

***AIR, SPACE, AND CYBERSPACE POWER IN THE 21<sup>ST</sup> CENTURY***  
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***January 20 – 21, 2010***

**DAY TWO**

**SERVICE AND COMBATANT COMMAND PERSPECTIVES**

**2:00 – 4:15 PM**

## **Lieutenant General Fridovich**

**DR. CHARLES PERRY:** Ladies and gentlemen, can I ask you to come your seats. For those who are standing up could you perhaps come down and take a seat and get settled. Let me welcome you to the final session of this conference in which we will have the unique opportunity to hear from six of this country's most senior and experienced combatant commanders and service leaders. Together they represent virtually the full spectrum of today's major operational commands and strategic planning centers and including key, geographic combatant commands, key functional combatant commands and the top echelons of our military service headquarters. We are delighted to have you all with us.

In their various capacities moreover, each of our panelists today has a decisive role to play in designing, fielding, training, exercising and, unusually together deploying US military forces, including many of the aerospace capabilities we've been discussing for the last two days—to address the increasingly diverse range or regional and global security challenges of that United States and its allies and partners must now prepare for.

In performing these multiple tasks they have all acquired years of hands on experience in the areas of joint and combined force planning, capability assessment and global force management, conventional and irregular warfare—security cooperation and building partner capacity and civil military coordination, of course, to include what we've been discussing and know to be a whole of government and perhaps a whole of society in our approach to security issues.

So they bring to our discussion a very indispensable reality check with regard to what is feasible and desirable both in terms of current operations and in terms of future requirements.

Now, since this is the last session and given the talent at the table, and in the interests of giving them as much opportunity to share with us their thoughts and perspectives as possible—I'm not going to spend any more time setting the stage and the scene. I don't really have to with these gentlemen. But let me just briefly introduce the panelists in the order I've asked them to speak, to give you a little bit more flavor, perhaps.

To open this discussion we will turn first to General Gene Renuart, who as commander of NORAD and US Northern Command is responsible, as you all know, for providing air, maritime warning for Canada, Alaska, and the continental United States—but also, at the same time, preparing for homeland defense and civil support missions over a broad area of responsibility. This stretches from the Arctic to the Gulf of Mexico and parts of the Caribbean.

Next we will hear from General Duncan McNabb, Commander of US Transportation Command, where he manages all of DOD's air, land and sea transportation assets in support of a wide array of joint and multinational strategic mobility and supply chain management missions—the critical importance of which is being driven home, yet again, at this very moment in the US military's remarkable response to the earthquake in Haiti. And I know we will be hearing about that from General McNabb.



is some merit and some strength in the Q and A that is going to take place. When we talk about US SOCOM and we talk about SOCOM at all, we like to present ourselves these days as a hybrid command. And that might be a little bit confusing in terms of—I guess, the term itself is hybrid. I'm not sure that we've gone through any regeneration at all.

But, as you heard from General McNabb and a few others, we are somewhere caught between a functional command and a service. And we have also a combatant command role. So in a normal Title X, where we are told to really generate Special Operations Forces equipped, trained and ready and provide those forces out to the combatant commands and ambassadors throughout the country, throughout the world, we do that. We've been doing that fairly well since 1987.

The big change came around 2005, 2006, I believe, when they published the Plan 7500. They gave us another unique role, plan, synchronize the war on terror. It was not for us to command and control anything globally. It was really to arrange a unity of effort and best effect to achieve just that, a real, serious outcome in terms of how we were going to coordinate and synchronize what we are going to do for the war on terror.

And we have done—I think when I was out at SOC PAK, and there are many former SOC PAK commanders here—when I was out in SOC PAK I looked back at SOCOM and wondered what was their value added. And then a short while later I was in that position to ask that question again, what was the value added of SOCOM in the synchronization role. At one point SOCOM had a legacy of compelling people to do things that they had not right to compel.

So we had to figure out how we were going to get people to figure out to do things that made sense. We were going to come up with a means by which we looked at, not the Title X portion. We were doing that fairly well in terms of turning out a high quality force that you would expect the country would demand of us and from us. We were doing that. We were applying it correctly. We do have a doctoral(?) deficiency. I will be very

honest about that, very candid. And that is something we still have to fix at the command.

