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STATEMENT OF

VADM CHARLES L. MUNNS

COMMANDER NAVAL SUBMARINE FORCES

BEFORE THE

HOUSE ARMED SERVICES COMMITTEE

SUBCOMMITTEE ON PROJECTION FORCES

ON

THE NUCLEAR SUBMARINE FORCE – PAST, PRESENT, AND FUTURE 13 JUNE 2005

NOT FOR PUBLICATION UNTIL RELEASED BY THE HOUSE ARMED SERVICES COMMITTEE Mr. Chairman and distinguished members of the Subcommittee on Projection Forces, I am Vice Admiral Charles Munns, Commander Naval Submarine Forces. I want to express my gratitude on behalf of the men and women of your Navy for holding these hearings. It is a true privilege for me to be here today, representing your Submarine Force.

I see the world from a unique, important, and uncommon perspective, having spent 12 years underwater. And from that perspective, I believe undersea warfare is not well understood by most of the public for a very good reason: if our adversaries knew the details of our mission successes and resultant strategic importance, then they would surely work harder to negate our efforts. Silent Service is our legacy, and although we value our participation as members of the Joint Team and therefore communicate liberally with Joint and Combined forces, we hold our cards close to the vest in unclassified forums.

As you have requested, today I will shed some light on the operational capabilities of today's Submarine Force and discuss its contributions to our national security, both realized and projected. I will also define operational capabilities deemed necessary to ensure our Navy's continued success in this most important endeavor. My remarks will be unclassified, however I am prepared to discuss classified details with the committee at a future time if desired.

I. The Global Strategic Landscape – I will start with my view of the world and while this may be general knowledge, it does drive the work that we do and the methods that we employ.

Strategic Challenges. America is a Nation at war. Our enemy is a complex network of ideologically driven extremist actors. Just how this war will continue to unfold and the way the global strategic landscape will evolve remains uncertain. The uncertainty is derived from many factors:

- A terrorist enemy with irregular methods
- Other potential adversaries
- Uncertain strategic objectives of our potential adversaries
- Complicated and complex unions and networks of national and stateless actors
- Disruptive proliferation patterns of advanced technology
- Uncertain, but necessary, global economic interdependencies

This uncertainty creates several alternatives that we may face in our future. There is a set of alternate futures ahead of us – we must posture ourselves to survive as a nation despite not knowing which future will predominate. Your submarine force brings valuable capabilities to each of these futures and we are ready. First, there is a world dominated by the War on Terrorism, a long-term campaign fought on a global scale, involving all elements of national power. Secondly, there is the

constant potential of a future involving Major Combat Operations against a near peer competitor. Third is a world in constant crisis, with hot spots flaring around resources, ideology, religion or other issues. Finally, defending the homeland from direct attack will always be a priority and will be addressed both within our borders and abroad; preferably forward, away from our borders. Though I have laid these characteristics out as alternate futures, it is important to note, they may exist to varying degrees simultaneously. We need capability, which can posture us against any and all of these futures.

Beneath this somewhat academic description are new factors motivating the world's people. Natural resources such as oil, natural gas, and in some areas water are becoming scarcer and competition for these diminishing resources leads to conflict. The world has shrunk due to advances in technology, such as the Internet, air travel, blogs, and instantaneous worldwide news reporting. These technological advances have served to create friction with nationalism and strengthened the bonds of ideological commonality across the globe. This dynamic adds to the complexity of understanding the future.

We must also consider internal factors when defining needed capability. The political complexity of our nation, our allies, our coalition partners and the interconnectedness of our globe tend to restrain freedom of action. We must achieve cost affordability while procuring new equipment, maintaining the force, and retaining the best people. Our Navy is changing our warfighting model so in

the future, we produce the capability this nation needs with fewer, but smarter people.

It is not a matter of if, but when, the next conflict will arise. And yet we must not wait for it to strike. I assure you, we are not waiting to be struck unexpectedly or simply to respond to the events of the next crisis. We are acting to influence our future. This requires day-in and day-out operations in close proximity to the enemy and other potential adversaries whether they be nation, state or terrorist cells, in order to develop a clarity of understanding of their capability and intent. We must take action to capture intelligence, not wait for it to come to us. It requires us to be a force in action, not a force in reserve. To shape the future, we need Maritime Domain Awareness, which requires engaging throughout the world, to gain clarity on its make up and in particular the complexities of our potential adversaries, their capabilities, intent, and geo-political situations. This drives the need for a strong capable forward deployed submarine force. I'll explain.

