



2.2 ROUNDTABLE 1: CLIMATE CHANGE MODERATOR'S SUMMARY

Dr. Marcus King

To begin, I want to briefly describe CNA's involvement in climate change and how we got there. CNA's climate change work began in 2006 with the establishment of our Military Advisory Board (MAB). At that time, the MAB consisted of 11 three- and four-star generals and admirals who began to look at, and provide advice related to, issues at the intersection of climate change, national security, and energy.

This group was one of the first to examine the risks of climate change impacts using a national security framework. Their report, *National Security and the Threat of Climate Change*, began to elevate the dialogue on climate security in the United States and abroad. [1] It identified climate change as a threat multiplier. The report found that, although climate change itself was rarely the only cause of instability, it had potential to accelerate existing tensions.

Furthermore, the report found that climate change could cause "multiple chronic destabilizing conditions to occur globally at the same time and threaten many Asian, African, and Middle East nations." Last year, CNA's work on climate change began to expand. Our research staff began to look at climate impacts in

The moderator is Dr. Marcus King from the Center for Naval Analyses, which is part of CNA. Marcus is a Research Analyst in the Environment and Energy Team, where he focuses on the national security impacts of climate change. Dr. King earned a B.S. in foreign service from Georgetown University and an M.A. in law and diplomacy and Ph.D. in international security studies and environmental policy from Tufts University. Before joining CNA, Dr. King held positions at Georgetown University, the Department of Energy, and DoD, where he was a member of the U.S. delegation for negotiation of the Kyoto Climate Protocol. He is also an adjunct professor at Georgetown University where he teaches courses on environmental security.

other countries and the security implications for the United States. Recently, CNA has begun to examine energy security issues in support of the *Quadrennial Defense Review* as well as for the Navy and Marine Corps.

The examination of potential security and economic impacts of climate change and the multinational implications of these impacts led the way to further examination of how to adapt and how to build resilience to these changes. CNA's latest work is focused on just this. How will federal agencies, including the Navy, be able to fulfill their roles and missions when the very nature of those missions may be changing due to the impacts of climate change?

In the sections that follow, the roundtable's panelists will discuss potential effects of global climate change, to include temperature increases, sea-level rise, reduction in sea ice, and melting glaciers, among others. These are physical effects of climate change. While I expect that Dr. Gullede will address the natural science and associated uncertainty most directly, we are also concerned with the second- and third-level effects of climate change.

Second-level effects may include climate changes impact on social, health, or economic systems. We can characterize the resulting impacts or disruptions of these systems on global or U.S. security as third-level effects. I would ask that the panelists and the audience keep this framework in mind as the panelists deliver their remarks.

The first of today's panelists is Dr. Jay Gullede, a Senior Scientist and Director for Science and Impacts at the Pew Center on Global Climate Change. Our next speaker is Major General Richard Engel, U.S. Air Force (Retired), who serves as Director of the National Intelligence Council's Climate Change and Stability Program. The final panelist is Dr. Geoffrey Dabelko, the Director of the Environmental Change and Security Program at the Woodrow Wilson International Center for Scholars.

REFERENCES

1. Military Advisory Board, *National Security and the Threat of Climate Change*, Alexandria, Virginia: CNA, 2007, <http://securityandclimate.cna.org/report/>.