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New Realities: Energy Security in the 2010s and Implications for the U.S. Military

December 30, 2013 | Dr. Robert J. Bunker, LTC John D. Colwell, Jr.

Revolutionary changes among energy producers and dramatically altered patterns of energy consumption across the planet are having profound implications for American national security in general and the U.S. Army specifically. For example, the reduced saliency of Africa and the Middle East as energy sources for the United States and many of its key allies will alter Washington's calculations of its vital interests, which will subsequently affect where and how the U.S. Army is wielded as a tool of national policy in the defense of those interests. Meanwhile, burgeoning fossil fuel demand in China, India, and elsewhere may both increase regional and global security competition over energy resources while simultaneously worsening human-induced global climate change and bringing increased risk of humanitarian crises, all of which may compel the United States to utilize military force in defense of vital as well as important interests overseas. For the U.S. Army during a period of contraction and reduced budgetary authority, these strategic factors will force it to give Soldiers and leaders the capability to manage energy status, resources, and performance; to significantly reduce its energy footprint; and to provide flexibility and resiliency by developing alternatives and adaptable capabilities. At the same time, whether in garrison or deployed, the "new realities" of the global energy market will compel the Army to strengthen the capacity to insulate itself from disruption of its energy supply chains, whether in electricity or fuels.

These were just some of the key conclusions reached during a conference on "New Realities: Energy Security in the 2010s and Implications for the U.S. Military," organized by the Strategic Studies Institute, U.S. Army War College, and hosted by the Defense Education Forum, Reserve Officers Association (ROA). The conference was held on November 19-20, 2013, in Washington, DC, at the ROA's Minuteman Memorial Building

on Capitol Hill. Funding for this conference was provided by generous support from the U.S. Army War College Foundation. Participants included representatives from the U.S. military, government, private industry, Congress, and academia principally from the United States, with a number from European nations. A virtual audience component to the conference accompanied it via a live web feed, and during the event itself, live Tweets were broadcasted via @SSIInow.

The academic engagement component of the event included presentations by professors and researchers from the Atlantic Council, Rice University's Baker Institute, the Carnegie Endowment for International Peace, Case Western Reserve University, the Center for Naval Analyses (CNA), the Center for Strategic and International Studies (CSIS), Jacobs University (Bremen), the Eurasia Group, Hampshire College, Idaho National Laboratory, the Middle East Institute, the National Defense University, the National Science Foundation, the University of California at San Diego, the University of Florida, and the University of St. Andrews, as well as audience participation by a number of U.S. Army War College Senior Fellows.



Panel Discussion on the Military Implications of Emerging Energy Security Issues

The New Realities conference was divided into three themes focusing on changes among global energy market suppliers, evolving forms of consumption, and what the implications of these trends represent for the U.S. military. The event was comprised of a total of seven panels with 22 presenters and two keynote lunch speakers—the Honorable Sharon Burke, Assistant Secretary of Defense (Operational Energy Plans and Programs); and the Honorable Katherine Hammack, Assistant Secretary of the Army (Installations,

Energy & Environment).

The first four panels focused on current trends in production and consumption and the impact of these trends on the strategic environment. The last three panels addressed the implications of the broad, strategic trends for the U.S. military generally and the Army specifically. Key takeaways included the following:

- The unconventional fossil fuels revolution sweeping across North America and spreading to other continents is the most fundamentally transformative event – in terms of society, economics, and ultimately politics – of the last several decades.
- Europe has two opposite fears about Russian energy behavior primarily focused on natural gas; the first is that Russia will continue and intensify the pattern of energy supply manipulation for political purposes as seen in the previous decade; the second fear is that Russia will pursue incompetent policies at home that reduce its ability to supply gas to Europe.
- Criminal organizations and guerillas in Latin America are not viewed as the major challenge to the oil industry. Rather, the inability of governments to equitably distribute rents from the energy industry while simultaneously protecting the environment and public health will undermine confidence in those governments.
- Energy production is shifting from the Middle East to the Western Hemisphere which will have geopolitical implications and will further strengthen U.S. energy security independence and national power. This is an outcome of advances in fracking, deep sea drilling, and other technologies.
- Renewable energies (RE) offer many potential advantages including reducing exposure to price vulnerability, creating greater interdependence for regions, prolonging the stability of hydrocarbon exporters, and reducing nations' vulnerability to energy being used as a 'weapon' against them in international relations. However, for the immediate future Middle East oil will continue to control oil pricing as long as the world's industrial infrastructure remains oil-based.
- The ubiquity of computer and information technology systems throughout the energy industry is growing, as computerization increasingly dominates energy industry processes from exploration through production and distribution. This increases the vulnerability of cyber technologies supporting U.S. Army missions.

- Increasing American energy independence and a projected decline in African energy production are likely to fundamentally alter U.S. interests in Africa. On the one hand, the United States is likely to have less at stake in Africa if it imports less in terms of energy resources from Africa. On the other hand though, reduced energy production may mean increased economic, social, and political instability across the continent, potentially resulting in humanitarian and other crises that may compel U.S. involvement.
- As a key strategic partner of India and as an emerging energy supplier with a number of proven bilateral mechanisms for energy cooperation already in place, the United States is well positioned to forge even closer civil and military ties to enhance mutual energy security.
- Much more energy is wasted due to inefficiencies in energy generation, transmission, and distribution than is normally imagined. Some Russian natural gas facilities can flare (burn off) up to a third of their gas during the generation process. A number of industrial processes and efficiency technologies offer great potential for energy resource conservation and storage, but this will require less developed energy producers to become more comfortable inviting in Western industry, capital, and technology.
- The U.S. Army, Navy, Air Force, and Marines seek to conduct energy-informed operations, which balance energy capabilities and employment to achieve the greatest net operational benefit. At the same time, the military must maintain balance in terms of the protection, resilience, and sustainability of its forces in the field.
- Ultimately an enterprise approach to energy security will be required for U.S. national and coalition defense needs. This will further the development of both strategic and operational energy concepts, plans and programs, and doctrines, which is vital given the increasing energy requirements of the technologically advanced forces being fielded over the coming decades.

Deliverables from the conference will consist of a compendium of the papers presented, a YouTube archive of the presentations, and a series of executive summaries for use by policymakers and other decisionmakers. Select podcasts from Dr. John R. Deni, the lead conference organizer, and Professor Douglas Lovelace, Director of the Strategic Studies Institute, can also be accessed. For more information on this important conference, please contact Dr. Deni at the Strategic Studies Institute, U.S. Army War College.

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