



## 5.5 IMPLICATIONS FOR MARITIME AND CROSS-DOMAIN OPERATIONS IN USSOUTHCOM

Mr. John D. Perez

In my presentation, I will talk a little bit about U.S. Southern Command (USSOUTHCOM)—about who we are, what we do, and the challenges and opportunities that we face in the USSOUTHCOM area of responsibility (AOR). I will also address how what we do

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*Mr. John D. Perez is the Program Manager for Joint Capability Technology Demonstrations (JCTD), U.S. Southern Command (USSOUTHCOM), Miami, Florida. USSOUTHCOM is responsible for all U.S. military activities, including theater security cooperation, on the land mass of Latin America south of Mexico; the waters adjacent to Central and South America; the Caribbean Sea, with its 11 island nations, European and U.S. territories; the Gulf of Mexico; and a portion of the Atlantic Ocean. As the JCTD Program Manager, Mr. Perez directs daily interaction with a multitude of Department of Defense (DoD) organizations, the Services, other government agencies, partner nation counterparts, industry, and academia to find, demonstrate, transition, and transfer operational concepts and technology solutions for transformational joint, interagency, and international operations. His portfolio currently includes seven major programs and various science, technology, and experimentation initiatives with an aggregate value of several hundred million dollars. Mr. Perez holds a bachelor of business administration degree from the University of Notre Dame and received his master of science degree from Central Michigan University. A retired Lieutenant Colonel in the U.S. Air Force, he is a graduate of several military academic institutions, is an Outstanding Graduate of the Air War College, and has served in a wide variety of operations, technical, and policy leadership positions ranging from unit level to national and international levels. He has extensive experience throughout Latin America and the Caribbean. Prior to his current duties, his responsibilities at USSOUTHCOM have included serving as Special Assistant to the Commander and Chief of the International Integration Division. He is currently an associate with Booz Allen Hamilton and serves USSOUTHCOM through a consulting engagement.*

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is relevant to all of you, whether we are talking about the bigger national security picture, the future of naval forces in the region, or our approaches to climate- and energy-related issues.

I will begin by highlighting just how big and diverse the Americas are. The USSOUTHCOM AOR is everything on the land mass of the Americas south of Mexico. It includes the waters on both sides of the American continents as well as the Caribbean. Inside that region there is incredible diversity. About half a billion people live there. They speak four major languages and hundreds of indigenous tongues. The region also has tremendous economic diversity. At one extreme, there is Haiti, the poorest country in the Western Hemisphere. Haiti was already in bad shape before the recent earthquake. Now, it is completely devastated and will take a very long time to recover. At the opposite extreme, both physically and economically, stands Chile. Chile is perhaps the most developed country in South America. It is a first-world country in every sense of the word; it has more free-trade agreements with other nations than any other country in the world. Thus, the USSOUTHCOM AOR includes, on the one extreme, poverty and very little infrastructure and lots of challenges, and on the other extreme countries like Chile that are quite self-sufficient. Yet, Chile is also facing the after-effects of its own earthquake. Natural disasters, it seems, are the region's big leveling factor.

We are fortunate that, unlike other commands, there are no hot wars in the USSOUTHCOM AOR. Moreover, the likelihood of any kind of traditional state-on-state conflict is very low. That is not by happenstance, but rather the result of a lot of hard work, a lot of cooperation amongst the region's 41 countries, territories, and protectorates. But that does not mean that USSOUTHCOM, as an operational arm of the U.S. military, does not have to be ready, like any other part of the military, to defend against hard power threats.

The majority of USSOUTHCOM's time is spent on what we call soft-power challenges. It is incumbent upon us to understand these challenges, prepare for them, build on our strong relationships, and leverage every opportunity that we have to accomplish our objectives.

