

Statement of Vice Admiral Dennis McGinn, USN, Retired
Member, Military Advisory Board, CNA
before the
Senate Foreign Relations Committee
Hearing on "Climate Change and Global Security:
Challenges, Threats, and Global Opportunities."
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Mr. Chairman, Members of the Committee, Ladies and Gentlemen, it is an honor to appear before you today to discuss the critically important topics of climate change and global security. Thank you for the opportunity to share my views which are based on over thirty-five years of service to our Nation in the United States Navy and as a senior executive involved on a daily basis with the science and technology of energy, transportation and the environment.

Since early last year I have had the privilege of serving with some of our nation's most distinguished and senior retired military leaders on the CNA Military Advisory Board.

This Board has produced two reports, the first in April, 2007 and the latest in May of this year, focused on the very topic of this hearing. The first examined the national security threats of climate change, and the most recent analyzed the national security threats of America's current and future energy posture.

Before I get to the details of these reports, I have to acknowledge the elephant in the room. We are in the midst of the most serious global financial crisis of our lifetimes. After a year of examining our nation's energy use, it is clear to all members of our military board that our economic, energy, climate change and national security challenges are intertwined and co-dependent. Our past pattern of energy use is responsible, in no small measure, for our economic situation today. If we do not adequately address our nation's growing energy demand and climate change now, in wise and visionary ways, future financial crises will most certainly dwarf this one.

And, as I will describe during this testimony, our national security is dramatically impacted by both our energy use and climate change.

First – the national security impacts of climate change.

In 2007, after a year-long study, the CNA Military Advisory Board produced a report called "*National Security and the Threat of Climate Change*" which concluded that climate change poses a "serious threat to America's national security", acting as a "threat multiplier for instability" in some of the world's most volatile regions, adding tension to stable regions, worsening terrorism and likely dragging the United States into conflicts over water and other critical resource shortages. On the most basic level,

climate change has the potential to create sustained natural and humanitarian disasters on a scale and at a frequency far beyond those we see today. The consequences of these disasters will likely foster political instability where societal demands for the essentials of life exceed the capacity of governments to cope.ⁱ

Climate change is different from traditional military threats, according to CNA Military Advisory Board member Vice Admiral Richard Truly because it is not like “some hot spot we’re trying to handle.” “It’s going to happen to every country and every person in the whole world at the same time.”ⁱⁱ

Not only will global warming disrupt the environment, but its effects will shift the world's balance of power and money.ⁱⁱⁱ

Drought and scant water have already fueled civil conflicts in global hot spots like Afghanistan, Nepal and Sudan, according to several new studies. The evidence is fairly clear that sharp downward deviations from normal rainfall in fragile societies elevate the risk of major conflict.^{iv}

And as you know, The Intergovernmental Panel on Climate Change -- the world’s leading scientific panel on climate change -- including more than 200 distinguished scientists and officials from more than 120 countries and the U.S. – predicts widening droughts in southern Europe and the Middle East, sub-Saharan Africa, the American Southwest and Mexico, and flooding that could imperil low-lying islands and the crowded river deltas of southern Asia.^v

Since the April, 2007 CNA Military Advisory Board report was published, a National Intelligence Assessment on global climate change confirmed our findings. And the scientific community has begun issuing reports showing that climate change is occurring at a much faster pace than originally believed. The Arctic is a case in point. Two years ago, scientists were reporting that the Arctic could be ice-free by 2040. Now, a growing number of climatologists are telling us it could happen within just a few years.

Some may look at this changing analysis as a reason, or an excuse, for delay. We believe that would be the wrong path. As military professionals, we were trained to make decisions in situations defined by ambiguous information and little concrete knowledge of the enemy intent. We based our decisions on trends, experience, and judgment, because waiting for 100% certainty during a crisis can be disastrous, especially one with the huge national security consequences of climate change. And in this case, the trends are clear. Climate trends and scientific metrics continue to suggest, in an increasingly compelling way, that the global environment is changing.

In thinking about the best ways to deal with this growing threat, we need to keep clearly in mind the close relationship between the major challenges we’re facing. Energy, security, economics, and climate change – these are all connected. It is a system of systems. It is very complex. And we need to think of it in that way and not simply address small, narrow issues, expecting to create the kind of change needed to

fundamentally improve our future national security. Interconnected challenges require comprehensive solutions.

It will take the industrialized nations of the world to band together to demonstrate leadership and a willingness to change – not only to solve our current economic problems, but to address the daunting issues related to global climate change. And here, I'd say the U.S. has a responsibility to lead. If we don't make changes, then others won't. We need to look for solutions to one problem that can be helpful in solving other problems. That's one of the things we uncovered in our work – there are steps that can help us economically, militarily, diplomatically. And those steps fit with the direction the world is heading in considering climate solutions. Those are good and much needed connections.

As retired Marine Corps General Anthony Zinni, former commander of U.S. Central Command said “The intensity of global temperature change can be mitigated somewhat if the U.S. begins leading the way in reducing global carbon emissions.” He concluded, “We will pay now to reduce greenhouse gas emissions today...or we will pay the price later in military terms and that will involve human lives.”^{vi}

Building on a key finding in the 2007 report, that climate change, national security and energy dependence are inextricably intertwined, the CNA Military Advisory Board most recently devoted over one year to examining our national energy posture and this past May released a report entitled: “*Powering America's Defense: Energy and the Risks to National Security.*”

This report found that America's energy posture constitutes a serious and urgent threat to national security -- militarily, diplomatically and economically.

Moving beyond recent studies on the dangers of imported oil, our new report finds that not just foreign oil – but all oil – and not just oil but all fossil fuels, pose significant security threats to military mission and the country, and are “exploitable by those who wish to do us harm.”