Strategic Capabilities. We must be able to shape the environment in light of strategic challenges. We must also ensure we do not overly prepare for one particular future at the expense of potential alternates. This preparation will require balance and development of options that provide flexibility and capability across the spectrum.

The possibility of conflict with a near peer competitor mandates the need to maintain decisive maritime dominance. Our influence throughout the world is not completely predicated on our military strength, but without it, we lose the initiative against those adversaries who rely on force as their tool of influence. We must maintain the capability to dissuade large-scale military action and retain the means to rapidly and decisively defeat those potential adversaries with misplaced but unshakable ambition. Your Submarine Force's capability is the combination of our platform technologies, our crews' abilities, and our Force capacity, or number of operational ships. These are qualities not easily or rapidly reconstituted once lost. The firepower available from a deployed, ready, and clandestinely postured nuclear submarine is an important part of this mix.

Stability operations up front are central to our national strategy of dissuading, deterring and shaping. An unstable situation represents a potential flash point to a future larger conflict. Strength provides stability and weakness emboldens instability. Addressing these issues is analogous to extinguishing a fire in a trashcan before it spreads to the entire house. Having a good understanding of the hot spot and the actors involved contributes to stability. It's nice to have someone watching when the fire starts – it's nice to know what is in and near the trashcan as the fire grows. The sensors, communications and analytical capability of a deployed and clandestinely postured nuclear submarine are part of the skill set for this situation. How many hot spots we can cover at a time is driven by our force structure.

Terrorists are employing irregular methods against us and continue to seek capabilities for a catastrophic attack. To win the War on Terrorism requires a wide spectrum of capability, which will allow our Nation to fight conventional and asymmetric warfare. But the battlefield is often on or contiguous to the world's oceans. A properly placed and actively managed net of clandestine sensors can detect what these terrorists and their supporters do not want us to find out. The larger the net, the more we learn and the faster we learn it. Deployed submarines are part of this net.

The strategic challenges we face today and the range of alternative futures we see tomorrow demand U.S. strength in the maritime domain. It is the greatest of the world's commons. We depend upon the seas for the growth of our economy and the survival of our country. We concentrate on and continue to improve in the conduct of littoral operations essential to working issues of importance to our security. We ensure the capability to assure access to the near coastal region and far inshore.

To face the range of possible futures, we must work day-in and day-out in the ungoverned littorals of the world, we must be proactive in our approach to shape and prevent conflict and we must be flexible enough to respond appropriately when needed.

II. Health of the Submarine Force – Having given a glimpse of what we must do today and into the future, let me now report on our readiness today.

Our nation has the best submarine force in the world. It is the best submarine force in history. We have built upon a strong legacy of selecting and training the best people, building and maintaining the best ships, and equipping them with the latest technology and most advanced equipment. These standards contributed to winning the Cold War and they have maintained our preparedness for the future. This is where we are today, but while the submarine force is robust today its future cannot be taken for granted.

Skill sets erode rapidly when not continually practiced. A submarine's first underway following an inport period, even after only 5 short weeks, can be a challenging experience until the crew has practiced and re-established the team work required to operate such a complex piece of machinery in an unforgiving environment. This necessity for constant practice and usage of skills applies equally across the entire breadth of the submarine enterprise; from the design and construction industrial base required to build these marvelous machines, to the shore infrastructure support, the training centers, the maintenance and repair facilities, and even the staffs who oversee their operations. Our strength is not only the smooth operation of each part of this process but in the holistic tuning of all these pieces. We learn as we operate. We are sensitive to our environmental responsibilities. We are proficient because we work where and how we might have

to fight. The unique capabilities provided by our Submarine Force cannot be quickly regenerated once lost.

Our people are the cornerstone of our Force. They are talented, they are motivated, and they have chosen to serve their Nation in a submarine. We screen our applicants and only take the best. Our Sailors are better educated today than in the past and we continue on an upward trend. Some enlist with a partially or fully completed Bachelors degree and many work to continue their education while serving. Most officers now work towards and complete a Master's degree through one of numerous programs. Our training commands utilize the latest technology to train today's "information age" Sailor. This investment in education is returning substantial dividends - a smarter and more efficient approach to doing business.

Submariners feel a sense of purpose. They are out on the front line everyday providing value to our national security. They know what they do is important.

