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SENATE ARMED SERVICES COMMITTEE**

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**BEFORE THE  
SUBCOMMITTEE ON SEAPOWER  
OF THE  
SENATE ARMED SERVICES COMMITTEE  
ON SEAPPOWER OPERATIONAL PROGRAMS AND REQUIREMENTS**

**7 JUNE 2001**

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Thank you for the opportunity to be here today, and for your support of the United States Navy. I'll begin by briefly speaking to the unique and enduring contributions that forward deployed naval forces make to our national security. Clearly, our great Navy requires an ongoing investment by our nation, but that investment brings a tremendous return for our nation -- every day, throughout the world, wherever our national interests are found.

## The Value of Naval Forces

There are four principal returns on that investment in the Navy:

✍✍ First, command of the seas upon which the world's free trade structure rests;

✍✍ Second, U.S. sovereign power, overseas engaged every day in support of our national interests.

✍✍ Third, the sustained access to the battlespace from forward deployed U.S. naval power that can maintain sea superiority in order to both project offensive fire power ashore as well as theater missile defense overland in the critical opening days of conflict

✍✍ Fourth, how naval forces forward enable the transformation of our sister Services to lighter and more rapidly deployable expeditionary forces that can flow into theater under the Navy's protective defensive shield overland while also providing "artillery from the sea".

## Alignment

With this strategic template in mind, the Chief of Naval Operations (CNO) Admiral Vern Clark established my N7 organization to align the efforts of the staff here in Washington with the needs of the Fleet that provides the return on the nation's investment. This close alignment of structure and goals is critical as the Department of Defense conducts its overall strategic review and develops adjustments to the FY 2002 budget and associated FY 2003-2007 programs.

I am responsible for determining warfighting requirements and maintaining oversight of those programs that will deliver the capabilities required by our Nation. To achieve this, I must maintain close alignment with the Fleet to understand their current readiness issues, and also with those organizations within the Navy responsible for experimentation. With these in mind, I am charged with charting the course to achievement of the Navy's future capabilities. The

balance between those current readiness issues and future capabilities is at times difficult to strike.

In order to transform the current Navy into the kind of force envisioned for the future security environment, I must understand the characteristics of that environment and consider all of the missions it will likely demand. That future force will need to be able to provide sustained assured access to those regions where U.S. strategic interests lie, while maintaining the command of the sea that ensures the stability and security of the maritime commons upon which our economic prosperity relies. The force that provides this freedom – the U.S. Navy – will face a world increasingly interconnected through information technology and economic ties. A world where proliferation of modern weapons, advanced computing power and technologies, and global communications enable sub-national and regional actors to play a greater role in world events. Where terrorists and non-traditional adversaries may attempt to leverage asymmetric capabilities to their gain, and at our expense.

To prepare for this environment, I believe we must continue and accelerate the development of Network Centric Warfare tactics, techniques and procedures while iteratively developing the hardware and software necessary to maximize the potential of these concepts. Some have recently begun to refer to this new approach as “Spiral Development” – taking that which we know works and implementing a working solution allowing further development in place. In essence, we field the 80% solution and iterate upon it based upon Fleet input, rather than wait for the 100% solution which may never be achieved in development, and which might still fall below Fleet expectations. Our goal is to rapidly transform our current Fleet into the interoperably networked, agile, expeditionary force required for the 21<sup>st</sup> century threat. This concept will allow precision targeting of those aimpoints that will generate only those effects required to win in conflict.

Thus, as the Navy forges ahead into the 21<sup>st</sup> century, we will retain the core capability of sea dominance to provide free transit of the world’s oceans. To an even greater extent than today, we will rapidly leverage technological advances to apply decisive force in combat. We will remain an expeditionary force that provides a return on the nation’s investment across the *entire spectrum of conflict – from peace, through crisis, and in high intensity conflict.*