As part of our maritime cooperation program, we have a very extensive series of activities and exercises with our partner navies. We are also concerned about nontraditional maritime challenges such as the self-propelled, semisubmersible vehicle shown in Figure 1. Approximately 2 years ago our then-commander at USSOUTHCOM, Admiral James Stavridis, testified before Congress that he saw such nontraditional threats as one of the major challenges that we face in the Americas today. [1]

This small submarine-like vessel can be built for an estimated cost of a million dollars and can transport almost 8 tons of contraband. That 8 tons of illicit traffic could be drugs, and to this point it largely has been, but it could also be weapons, whether conventional or worse, or it could be people, whether migrants of some sort or people with more sinister motives. Whatever this vessel carries, it poses a threat and that is an example of the sort of maritime challenges that we face.

We are also concerned about climate and energy. I include in that bundle water and food, which are inextricably interwoven as we consider the environment of the region.



**Figure 1. Self-Propelled Submersible:  
A Nontraditional Maritime Challenge**

Why are they important? Well, if we are not worried so much about a conventional military threat, we do have to concentrate on those soft-power missions. A couple of those are relatively easy to predict. We have direct links to a humanitarian assistance and disaster relief mission in which we are very heavily involved right now. We also have possible involvement in mass migration events. But if we look at all the lists of potential missions on the right side of Figure 2, that quad of factors—climate, energy, water, and food—can help impact or can drive all of these other things.

A common denominator across those things on the right is that very few, if any, are what we would think of as traditional military missions. They are, however, potential catalysts for instability. So what do we do? If we look at force structure, if we look at things in particular that USSOUTHCOM's naval forces have to be prepared to do, first and foremost among those in this context are humanitarian assistance and disaster relief. They have done spectacular work in support of activities in Haiti. In that instance, the U.S. military is not there as the lead; the military is there to support civil activities. As a result, you are likely to see a U.S. Agency for International Development (USAID) person supervising the

**Direct links:**

- Humanitarian Assistance and Disaster Relief
- Mass Migration



**Associated impacts:**

- Smuggling
- Fisheries violations
- Oil theft
- Illegal immigration
- Drug trafficking
- Human trafficking
- Environmental degradation
- Piracy
- Terrorism
- Criminal activity
- Etc.

**Potential Catalysts for Instability**

Post Hurricane Dean damage survey – TSgt Sonny Cojins / U.S. Air Force

**Figure 2. Soft-Power Challenges**

offloading of supplies or military personnel transporting patients for civilian doctors to treat.

We also talk about the potential threat of mass migration. To date, there have not been events in which the environment—the climate—has driven large-scale mass migrations right off the bat. However, the environment—in the context of natural disasters—does drive these mass migrations. In many cases, such disasters have led to exoduses by sea. So-called “boat people” take many risks and pose a very serious threat, not so much to the security of the United States, but to the health, safety, and welfare of the region.

If we look again at those four factors—climate, energy, water, and food—and at long-term trends, it is apparent that changes in any one of those variables is going to impact the others. As a result, we have to be in a position to be able to respond to migratory events caused by changes in climate, energy, water, or food.

So what are the key capabilities that USSOUTHCOM in general and its naval forces in particular must have in order to carry out those missions, both the direct linked ones and the indirect linked ones, the ones that we are supporting, the ones for which we are doing the nontraditional activities?

First, we need situational awareness. If we do not know what is going on, we are not going to be very well poised to take any kind of effective or efficient action. We have several initiatives that deal with situational awareness; some of them involve expansion of civil military ties. We are exploring the use of automated information systems to feed maritime safety and security information systems, which in turn feed a virtual regional maritime traffic center. We are also looking at Riverine and Intercoastal Operations (RIO) designed to enable control of rivers in the littoral region.

We also talk about presence and flexibility. It is one thing to know something, it is another thing entirely to be able to go ahead and do something with that knowledge. The two vessels shown in Figure 3 are examples of how innovation, technology, and energy efficiency are factors in being able to accomplish that. On the left side of Figure 3 is a picture of the USS *Freedom*, the first littoral



**Figure 3. Presence and Flexibility**

combat ship. Its maiden voyage was not to some really high-profile place, it was not dispatched off to the Persian Gulf or someplace like that; it was dispatched to the Caribbean in support of drug interdiction missions. It has already succeeded admirably in that regard; it has already been involved in at least two major seizures.