But it was a synchronization of effort globally where they had to get the combatant commanders and the services to come to the table—with an idea that this was going to be worth their while and we were going to be value added without adding any more time to what we were trying to do. And over time, I think we've done a fairly good job in a platform we referred to as the Global Synchronization Conference—which quite a few of you either know about that or get invited to. We've done a better job, I think recently adding the services there, because we need to have them with us as we look to the future.

We do a real, honest, hard, self critique and assessment of where we are in 7500, a real plan that looks at war. And the interesting thing that we've learned from the Global Synchronization—they happen in April and October. So if you are serious, if your calendars are open, you can get down to Tampa during that time, it is something very worthwhile, either for the working group or for the executive session.

But we take a hard look at where we are. And it is not so much, you know, anybody giving a grade for what goes on in Iraq or Afghanistan. That wouldn't make sense. But what it does, it allows us to get together as a very large community in subset down to communities of interest, where you might have something that goes after counter-terror financing. Or we start learning about shared value cards and cell phone banking and how cyber really can be leveraged.

And our lack of knowledge in that area can be a leverage. And the way we did that is, to go off what Jon said a few minutes ago, we had partners in Business Executives for National Security, the BENS. And they came to us very open minded and open handed and said, "Hey! We will help you in a non-classified way, learn about things that probably you all need to know about." And, again, because there are no right answers about the future, we were very, very willing to have them come in and help us.

So we're starting to learn more about things like trade-based money laundering that might really be about 10% of the total global, if there is such a thing, total global GDP. I mean this is how much money, billions and trillions of dollars that are being laundered. Again, and a lot of this money goes where? Not just to crime and criminality and those organizations, but certainly back into terror.

The Global Synchronization Conference, which is founded based on the 7500 Plan that we've now been asked by the Secretary of Defense to synchronize across—we're learning more and more about what we don't know. It was originally a counter-terror plan. What we found out, like the rest of the services, and the Navy is a great partner, as are the Marines and the Army—I don't want to leave out the Air Force at all, certainly very much part of the overall community—is that counter terror was what we wanted to do. And that is what we call a direct approach.

What we found out after being together in around, I think, July, September of 2007, we took a global assessment and we said, look, you can't apply any more combat power to the current situation. It's not about military power. It's about those other partners that were going to be critical. And if you all are aware of the three ball slides that at SOCOM that explains this plan, unclassified, you've got the red. That's the enemy. You've got the green. That's the environment. And the friendly, the blue, traditionally, our partners.

And the more you directly do combat like we did in the early days of Afghanistan and Iraq, you know, that's okay. But as things start to mature, you have to look for other partners. You have to look for other means by which it is less about counter terror and a lot more about irregular warfare. And that is not a blinding flash to the obvious. But it takes a long time for these things to catch on and to really get some momentum behind them.

And I think we are really starting to turn those corners where we've taken the conversation away from the direct approach and more into the indirect approach. A lot

of the work that we've done in places, ...(inaudible) Philippines where you were not able to go ahead and directly engage in combat. You had to do it through, by and with a partner nation. And you had to figure out how to apply USAID in that country itself to get after the underlying conditions of terror and win the population back over. Because, regardless of how you look at the war on terror or what we are going to call it, war on terrorism, is the real, critical node in all of this is the population. It is very population centric.

Whatever platforms we build, whatever outcomes we are trying to achieve it has got to be geared towards, as General McNabb said, "At the end of the day it's about how do you service the people on the end?" So whether it's humanitarian assistance for disaster relief or it's a global war on terror, the population is what you really, the key prize in what we are trying to do. So we are learning these things.

And as we balance it out—being down in Tampa is an interesting place because you are not here. That sound kind of obvious. But you are also not consumed. You actually have time to not get into the daily rhythm of the Beltway and the national capitol region. And you actually can think about things in a different way. And what we try to do in SOCOM in the last two and a half, three years is turn it into a strategic headquarters and look for those global gaps in the seams that somebody has to fill.

