

NATIONAL SECURITY, CLIMATE CHANGE AND VIRGINIA'S OPPORTUNITY
Remarks by
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Thank you, it's an honor to be here. Thank you Dr. Sharrer. And Congressman Moran, it's a pleasure to share the podium with you.

I would also like to extend my most sincere regards, and those of all of my colleagues, to Senator Warner. I had the privilege, over 20 years ago, to work with Senator Warner when I served on the Senate Armed Services Committee staff for Senator Sam Nunn.

For every generation of Americans, the United States Senate produces a handful of men and women who distinguish themselves as individuals of rare honor, patriotism and dedication. For our generation, one of those distinguished leaders is Senator John Warner who worked tirelessly to bolster our national security, protect our environment, pursue bipartisan solutions, like the Warner-Lieberman climate bill, and focus on the critical challenges that face us today and that will face our children tomorrow.

Senator Warner, thank you.

We are living in a challenging era, when our choices today will be as consequential for this century as George Washington's were for America more than two centuries ago. Foremost on the world's agenda now is the economy. The swift and dramatic downturn that has swept the world has stunned us all and has reordered personal and national agendas.

The economic challenges we face are very real and shouldn't be minimized, but neither should they overwhelm us, or overshadow the other great challenge of this era or delay efforts to address it.

That challenge, specifically, is climate change.

The work I have done with some of our nation's leading generals and admirals has revealed that climate change is as fundamental to global security today as nuclear weapons were during the Cold War.

During the Cold War we referred to the potential for an attack by the Soviet Union as a low probability/high consequence scenario, meaning that although it was not likely to happen, if it did, the consequences would be devastating.

Climate change can be considered in a similar way, except that for each day that passes without action, we inch ever closer to a high probability/high consequence scenario. And those potential consequences loom large and ominous, not just in their potential for environmental upheaval, but as threats to our national security.

This is not speculation but the conclusion reached by a Military Advisory Board CNA convened in 2007. The group of retired 3- and 4-star flag and general officers from all the services – Army, Navy, Air Force and Marine Corps – and representing all Combatant Commands, came together to better understand how climate change will affect our national security, and to lay the groundwork for mounting responses to the threats we found.

Our report, *National Security and the Threat of Climate Change*, articulated the concept of climate change acting as a “threat multiplier” for instability in some of the most volatile regions of the world. It identified key challenges that must be planned for now if they are to be met effectively in the future.

The construct of global climate change as a threat multiplier is an important insight because it recognizes that the effects of climate change play out in complex ways, carrying the potential to result in multiple chronic conditions occurring globally at the same time.

In other words these threats don't pose tidy linear, cause-and-effect equations but present chaotic puzzles of cause setting off a cascade of effects which, in turn, impact one another and spark new effects.

Climate change will seriously exacerbate already marginal living standards in many Asian, African, and Middle Eastern nations, where widespread political instability and failed states are already national security concerns.

So what does this mean in real terms?

Consider the consequences of global climate change: retreating glaciers, rising seas, increasingly severe hurricanes and storms, floods, heat waves, drought, shifting habitat, the spread of diseases.

Then consider the human consequences wrought by large scale climate change: loss of coastal regions – comprising the most heavily populated and critical commercial and military areas of the world, reduced water supplies, decreasing long-term agricultural productivity, hunger, widespread health crises, and mass migrations forced by environmental change and a desperate search to meet basic human needs.

The all-too-often response to these projections is, “people will just have to move.” But the grim reality of such an eventuality is far more complicated and catastrophic, especially in a national and international security context.

Mass human migrations are destructive, destabilizing events – for those nations and regions losing their citizens, and for those nations taking in refugees.

Abject poverty, social turmoil, cultural conflicts, social-infrastructure collapse, mayhem and violence are all direct and sadly predictable consequences of migrations driven by environmental catastrophe.

Think Darfur and Somalia, on a much larger scale, happening at the same time, in more places around the world.

In our own hemisphere, there is already tremendous pressure from people seeking a better *quality* of life; and those pressures will only increase, here and elsewhere, when that search is simply to attain the *basics* of life.

These threats are real, and translate into very serious national security concerns. Indeed, the President's Director of National Intelligence, retired Admiral Dennis Blair, recently stated in Senate testimony, that the "intelligence community judges that global climate change will have important and extensive implications for US national security interests over the next 20 years."

