The United States National Security Strategy, issued by the White House, includes a few key points relevant to climate and national security. One is that the United States Government’s policy on security issues must be not solely a Department of Defense matter but rather a “whole of government” response. The DoD’s Quadrennial Defense Review recognizes climate change as a factor in security planning. The U.S. Special Operations Command, assigned responsibility for combating terrorism across the globe, uses specialized military units to mitigate conditions that are ripe for violent extremist organizations (VEOs).

Our discussion will illustrate opportunities to integrate weather and climate planning into Special Operations and other whole-of-government responses to scenarios created by seasonal atmospheric forcing.

**Vignette:** The U.S. Army Special Operations Command’s 95th Civil Affairs Brigade deploys small teams globally to assist partner nations in developing and delivering the good governance that their citizens expect. For example, in West Africa, 4-person CA teams are deployed "to enhance the indigenous capacities of governments in the Pan-Sahel (Mauritania, Mali, Chad and Niger, as well as Nigeria and Senegal) to confront the challenge posed by terrorist organizations in the region." Because of the nature of small-unit operations, these CA teams must thoroughly understand their operational environment, including the normal pattern of life into which they will integrate. They set the stage for success through detailed planning for all aspects of their missions, including disruptions to the normal patterns – such as the local population response to early or late arrival of seasonal rains. Foreknowledge of such changes from the norm allows these small teams to be prepared with alternative actions that improve their prospects for success. A challenge to our meteorological and oceanographic (METOC) community is to provide that foreknowledge to enable their success. It’s a small, but not trivial, piece of the overall national security scenario; quoting a recent CA author, "If a nomadic group comes through an area only once every few months to sell its animals or every few weeks to draw water at specific oasis in the Sahara, the CMSE will be unable to engage that particular group. Growing seasons and rain have a major impact on the movement of the CMSE and its ability to engage key groups." Another example is the CMSE role in analyzing "the partner-nation's ability to provide key services, such as medical care. One can quickly ascertain where groups predominantly stay. The CMSE's medic will have studied the seasonal weather's effects on the populace; but if a departure from the norm changes the need or treatment, the best plans for medical courses of action may become ineffective. An abnormal wet spell that reduces the incidence of harmattan-related meningitis may mean inefficient – or worse, ineffective – use of medical resources and a lost opportunity for building the relationships that are the core of the efforts. Integrating reliable seasonal forecasts and understanding the relative risk of abnormal environmental conditions reduces the uncertainty in these types of operations.
There are also several hypotheticals for which we should prepare our slice of the whole-of-government pie.

The well-documented El Nino rains in the equatorial Pacific-coast regions of South America provide a clear example of integrating WoG responses. Flooding rains initiate mudslides and set the environmental conditions for outbreaks of cholera. Given our ability to identify El Nino events and to predict the effects, Department of State country teams in the affected regions could offer pre-emptive assistance toward mitigating the usual unfortunate consequences.

During La Nina events, the potential for flood-induced humanitarian relief requirements increases in Oceania. Knowing well in advance that the seasonal outlooks predict the likelihood of "more-than-normal" rains may prompt a commander to allocate monies for a greater demand for HA/DR capabilities.

The two examples above are from the "significant impacts file." There are also more routine and not-nearly-so-sexy requirements. Can we identify weeks in advance a higher likelihood of dew in wide-open, mountainous terrain? Can we, several weeks in advance, quantify the risk of rainfall that allows locusts to swarm? Reliable capabilities to address these questions – and many like them – mean the small SOF teams operating in remote areas can be better prepared for the environmental factors affecting their missions.

The examples cited here are but a few of the climate information requirements and issues confronted by commanders, planners and troops on the ground in their everyday missions. They're not trying to consume the entire climate information smorgasbord – they just need a specially prepared slice of the pie.

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2 NSS, see box "Strengthening National Capacity—A Whole of Government Approach," p14
3 QDR: [http://www.defense.gov/qdr/](http://www.defense.gov/qdr/)
4 The QDR has numerous references to climate change beginning on page 3 of the Introduction. (The QDR is 105 pages.) Here is a key passage from the Executive Summary: "The United States faces a complex and uncertain security landscape in which the pace of change continues to accelerate. The distribution of global political, economic, and military power is becoming more diffuse. The rise of China... globalization... non-state actors... [t]he proliferation of weapons of mass destruction (WMD)... [and] other powerful trends are likely to add complexity to the security environment. Rising demand for resources, rapid urbanization of littoral regions, the effects of climate change, the emergence of new strains of disease, and profound cultural and demographic tensions in several regions are just some of the trends whose complex interplay may spark or exacerbate future conflicts." (page iii)
6 Wishart
7 Wishart