HEARING TO RECEIVE TESTIMONY ON THE STATE OF PUBLIC SHIPYARDS TO MEET CURRENT MISSION NEEDS AND INVESTMENT STRATEGIES TO SUPPORT FUTURE NATIONAL SECURITY REQUIREMENTS IN REVIEW OF THE DEFENSE AUTHORIZATION REQUEST FOR FISCAL YEAR 2017 AND THE FUTURE YEARS DEFENSE PROGRAM

Tuesday, April 5, 2016

U.S. Senate
Subcommittee on Readiness and Management Support
Committee on Armed Services
Washington, D.C.

The subcommittee met, pursuant to notice, at 2:31 p.m. in Room SR-222, Russell Senate Office Building, Hon. Kelly Ayotte, chairman of the subcommittee, presiding.

Committee Members Present: Senators Ayotte [presiding], Fischer, Rounds, Ernst, Shaheen, Hirono, and Kaine.
OPENING STATEMENT OF HON. KELLY AYOTTE, U.S. SENATOR
FROM NEW HAMPSHIRE

Senator Ayotte: Good afternoon. This hearing of the Subcommittee on Readiness and Management Support will come to order.

I want to thank Ranking Member Senator Kaine for his continued leadership on defense issues and eagerness to work together in a bipartisan manner on behalf of our men and women in uniform.

And I am very pleased to have our witnesses here today. We are joined this afternoon by Vice Admiral William Hilarides, Commander of the United States Naval Sea Systems Command; and Vice Admiral Dixon Smith, Commander of United States Navy Installations Command. I want to thank both of you for being here and for your leadership and service to the country.

As we prepare for the committee markup of the National Defense Authorization Act, the focus of today’s hearing is on our Nation’s four public shipyards: Norfolk, Pearl Harbor, Puget Sound, and the Portsmouth Naval Shipyard. These four public shipyards and the skilled Department of Defense civilians who work at these shipyards are major national security assets for our Navy and our Nation, performing mission-critical depot and intermediate level maintenance, modernization, and repair on our Nation’s naval
In order to protect our economic and national security interests, our Nation needs the world’s most capable, well maintained, and combat-ready fleet. To ensure we have such a fleet, our Nation looks to the Navy and the Navy looks to the thousands of Department of Defense skilled civilian artisans who work at our public shipyards.

To fulfill this critical national security role, our public shipyards must have a fully trained and supported workforce that is appropriately sized, as well as modernized infrastructure, including dry docks, piers, production shops, and wharfs. That is what more than 33,000 skilled shipyard workers deserve and what our national security interests require.

I have been fortunate to witness the excellence of our shipyards at the Portsmouth Naval Shipyard, where many of my constituents work. The week before last, I was privileged to attend and speak at the Portsmouth Naval Shipyard’s trade apprentice program and worker skills progression program graduation. I was so impressed by the comprehensiveness of the training, as well as the quality of the more than 180 individuals who graduated from the program. The graduates actually logged thousands of hours of on-the-job training, trade theory and academic training, honing their trade and sharpening their skills.
Portsmouth is known for programs like this and others that promote labor-management collaboration, empower the workforce, and create a culture that values high standards and continuous learning. In fact, this subcommittee highlighted these efforts and Portsmouth’s dedication to improving its workforce in a hearing that we had before this committee last July, and in that hearing, Mr. Paul O’Connor testified at the hearing. And I am so pleased to see Paul here today in the audience.

In part because of these programs, Portsmouth has solidified its reputation as the Navy’s Center of Excellence for fast attack nuclear-powered submarine maintenance, modernization, and repair. These are not just words. Portsmouth Naval Shipyard consistently proves it by completing submarine maintenance ahead of schedule and under budget. Last year, Portsmouth executed the fastest engineering overhaul of a Los Angeles class submarine in history, completing the work on the USS Alexandria 2 weeks ahead of schedule and $9 million under budget. We are not too proud. We have seen similar top-notch performances at Portsmouth with the USS Springfield, California, Topeka, and Dallas.

The challenge before us is to ensure Portsmouth and the other three public shipyards have the resources that they need to improve performance even further. Our sailors, our
combat commanders, and our country depend on our public
shipyards. These civilians perform a vital national
security mission, and we should avoid policies that make
their jobs harder or fail to reflect the importance of their
work like sequestration, government shutdowns, and misguided
TDY policies.

This subcommittee is also particularly eager to discuss
at the hearing with both of you today the performance of the
public shipyards, including areas of excellence and areas
that we need to continue focusing on, current and projected
workload, and the personnel and infrastructure capacity of
the public shipyards necessary to execute that workload, the
importance of investing in infrastructure facilities and
equipment, and why the projects requested in the 2017 budget
request are needed, plans for the dry dock modernization at
all four shipyards, apprenticeship and training programs
like the one that I referenced at the Portsmouth Naval
Shipyard, and efforts to codify and share best practices
among all of our shipyards.

Before we hear from our witnesses, I want to touch, in
particular, on one area we will discuss, which is long-term
TDY policies that negatively affect the civilian shipyard
workers across the country. And this is something that I
have heard quite a bit from our shipyard.

As both of you point out in your joint prepared
statement, on any given day, hundreds of naval shipyard
workers are on travel to conduct critical maintenance of our
Navy ships. That travel is central to maintaining our naval
readiness and to sharing expertise and resources. As the
Senate Armed Services Committee stated in its report on the
national defense authorization last year, we must ensure
that workers conducting long-term TDY for off-yard work are
fully supported and encouraged.

Admiral Hilarides, based on your January 19th letter, I
look forward to hearing why you believe that the long-term
temporary duty policy for shipyard civilians is having a,
quote, negative impact on the naval shipyards’ ability to
effectively and efficiently conduct Navy ship maintenance
and actually, quote, has the potential to increase the end
cost of projects.

I look forward to the testimony of our witnesses and to
continue our work together to ensure the skilled men and
women at our public shipyards have what they need to
continue their work which is so vital to our naval readiness
and our national security.

I thank our witnesses again for coming here to testify
this day and for your service to our country.

I would now like to call on my ranking member, Senator
Kaine, for his opening remarks. Senator Kaine?
STATEMENT OF HON. TIM KAINÉ, U.S. SENATOR FROM VIRGINIA

Senator Kaine: Great. Thank you, Chairwoman Ayotte.

And thanks to our witnesses for being here today. I so much enjoy working on this committee with our chair and we have had a number of hearings bearing upon the workforce that builds the largest items manufactured on the planet earth that are so important to our Nation’s defense. And I look forward to your testimony today.

We have to recognize the collective condition of our shipyards, both the workforce and the infrastructure, and the ways that we can improve that to do our job better in the future. Age and the deterioration and even the design of the shipyard infrastructure can negatively impact the work that we do. GAO found for fiscal year 2010 to fiscal year 2013, there were 96 ships that were in maintenance availabilities whose maintenance was affected because of inadequate infrastructure, either obsolescent because it was designed a long time ago or needing significant maintenance.

I am very happy to see that the Navy’s proposal is to exceed the minimum 6 percent capital investment threshold for shipyards as required by law with a 7.1 percent investment in fiscal year 2017 proposed.

However, for an awful lot of the public shipyard workforce, the unfortunate effects of the RIFs, reductions
in force, in the 1990s have come home to roost in the workforce. And I just have a couple of exhibits on the table I think before the witnesses and also before all the staff members and all the committee colleagues.

Chart 1 shows an age demographics bathtub which resulted from workers being let go in the 1990s, and the compounding effect of sequestration has deepened this bathtub effect of worker experience. So if you look at chart 1, you see significant numbers of the public shipyard employees in the 26- to 30- and 31- to 35-year-old age range, but then you see this dip in the kind of more experienced upper level workers because of that RIF policy in the 1990s.