And we don't care who signs up for it. It is just a matter that, quite often, if you look at how the unified command plan divides up the world, there are serious geographic areas and they start and stop. And, as you would imagine, on those seams, no one looks. There is a huge seam between AFRACOM, from the western coast of Africa to the eastern coast of Latin America and SOUTHCOM. And as you know that's a pretty short span of water. I mean if you are out in it, it looks like a large span of water. But it's a relatively short span of water to go from the Brazilian or Venezuelan coast into Sierra Leone on the west coast of Africa, moving God knows what.

Because that is a gap in seam, two combatant commands, somebody has to look it. And this is where I think true value added of SOCOM, of bringing these communities together and looking at how you might get after, how you might at least understand what goes on in places like that. That's the second nature of our hybrid command, in terms of the forces that we provide in Title X but also the real work we get after on a daily basis—of where we are looking and what we are trying to do globally, and how we try to understand it.

And, for some of the guys who know me fairly well, I believe deeply in military decision making process, the MDMP model as those Army guys refer to it. But there is a new one out there and so you have already heard it and embraced it. It is the operational design model. And what that does, it allows you to understand on a strategic level the essence of the problem. And that, the foundation for that and part of that is a variety of different intellectual and academic application. But, more importantly, the foundation is still MDMP, a military decision-making model.

What that does, it allows us to take a really big step back and take a look at strategic, a very, very deep strategic look at the problem set. We've used it in a couple of different places. We're getting ready to use it again now as we've redefined 7500 in terms of Al Qaeda, not necessarily. And I think, you know, being very candid here and open, is that we have looked hard and long at CT and IW and we kind of almost watered down in some ways, regular warfare as to where it is going. It is time for us to step back and take a look at, what's the nature of the enemy? What are we really trying to do?

We understand at the major efforts, whether they be in Haiti today, Yemen the week before, certainly Afghanistan and Iraq are ongoing—they are going to take care of themselves. What we are trying to do is a strategic headquarters, is leverage the size, the technology, the good cyber works, the command and control challenges—all those things that are the essence of this conference, we are trying to leverage and understand those things to apply them truly to the future.

And to that end, we commissioned our own study in which we—I don't know. How many of you have seen our Strategic Appreciation? Strategic Appreciation was some we asked, myself and Admiral Olson(?) asked our own, in house brain power to do. And to take a look and answer the question, what does the world look like in 2020? And it is a bit of a stretch, I understand that. But we are as right as we are wrong in terms of demographics, technologies, environmental.

And we took it out to a variety of academic locations, a bunch of other think tanks and labs and we said, "Look. If you help us disprove [just prove?] some of the notions we have here, you make it a stronger document." And the reason the document is so important is that it helps us get a frame for how we are going to be used, for what the challenges are going to be in that year, 2017 to 2020. We can almost start building forces against that once we've actually legitimized what the real concept are.

It is a bit of a challenge to what the CCJO Capstone Document from JFCOM. There is no doubt about that. But that tension is good, natural, and really kind of encouraged in many places. What we found were that the irregular warfare environment right now and continue to define is going to get stronger. The nation states are going to continue to be challenged.

But three things come up. And these are blinding flashes of the obvious. Crime and criminality, extremism and migration mix on the edges of places where poor governance also exist. And you can go to almost any border region whether it be Mexico and United States. You can pick almost any place and start taking a look at where are the combination and migration, counter migration, crime/criminality, one, two, and then extremism really work with one another to destabilize areas and challenge the nation state as we know it.

Nation state is not going to go away. But it's going to be challenged in this same way. And this is where you start seeing a link between cyber and counter terror finance and those kinds of organizations that really do feed upon one another to get things done. So

can we win the war on terrorism as we are going to define it? The short answer is yes. What we think that SOCOM can do, with the help of many others, to include all the services and all the functionals and base partners around the globe is to shorten the timeframe by which we can get there. That is really the critical essence of what we are trying to do.

I think I will just stop there and just kind of lay that out for you all. But I think that is the real strength of where SOCOM is trying to get to in terms of being the essence of a strategic headquarters—not necessarily tied specifically to a Title X function or anything else—is to really look deeper and longer. And to that end we've got people here in the inter-agency partnership program, Special Operations Support teams here in DC that are into different agencies and bureaus that allow us to go ahead and really flatten out, not decisions so much but policies. Because we are not there to speak for the Joint Staff or DOD but to really help us get after the heart of 7500.