The vessel shown on the right side of Figure 3 is a little bit farther from traditional naval design; it is called the *Stiletto*. It has a carbon fiber hull and is capable of continuous speeds in excess of 40 knots. More striking, it can actually turn on a dime and give you change back and it has a very, very shallow draft. It carries a multiservice team in the back equipped with a rigid-hull inflatable that can be deployed and that has been used to help detect, track, and ultimately support civil law enforcement in prosecuting drug traffickers. I had the opportunity to sail aboard that ship and it is quite a ride.

Getting away from this strategic picture to a smaller, more tactical focus, I want to call attention to some of the things that are within USSOUTHCOM's direct purview when it comes to energy. As we have heard, as energy becomes more and more expensive, we need to reduce the tip-to-tail ratio, we need to be able to do

things better and cheaper and longer so we can accomplish our objectives, whether traditional or nontraditional.

Part of that work focuses on work on alternative fuels, and through various partnerships with academia, in this case with Florida International University in a project called The Western Hemisphere Information Exchange, we have been working with alternative fuels, in particular biodiesel. We are looking at the generation of biodiesel from various sources, including crops and agricultural waste products. We are also trying it out in a wide variety of platforms.

We have also done some work in testing and fielding various solar technologies. By and large, it has been tough but promising work. We have done a range of experiments in Guyana, Honduras, the Dominican Republic, and Chile that have largely met our expectations on energy production. Our biggest concern to date centers on deployability; weight is a problem, reliability is a problem, things breaking is a problem. We also have a wind-powered co-generation experiment underway in Chile.

We are also looking at rivers as a source of energy. As part of an experiment in Peru, we went to a very remote military base that had no utilities whatsoever. In fact, power was so scarce that they had to fire up a small generator just to recharge batteries. It was essentially an electricity-free zone. We used micro-hydro-turbine technology to set up a sustainable capability for the first time in that region.

Biomass is another alternative fuel in which we are interested. We have a 250-kW electrical generation system that runs on waste matter. Although it is certainly not deployable in the sense that some of these other technologies are, it is viable as a fixed-site installation. It seems that you can produce quite a bit out of almost nothing.

Let's turn next to clean water. Another speaker mentioned when referring to the tip-to-tail ratio in Afghanistan how a tremendous amount of the logistics support required in theater was for fuel. Although a significant amount of that fuel is required for

transportation, in many cases an even larger share of the fuel is needed simply to provide drinkable water.

Although you can probably live without fuel, I guarantee that you cannot live without water for very long. In the case of USSOUTHCOM, climate, energy, water, and food play a dual role. In one sense, they can drive a mission, but they are also very important considerations in how we respond and how we fulfill those missions.

In addition, we need to have situational awareness; we need to have presence, flexibility, a projection capability, and a manner of carrying out those tasks that is effective and efficient. We need to have communications with a wide variety of stakeholders, not just U.S. military, not just our interagency partners within the U.S. government, but from our 41 partner nations, territories, and dependencies. We also need to include nongovernmental organizations—other people who are not ordinarily involved in our decision-making process—in order to make all of this happen. Information sharing is truly the key enabler, both for our mission and for our approaches to executing that mission.

After 12 years of living in so-called “temporary quarters” in the Miami area, USSOUTHCOM will be dedicating its new building at the end of this year, and we have not neglected energy and environment there either. It is truly a green building; it is being built to lead silver-level standards. So, even at home, we are thinking about those things.

## REFERENCE

1. Admiral James G. Stavridis, U.S. Navy, Commander, U.S. Southern Command, Statement Before the House Committee on Appropriations Subcommittee on Defense, 5 Mar 2008.