: Three hearings have been held in our effort to review Federal fisheries management and reauthorize the Magnuson-Stevens Act. Several witnesses have called for greater flexibility in fisheries management to address difficult and/or unique situations. Other witnesses, however, have called to avoid doing anything that compromises conservation tools that are working to rebuild fisheries and provide sustainable resources. NOAA has been working to strike a balance between conservation and flexibility with a recent update to the National Standard 1 Guidelines, released just last October.

How will you help facilitate the full use of the new options provided by the update including helping regional fisheries management councils to fully utilize the new tools at their disposal?

Answer. If I am confirmed, I would continue supporting the framework used by the Regional Fisheries Management Councils. The update to the new National Standard 1, 3, and 7 was intended to improve and streamline the National Standard Guidelines by providing flexibility in meeting current MSA mandates. The 2016 final rule certainly improved implementation; however, more could be done as evidenced by concerns raised in recent Congressional hearings. I support the effort to reauthorize the MSA and look forward to working with the Congress to ensure the retention of the statute's important conservation tools.

Question 7. Flexibility in Fisheries Management: In your opinion, does the update to the National Standard 1 Guidelines go far enough to increasing flexibility while maintaining conservation? Too far with certain provisions needing to be reined in? Or not go far enough with additional flexibility measures needed?

Answer. I believe the revisions to the National Standard 1 guidelines in 2016 added useful flexibility to fisheries managers while ensuring conservation. However, I believe more can be done to improve management, particularly with respect to data poor stocks, stocks migrating due to changing oceanographic conditions, and recreational fisheries. Three improvements I support are: (1) faster and more comprehensive incorporation of fishery dependent data into NMFS stock assessments, (2) prioritizing the collection of fishery-dependent data, and (3) extending the timeline beyond 10 years for stocks to rebuild.

Question 8. Marine Debris: The challenges posed by marine debris are a completely bipartisan issue that several of my colleagues and I are working to help address through the Save Our Seas Act. This will help NOAA continue its work to address marine debris in the oceans and the Great Lakes, but we know these efforts are just a start to solving this truly global problem.

What are you willing to commit to do to help maintain the integrity of our Great Lakes and oceans and address the problem of marine debris?

Answer. I agree that NOAA's Marine Debris Program helps to improve the quality of our Great Lakes and Oceans. NOAA's Office of Response and Restoration within the National Ocean Service manages this small program, cooperating on over 140 projects, including aerial surveys of marine debris in Alaska, removal of derelict fishing gear from Flower Garden Banks National Marine Sanctuary offshore Texas, high seas marine debris monitoring, and online outreach and education programs. If confirmed, I will support NOAA's Marine Debris Program to the extent possible considering other priorities of the agency.

Question 9. Marine Debris: What more do you think NOAA's Marine Debris Program can do to address this problem and what additional resources do you think are needed to create solutions?

Answer. I believe NOAA can do more by increasing education and outreach, particularly with international partners. If confirmed. I would personally engage on this issue with organizations like the State Department, Navy and Coast Guard. For example, Navy commands regularly conduct highway and beach cleanups in their local communities. I would advocate for the Navy to help NOAA in Coast and waterway cleanups, which I know they would do gladly. I would also work with the State Department so that marine debris removal was prioritized as an important issue in international fora.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CATHERINE CORTEZ MASTO TO RDML TIMOTHY GALLAUDET

Question 1. Climate Center and Research at NOAA:

- Inaugurated in 1986, the Western Regional Climate Center (WRCC) in Reno, Nevada, is one of six regional climate centers in the United States that delivers high-quality climate data services in conjunction with NOAA and national climate and weather partners.
- The WRCC serves as a focal point for coordination of applied climate activities in the West, including drought and climate monitoring, and conduct applied research on the impacts of climate variability and climate extremes in the western United States.
- As the western U.S. feels the impacts of greater extremes in weather and climate and WRCC are tasked to study these changes, are NOAA and the staff of WRCC under Administration guidelines or edict discouraging the mention of global "climate change" when discussing and conducting climate research?

Answer. I know of no Administration guidelines or edict discouraging the mention of global "climate change" when discussing and conducting climate research.

Question 2. Climate Center and Research at NOAA: Would you ever condone any such guidance?

Answer. I support the accurate characterization of physical processes, including those relating to climate.

Question 3. Climate Center and Research at NOAA: Can I get your commitment to work closely with various stakeholders in Nevada, like those working so hard to maintain Lake Tahoe in pristine condition, to address needed scientific engagement on combatting the effects of climate change like acidification, or others concerns like ecosystem restoration and invasive species?

Answer. If I am confirmed, I would gladly work closely with various stakeholders in Nevada, like those working so hard to maintain Lake Tahoe in pristine condition, to address needed scientific engagement on combatting the effects of climate change like acidification, or others concerns like ecosystem restoration and invasive species.

This would not be a new experience for me. As Director of the Navy's Task Force Climate Change, I worked with Naval Installation managers to adapt to climate change, which included efforts like preserving habitats on Navy Bases to comply with the Endangered Species Act, and planning to rebuild piers to prevent loss to sea level rise.

Question 4. Climate Center and Research at NOAA: Can you comment on how you might focus NOAA's involvement on national AIS concerns to tackle the emerging challenges of climate change and aquatic invasive species?

Answer. This is an important topic, as AIS are one of the greatest threats to coastal and marine biodiversity worldwide, second only to habitat loss. If I am confirmed, I would focus NOAA's current Invasive Species Program on improving biological data collection to better characterize AIS threats to our ecosystems. This could lead to a more effective response. Examples of innovative technologies may include advanced sensors (underwater, surface, aerial unmanned vehicles, or drones, smart phones and crowd sourced data) and cutting edge data processing (machine learning and "big-data" techniques). It will also be important to advance NOAA's oceanographic and hydrographic collection and modeling capabilities, which are important for developing AIS response and eradication strategies. I would continue NOAA's leadership role as co-chair of the National Invasive Species Council.

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