We have a second chart, and it shows that currently one-third of all public shipyard employees have less than 5 years experience, and the average level of experience of the entire workforce is only 8 years. The Navy has, I think, a desired goal that that should be between 12 and 15 years, and at 8 years, we are a little bit short on the experience side, obviously. It is going to take a number of years to make a significant change and bring that average up to 12 to 15 years.

But there is some good news and it is the last chart. It shows what the hiring has been -- hiring efforts and training investments in the shipyards with the target
manning level of 33,000 by fiscal year 2016. And you can see how it has ramped up as we have tried to fill in that bathtub that was left by the RIF policies.

But if the sequester comes back full force, some of these best laid plans of getting back to where we ought to be are really in jeopardy. And I want to echo the comments that were made by the chair about that.

I also represent a State with a wonderful public shipyard in Norfolk but also one that has a lot of private shipyards too. And this is a hearing about the public shipyard workforce, but I do want to say I am pleased that the Navy continues to grapple with how to kind of structure the entire level of work and provide as much predictability and balance as possible across the public and private shipyards.

For example, I understand that the Navy shifted three attack submarine availabilities to the private sector in fiscal year 2016 and for 2017 in addition to increasing private sector contracting opportunities in an area to try to even out the workforce. The whole cycle of hirings and RIFs, even if they are temporary, can put uncertainty into the shipyard workforce that does the work that we need.

I will conclude by just saying I also am really interested in talking about an issue that the chairwoman mentioned, which is best practices on the apprenticeship
side. I think these are some of the best workforce programs that we have in the United States. I think if you look broader than just the issue of the day, we have tended to, you know, maybe for a couple of generations really promote college education and demean, downgrade, or kind of put at second class apprenticeship, career, and technical education opportunities when we know from experience these are great jobs that you feel patriotic doing every day, that you can be employed for a very long time. We need to do the work to let the public know how high quality these are.

I am encouraged by the induction of nearly 1,000 first-year apprentices into the program and the hiring of over 650 nuclear and non-nuclear engineers in fiscal year 2016 and the apprentice school at Newport News, which is a private program which is going to celebrate its 100th anniversary here within the next couple of years. These core principles of craftsmanship, leadership, and scholarship in service of the Nation, in service of our Nation's defense, and also in service of setting the example of the American manufacturing might is something that we can be proud of.

So, Madam Chair, thanks for holding this hearing today, and I look forward to asking questions and learning from our witnesses. And with that, I will turn it back to you.

Senator Ayotte: Thank you so much, Senator Kaine.

And I would now like to call on Admiral Hilarides.
STATEMENT OF VICE ADMIRAL WILLIAM H. HILARIDES, USN, COMMANDER, UNITED STATES NAVAL SEA SYSTEMS COMMAND

Admiral Hilarides: Madam Chair, Ranking Member Kaine, distinguished members of the committee, thank you for inviting me and us here today to be part of this hearing. I am really honored to be here.

Vice Admiral Smith and I have submitted our full joint statement to the committee, which we ask to be made part of the hearing record. And we would now like to provide a brief opening statement.

Senator Ayotte: Yes, please.

Admiral Hilarides: Over the past several years, our four public naval shipyards, Portsmouth, Norfolk, Puget Sound, and Pearl Harbor, have dealt with some difficult challenges, as you noted, a government shutdown, a hiring freeze, furloughs, aging infrastructure, in the face of an increasing workload, which has led to an imbalance in our capacity and our requirements.

I am pleased to say that we are well down the road to recovery. The Navy’s fiscal year 2017 budget request includes funding to staff our shipyards to 33,500 full-time employees so that we can execute our peak workload.

However, having the right number of workers on board is the right first step, and over the last 3 years, our shipyard workforce has grown by roughly 4,000 full-time
employees. When you combine that with natural attrition, we have hired more than 10,000 people in the last 3 years, and that is reflected, Senator Kaine, by the graph that you pointed out.

Now training is our top challenge. Our shipyards have shown a talent for innovation when it comes to training, whether it is revolutionizing training of today’s new hires to get them on the job site faster, taking tanks off decommissioned submarines to use as real-life trainers for our sandblasters and painters, or utilizing 3D printing to create models to allow for proper planning of difficult evolutions. We have changed the way we train the next generation of shipyard workers who, not surprisingly, learn differently than previous generations, as our shipyards continue their innovative efforts to share their lessons with each other so that all may benefit.

Once our newly hired and trained personnel reach the waterfront, they quickly realize they are part of something special. Working on our Navy’s most complicated and powerful warships makes them part of our Navy. They do not wear uniforms but they do know their work directly impacts global events. Without them, our Navy could not be forward deployed. They take great pride in their work, and this sense of duty has a lasting effect that I believe is the primary reason why people stay at our shipyards so long.
In reading the committee’s invitation letter, I was pleased to see we share an interest in science, technology, engineering, and math. I will tell you the Naval Sea Systems Command is committed to sharing our passion for STEM with students of all ages, and our four naval shipyards are leaders in this area. They have provided hands-on support to a number of national and local fronts, everything from first robotics, sea perch, underwater vehicle pool challenges, STEM fairs, going to schools to talk about what they do, and hosting students at the facilities to see what a STEM career looks like. I am exceptionally proud of the men and women who volunteer to take their time to be part of these great efforts.

As this is likely the last time testifying before Congress, I would like to take the opportunity to recognize the nearly 70,000 government civilians, including more than 33,000 naval shipyard employees who work at NAVSEA. Over my tenure, I visited all of NAVSEA’s 30-plus facilities to see firsthand the remarkable accomplishments. NAVSEA’s workforce is a national treasure. There is no other organization in the world that can do what they do. These unsung Americans allow the United States to have the greatest Navy in the world. As I approach retirement this summer, I would like to state publicly it has been my honor to serve with them.
Thank you for the opportunity to say a few words, and I look forward to answering your questions.

[The prepared statement of Admiral Hilarides and Admiral Smith follows:]
Senator Ayotte: Thank you for your leadership and all that you have done for the country, for the Navy, and we are so grateful for the sacrifices and service of you and your family. And we wish you the very, very best. Thank you. I would like to call on Admiral Smith now for his testimony.
STATEMENT OF VICE ADMIRAL DIXON R. SMITH, USN,
COMMANDER, UNITED STATES NAVY INSTALLATIONS COMMAND

Admiral Smith: Thank you, Madam Chair. Madam Chair, Senator Kaine, and distinguished members of the committee, thank you for inviting Admiral Hilarides and me today to discuss our efforts in support of the Navy’s four public shipyards and our investment in their infrastructure and supporting services.

Budget shortfalls over the past several years have caused Navy to take deliberate risk in the shore infrastructure in order to sustain fleet readiness. Within the shore accounts, the Navy continues to place a high priority on the infrastructure of our Navy shipyards, including military construction, facilities sustainment, and facilities restoration, and modernization. Shipyard investments address the most critical safety and productivity deficiencies in the controlled industrial area, which primarily includes production, jobs, piers, wharfs, and dry docks.

Despite today’s fiscal constraints, the Navy remains committed to improving the condition of our naval shipyards which are critical to maintaining the warfighting readiness of our force. I am pleased to report in fiscal year 2017, as Senator Kaine stated, the Navy will again exceed the mandated capital investment of 6 percent across our
Having served as an installation commander and a region commander three times, regions which included three of the four public shipyards, now as Commander of Navy Installations Command, I have witnessed firsthand the challenges and opportunities of operating such a complex command and have made it my personal priority to support the shipyard commanders and their world-class workforce.

Thank you, Madam Chair. I look forward to yours and the committee’s questions.

Senator Ayotte: Thank you, Admiral Smith.