Our officer and enlisted corps are defined by their professionalism, intelligence, and discipline. Each is imbued with the legacy of Admiral Hyman G. Rickover, that "Excellence is Standard". Our officers today gain exposure and provide experience throughout the Navy, Department of Defense (DoD), and Government. For example, we currently have 16 Captains serving as Chiefs of Staff or similar function in non-submarine, Navy and Joint billets. These future senior leaders are making real contributions today and will have a greater breadth of experience upon

which to draw as they chart new paths for the Navy and Department of Defense in the future.

The ships we operate are not only the most modern in the world providing unmatched capability, but they are cost effective as well. These nuclear powered ships are launched with a full tank of gas that lasts for the life of the ship. Not only does this negate the need for fossil fuels, but additionally the combat logistics force ships that deliver the fuel. The average age of a submarine in today's Submarine Force is 16.5 years, which is half of their 33-year life span. Rest assured, we continue to invest in upgraded technology, maximizing the capability of even our oldest submarine hulls.

We are innovators. In the late 1990's we embarked on an effort to replace our legacy sonar systems with Acoustic-Rapid Commercial-Off-The-Shelf (COTS) Insertion (ARCI). COTS enabled us to upgrade our software and hardware every few years at a fraction of the cost required to replace and upgrade our legacy system. This effort has been so successful, we have expanded the concept to our tactical fire control, radio room, electronic surveillance equipment, navigation, periscope, and torpedoes. The VIRGINIA class is delivered with an entirely open architecture. As a matter of fact, the Navy as a whole has now adopted this open architecture approach. The bottom line is this process allows us to install the latest upgrades quickly and relatively inexpensively on even our oldest ships.

The Submarine Force is also leading the conversion effort to Internet Protocol (IP) based communications. We will have the first "all IP" ship this summer. IP communications eliminates point-to-point connections and maximizes our flexibility in employing varied communications paths to achieve the required connectivity.

Our sensor systems are the best in the world. When I was commissioned 32 years ago, our sonar could detect ocean sounds out to a range of 5 nautical miles and determine only the rough quadrant from which it was generated. Today, our modern sonar systems detect low-level noises out to tens and hundreds of miles away, with a very precise bearing. They also have an improved capability to more quickly determine range and even identify a discrete sonic characterization of the contact's machinery. Although our sensors have not made the ocean transparent, and never will, we are much more capable of maintaining tactical control of the surrounding contacts. We are better prepared to shape this world and, if needed, to destroy an enemy's force.

We have achieved similar improvements in the Radio Frequency (RF) spectrum. I cannot go into detail in this forum, but submarines have always been good scouts. They know the territory, because they have been there before. They are smart and understand the subtleties of their surroundings. They are out in front, leading the way.

The types of weapons available to submarines and the effects they generate have also evolved.

Our torpedoes are also evolving to a COTS-based open architecture and now allow us to develop and implement new logic into their memories without even having to remove them from the ship. Their ability to detect and sink targets in all environments is significantly enhanced. Until recently, the ability of our torpedoes to accurately track and intercept a target in the littoral environment was degraded because of its hostile acoustic environment. Today, our torpedoes more accurately model the littoral environment and better process the ambient acoustics to achieve a high hit rate. It is a benefit of having been there.

The effects we deliver can also extend far inland. Timely, reliable delivery of accurate and lethal Tomahawk missiles is vital to most war plans. Our Trident submarines carrying ballistic missiles remain our Nation's most survivable strategic asset. Insertion of SOF personnel can create precision effects across the spectrum of conflict, particularly against a fleeting terrorist target where the opportunity to capture or finish him is very short in duration. The emerging capability in the area of Information Operations (IO) allows us to clandestinely shape the environment and reduce risk to our forces.

In 2004, we deployed 27 submarines throughout the world on lengthy operational SSN deployments. The rest of the SSN Force was either in deep maintenance or

getting ready to deploy this year. These submarines provided forward presence with a product. Additionally, the preponderance of our SSBN force is underway, underwater, in a completely survivable posture, able to rapidly respond to national tasking. Submarines supported every Regional Combatant Commander along with Strategic Command and Special Operations Command. Submarines were sent where they were needed most and transited the North Pole, Cape of Good Hope, Panama Canal, and Suez Canal to get there. Our Submarine Force is doing our Nation's work every single day.

