Mr. Chairman, Senators, I am honored to be able to testify before you today. I believe we are at a strategic crossroads today – not just because we may have a debate about the numbers of ships that compose our fleets – but because of how we as a Nation arrive at those numbers. The issue at hand has to do with retaining the essential capability the Nation must have to build the ships essential to its future security. The current path we are on puts this capability at serious risk.

I want to reiterate that, for one, I recognize that the Navy and the Coast Guard do not exist to keep us, the shipbuilding industry, in business. I never believed that when I wore the nation’s cloth and I certainly do not believe it today.

I am a shipbuilder – I build ships. We are in business to build them – seven different designs today -- and we do it well. When the sea services adjust their requirements for cutters, surface combatants, or expeditionary ships to do the Nation’s business, industry will adjust and scale accordingly. The question is not about whether we will need ships – it is how the Nation is going about acquiring them today and at what rate will they be produced.

Make no mistake, the Navy and the Coast Guard want the ships that are on order and they want industry to maintain the ability to supply quality assets to the National Fleet at affordable costs. Both customers, however, are in a difficult situation – squeezed for resources while at the same time trying to transform their forces.

You have seen the Navy’s well-publicized experiment with Sea Swap and the efforts to trim operating and life-cycle costs to free up funding for new construction. This transformation has and will have a significant and perhaps lasting impact on the character of our future naval forces. I must be candid and tell you that we, in industry, are
concerned about the choices that are being made today in the name of force economy because those choices may have portentous implications for the future.

For our part we have transformed in several extraordinary ways. First, because the Navy divested shipbuilding engineering expertise over the last decade (NAVSEA’s loss of 7,000 engineers), it shifted many of the key program management responsibilities to our industry. This is critical because we have made significant investments in turn to respond to a new role.

I will argue that in Northrop Grumman’s management of the DD(X) program to date, we have built a new model for the execution of a developmental program by forming a truly national team that is -- in Phase 3 of the program -- on cost and on schedule. The recently released GAO report on Navy shipbuilding cost growth (Defense Acquisitions, Improved Management Practices Could Help Minimize Cost Growth in Navy Shipbuilding Programs) argues for just such an approach to develop more credible and realistic cost estimates for first-of-a-class ships by working to detailed design before going into contract competition for production.

Secondly, we believe that we have a responsibility to our shareholders and to the American taxpayer to become the most efficient and competitive shipbuilders in our business.

We are now seeing extraordinary new efficiencies in production – compressed build cycles and reduced amount of rework as a result of our efforts.

Last June, we assembled the Northrop Grumman Ship Systems management team to chart a new course for our business built on the proposition that we can become a more contributive member of the Northrop Grumman Corporation, improve our earnings performance, and improve the return on the investments that our shareholders are making today. We call the initiative “True North” – a new course. We are committed to trimming the controllable elements in our overhead. We are reducing the build-span on the ships that we have under construction. We are improving and have accepted a new
standard for ourselves for first time quality. Our Lean Six Sigma processes are now paying very tangible dividends in program cost savings.

We have reorganized the supply chain management organizations across all eight ship class programs that we are currently developing, working to reduce working capital and to put focus on unit assemblies (the building blocks for our ships). We have realigned our management structure so that we have three proven, seasoned experts in shipbuilding and in business disciplines, running the three categories of programs. And they are aligned with the customer’s organization – Expeditionary Warfare, Surface Combatant and Coast Guard programs.

And, we are no longer two shipyards. There is not an Avondale shipyard and an Ingalls shipyard. There is a Northrop Grumman Ship Systems sector, a single manufacturing entity. And today, we are sourcing every one of our facilities for elements of LPDs and those LPDs are being erected at two different sites.

The notion that the industrial base that is Northrop Grumman Ship Systems includes separate operating shipyards is an anachronistic view. It is atavistic thinking. We have streamlined to one sector and we are sourcing facilities in Louisiana and Mississippi to build ships in either locality, and in some cases even the same ship.

The results for us I believe have been dramatic. For example:

- Improved production processes for new DDGs brought a reduction of 500,000 man-hours per ship.

- Construction cycle estimates for the LHD are expected to decrease more than 10 percent, while LPD construction times will shrink more than 20 percent.