I would like, first, to begin with a question for Admiral Hilarides about the TDY policy. This is something that this committee has also discussed as well very recently with Admiral Howard who came before our committee. She had testified that there should be a concern that we ensure that there is no negative impact on the naval shipyards’ ability to effectively and efficiently conduct Navy ship maintenance. And to me, this is something that -- I talked to her about your prior comments in the January letter, and she expressed concern as well that this policy could end up costing us more.

My concern, having heard from, obviously, my constituents who work at the Portsmouth Naval Shipyard who are deployed to help other shipyards all the time and

shipyards.
obviously help the Navy, they want to do this. But right now, the new TDY policy is negatively impacting their ability to do that. And we cannot ask them to go off to other shipyards and leave their family and actually be in situations where it might cost them more to do that based on staying stateside or put them in living conditions that do not allow them to focus on their job.

So I wanted to ask you just very specifically based on what you have said in the past -- I know you have already said that it has had a negative impact on the naval shipyards’ ability to effectively and efficiently conduct Navy maintenance and does have the potential to increase the end cost. I know that was not the goal in putting the policy in place, but we have to look at the actual impact of a policy. And I think that is really, really important.

So I wanted to ask you today how has the new long-term TDY policy negatively impacted the naval shipyards’ ability to effectively conduct naval ship maintenance. I know the policy was intended to save money, but what are these unintended consequences that have flowed from it that I think all of us think it is important to address?

Admiral Hilarides: Yes, ma’am. I will attempt to characterize it, and I will try to be concise but it does require some detail.

I do stand by the letter that I wrote, and it deals
specifically with the trade laborers. And these are shipyard workers who spend 10, sometimes 12 hours a day hauling a welding machine cable, pipe. This is hard physical work. They are volunteers. So to go on TDY in accordance with their union contract requires them to volunteer. And they will volunteer if they are properly recompensed for their travel.

The travel regulation, as I understand it, when it was put in place, said after a month, you can negotiate a long-term arrangement with your housing, and you can lower your cost of food and other things by shopping smartly. And many people on travel can do that. They go to school for 6 months. They can find time to get to a store and stock a long-term lease with that kind of food.

These folks, however, are working many times 12 hours a day, hard, physical labor, and getting out to a store, finding food, coming back, and cooking it just has not been something that fits in the kind of day that they have. And so they spend their money at the closest fast food store they can find, and they really cannot survive on the money that is provided once it starts to get reduced on that.

And so I wrote specifically about those folks because we need them to volunteer to go do these jobs, many times of which is 3 months, 4 months. It could even be more than 6 months. We want them to go as a team. They are most
effective. It is as much an effectiveness argument as
anything. They are most effective when that team is
integral and operates together as a team for their entire
time. And so when that work team goes, you want them to
volunteer. You want to properly support them, and you want
them to get their work done efficiently and effectively.

If after a month, their allowance goes down and they go
home and are replaced by someone else, you lose that
effectiveness in the team, and then of course you have the
travel costs.

So I wrote my letter. It is in staffing. We have made
the business case that is being analyzed, as the Vice Chief
indicated. I will continue to fight to have them see that,
yes, in fact, in this narrow case, it makes sense to create
some sort of a standard variance from that rule. And we
will see how that goes over the next few months.

Senator Ayotte: Well, you know, I certainly appreciate
that you have made that case, Admiral. I think we are,
hopefully, going to make our case as well, wanting to make
sure that our shipyard workers can continue to help and
deploy to help with the naval maintenance that needs to be
done.

I know today, in fact, every Senator who is
representing a public shipyard is supporting legislation
that I have introduced that will ensure that we have a TDY
policy that allows them to continue doing this. So we want
to work with you on this. I want to thank all my
colleagues, including the ranking member and, of course,
Senator Shaheen and Senator Hirono, for their support on
this issue because this is a critical issue to us and to
make sure that we can continue to support our workforce as
they deploy to other shipyards or other maintenance calls
from the Navy.

I also want to ask about the issue of best practices
because as we look at the number of new hires that have been
made, I mean, it is a tremendous number of new hires. And
having recently been at the graduation at the Portsmouth
Naval Shipyard, this is quite a few people that they are
integrating. And they have an excellent apprentice program.
And also, as we think about how to improve all of our public
shipyards, how are we going to make sure that we share best
practices whether it is in the training space?

Also, Portsmouth has really done a lot of work on
labor-management collaboration, empowering the workforce,
and this I think is what has allowed Portsmouth, for
example, to produce these submarines back into service under
budget and before time. So how are we in the Navy going to
make sure that we do that and we are all sharing each
other’s best practices not only on the training and the
workforce issues but also just the excellence and
performance issues so that we all benefit from hearing from each other?

Admiral Hilarides: Yes, ma’am. So that is really headquarters’ responsibility to pull the four shipyards together. We have created, really with the help of the shipyards -- in many cases, it was their idea -- things we call communities of practice. And so you get the electrical shop of all four shipyards together in one location. You share the best training ideas. You share the best workforce development ideas. If there is a new maintenance practice that has been created, there is nothing like being shown it hands-on as opposed to a written description or even a video. And so those communities of practice is our principle method of taking those best practices and sharing them across all the yards.

Portsmouth is very much in the lead of this, but Pearl Harbor’s rigging trainer sets the standard for the shipyards. Actually some Portsmouth people saw that rigging trainer and said, boy, we need one of those at our shipyard. And so those communities of practice are a predominant way to do that.

On the labor-management side, my predecessor created a thing called the NAVSEA Labor-Management Council. And this is a council between NAVSEA, the national metal trades, the national IFPT, and the other unions that are at the
shipyards above the bargaining unit, so it is a management-
labor discussion that is above bargaining and it is about
opening up this dialogue about how to make sure we have all
the pathways to the sharing across the shipyards to the very
best communications between management and labor. And when
there are shortfalls, they tend to go up to the Labor-
Management Council, and then I talk at the national level
with folks like Ron Ault and then we go work on it together
from a national level to go try to help labor relations
improve. And I think Portsmouth still is at the leading
edge of that labor-management relationship.

Senator Ayotte: Well, I thank you for that. And also,
I think having seen how they together really from the
grassroots perspective develop their declaration of
excellence and things, I hope that that is something that we
can, obviously, share. And I appreciate your testimony.
Thank you.

I would like to call on Senator Kaine.

Senator Kaine: Thank you, Madam Chair.

I want to talk a little bit about the infrastructure
and how you guys measure the infrastructure plan that you
have. The naval shipyard depot maintenance infrastructure
plan was issued in April 2013. I think it was pursuant to
the NDAA that was done in 2012. And the plan had five
tenets of infrastructure improvement: eliminating
maintenance backlogs, remediating seismic deficiencies at any of the shipyards, maintaining dry dock certification, improving infrastructure layout to increase efficiency, and improving the utility system reliability. When the plan was initially done, there was an extensive list of things to be done. It was estimated that it would take about 17 years to complete each of the five tenets.

Talk to us about progress on that plan. The plan came out right as full sequester hit. I am going to get into the sequester in a minute. But I am curious as to the timeline of the Navy’s effort to tackle that significant amount of work to keep our shipyards in a very efficient and productive status.

Admiral Smith: So, Senator, we have been working at that. And as you know, with the budget restraints that we have right now, we have to prioritize the risk of what we go after. And so with the shipyards, the requirements that Admiral Hilarides has at his four shipyards feeds into the fleets, and then the fleets will balance that with the requirements they have on the operational side. And then those will go up and come up to D.C., and then we will rack and stack those in the priorities. And so through that process, we are making efforts on getting after the shipyards and that plan and moving it. I believe we are inside 17 years now. I am not sure of the specific --
Admiral Hilarides: As a result of the review of the nuclear forces, that number has actually been reduced to 15 years, and that 15 years has been funded as reflected in the 2017 budget.