What keeps me awake at night is ensuring our ability to keep doing this in the future. The last QDR specified a minimum force level of 55 SSNs necessary to fill Combatant Commanders' high priority needs. Earlier studies had consistently determined a range of SSNs from 55 to 68. Other studies, including the 2005 QDR, continue today to refine the numbers of ships needed either for active combat surge or for pre-hostility day-in and day-out deployments. Possibly the best Force level yardstick is the Combatant Commander deployment requests for daily submarine operations, which exceeds what we can provide with the current Force. Although these studies are ongoing, the current VIRGINIA Class SSN build plan will take us well below any of these levels a decade from now. We do recognize affordability is a key parameter and the Nation is debating the amount of defense it can afford. We are actively working to make the VIRGINIA SSN build rate more economical to make the Future Force more affordable.

Our ability to build enough submarines each year to maintain this level will require

a national shipbuilding, design and maintenance infrastructure strategy. This is one

of our Nation's crown jewels. This is a capability we cannot quickly regenerate, if

we could regenerate it at all.

III. The SSN Value Chain – I've described the world we should expect and our

readiness – let me now comment on the value of what we do.

There is unique value derived from submarine operations. At the unclassified

level, let me generally describe our product and how we achieve it. Enabled by

nuclear power, submarines stealthily and persistently go where others cannot. We

operate in shallow water, under ice, and in congested areas and in extreme weather

conditions. We provide our own self-defense and are self-contained. We stay on

station a long time. We operate with Joint, interagency, and coalition forces when

needed – other times we work alone.

The five attributes, which enable submarines to deliver unique value to our Nation

are:

Stealth

Persistence

Agility

Mobility

Payload

13

We rely on and use to our advantage these attributes day-in and day-out.

And we contribute with firepower when the situation requires.

I will illustrate in the next few paragraphs how these attributes are employed to produce real value.

These five constant attributes have been employed throughout the history of the Force. It was the Submarine Force that served as the shield and the sword of the Pacific until a repaired and reinforced fleet could resume its duties. Fleet Admiral Chester Nimitz wrote, and I quote, "When I assumed command of the Pacific Fleet on 31 December 1941, our submarines were already operating against the enemy, the only units of the Fleet that could come to grips with the Japanese for months to come. It was to the Submarine Force that I looked to carry the load. It is to the everlasting honor and glory of our submarine personnel that they never failed us in our days of great peril." Submarines have been an agile enough platform to allow adjustment of their configuration and posture for the mission at hand. In response to the surprise attack on our Fleet at Pearl Harbor, our submarine fleet, originally designed as a scouting force, rapidly changed itself and forcefully took the fight to the enemy. The post World War II boats, designed mainly for sinking ships, became the only viable asset to stalk and hold the Soviet submarine force at risk. Cold War submarines adapted to a mission of listening and learning about our changing world and its enemies. Today's submarines can conduct all these missions and more. We work every day to influence world events and are prepared for combat through the Seapower 21 pillars of Sea Base, Sea Strike, Sea Shield and FORCEnet.

The VIRGINIA class submarine is the epitome of capability, agility and flexibility. Designed after the end of the Cold War, she is built from the keel up with flexibility in mind. Her open architecture electronics allow us to rapidly upgrade her with new capability; and the modular torpedo room is designed to accomplish multiple missions. With her 9-man lock out chamber, Advanced SEAL Delivery System, and SOF mission configured torpedo room, she will provide enhanced SOF capability for the War on Terrorism. VIRGINIA, more than previous submarine classes, is ready for the future.

It is only natural and an expected reaction for our adversaries to mask their true intentions and to modify their behavior when they know they are being watched. If a terrorist or potential adversary knows we are watching them from a ship, a plane, land, or space, they will do everything in their power to conceal their actions, or even present misleading actions for us to observe. If on the other hand, we can clandestinely move into place and observe without their knowledge (stealth), and stay there for a long time to determine patterns and trends (persistence), and collect local information not visible from a distance, then we are more likely to ascertain their true capability and intent. There is only one platform that can effectively do this – the nuclear submarine.

The Submarine Force provides value across the spectrum of conflict. On one end are 'Phase Zero' operations. These are operations to shape the environment and if shaping fails, to make combat preparations in the pre-hostilities phase of military action. They occur day-in and day-out. They are occurring today and every day in the Global War on Terrorism. It is important to emphasize that if shaping a nation's will through actions projected from the sea is conducted effectively, then hostilities may never occur. At the other end of the spectrum are combat operations that could occur during a crisis or Major Combat Operation. I believe our capability for active combat is more widely understood, so I will talk to this first. I will then return to Phase Zero and describe our contribution in more detail.

