

As Debate Goes On, the Military Prepares for Climate Change

By Patrick Tucker

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The White House released its [National Climate Assessment](#) this week, a 1,100 page document by more than 300 experts examining the effects of man-made climate change on various aspects of American life. While 97 percent of climate scientists agree that climate change is occurring and that human factors are largely the cause, public debate persists around climate change, humanity's role in it, and whether or not its effects will be as severe as the Obama administration and the scientific community are projecting.

But there's little debate over climate change at the Pentagon, where the realities of temperature increases are now a part of everyday planning.

"We have to be concerned about all of the global impacts [of climate change], including here at home, where the Defense Department does have a mission in supporting civil authorities in the event of natural disasters. We have to be concerned about all of it," Sharon Burke, Assistant Secretary of Defense for Operational Energy Plans and Programs told *Defense One*.

"We have to be pragmatic about it," Burke said. "The question is, how is this changing facts on the ground? If we're seeing salt water intrusion at an aquifer at a base in North Carolina, we have to deal with it."

The report's broadest points mirror those of the 2013 Intergovernmental Panel on Climate Change: There will be a rise in global temperature that varies significantly depending on how much more CO₂ is released into the atmosphere in the coming decades. Projections vary from a few degrees' rise to more than 10 degrees by the year 2100. The hottest days of the year would be as much as 15 degrees hotter on average. Sea levels could rise by as much as four feet.

Not everyone agrees with the dire assessment. Paul Knappenberger and Patrick Michael of the CATO Institute [were quick to dismiss](#) the report as "biased towards pessimism." "The report overly focuses on the supposed negative impacts from climate change while largely dismissing or ignoring the positives from climate change," they said.

"I'm not seeing intransigence [on the issue] in the Pentagon," retired Army Brig. Gen. John Adams told *Defense One*. Adams is an advisor [to the Center for Climate Security, which looks at the intersection of climate change and national security.](#) "The Pentagon is seeing this as a

problem. Instability is accelerating. Climate change is an accelerator of instability. The Pentagon understands that. They're looking at what sorts of force structures and equipment they're going to need to have available to deal with increasing instability that will be most effected by climate change."

Adams, who lives in Pensacola, Fla., spoke specifically about how climate change is influencing military decision-making near him. "We have major installations in this area. We predict the sea level will rise here. That means that Navy ship berths will have to change, because they're not floating docks, they're built into the land. And when the sea level rises above the point where it's safe to berth a Navy ship, then you have to change the berthing structure ... so climate change will have an effect on our basing structures."

Climate change will also alter the way the military acquires equipment, Adams said. "If we're going to find ourselves operating in littoral areas that are affected by climate change, where the instability will be most accelerated by climate change, we have to have the force structure to be able to operate."

The White House report makes note of the changing arctic as a future destination for increased U.S. naval activity. "With sea ice receding in the Arctic as a result of rising temperatures, global shipping patterns are already changing and will continue to considerably in the decades to come."

It's also a concern that Defense Secretary Chuck Hagel reiterated in a major speech in Chicago on Tuesday. "The melting of gigantic ice caps presents possibilities for the opening of new sea lanes and the exploration for natural resources, energy, and commerce. The Defense Department is bolstering its engagement in the Arctic and looking at what capabilities we need to operate there in the future," he said at the Chicago Council on Global Affairs.

Adams says "there will be new competitors for that route. The United States has a big role to play in any of the sea lanes."

Climate change is already influencing the military mission, Burke said, as the U.S. builds up its military-to-military relationships around the world. "We had 14,000 people who deployed to support [relief] efforts for Hurricane Sandy. We also had a lot of people who deployed to support relief efforts for the typhoon in the Philippines. We're already seeing increased demands on our time," she said.

While the military faces the effects of climate change head on, it also contributes to the problem. In 2013, the Defense Department burned more than [12 million gallons of oil a day](#). But the department has also offered some potential solutions to military dependence on fossil fuels. The Office of Naval Research recently [announced](#) the successful creation of a synthetic fuel from seawater. But much of the innovation taking place to green the military is far more subtle. DOD plans to invest \$1.7 billion in fiscal year 2015 on initiatives to improve energy efficiency and energy performance, Burke said.

Climate and weather has been part of the military conversation since the dawn of armies, but the current conversation between the Obama administration and the military is rooted in the [2010 Quadrennial Defense Review](#), which observed: “DOD will need to adjust to the impacts of climate change on our facilities and military capabilities... While climate change alone does not cause conflict, it may act as an accelerant of instability or conflict, placing a burden to respond on civilian institutions and militaries around the world. In addition, extreme weather events may lead to increased demands for defense support to civil authorities for humanitarian assistance or disaster response both within the United States and overseas.”

The next National Climate Assessment is due within four years and will look squarely at the national security implications of climate change. “Right now everyone is looking at health, environment, and economy and how those things fit together and those are really important. But we also feel it’s a good time to look specifically at security,” Burke said. “I do think there’s a dialogue between the scientists, engineers, and policymakers to have actionable information. That’s a conversation that needs to deepen.”