Admiral Smith: So whereas, for example, in fiscal year 2017 where we are funding our facilities sustainment, restoration, and modernization account to 70 percent, shipyards are being funded to 85 percent and the nuclear enterprise is being funded to 100 percent. So we are putting our emphasis on the shipyards to get them where they need to be.

Senator Kaine: Admiral?

Admiral Hilarides: So the other question I think is about dry dock modernization. The dry docks at Norfolk Naval Shipyard will eventually be required to support the Ford class aircraft carrier, which is significantly different. We have those modernizations laid in place. Of course, they are not for a number of years because the first dry-docking at Norfolk Naval is not out for a number of years.

Similar is true of the Virginia class. Eventually we will need more dry docks in Pearl Harbor and Portsmouth that are capable of docking the Virginia class, which has some differences from the 688 class. So particularly as we go look to put Virginia payload modules into Virginia, we will
lay those plans in. But we will not do them long in advance of those requirements. We will probably do them just in time as those ships come into the fleet and then are projected out to when they will need their first dry-docking, which could, in some cases, be as many as 10 years into the ship’s life.

Senator Kaine: Now to kind of segue into sequester, because it is related to the ability to complete this infrastructure program, when we went into full sequester in fiscal year 2013, there was a $9 billion shortfall in the Navy’s budget, and as it affected these items, there was the cancellation in the Navy of about 75,000 days of civilian labor for major projects and the outright cancellation of a number of planned shipyard projects.

We heard from Admiral Howard earlier this month that even if everything is fine going forward, we do not go back into full sequester, that dip will suggest that we will not get back to full spectrum readiness until at least the early 2020s, and that is assuming no more sequester.

How would another round of sequester, if we do not find a path out of sequester at the end of the biannual budget deal we did -- how would another round of sequester affect your ability to do the ship maintenance on time, on budget, but also complete some of these infrastructure improvements that you planned out over the next 15 years?
Admiral Hilarides: So I will take a stab at sort of the operation of the shipyard and then turn to Admiral Smith for the infrastructure side.

The most damaging thing that happened out of all of the things that went on there is when it became clear the budget was going to be dramatically reduced, they put in place a hiring freeze and stopped the hiring of civilian employees. And then the sequester then locked that freeze in place. And it was some number of months after the kind of a path from that point was laid out before we returned to hiring. It ended up being almost a year where we did not hire in the shipyards.

If you do the math on what I talked about, we lost ground by 2,500 or so employees from zero, and we were supposed to be hiring up during that time period. So we found ourselves 4,000 or 5,000 people below manning at a time when the budget came back and we started doing the maintenance again, that we were so far behind that that bow wave that formed is a part of what the Vice Chief was talking about.

And so the most damaging part of all of it is the idea that we stopped the hiring machine that is in the shipyards. 2,500 people a year on average just for attrition. And so if you are not hiring regularly with connections into the schools and into the local labor force, you cannot just turn
that on a dime. So for me, that is the most alarming thing out of the thought that we would go into some sort of a temporary freeze is those temporary freezes have lasting impacts that go for a very long time.

The other part that a sequester does is it squeezes the other accounts. So the people who are in the government will be paid, and we have a commitment to them to pay them. But they will not get any overtime or enough overtime to do all the jobs they have. They will not get those borrowed labor folks from Newport News or from the other places we get borrowed labor to go help them in those times where the work peaks and they do not have all the resources themselves.

And then it hurts in the material and parts and all the things necessary to be ready to do the job when you show up. So it is a broad impact, hard to measure in any one metric, saying that was caused by sequester. But overall in efficiency. And the place we are right now is still very much due to the impacts that that event had there at the end of 2013.

Senator Kaine: Admiral Smith?

Admiral Smith: Sir, with respect to infrastructure facility -- and I will talk larger than just the shipyards. So we track our facility condition by what we call FCI, facility condition index, code. So 100 is good. We
consider 60 failing. The Navy’s average right now -- we are at 79.9 is our FCI. The shipyards are a little bit less than that, i.e., the reason we are funding above the 6 percent.

With the BBA right now, in 2021 with the current funding, that 79.7 will drop to 77.7. So we are going to lose 2 percent just with the funding we have right now. If we go into sequestration, that is going to fall off even more.

So in other words, we are not gaining ground right now. We are gaining ground in the shipyards. We are putting 100 percent to the nuclear enterprise, but for the rest of our facilities out there, we are not gaining ground. We are losing ground. Sequestration will cause us to lose even faster.

Senator Kaine: Thank you very much. I appreciate it.

Senator Ayotte: Senator Rounds?

Senator Rounds: Thank you, Madam Chair.

I would like to just begin by talking a little bit about the per diem issue with regard to the shipyard workers. I think the chairwoman’s proposal to offer a legislative fix may very well be the appropriate way to go in terms of reinstating the full per diem payments.

Admiral, it would appear that you agree with the chairwoman’s thought process in terms of bringing that back
up to where it should be. Is that a fair -- am I putting
words in your mouth, sir?

Admiral Hilarides: No, Senator. I just want to be
clear. It was for a very specific group of trade labor
people, direct labor people. It was not for everybody who
travels from the shipyards or all of us who travel routinely
for our business. It is for that narrow group. Yes, I very
much stand by that.

Senator Rounds: Very good. Thank you. I have an
interest in seeing that move forward. I do think that the
possibility is that we have probably tried to save some
pennies and it may very well be costing us in terms of
pounds. I do not have any shipyards in South Dakota, but I
do have an interest in seeing that things run efficiently
within those shipyards, and it sounds like this is one of
those cases where it would be very helpful to make things
more efficient.

Also, am I correct in that when we start looking at the
labor arrangements that we have, that as these folks are
asked to volunteer, there is a lineup from senior members
down the line to the most junior in terms of those who may
accept a deployment away from their home? And so if we have
reduced the per diem for these individuals, the most
qualified are perhaps the first to decline where you may
have junior members accepting a deployment away from their
home base, thus probably not having your most seasoned team members moving from one location to another on a regular basis. Am I correct in that?

    Admiral Hilarides: Sir, I think to be precise, that depends on the bargaining unit of each shipyard, which trade school you are talking about. Generally that is, I believe, an accurate description of how those union arrangements work. But it is very specific by bargaining unit. But I do know that broadly it has been detrimental to both the quality of the people who come and their willingness to stay long enough to finish the job, sir.

    Senator Rounds: Let me turn just a little bit -- I noted in the discussion earlier that you had indicated, sir, that the Naval Sea Systems Command is focused on updating the shipyards, the outdated IT systems in order to meet modern cybersecurity standards. I am just wondering if you could take a few minutes and elaborate on just what that means and the impacts, if there are some examples of concerns that you could share with us and what the needs are that are out there right now.

    Admiral Smith: Yes, sir. We are in the middle of a study to go figure out the correct path to go replace the information infrastructure that we run our shipyards from. And that really does include everything from the individual work items, putting them into packages that workers can use,
taking those packages and streaming them into a time-phased
network that allows you to plan and sequence the work. It
allows you to apply people to those jobs and then have them
be paid. So it is the actual system that documents their
hours and makes sure they get a paycheck in their account at
the end of the 2-week period.

That system right now is a kluge of a set of
information systems that have been put together over the
last 30 years. We have attempted to modernize it before and
not done well at that because, frankly, we did not put the
right professionals in my opinion against the task. We are
now re-arranging those correct IT professionals with people
who actually have better experience to go get that project
right.

We anticipate that is a 5 to 6 year project. It is
currently in the analysis of alternative stage. And I am
confident that we will be able to, this time, modernize that
system and be able to answer all the things that go on
there.