During combat operations, submarines can conduct theater strike and/or Global Strike with kinetic and non-kinetic weapons precisely on targets. They carry the latest Tomahawk cruise missiles, which can accurately impact a target within a few feet of the desired aim point from 1000 nautical miles away. Our Ohio class submarines carry the Trident D-5 missile, which can precisely strike targets from thousands of miles away and in a very short period of time. Submarines can Sea Base Special Operations Forces (SOF) and clandestinely deliver them for surgical missions which stand alone or in support of larger operations. Submarines are also a valuable platform from which to locally launch strategic or tactical Information Operation effects. This capability has been developed and used. I would be happy to brief the committee in more detail in a classified forum.

Submarines still employ the most traditional of undersea weapons, the torpedo. However, there is nothing antiquated about our latest version of this device. The Mark 48 Advanced Capability Torpedo (MK-48 ADCAP) is a highly capable deep water and littoral weapon used against major combatants and high value units. In combat operations requiring the destruction of enemy shipping, surface combatants, and submarines, the MK-48 ADCAP, cued by organic submarine and off-board sensors, has both high power and high accuracy. Additionally, Submarines still maintain the capability to conduct offensive mining.

There are other delivery platforms for some of these weapons. However, the submarine's unique attribute of stealth and persistence enables us to achieve unique effects with these weapons. Weapons delivered from close in and with surprise can catch the enemy off-guard, causing tactical action to have a strategic effect.

Now I would like to discuss Phase Zero operations in more detail. Phase Zero operations are knowledge gathering, shaping, or combat preparation operations. Phase Zero is not the hour or day before conflict. It is not a single mission. It is not conducted by a single platform. It is the work done day-in and day-out, year-in and year-out to better understand the global strategic environment. The ultimate goal of phase Zero is to ensure United States national interests are achieved without combat, if possible. And if combat is required that we strike out from a landscape and an environment that we understand.

A vivid example of this is the Cold War. Historians are learning from recent open discussions with former Soviet leaders how they perceived the U.S. and our submarine operations. Their uncertainty regarding our submarines' location, deployed force strength and capability resulted in strategic effects. These effects were achieved over 40 years by working day-in and day-out in places where others could not go to understand the environment, and understand the adversary.

There are several examples of Phase Zero operations I can discuss in this forum. Submarines are one of many assets combating narco-terrorism. As a direct result of our efforts, we have a better understanding of how drugs flow into this country. We are able to determine when the traffickers change their mode of operation, allowing us to adjust limited assets to intercept illicit cargo. Submarines have been directly responsible for several recent seizures of large shipments of drugs in amounts large enough to affect the economics and organization of the drug world.

Submarines monitor world hot spots or support activity to avert potential crisis.

For example, during the 2004 Olympics in Athens, submarines were there, working with NATO, monitoring the area for unusual activity, which could have been precursors to a terrorist attack. Fortunately, there was no such activity. However, we could not have effectively accomplished this mission if we had not previously operated in and understood the environment. We drew upon our years of operating in the Mediterranean. And, as discussed before, our clandestine posture allowed us to monitor without influencing the environment.

Submarines are actively contributing to the War on Terrorism. The exact details are classified, but include capabilities and attributes that I have already discussed. We are helping to develop an in-depth body of knowledge and understanding about terrorists' identities, their capabilities and more importantly, their intent. We do this by going to places and in a posture that others cannot.

With the War on Terror in center stage today, along with several other smaller scale contingencies, we should not take our eye off the other possibilities. I am referring to countries who might develop competing interests with the U.S. in this evershrinking world. These competitors have ambitions and likely plans to achieve their ambitions. We must understand them, influence their course if needed and be ready to respond should deterrence fail. The formula is the same here as I have discussed previously. We must continue to "walk the field" so we understand and can shape the environment. We must be able to strike fast and hard if required and directed, to hold enemy forces at risk and ultimately roll them back. There is no short cut.

I have thus far discussed what we do and how we do it. Let me now mention the effect that our product has on preserving our national security. I'll discuss four areas:

Equipment design

Tactics

Planning

Decision-making

First, the design of the equipment we put on our military forces, which operate in the world's littorals, is a direct result of submarines operating day-in and day-out in these environments. We collect all spectrum information, which is used by our scientists to design equipment to work in and exploit the **REAL** environment. We then take this equipment forward and once again gather empirical data. It is used to develop better sensors, processors, weapons, and defenses. By these actions our Submarine Force is more capable but so too is the Navy, Department of Defense, and other government agencies.