## Transformation

This “Rapid Transformation” has begun. For the Navy, transformation is not about getting lighter. It is about gaining more capability per pound. If one of the major news sources ran a headline that I had recommended arming the E-2C Hawkeye with Standard Missiles, or that I wanted to outfit the entire Nuclear Aircraft Carrier fleet with Aegis Combat System; or that the Navy wanted to procure Joint Surveillance Target Attack Radar System (JSTARS), I believe your committee’s interest would be piqued. Yet that is exactly what Network Centric Warfare will enable – without the Navy having to procure the equipment for previously non-enabled platforms! By networking our force and ensuring its interoperability with the Joint Force, we provide the *benefit* of the E-2C’s antenna height and capability to the Standard Missile shooter via Cooperative Engagement Capability (CEC). We’ve demonstrated interoperability with JSTARS and the U-2 in Fleet Battle Experiments and Limited Objective Experiments. Our vision is of a deployed Navy with seamless reachback to shore-based forces to enable access to tactical expertise from our Continental U.S. based centers of excellence. This same reachback will improve the quality of service for our people through distance learning programs and connectivity to the “real world” while forward deployed. We envision ships, aircraft and submarines linked with a common picture of their tactical environment, able to achieve desired effects through precision targeting, to include the most time-critical targets. A Navy with the tools required to leverage its inherent mobility through rapid and accurate decision making, and the weapons required to achieve lethal and decisive results in combat while leveraging the strengths of our allies and coalition partners.

The following slide is a depiction of the capability linkages that Network Centric Warfare will enable. These are key to Navy’s transformation to the force we envision.



*For Navy,  
It's Not  
about  
"Getting Lighter"...*

# Transformation

*It's about  
Getting More  
Capability  
per pound!* **N7**  
**Naval Warfare**

## We're accessing:

- AEGIS on the CVN
- Standard Missile on the E-2C
- RMP on the DDG
- JSTARS on the SSN
- Periscopes on the ARG
- Super Hornets on the Cruiser
- Schoolhouses from Sea

***The Power of Network Centric Warfare***

*Moore's Law will continue to make it more affordable and achievable.*

## Procurement Priorities

For the Navy to achieve this vision, we must prioritize the application of our resources to **Networks** first. This will provide the greatest return for the expenditure of our investment dollar. The data links and systems which will network our existing forces are fundamental, but must be populated with information provided by advanced **Sensors**, for these will enable the granularity necessary to provide knowledge to the forces or "nodes" on our network. These forces will employ increasingly precise **Weapons** based upon the knowledge provided to the warfighter via this "expeditionary sensor grid". Finally, our resources must be applied in the most efficient manner to recapitalizing the **Platforms** that will carry naval warfighters to the littorals, capable of projecting power and even defense ashore, from the sea.

This prioritization upends the traditional focus of our budgets, and to some, appears to endorse a reduction in force structure size. This is not the case – numbers do matter – but *the number is less important than the capability* inherent in those numbers! Thus, given the resource-constrained choice between a given number of platforms and a lesser number of those same platforms enhanced by a full complement of offensive and defensive capabilities and sensors, I would opt for the lesser number of more-capable platforms. The balance that must be achieved hinges upon the Global Naval Force Presence Posture (GNFPP), our National Security

Strategy, commitments by the National Command Authorities to support contingency operations, and the level of resourcing available. Regardless, by applying this prioritization to the choices, I believe we will arrive at the most capable force for the future, while making the hard choices required to provide capability today.

While there has been much recent debate about the relevance and survivability of the Aircraft Carrier, note that the Navy vision of transformation does not entail moving away from this platform. The Aircraft Carrier remains survivable based upon its mobility, which vastly complicates an enemy's targeting problem (a 700 square mile area of uncertainty in only 30 minutes). It is also survivable because of its robust design, defensive systems, and connectivity to the battle group's netted defenses as well. Still, this misses the point. ***The Carrier Battle Group and the Aircraft Carrier itself are lethal to enemy forces***, with an ever-increasing ability to strike and destroy those enemy systems and capabilities that would threaten not only itself, but the other friendly forces and non-combatants in the region as well. Its myriad capabilities in peacetime presence, heightened tensions, crisis and high-intensity conflict are simply unparalleled.