There is an efficiency piece there. We have a program
to build an electronic work document. If you get a shipyard
worker, he will be walking around with this stack of paper
drawings and paper procedures. The electronic work document
is about ready to field, and of course I need the
infrastructure to put that technical work document in. So
that is all part of that investment. And you will begin to see that investment in our budgets going forward as we finish the AOA and lay in the program to go do that.

Sir, I will point out that when South Dakota is ready to come into a shipyard, we want to make sure they are ready.

[Laughter.]

Senator Rounds: No question about it. And the experience that I had yesterday in the keel laying for the future USS South Dakota was impressive. And anytime you learn about a Virginia class submarine and what the capabilities are, you start to realize how significant the weapon systems are, how complex they are, and how much they rely on the newest technology. And I think when we start talking about the work on the weapon systems that are found within these shipyards and propulsion systems, it would appear to me that this would be an area of very high priority in terms of making sure that the data we take in, the information that we feed back in and so forth would be of the most sensitive nature. And certainly we should have appropriate cybersecurity protections in place. It sounded like while we talked a little bit about the operations side on this -- or the information side on it, the operations side of the systems and so forth, which are also upgraded, would be a critical part of that discussion as well.
Admiral Hilarides: Yes. The shipyards also would use those systems to feed, for example, dimensional controls into a numerically controlled machine. The cybersecurity of that is along the lines of our SCADA systems, the things that are going on. A lot of work inside NAVSEA to go provide the cybersecurity of those control systems both inside ships and then inside our physical infrastructure, Admiral Smith as well for his critical infrastructure. That would be part of that program would be to make sure we do that exactly right.

Senator Rounds: Thank you very much for your service to our country.

Thank you, Madam Chair.

Senator Ayotte: Thank you, Senator Rounds.

I would like to call on Senator Hirono.

Senator Hirono: Thank you very much.

We just noticed that the clock is not quite giving us the full time, just to let you know, Madam Chairman.

Senator Ayotte: I am going to make sure everyone gets their full time.

Senator Hirono: Thank you very much, Admiral Hilarides, for your service, and I also extend my best wishes to you in your future endeavors.

Thank you also for raising the issue with regard to the impact of TDY on our workers. And those of us who have
shipyards -- and of course, Pearl Harbor is the largest industrial employer on Oahu -- we have all heard from our workers as to the negative effects of this policy. So I certainly support the chairwoman’s initiatives in this regard.

As we look at the need for training of the workforce, as you mentioned, the hiring freeze really put a damper on the number of workers that we need. So training, our apprenticeship programs are really critical. I try to go to every single one of our apprenticeship graduations as I can.

My understanding is for the apprenticeship program at Pearl Harbor, they get a lot more applicants than they actually take into the apprenticeship program. Is that the case in the other apprenticeship programs? And if so, since we have such huge workforce needs, can we expand the program so that we can train more people?

Admiral Hilarides: So the apprenticeship programs were sized to make up that sort of standard loss, a couple thousand people a year.

Senator Hirono: 2,500 or so.

Admiral Hilarides: When we try to take many more than that, as we have in the last 2 years, we stretch those apprenticeship capabilities sort of to their maximum. I actually believe they are appropriately sized, as long as we continue as a going concern, normally hiring and not
freezing and then rehiring.

Your question I think, though, is beyond that. It is
could we use those apprenticeship programs to train workers
for other industries. I would not advocate that, but again,
we can go look at that.

Senator Hirono: I think that we definitely need people
trained, especially in the STEM areas. It is very
impressive to see a submarine in dry dock, for example,
because you realize the kind of skill sets that our workers
need to repair and maintain these huge, complicated ships.

So when we talk about efficiencies, I realize that
modernization and maintenance of our facilities is really
important -- best practices. I am curious to know whether
you have a process or a system to get input from the workers
themselves as to how they can improve efficiencies at the
shipyards.

Admiral Hilarides: Yes, ma’am. Actually I know you
are fairly aware of them, the moonshine projects that have
come out of Pearl Harbor Naval Shipyard. And really each of
the shipyards has a slightly different name but really the
same idea, which is when you get the trade labor involved in
the decisions about what machine to buy, how to modernize
your processes and procedure, you get the very best idea. I
think Toyota would tell you the same thing. And so we very
much work to encourage those.
They tend to be local. I do not spend a lot of time from headquarters directing that because those things do not tend to work very well. But the shipyard commanders certainly know that I have incentivized them to open up the idea machine from the workforce and make sure that we are getting their best ideas. A very complex set of controls and things associated with it because you have got to also be very safe with all that. But I think that each of the shipyards, to the best of their ability, is working to go tap into that stream of innovation that comes from their workforce.

Senator Hirono: And there have been some real creative ideas from the workers themselves that have been incorporated into the shipyard.

Admiral Hilarides: Yes. I think point of use tooling is a great example of that. Can you not just put the tools by where the worksite is? And they challenged us and we did. And of course, we got efficiencies from that.

Senator Hirono: That seems so sensible.

As Senator Kaine has mentioned, though, our experiential level is not where they could be in terms of the workers we have. Are there any programs to bring some of the more experienced people back into the workforce or keep them in longer to fill that gap -- experienced staff?

Admiral Hilarides: Yes, ma’am. In the government
civilian ranks, there is a program called “retired annuitant.” You can get a retired annuitant.

Senator Hirono: Retired what?

Admiral Hilarides: Retired annuitant. And basically you are allowed to bring them back for up to 2 years half-time, so about a year’s worth of work. And they have to spend half of their time training the workforce. You cannot bring them back just to work. They have to come back for training.

I know the shipyards are using those sparingly because they are fairly expensive. Those people, after they get out, a lot of times will go get other jobs.

We have a contract with several different companies, different in each shipyard, to bring coaches. We are finding that now with a large tranche of new labor force that the first and second line supervisors, of course, are not keeping up. Because you have created that bathtub that Senator Kaine pointed out, you are pulling forward first and second line supervisors to more senior jobs, and we are getting a lot of very junior first and second line supervisors. So we are actually working to bring in companies that know how to coach new supervisors on how to run a meeting, how to schedule work, how to deal with problem employees. And so we are doing both of those things.
Senator Hirono: So is that happening at all of our four shipyards?

Admiral Hilarides: To varying degrees and, again, according to their need. I think Pearl is probably not quite as urgent as Puget and Norfolk are. Their numbers are very, very large. Pearl has been able to use predominantly their traditional methods. But I think that is the case.

Yes, ma’am.

Senator Hirono: So I also know that at Pearl Harbor that we do have students from other nations. So right now, 12 students from seven nations are learning skills at the shipyard on various aspects. Can you discuss the importance of working with our international partners and programs such as these?

So in Pearl Harbor’s case, we have people from Bahrain, Bangladesh, Brunei, Guyana, Pakistan, Saudi Arabia, and the Philippines working with our shipyard people.

Admiral Hilarides: Yes, ma’am. That is a project that predates my leadership time at NAVSEA. We basically partner with countries that we want to help build their own capacity. Predominantly this is at the leadership level not at the trade skill level. It is at the leadership level.

So someone who would likely run one of their shipyards. We bring them in. We show them how our shipyards function. We provide them mentoring opportunities and training.
opportunities. And then those relationships -- I know some
of my shipyard commanders have relationships with people
they went through that course with when they were younger,
and those relationships endure and create the kind of
conditions by which we have very, very close shipbuilding
relationships with many, many countries that are our close
allies.

Senator Hirono: That is probably a really good idea.
Would you like to add anything to that, Admiral Smith?
Admiral Smith: We use the annuity guys also, you know,
for hiring after, for training. So I have got some of my
staff that are out. They are folks that are ready to
retire. I want them to be able to pass on their skill set.
So it is not just kept to the shipyards, but we do use that
across DOD and Navy.

Senator Hirono: Thank you.
Thank you, Madam Chair.

Senator Ayotte: Senator Shaheen?

Senator Shaheen: Thank you.