Countries near the brink will be pushed closer to – and over – the edge as crop production declines, hunger and illness increase, and water resources ebb. Many strife-torn countries in Asia, Africa and the Middle East will be further weakened, opening new doors to extremism, conflict, and radical ideologies.

Whether we like it or not, the U.S. will not be able to stand by idly as these events unfold. Alone or with allies, our military will be called into action – whether to help stabilize a nation or region as conditions worsen before a catastrophe occurs, or to undertake reconstruction in its aftermath.

These challenges are daunting but they must be faced. Since the release of our first report, some critical work has begun.

The 2008 National Intelligence Assessment confirmed our finding that climate change is a serious threat to national security and long-term global stability. Congress has directed Defense officials to include climate change considerations in their planning. Efforts are underway to increase the U.S. military's coordination with other nations to help prevent, mitigate, or adapt to the likely consequences of climate change. And the Strategic Environmental Research and Development Program, founded by Senators Nunn and Gore, has launched projects to evaluate sea-level rise and the ecological impacts on military installations posed by climate change.

That, of course, will be of special importance to Virginia, given that Norfolk houses the world's largest naval installation and serves as the Navy's East Coast hub and home to the Joint Forces Command and NATO's Allied Command Transformation.

But for Virginia, it's not just a military issue. The Commonwealth has 375 square miles that lie less than 5 feet above sea level. In fact, the Virginia Beach, Hampton Roads, Norfolk area ranks tenth in the world in value of assets exposed to increased flooding from rising sea levels.

Many of Virginia's most fragile ecosystems will face severe stresses from the impacts of climate change. The ecosystem that is the Chesapeake Bay is a national treasure that teeters on the brink. In the Bay, water levels are expected to rise 2.3 to 5.2 feet by 2100, which will inundate surrounding areas. Fluctuating weather and increased temperatures will lead to increased runoff, acidity and salinity, further imperiling already severely stressed blue crabs, oysters, eelgrass and striped bass – "foundation species" that support much of the Bay's other life.

And Virginia's freshwater coastal wetlands, which provide critical habitat for many species and help protect much of Virginia's coastal infrastructure, will also be under attack from salination and inundation as sea levels rise.

These changes, if they come to pass, will mark not just a physical change in the life of this region but a fundamental cultural change as well. A change that none of us will welcome.

So the threats are daunting and very real. But the good news is, awareness is growing and steps are being taken to meet those threats. Much more needs to be done, though, in efforts specific to the environment and also specific to energy use.

Chief among our report's findings was the conclusion that climate change, national security, and *energy dependence* are an interwoven set of global challenges – and that will be the focus of our next Military Advisory Board report, to be released in May.

Our dependence on fossil fuels leaves us vulnerable to hostile regimes and terrorists, no matter oil's price and availability. Moving toward low carbon domestic energy alternatives lessens that danger and helps us confront the serious challenge of global climate change. Because the issues are linked, solutions to one affect the other. Technologies that improve energy efficiency also reduce carbon intensity and carbon emissions. Those technologies must be pursued.

And although the issue of oil dependence is one that affects our nation as whole, the Department of Defense, as the world's number one consumer of energy, has an important role to play in redefining the nation's relationship to energy and providing the kind of strategic decision-making that can ripple across the rest of the economy – acting, if you will, as a solution-multiplier.

Virginia has a particularly important role to play as home to so much of our nation's critical military facilities, from the Pentagon to historic Fort Monroe. As we develop more energy-efficient ways to power our military, and more methods to help adapt critical military infrastructure to weather the impacts of climate change, Virginia will be at the forefront of that effort.

The first high-energy-efficient building in the Norfolk-Virginia beach area was at Naval Amphibious Base Little Creek – a LEED silver building. And Marine Corps Base Quantico has installed solar PV arrays on its "Marathon" building. And at Ft. Meyer, the Army has recently starting driving the first of 4,000 Neighborhood Electric Vehicles the Army will acquire for bases around the country.

These types of innovations will not only better position our military to be a sustainable force in the 21st Century, it will also help create the new energy economy of this century that will grow green-sector jobs right here in Virginia.

Commitment and determination will be required if we are to solve the energy equation and, in turn, slow the pace of global warming, and, ultimately, mitigate the threats to our national security posed by global climate change.

We must harness America's innovation and creativity to create a new clean-energy future for our nation and to restore American leadership on climate change and energy. That is the future I want to leave my children, and that I know you want too. Together we can.