Secondly, we develop new tactics based on our experiences. As an example, we recently determined previous operating profiles were preventing us from gathering vital information. We sharpened our pencils and devised a new method, which today is reaping results.

A related benefit is that we operate in the same areas where we could potentially fight. We are constantly honing our skills and sharing the lessons learned across the fleet.

We do not accomplish this in a vacuum. We develop tactics in concert with the Navy, Joint, and coalition forces. For example, Task Force Anti-Submarine

Warfare (TF ASW) ran an experiment last fall called Theater ASW Experiment 2004 (TASWEX-04), which explored how to better conduct combined arms ASW. We not only proved the use of some new technology, but also explored how to multiply our effects when conducting ASW with manned and unmanned air, surface, and subsurface platforms and distributed sensors. Another example was an experiment last fall called Silent Hammer. In this experiment, we explored how a network of forces consisting of Ground Forces, Sea Based on an SSGN and aided by advanced unmanned systems could add to Joint capabilities by conducting ISR and Time Sensitive Strike in support of a large-scale clandestine operation. We worked closely with the Marines, Air Force, and Joint Special Operations Forces (SOF) to determine how we can add value to existing capability by developing a new concept of operations - all benefiting from clandestine and persistent operations in the world's littorals. We would be happy to brief you on these experiments.

Third, the information we collect feeds directly into Combatant Commanders' deliberate planning process. The knowledge we provide of terrorists or of potential enemy capability and intent enables planners to develop more realistic and effective operations plans. It's no wonder Combatant Commanders are collectively asking for more and more submarine mission days. They currently want 150% times the "critical" mission days that we can provide.

And fourth, at the highest levels of our government, decision makers utilize the information we gather, among other sources, to aid in determining "ground truth". This ultimately leads to strategic direction for our Nation's security.

I prefaced this section with submarine attributes, which in combination enable unique capability: stealth, persistence, agility, mobility, and payload. As we make decisions about the future of the Submarine Force, we need to preserve these attributes. They should be the primary criteria upon which we evaluate the adequacy of any new design.

IV. Needed Future Capabilities

If you permit me to dream into the future a bit I would opine that the capability this Nation needs is defined by a sufficient number of submarine hulls each with attributes described in the previous section and with some increased capability for:

Enhanced connectivity and

Utilization of distributed sensors and weapons

The optimal number of submarines has been studied numerous times over the past decade – Navy, Joint Staff, and OSD studies. These are a matter of record. The groundwork for the future is to build upon the foundation we have today. We are already moving toward a greater interdependence of Joint and Coalition force operations of which the Submarine Force is a current and valued component.

While we communicate easily and frequently today with the Joint force, we cannot do so from all relevant postures.

We are experimenting with new technologies to provide submarines with communications at higher speeds and increased depth. This does not translate to full bandwidth capacity at all speeds and all depths. Instead, we are striving for tactically relevant communications throughout the submarine's operating envelope.

We also need to utilize and expand the payload volume for stealthily delivered sensors and weapons. First, we already have the SSGN, the SEAWOLF class and VIRGINIA coming online with large payload volumes and ocean interfaces. These ships will enable us to experiment with and define the payloads that will deliver unique, enhanced capability.

I envision one of the payload sets in these packages to be knowledge and shaping tools. These will include networks of distributed sensors and weapons, which allow us to better understand and affect a larger area. Whether they are sensors, unmanned or manned vehicles, non-kinetic weapons, or kinetic weapons, they will inherit the submarine's unique attributes of: stealth, persistence, agility, and mobility. And they will reap the same benefits I have discussed today.

And finally, we must continue to improve the sensors installed on our submarines.

We have refined the twin thin-line towed array systems on our SURTASS ships

and need to transfer this enhanced capability to our submarines.

These capabilities will enable us to assist the Joint commander by monitoring dayin and day-out in areas where others can't go.

V. Summary

The Submarine Force should continue to be utilized forward, as scouts "walking the field." Day-in and day-out, they need to be conducting Phase Zero operations, grasping for ground truth and shaping the environment to avert the next conflict or should it occur, be ready to engage quickly and decisively. By making optimum use of the very talented people of the Submarine Force, and taking advantage of fundamental attributes: stealth, persistence, agility, mobility, and payload we will continue to provide our country with an exceptionally unique and powerful military capability.

Thank you very much for your time today.