Thank you both for being here and for the work that you
do every day for the country.

I want to also add my voice to the support for the
waiver of those joint travel regulations. Like Senator
Ayotte, I represent the shipyard in Portsmouth, and we have
heard very directly about the concerns that people have had.
And as you reiterated, we want the very best people with the most skills doing those jobs when they travel. And so I think it is very appropriate that you have waived those requirements, and hopefully we can get that fixed for the long term.

I also want to applaud again the Navy’s exceeding the minimum 6 percent capital investment for shipyard modernization. Obviously, we are seeing that begin to have an effect at Portsmouth where they are working on the backlog of projects that need to be done. And I wonder if you can speak to the importance of those modernization projects. You have talked a little bit about how important they are to maintaining the fleet, but can you elaborate on that?

I know one of the things that we are very proud of in Portsmouth is, when a project comes in, completing it on time and on budget and often ahead of time. So do you know what percentage of ships and submarine maintenance were completed on time and within budget for the last year that we have data on?

Admiral Hilarides: We have that data. It is not particularly flattering, and I can provide it to the committee.

[The information referred to follows:]

[SUBCOMMITTEE INSERT]
Senator Shaheen: And does it break out how the differences by ship, by shipyard, by year, by project in a way that provides some insight on what could be done to improve operations with respect to completing projects?

Admiral Hilarides: Yes, ma’am. So for -- and I will say Portsmouth and Pearl Harbor where predominantly it is SSN projects and there is a lot of like work, that is very good data and we use it all the time to go benchmark and figure out how to help project teams do better and better.

The two large shipyards are wrestling with a much more challenging set of work. Each of the big yards has a ballistic missile submarine refueling going on right now. So they are actually moving nuclear fuel around a ballistic missile submarine. Both of them have an aircraft carrier in yard right now, which is a massive workload compared to a submarine project. And they both have SSN projects, as well as waterfront support and other off-yard things. Puget has a carrier in San Diego and a carrier in Yokosuka also under repair.

So I can provide you all that detail. I would just urge caution in the use of the data for benchmarking. Each shipyard is in a place in its cycle. Portsmouth is in a very, very good cycle. They have been at the top of their game now for quite a while. Pearl is on the rise. There
are some lights of great performance and a couple of things that have not gone quite so well in the other two yards as well. So we can provide the data. I would just urge caution in how you would interpret as that shipyard is great and that shipyard is not any good. We spend a lot of time on that data.

Senator Shaheen: Well, and certainly that would not be my thinking about it, but more to think about how the Navy is using the information and what lessons can be learned from shipyard to shipyard about what is working and effective and what needs more work.

Admiral Hilarides: We used that data actually to make the case for the hiring. So the hiring was not a slam dunk. It took us a long time to convince the Navy to allow us to hire up to the numbers that we made the case for. And we used specifically the Portsmouth performance in 2011, 2012, and 2013 -- and Pearl. They got almost all their avails done in time during that period because their workforce was sized to the workload we had. We are just now starting to size Norfolk, Puget for the workload they actually have in yard. And so performance is improving nowhere near fast enough and plenty of work to do, but we do use that data.

Thank you, ma’am.

Senator Shaheen: And to what extent has sequestration affected the ability to make the case for the hiring that
you need for those projects?

Admiral Hilarides: We went into the time of the sequester working on convincing them to hire us up. They had applied some efficiency targets to the shipyards that had suppressed the total number of people we had. We had made the argument that those targets were not rational and that we needed to release them. So we were sort of on a flat hiring spot. Then we froze hiring, and then we finally made the case. And so those 11,000 people really represent that divot, and that divot is reflected in delays in aircraft carriers, submarines, the avails that are going on right now. That is not an excuse. That is just the facts.

Senator Shaheen: One of the things that I have been very impressed by is the Navy’s diversifying its energy resources and the ability to use efficiencies both on base and in terms of the fleet and making it more efficient and relying less on fossil fuels. I wonder if you could talk about how you see the importance of that.

Admiral Smith: We take the energy conservation and efficiency very seriously. We are working very hard to meet not only the Federal goals, but we have our own goals within DOD and the Navy. I can speak to the shore side. I really cannot speak to the operational side. But we focus at all 70 of our installations on how we do conservation, reducing the demand, efficiency against a 2003 baseline. They are
all well over 20 percent and coming down. We invest a
significant amount of resources in each year into those
energy projects to help continue to bring those down. And
it is also a behavioral and getting folks to turn out lights
and do those kind of things. And the more we do that, it
reduces the utility bill. So I have for running the shore,
about a $10 billion budget. About $1 billion goes to
utilities. So the more we can drive down that utility bill,
it is obvious that it is going to help us. And so that is
why we focus on it very hard. And it is just smart business
because it is less expensive.

Senator Shaheen: And I assume there are some national
security incentives for doing that as well.

Admiral Smith: Yes, ma’am.

Admiral Hilarides: On the ship side, there is a set of
alterations to various classes of ships that are aimed
specifically at that. And it is really not to save the
money for the fuel. It is to give the CO more combat range
because the ship uses less gas. And so there is an
operational imperative on the ship side as well.

Senator Shaheen: Thank you. I think sometimes that
gets lost in the debate around energy that it is really not
just about saving money and being more efficient. It is
also about the national security imperative. So thank you.

Thank you, Madam Chair.
Senator Ayotte: Thank you, Senator Shaheen.

First of all, I want to say a thank you, which I have said before, but I want to make sure I thank you again, Admiral, and that is for requesting funding for the P285 barracks at Portsmouth Naval Shipyard for our junior enlisted sailors. So I thank you. And I know that Senator Shaheen was a great advocate for that too, and I think both of us were grateful that you put that in. So thank you.

I also wanted to ask about -- in light of the threat of terrorism, as we think about force protection, obviously security personnel, security barriers are all important as we think about the important assets at our shipyard. And obviously, our nuclear submarines are so important in terms of their technology in protecting them.

One of the things I wanted to ask you, Admiral Smith -- has the Navy been examining waterside security barriers to provide better protection for our shipyards and naval bases? I think that was an issue that you were studying, and if you could give me an update versus what you have determined on that and how that compares to what is currently used. And is there a next generation of force protection for waterside barriers that we should be looking at?

Admiral Smith: Yes, ma’am. We are looking at next generation. We have been doing that throughout this winter. So all our shipyards have a harbor security barrier around
it, as do our installation piers. But what we have right
now does not meet the requirement for high-speed boats that
could be used for a terrorist attack.

Senator Ayotte: So what is in place right now does not
do it. So we need to --

Admiral Smith: Yes, ma’am. And so we are looking at
that. And so this past winter -- actually this week, we are
going through the eighth testing of a new product down in
Norfolk. My operations officer from headquarters is
actually going to be down there to witness it. It has got a
better ability -- it is proving out to have a better ability
to stop vessels quicker. It also has a semi-automatic
capability to open and close on its own. So, one, it has
the potential to provide more security, and it also, on the
other hand, can be more efficient so we can reduce overhead,
dedicated boats that we have to open and close those. So
that testing is still going on, but it looks to be very
fruitful. And so I am very optimistic that we are well on
our way to going to the next generation and have good
potential resources out there to do that.

Senator Ayotte: Good. And this important to the Navy
to do that?

Admiral Smith: Yes, ma’am. Absolutely.

Senator Ayotte: Thank you.

I also wanted to ask about an issue that has been
brought to my attention at our shipyard as well, which is security personnel. And this is the issue, obviously, of the gates and people who are manning the entry points in our shipyard. And the concern that I had that has been raised with me is it is taking too long to recruit and train security personnel. And I know that the Navy recognized this issue. And it is something that I have also spoken to Vice Chief Admiral Howard about, that you raised the GS level for security personnel and created a career progression because one of the issues was keeping people in that position to pay the people in a way that they are going to stay and conduct these important security positions.

