



Colonel Edward (Ted) Smyth

Thus far, we have had three previous roundtable discussions on the subject of energy and energy challenges, so at this stage of the game, you might wonder what sets this particular roundtable

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discussion apart. In my view there are really two factors. First, we are going to dwell almost exclusively on expeditionary capabilities and the energy challenges created by being expeditionary. Second, this roundtable consists of folks who day to day are either serving in the Marine Corps on active duty or in a civilian capacity. So this is, in effect, our Marine Corps panel for this symposium.

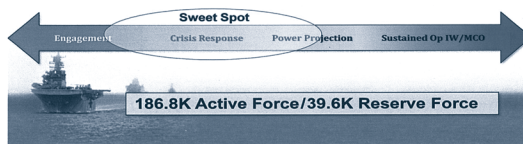
I am not an energy expert per se. I will leave it to the panel members to provide those details, but what I thought I might do in the way of introducing this particular panel is attempt to put the term “expeditionary” in context. To do that, I will offer a definition or at least provide you with a set of characteristics that are normally used by the Marine Corps and others in describing expeditionary. I will also briefly touch upon the types of missions Marine expeditionary forces conduct and capabilities that they possess, and then I will touch briefly on how we link some of those expeditionary capabilities to some of the emerging energy challenges that we face. At that point, I will pass it off to the experts to describe some of the solutions that they are working on.

My initial effort to find an accepted definition of the term “expeditionary” took me to Joint Publication 1-02, the *Dictionary of Military and Associated Terms*. [1] Unfortunately, I did not find a great deal of help there. The term “expeditionary” does not appear in that document. What you will find is a definition of the term “expeditionary force,” which, in my view, does not fill the need of defining what a true expeditionary force is all about.

Accordingly, I chose to expand my research and consulted a number of Navy and Marine Corps sources. Please note that the Marine Corps sources frequently describe “expeditionary” in terms of being a state of mind, one that drives the way in which the Marine Corps organizes, trains, and equips its forces. These sources also serve to describe “expeditionary” in a number of different ways and provide characteristics that include rapidly deployable, self-sustainable, adaptive to mission requirements, scalable, and agile. These same sources also frequently provide a comprehensive overview of the types of missions that naval expeditionary forces have recently supported as well as information on the numbers of Marine Corps forces that have been involved. As we

well know, these types of operations are continuing today. Below is a summary of some of the important points from my research:

- Expeditionary Force: “An armed force organized to accomplish a specific objective in a foreign country.” [1]
 - The Navy and Marine Corps describe “expeditionary” as a state of mind that drives the way their forces are organized, trained, and equipped. Forces are described as possessive of a high state of readiness, scalable and agile, self-sustainable, capable of rapid deployment, and able to begin operating immediately upon arrival, even in the most austere environments. [2]
 - During 2010, naval expeditionary forces participated in combat operations in Afghanistan, successfully completed their mission in Iraq, conducted humanitarian assistance/disaster relief operations in Pakistan, Haiti, and the Philippines, and conducted antipiracy missions off the Horn of Africa.
 - At the end of 2010 there were approximately 20,700 Marines in Afghanistan, 6,200 at sea in Marine Expeditionary Units, and 1,600 engaged in various other missions, operations, and exercises. An additional 18,000 Marines were also assigned to garrison locations outside the continental United States.
- Naval in character, normally used as a Marine Air-Ground Task Force (MAGTF) designed to operate rapidly from sea, land, and air
 - Since 9/11, U.S. Navy/Marine Corps amphibious forces have responded to crises and contingencies at least 50 times, a response rate more than double that of the Cold War
 - The most frequent, recent employment of amphibious forces has been for steady-state engagement (security cooperation and regional deterrence) and crisis response
 - “Marine forces will increasingly be asked to focus on short-duration counterterrorism strikes and disaster relief.”*



*Secretary of Defense Robert M. Gates, 25 February 2011
Sustained Op, sustained operations; IW, irregular warfare; MCO, major combat operations.

Figure 1. Marine Corps Operations

Turning now to Marine Corps operations (Figure 1), I am sure that most of you are aware that the Marines are routinely organized into Air-Ground Task Forces to meet designated mission requirements and are capable of rapid deployment and employment from the sea, land, and air. In recent years, Marine expeditionary forces have been deployed frequently alongside their Navy shipmates.

The list below highlights a number of other key points regarding the Marine Corps:

- Contributions:
 - A versatile “middle-weight” capability to respond across the range of military operations
 - Inherent crisis response speed and agility buys time for national leaders
 - An enabling and partnering capability in joint and combined operations
- America’s return on investment:
 - 8.5% of the proposed FY2012 DoD budget
 - 31% of DoD ground operating forces (combat, combat support, and combat service support)
 - 12% of the DoD’s fixed wing tactical aircraft
 - 19% of the DoD attack helicopters

The Marines are now characterizing themselves as a middle-weight force: a force that is much lighter than the U.S. Army yet possesses considerable combat power. The projected Marine Corps mission focus as identified by Secretary Robert M. Gates in his February 2011 speech at West Point clearly requires the continuance of Marine Corps expeditionary capabilities. At the same time, I think everyone recognizes that the Marine Corps of the future will be somewhat smaller than today’s Marine Corps. As forces are withdrawn from Afghanistan, Marine Corps force structure is almost certain to be reduced. In addition, I have noted the Marine Corps’ own description of the current and future contributions it will make to the nation in terms of national security. As indicated, these capabilities come at what I think is a very reasonable cost.

In short, the Marine Corps provides the American taxpayer with an excellent return on investment.

It is this expeditionary combat power that we are going to focus on this morning because as Marine Corps combat power has become more lethal, it has also become increasingly dependent on fossil fuel. Along with the substantial increase in Marine Corps combat power, the number of tactical vehicles, radios, computers, and other equipment organic to Marine Corps units has increased threefold over the past decade. This increase has obviously contributed to increased fuel requirements. Daily Marine Corps fuel consumption in Afghanistan, for example, is estimated to be in excess of 200,000 gallons. According to General Jim Amos, the current Marine Corps Commandant, this dependency on fuel puts both Marines and expeditionary capabilities at risk.

The photograph in Figure 2 shows a typical fuel convoy in Afghanistan. This convoy reflects today's efforts to sustain forces in the field. In addition to the challenges posed by the terrain and a fairly limited road network, relying on such convoys in a hostile threat environment necessitates extensive use of security forces, forces which become another target for the adversary along with the fuel and supplies that are being protected.



- Force protection; reduce the number of Marines at risk on roads hauling fuel
- Reduce size and amount of equipment
- Reduce energy demands in platforms and systems
- Reduce petroleum dependency
- Reduce costs

Initiatives:

- “Bases to Battlefield” Expeditionary Energy Strategy
- Experimental Forward Operating Base
- Increase combat effectiveness and efficiencies



Figure 2. Energy Challenges

So what is the Marine Corps doing about it? As you will soon learn, the Marines are currently working hard to reduce both the size and the amount of equipment that they use as well as the energy demands associated with that equipment. When implemented, these changes will reduce the demand for fuel and thus there will be fewer fuel convoys and fewer personnel in harm's way. I will leave it to my roundtable colleagues to describe the important initiatives that are underway.

REFERENCES

1. Joint Chiefs of Staff, Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 2010, http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf.
2. General James F. Amos, *The 2011 Posture of the United States Marine Corps*, 2011, http://www.quantico.usmc.mil/MCBQ_PAO_Press_Releases/CMC_2011_Posture_Statement-bm.pdf.