## Experimentation

Much has been made in the media of innovative and captivating concepts being discussed openly at our centers of excellence in higher learning and experimentation. Among the many concepts we are looking at are conceptually small, nimble yet heavily armed surface combatants capable of sustained high speeds. Just as present day forces reflect the work of many previous years of analysis over a wide range of available options to meet the Navy's missions, these concepts represent the continuing process of assessment of alternative options for potential forces of the future.

Unlike programs that produce specific pieces of hardware or software, these are concepts with which the Navy might conduct Maritime Warfare in the future. Utilizing a broad range of evolving and new technologies, they provide a basis for discussion inside the Navy, as well as a means to engage the private sector through interested organizations and industry, to encourage debate and solicit the best ideas on fulfilling future Navy missions.

**These concepts are not intended to be, nor will they be developed as programs** unless a full vetting of alternatives is performed which concludes they are the most appropriate options

for future forces. If determined to be promising, components of these concepts may be developed as part of other new or existing programs, as opposed to stand-alone programs.

This is the role of Experimentation in today's Navy. **We do not shy away from ideas that might challenge the Program of Record**, for if the Program of Record cannot pass muster when compared to conceptual alternatives then it indeed deserves to be challenged. The programs and concepts we are experimenting with constitute the groundwork for the "Navy After Next". The "Next Navy" already exists in our budget, and you are clearly familiar with the programs that will reconstitute today's Navy, such as CVN(X), FA-18E/F and Joint Strike Fighter (JSF), Virginia Class Submarine, DD-21 and LPD-17. These recapitalization programs have established Operational Requirements Documents from which we can evaluate developmental performance. Yet while we understand those validated requirements, we learn more about their ramifications on cost and other performance tradeoffs as we progress in development. As unacceptable situations – such as cost overruns, changing threats, or unacceptable performance in unforeseen regimes—arise during development, I believe we must make informed and fully-vetted requirements tradeoffs in order to field a needed capability improvement that is "good enough", although it may not meet the originally stated requirement definition to the letter.

## Constraints

The ongoing strategic review comes at a critical time for the Navy. Strategic reassessment of required operational tempo, force structure levels and mix, and new initiatives in Ballistic Missile Defense will factor strongly in the administration's guidance and resource level requests. These factors will provide the boundaries within which the Navy must determine the best achievable balance between readiness and modernization. The priorities reflected above for application of modernization resources – Networks, Sensors, Weapons and finally Platforms - will be reflected in the mix as the Navy rapidly transforms to continue ensuring freedom of the seas.

## Navy Today; Navy Next

Today's Navy incorporates the most impressive array of capabilities ever fielded upon the world's oceans. It is more than ready for the tasks it faces on a daily basis, and equal to the likely challenges our potential adversaries are capable of presenting. Nevertheless, it is "wearing

thin” from heavy use and insufficient upkeep, recapitalization and maintenance. We have knowingly sacrificed these in order to maintain the strategic depth which best offset the risks assumed under the prevailing strategy. Although we have seized upon the catalytic concept of Network Centric Warfare as a capstone concept for transforming the Navy, we have had little discretionary capital to apply when faced with the near term challenges.

With a growing emphasis on the Asia / Pacific region, the Navy’s combat credible forward presence will be required perhaps even more in the future than today. The requirement to recapitalize our force will be undiminished, and facing the future security environment described above, our modernization accounts will require significant resources. As the other Services continue their transformation to lighter more-expeditionary fighting forces, the Navy will assume an even more significant role in providing the sea-based fires and logistics that will enable that transition. Under those circumstances, an adept ably netted and highly lethal force, able to project offensive combat power and a defensive “umbrella” far inland from the sea will be fundamental in crisis, and the command of the sea, which some take for granted, even more critical.

## Conclusion

America rests its prosperity upon seapower. Nowhere is this more appreciated perhaps than in this committee. Yet something as fundamental as this is often overlooked. The strength and health of our Navy, today and in the future, underwrites the health and strength of our nation. Our nation’s considerable investment of resources in the Navy has been returned manifold times by our vigilance and capability to command the seas. As we face the future, it is important to recognize both the opportunities and challenges before us. To reap the maximum benefit of our investment, it will be critical to apply our resources wisely, prioritized to meet the challenges ahead with the right investments, and with capabilities both flexible and unassailable by those who covet our prominence.