So I understand the new policy is going to allow security personnel at Portsmouth and other shipyards the opportunity for career progression that did not exist with a fixed GS-5 position and that officers will be GS-7 positions, and supervisory police officers will have a GS-8 position.

Is that what you understand is the new policy? And what impact is the policy having on attrition, and do we continue to have, still, challenges on the security for our shipyards?

Admiral Smith: So, yes, ma’am. We have redone the position descriptions for that. We are building the career path. We are still in the process of doing that. That is
Senator Ayotte: Okay. So you have not put it in place yet.

Admiral Smith: It is starting to roll out.

So, for example, you talk to the GS-5’s. We now have the GS-6 in place. So folks will be evaluated and move up to GS-6. 7’s are not in place yet. We have the 8. So we are still in the process of building that in addition to then-CNO Greenert last summer directed that we hire another 1,461 security personnel because of the shortfall. So we are still hiring to that.

From an enterprise perspective, we are doing pretty well. We are still struggling in the mid-Atlantic and New England. We are still struggling at Portsmouth. I know that. I am diving that to figure out why, why am I being successful elsewhere but not being successful in Portsmouth.

Senator Ayotte: So is the Navy prepared, if they have to, to address the career progression issue? I know you have gone to GS-6, but also I think looking at the progression issue, GS-7, GS-8 perhaps for the supervisory positions. So is this something you are going to continue? How fast do you expect implementing the rest of this policy and keeping a focus on those --

Admiral Smith: So the goal is to have the plan built by the end of June and then to start working our way into it
As we get the hires and identify, based upon the requirements of each installation, who needs what resources based upon number of entry control points, amount of waterside property, those kind of things. So we are still working to build a plan to understand where we need to put those positions at. So I should have that done by the end of June.

Senator Ayotte: Thank you. I appreciate it.

I see that Senator Ernst is here. I know that Senator Kaine has a couple. So what I will do is I have a couple more questions. I will wait till the end. I believe the next would be Senator Ernst.

Senator Ernst: Thank you very much, gentlemen, for being here today. I apologize. We were talking about small arms modernization in the other subcommittee. So glad to join you.

I do appreciate your support. Shipyards -- I will be honest. Not my thing in Iowa. So if you want to talk about corn or soybeans, you know, that is awesome.

But public shipyards. So thank you. I know you are both very familiar with this. So thank you for holding this hearing.

And just for my information as well, the public shipyards are hiring thousands of additional workers to better match workforce with workload. And what I have heard
is that the process from application to the first day on the job -- so filling out the paperwork, whether it is online, and then actually getting to work -- that that is unnecessarily long and complicated for a lot of those workers.

As a result, we are losing some of our best applicants as they take other jobs that can hire them quicker. And this is not just in this particular situation. I think it is DOD-wide.

And are you seeing this issue and are you concerned by it? I know they have to go through -- what is the website? USA Jobs. Yes. Thank you very much. So you are familiar with that. If you could talk a little bit about that issue, if you are concerned by it, and maybe the average wait time, if you are aware of that, from that time the applicant goes on line, fills out the application, until they are actually able to be hired.

Admiral Hilarides: Yes, ma’am. We will talk the specific case of the shipyards. When we recognized how far behind we were and the need to hire that nearly 11,000 that we hired in the last 2 years, we went out and sought authorities and streamlined processes, everything from a physical -- you got to get a physical. We hired extra doctors. We had to get clearances. The clearance system was bogged down. We helped them with contractors to go help
boost their capacity to go process clearances. And so we specifically went after all those barriers and got the shipyard hiring specifically because we had this tremendous challenge and hill to climb. We were able to get it down. Routinely, however, I hear that same thing at my headquarters, at my field activities that the government hiring process is cumbersome and it takes a long time. We do lose some number of folks who apply for those jobs. We have a few silver bullets we can use, but we cannot use them all the time. And so I think that that is going to continue to be an issue is the amount of time it takes. When a company like a Google can show up at a college and make a job offer in a minute, I just do not have that opportunity. So that will continue to be a challenge for us.

Admiral Smith: I mean, from the Navy at large, DOD, we are seeing the same challenge. To Madam Chair’s question on security, it is taking us 163 days to get a security officer on board. That is just way too long. Yes, ma’am. It is too long. We have got to get the process better.

Senator Ernst: That is pretty incredible. I know we do have an arsenal that sits between Iowa and Illinois, and we face some of those similar challenges as well. So I have heard from workers there that maybe they have someone they would just love to see in their workforce. They encourage them to apply. They will apply online through the website,
and it may be 6 months before they ever hear back from the entity that is hiring. That is too long. By then, those folks have already moved on. They have found other workforce opportunities. So I do not think that that is acceptable that we are asking people to wait that long for these important positions. Yes, I am astounded. That should not happen.

Do you happen to know the reasons why it would take that long? Is it reasonable to expect people to wait that long to hear back on these types of positions?

Admiral Hilarides: So those procedures have grown up over a lot of years. Some of the parts of it are extremely important. We have hired some people who we found out were bad people. In the last 2 years, we hired two people who turned out to be attempting to work for us to get inside to get information to sell to someone else. So the security piece is absolutely essential. The same thing with the physical. So you are going to put them in the bilge of a ship and hauling an 80-pound welding rig around, you want to make sure they are physically capable. So many parts of it are absolutely essential.

The parts that are not tend to be outside of our controls. The Navy is a big bureaucracy. Hiring a government civilian -- you want to be a little careful as well because generally you are hiring that person for a long
time. Very few people come into the government and leave just a couple years later. The number of people who come in our shipyards and stay for their entire career is a very large number -- and other places. And so we end up being pretty careful.

And I would say this. These jobs are attractive enough that if somebody really wants to come into the government, they wait. So I do not think we are taking a really large hit on the quality. But it is frustrating, and I hate to get a new employee who just the first thing tell me as a leader is how frustrated they are at the selection process.

Yes, ma’am.

Senator Ernst: Absolutely.

Are there any suggestions that you would make on how we can speed up the process? Like if you are buying a home, you can get prequalified on your loan while you are looking for a home. Is there anyway that you could prequalify individuals? Within a certain time frame maybe they get a physical and it is good for 6 months if they are looking for government employment. Are there ways that we could work with them?

Admiral Smith: So there are a lot of fingers, hands go into the hiring process. So it is streamlining that process. There are things that as the Commander, Admiral Hilarides or I can do within our command to improve our
processes, but then we rely on others. I mean, one of the things we have done in going back to the security manning and hiring and the challenges we find in that is a potential employee would have to go out and get his eye exam. He would have to go out and get a health exam. He would have to go out and get this exam instead of coming in a one-stop shop. And so one of the things that we have done is now do a one-stop shop, and we have all the medical facilities and requirements there so they can come in and get it done at once. We are saving several weeks with that process. So there are those kind of things out there.

I would submit, though, the biggest challenge is because there are so many hands in the pot trying to get that streamlined which a lot of that is not within our control as commanders of our organizations.

Senator Ernst: Is there anything that we could do as Congress that would help that, or is that beyond --

Admiral Hilarides: The only other point I was going to make is that we use both the intern program. So we have authority for interns. And we do a temp worker program in the shipyards where we need a worker for a short period of time. They are sort of a probationary employee. They come in and you can let them go. And those tend to last a year. Those are the places where we do most of that prequalification. And so when there is a hiring, when
hiring is available, often those temp workers will be brought in. And that is a very good process by which the workforce sort of vets them and finds out if they are willing to work hard enough and all that sort of stuff. But those are really our workarounds.

I cannot point to an agency and say get rid of that agency. And I probably should not.