We found that our over reliance on fossil fuels does the following:

- Jeopardizes our military and exacts huge price tag in dollars and lives. Our inefficient use of oil adds to the already great risks assumed by our troops. It reduces combat effectiveness. It puts our troops – more directly and more often – in harm's way. Ensuring the flow of oil around the world stretches our military thin – and these are the same men and women already fighting wars on two fronts.
- Cripples our foreign policy & weakens U.S. international leverage. Our dependence on oil – not just foreign oil – reduces our leverage internationally and sometimes limits our options. I say all oil, because we simply do not have enough resources in this country to free us from the stranglehold of those who do. We find ourselves entangled with unfriendly rulers and undemocratic nations simply

because we need their oil. And we cannot produce enough oil to change this dynamic – we have to wean ourselves from it.

- Entangles the United States with hostile regimes. In 2008, we sent \$386 billion overseas to pay for oil – much of it going to nations that wish us harm. This is an unprecedented and unsustainable transfer of wealth to other nations. It puts us in the untenable position of funding both sides of the conflict and directly undermines our fight against terror.
- Undermines our economic stability. We are in the midst of a financial crisis, and our approach to energy is a key part of the problem. We are heavily dependent on a global petroleum market that is highly volatile. In the last year alone, the per-barrel price of oil climbed as high as \$140, and dropped as low as \$40. And this price volatility is not limited to oil – natural gas and coal prices also had huge spikes in the last year. While these resources may be plentiful, they are increasingly difficult to access, and have associated local environmental impacts, such as slurry spills and smog. The economic and environmental costs are steep. There are many who say we cannot afford to deal with our energy issues right now. But if we don't begin to address our long-term energy profile in significant ways now – future economic crises will dwarf this one.

We also found that continuing the United States' energy usage in a business-as-usual manner creates an unacceptably high threat level from a series of converging risks, which include:

- A market for fossil fuels shaped by finite supplies, increasing demand and rising costs
- Growing competition and conflict over fuel resources
- Destabilization driven by ongoing climate change

As our first report showed, unless we take dramatic steps to prevent, mitigate and adapt, climate change will lead to an increase in conflicts, and an increase in conflict intensity, all across the globe. It's in this context – a world shaped by climate change and competition for fossil fuels– that we must make new energy choices.

Our second report concludes that we cannot pursue energy independence by taking steps that would contradict our emerging climate policy. Energy security and a sound response to climate change cannot be achieved by pursuing more fossil fuels. Our nation requires diversification of energy sources and a serious commitment to renewable energy. Not simply for environmental reasons – for national security reasons.

We call on the President and Congress to make achieving energy security in a carbon-constrained world a top priority. It requires concerted, visionary leadership and continuous, long term commitment. It requires moving away from fossil fuels, and

diversifying our energy portfolio with low carbon alternatives. It requires a price on carbon. And perhaps most importantly, it requires action now.

By clearly and fully integrating energy security and climate change goals into our national security and military planning processes, we can benefit the safety of our nation for years to come. In this regard, confronting this energy challenge is paramount for the military – and we call on the Department of Defense to take a leadership role in transforming the way we get, and use, energy for military operations, training and support. By addressing its own energy security needs, DoD can help to stimulate the market for new energy technologies and vehicle efficiencies.

But achieving the end state that America needs, requires a national approach and strong leadership at the highest levels of our government.

Some may be surprised to hear former generals and admirals talk about climate change and clean energy, but they shouldn't be. In the military, you learn that force protection isn't just about protecting weak spots; it's about reducing vulnerabilities well before you get into harm's way. That's what this work is about.

As a member of our Board, General Robert Magnus, former Assistant Commandant for the Marine Corp said "Our only choice is whether we're going to make the decisions forcefully and in a timely manner. We could lag and then we'll find ourselves in a much more serious situation, when all of these other costs come on us."

Climate change, national security, and energy dependence are an interrelated set of global challenges. Without swift and serious legislative action and investment, the U.S. will continue barreling headlong toward the catastrophic national security, economic and human suffering effects of climate change.

I conclude by quoting from the foreword to our May, 2009 CNA Military Advisory Board report.

"The challenges inherent in this suite of issues may be daunting, particularly at a time of economic crisis. Still, our experience informs us there is good reason for viewing this moment in history as an opportunity. We can say, with certainty, that we need not exchange benefits in one dimension for harm in another; in fact, we have found that the best approaches to energy, climate change, and national security may be one in the same."

If we act with boldness and vision now, future generations of Americans will look back on this as a time when we came together as a Nation and transformed daunting challenge and worry into opportunity, a better quality of life and a more secure future for our world.

ⁱ CNA Report on “National Security and the Threat of Climate Change”
<http://securityandclimate.cna.org/report/National%20Security%20and%20the%20Threat%20of%20Climate%20Change.pdf> (April 16, 2007).

ⁱⁱ “Military on Climate Change” *Washington Post* (April 15, 2007).

ⁱⁱⁱ Informed Reader column “How Global Warming Will Play With Investors” *Wall Street Journal* (March 9, 2007).

^{iv} Revkin, Andrew “Global Warming Called Security Threat.” *New York Times* (April 15, 2007) <http://www.ciesin.columbia.edu/pdf/waterconflict.pdf> .

^v <http://www.ipcc.ch/SPM6avr07.pdf> KANTER, James and ANDREW C. REVKIN.
“Scientists Detail Climate Changes, Poles to Tropics.” *New York Times* (April 7, 2007).

Jolis, Anne and Alex MacDonald. “U.N. Panel Reaches Agreement On Climate-Change Report.” *Wall Street Journal* (Apr. 6, 2007).

^{vi} *Washington Post* “Military on Climate Change” (April 15, 2007).