Unfortunately, there are limits on how much we can achieve in savings given the production rates currently projected by our customers – which have fallen dramatically in
the last six months. But this decrease in the rate of construction is an all-too-familiar adjustment, and the lack of predictability and stability costs the taxpayer heavily.

And, as shipbuilding gets pushed out into the future, the return on that investment declines. As fewer ships in each program are built, the cost per ship goes way up. In that way, the true cost of “cost-savings” attained through reduced quality can actually prove to be prohibitively expensive.

If we were building automobiles or even small ships this might be an acceptable path – but we are not. Some spokesmen have recently asserted that three new shipyards had come into business with the introduction of the LCS program. I believe that statement may leave mistaken impressions. While reputable centers of shipbuilding to be sure, these yards are limited in what they can produce. Northrop Grumman is building capital ships – hard ships, stealthy ships with capabilities that dwarf those ships we designed and built just ten years ago – capabilities that will dominate the battle space in wars with peer competitors where there are no operating sanctuaries in which to hide.

Some will argue that earlier estimates of ship numbers were not driven by requirements, and that requirements must be fiscally constrained. Let me offer another truism for consideration: the fewer of these sophisticated and complex platforms you build, and the slower the production rate, the more costly they will be. The real cost, over the long term, will come with the realization that an American shipbuilding industry is not able to surge to future security requirements because the industry did not survive.
To the point of how cost is driven by numbers and production rates: We have just completed an analysis examining the loss of learning that results from irregular build intervals and the introduction of “green labor.”

This analysis demonstrates conclusively and mathematically what has always been intuitively obvious to us -- the rate at which we build ships is critical to stability in learning and hence the cost of ships. A steady rate with shorter intervals between start of fabrication promotes stable workforce and generates a steep learning curve, which significantly reduces production costs. The amount of "green," or “unskilled labor" that must be employed is exacerbated by peaks and valleys caused by our need to lay off and then build back up as a reaction to changing requirements or acquisition strategies – “binges and purges” is how I describe it. The analysis clearly supports arguments for a stable shipbuilding plan for the National Fleet.

A case in point is the recent release of the Navy’s interim FY2006 Annual Long-Range Plan for the Construction of Naval Vessels. This study offers a choice of two 30-year fleet profiles – a 260 ship Navy and one with 325 ships. You will hopefully understand that this scale or range in future fleet numbers causes concern for us in industry and because it becomes almost impossible to make sound business cases for levels of investment in capital and skilled workers.

The decisions we make today will shape our Naval force structure for decades to come. Ships take a long time to build. And because the effects of those decisions are not immediately apparent, we can easily slip into a false sense of security.
Those of us who build these ships, however, see the effects up front – in a declining labor force…in a reduced ability to attract capital…in a shrinking industrial base that may not be there in the future when we need it.

My concern is that five to eight years out our nation will discover that our Navy has dangerously atrophied.

- The highly skilled workforce in our shipyards will have gone off to other jobs…. and new workers will not have been trained.

- The extraordinary intellectual capital – the engineers, designers, scientists -- will have migrated to other industries that are seen to have a future, where, believe me, their skills are in high demand.

- The next-generation technologies being developed for ships like the DD(X) will never have been developed – and the diaspora of the best and brightest naval engineers will severely limit future choices.

In short, you don’t just turn a switch for shipbuilders to generate new capacity.

The future of shipbuilding in the United States requires nothing short of a national commitment. We cannot have shipbuilding plans that dramatically change every year and wreak havoc on our industrial base. (Present PPT slides on “churn” in force level requirements) The nation, and the Congress in particular, need to decide what the National Fleet of the future should be -- the aggregate of Coast Guard and Navy ship requirements.

The instability in shipbuilding rates has produced sinusoidal waves in workforce. How can we invest in capital projects if we do not have a clear business gauge to show a return to our investors? There is a prohibitively high cost to the Nation for this turbulence – measured in dollar costs and lost capabilities to shape world events, respond to crisis and
fight wars. With planning stability we can adjust our investments and right-size the industrial base to meet the nation’s expectations.

We of Northrop Grumman Ship Systems build warships, conventionally powered surface combatants and expeditionary warfare ships and cutters. The future of the American shipbuilding industry will be determined by a national commitment to build a fleet based on clearly defined force requirements consistently funded by a long-term resourcing plan.

I pledge to you, on behalf of the American shipbuilder, that we will honor such a commitment by designing, developing and building the best and most competitive warships in the world.