Senator Ernst: Well, my time has expired. But I very much appreciate your expertise and your willingness to be here today. And I am better informed, those of us that are not familiar with shipyards. So I appreciate it. Thank you.

Thank you, Madam Chair.

Senator Ayotte: Thank you, Senator Ernst.

I just want to share Senator Ernst’s concerns about the hiring period, and I think that is a challenge. We want to get talented people in. So this is something, of course, we would want to work with you on in any way we can assist with.

And with that, I would like to call on Senator Kaine.

Senator Kaine: Thanks, again. Just a couple of points, but Senator Ernst made a good point in saying, well, I am from Iowa. We do not have a shipyard. I am from Virginia. I have been in our shipyards a million times, but I am not a professional at it. So I do not necessarily know
what I am looking at.

But I will tell you it is something I would recommend to committee members on Armed Services. We do travel to other nations. Go look at another nation’s shipyards. It was not until I went with Senator King of this committee to the Mazagon docks in Mumbai and looked at the Indian shipbuilding industry. And they were so proud that two U.S. Senators would want to come see their shipbuilding operation. It was a fantastic visit. But, boy, when you saw that, now all of a sudden I could think about what I had seen at Newport News or at the Norfolk base and realize, wow, just in terms of the layout, so much more efficient -- the layout and the scheduling of the work. They were basically doing things in a very odd set of structures that had been built for different kinds of ships. They were trying to build subs in there. It was just virtually impossible. They were proud to do and excited to show it off, but it really helped demonstrate what we had and what we sometimes take for granted.

Two really specific things: one about an old problem and one about a new opportunity.

Old problem: corrosion. I am amazed. You know, we have spent all this time battling about budgetary issues. I read GAO reports that say corrosion DOD-wide -- $22 billion a year. Wow. $22 billion a year. And as we get into
sequester and some of the pressures that lead us to defer
maintenance, that is a problem that can expand, not shrink.
But if you could do innovative strategies to reduce the
corrosion expenditure in DOD by a third, there is a whole
lot of really important programs in the United States where
we spend than $7 billion a year.

So I am just wondering. I am really curious in what
you do in your corner of the world, what are the kind of
innovative strategies to deal with the corrosion problem,
especially given some of the budget pressures that we have
put on your shoulders.

Admiral Hilarides: Sir, I will make sure you get an
invitation to Megarust. We actually have a Navy conference
called “Megarust.”

Senator Kaine: Wow.

Admiral Hilarides: We bring in Sherwin Williams, all
the paint manufacturers. We bring in chemical companies and
are actually looking at all series of formulations to go try
to do that. Again, sea water, air, ships, vibration. There
are a lot of reasons why there is a constant need for
painting of ships.

Continually looking at better and better paint systems.
One of those paint systems was pioneered up at Portsmouth
Naval Shipyard, the high solids pain that we put in the
ballast tanks on submarines, went from a 10-year period of
painting it to a 15-year period which saves one entire paint cycle of a submarine over the course of its life.

So we put a lot of effort into it. I spend way too much time on rust, and so I am right with you, sir. And we are looking for industry to help us out as much as possible.

Senator Kaine: That is great.

Another area of industry -- I am going to go to the new opportunities side because the hearing is about sort of investment strategies. We have a lot of innovative private sector folks in Virginia in the additive manufacturing or 3D printing area. And I understand that the Navy has used 3D printing technologies to do on shipboard production of some parts that can be used so you do not have to fly parts in to a ship. Talk a little bit about 3D printing and the kind of investment going forward especially for on-time, on-ship production of critical components.

Admiral Hilarides: Yes, sir. We actually have a lot of research inside the entire Naval Sea Systems Command enterprise and across the Navy on additive manufacturing. Our principal challenge is almost all the things that we need that are critical are made of some material that is not plastic, some alloy of some metal. And right now, the research is going on. So even if you alloy a steel and you three-dimensionally print it, the atoms go in in the sequence the printer puts them in.
When we manufacture that piece of steel otherwise, it gets worked. It gets heat-treated, and we know its properties very well. We are actually now characterizing additive manufacturing metal properties because I cannot certify that part out of that printer until I know its metal properties. And so we actually have a significant body of research going on in the Naval Sea Systems Command to go characterize the strength of particularly the metals to go make sure that we can then start to use it. It is holding us back a little bit, but it is fundamental research that has got to be done before you can say that part is ready to go in that nuclear reactor or in that gun system or in that kind of critical thing. We are working on it full speed, though, and wherever we can, we qualify the process and the fleet is already using those systems.

Senator Kaine: Great. Thank you both very much.

Senator Ayotte: I just have one final question for you, Admiral Smith. So one of the issues that I had focused on as well is our service members and our DOD civilians, you know, the jobs that they are doing -- is ensuring that they have access to good, affordable child care. And obviously, those who serve our country -- it is really important that they have access to this so that they can do their jobs.

And unfortunately, at Portsmouth, one thing I learned is that there were over 160 families waiting average of
almost 300 days to get their children into care there. So this is something I have been focusing on not only for Portsmouth but thinking across DOD.

So the Navy told us yesterday that they believe that wait times at Portsmouth had been reduced about 3 months, but we also had my staff call Portsmouth and find out. And what we learned was that depending on the category of individual, wait times can still be as long as a year.

So I just wanted to follow up with you. I know the Navy has said that you are looking at plans to install military learning centers at Portsmouth to reduce the child development center wait list and wait times. I wanted to get an update on that. And obviously, I know that this is an issue at other naval installations. So if you can give me an update on Portsmouth and then just an overall Navy view of where we are on these issues.

Admiral Smith: Yes, ma’am. Absolutely.

So you are right. It depends. So we will talk Portsmouth. And like any CDC, the wait list varies on the age of the child and spaces available. So the average wait list right now is 7 months up at Portsmouth. The high was 10. It is down to 7. But that goes to some folks who were waiting a year, some folks less.

For the MLCs, we are still working through that process. They will be on the ground, installed. We are
targeting the end of this fiscal year three to four MLCs will be there. Depending how you configure them, whether you configure them for an infant, 1-year-old, or an older child, they can accommodate anywhere from 8 to 24 children. So we will hire some additional staff members to man those up, nominally four per MLC with the final number being depending how we configure it.

Senator Ayotte: So -- I am sorry. Go ahead.

Admiral Smith: You were coming with a question.

Senator Ayotte: No. It just occurred to me with all the new hiring, this is going to be a bigger issue.

Admiral Smith: Absolutely. I will say, though, that is not appropriated fund hiring. It is a little bit different from APF, and it is a bit easier to hire on the NAV side.

So that is where we are at with Portsmouth.

From a big picture, so we have got 120-plus CDCs across our 70 installations. We have 57,000 spots in those CDCs. We have created an additional 7,000 since 2009. We created those additional 7,000 to get us down to the DOD target of a 3-month wait list. So the Navy is meeting the 3-month wait list overall. We have 16 installations, Portsmouth being one of them, that is not meeting that 3-month.

Senator Ayotte: Well, I really would appreciate, obviously, the focus on getting the military learning
centers up and running as soon as possible at Portsmouth. And then having been there, we need to get to a new facility that has more capacity in the long term. So I look forward to continuing to remind you of that issue.

Admiral Smith: Yes, ma’am.

[Laughter.] Admiral Smith: We are finishing up the engineering studies right now to put in the pads, and then it will take about 3 to 4 months to get the MLCs there installed, upgraded, and ready to go.

Senator Ayotte: Okay. Thank you. I appreciate it. I want to thank you both for being here and for your service to the country. Again, I want to thank you, Admiral Hilarides, for your leadership and for your dedicated service for decades to our country. And will you please pass along to your family how grateful we are for all that they have done as well?

Admiral Hilarides: Will do.

Senator Ayotte: Thank you.

[Whereupon, at 3:52 p.m., the hearing was adjourned.]