I appreciate your attention. Again, I'll stop there and turn it over to George.

**DR. PERRY:** Thanks so much.

[Applause]

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**Q & A Session**

**DR. PERRY:** Thanks so much, General Edgington. There is a lot of material we've gone through. I was trying to think of a common theme and there isn't really one. But for me an underlying, if not common theme perhaps, is this sense of a need to build ever

expanding partnerships, including untraditional partnerships, to work across seams, both geographic and functional, in ways that we did not anticipate even just a few years ago—and to do that using key enabling technology that perhaps we didn't understand a few years ago in very innovative ways—and to do that as well in more distant, complicated and austere operational environments. You all seem to be hitting on that theme. Let's ask for some questions from the floor first, if we could. Who would like to ask a question first?

**AMY BUTLER:** Amy Butler with *Aviation Week*. I'm just curious. You are talking about future capabilities. This is probably best for General Trautman and Admiral Greenert. How do you guys see electronic attack evolving? The *Growler* has been fielded but that is primarily legacy technology. And I'm curious where that is going.

**GENERAL TRAUTMAN:** Well, I'll go first, Admiral Greenert. That will let you trump me if you want.

**ADMIRAL GREENERT:** Sure.

**GENERAL TRAUTMAN:** The Marine Corps' view of electronic, airborne attack is that we are going to keep our Prowlers going until about the 2019 timeframe. We have four squadrons of five Prowlers and they are being used heavily in the current fight. And they need to be available for some unexpected future fight.

We see the future of airborne electronic attack, at least in the Marine Corps, being to leverage the inherent capability of the F35. But also key is the next generation jammer, OSD has wisely, I think, laid out that the next generation jammer will have as a threshold both the F18G and the F35. They've done that because it just makes sense to take advantage of the 3,000 3,500 F35s that will be in the battle space.

And so you may end up with a situation where you fly VLO F35s and then, when it make sense, and when threat drives you to this position that you would put next generation

jammer on some of the F35s in the force. That is a potential path. But beyond that we see the expansion of UAS capabilities. And putting some of these systems on unmanned aerial systems in the next decade that heretofore had been mostly on manned systems.

So that is the path that we have taken. The Admiral can talk to the path that the Navy has taken, which is the Growler. The next general jammer, as long as it can be a multi-platform system, I think we are going to be in very good shape as we wait for the unmanned aerial system to evolve as we hope they will.

We have a couple of things that we are doing, a JCTD called *corporal*, where we are getting our nose wet with regard to unmanned systems in the electronic support, electronic warfare area. And also, we are very excited about software reprogrammable payloads, which also will have a role to play in the unmanned environment.

**ADMIRAL GREENERT:** I think George summarized it pretty well. I think if I were to put it in a category, we've got to go digital, just as the ISR radar, you know, did with the electronic scan, what that did for us versus a moving scan, if you will, moving parts. So I think it needs to be digital, and expanded in the frequency spectrum to be broader. Also it's about pods, not hard mount in the future. So you can go to UAVs if you need to. You can go to prop. You can go to helo I guess.

And it has to be agile enough, if you will, to be used for IW, irregular warfare, and perhaps MCO. Again, that could involve change in the frequency spectrum, the amplitude, whatever. So it's more about mobility and transferability I think in the future. And you got to be able to share it. So there is an international dimension, probably.

**DR. PERRY:** Another question?

**BRIAN GREEN:** Brian Green with Systems Planning and Analysis. Hybrid warfare is a term that has gotten some attention recently in town. I know that the Secretary has used it and it was used several times earlier in the conference. The term of choice among the

panelists is still irregular warfare. And I was wondering if I could solicit from the panelists if they have any views about whether there is a difference between the two terms, hybrid warfare and irregular warfare? And if so, what the difference is and whether they think hybrid warfare is a term or concept that has any legs to it.

**DR. PERRY:** Who wants to take the first cut at that? General McNabb?

**GENERAL MCNABB:** I will just tell you that to me we are just going to have to be very flexible on the systems that we have that can move all these different ways. Again, the warfighter is going to say, “Sometimes I’m going to need this. Sometimes I’m going to need that”, and we are going to have to have multipurpose platforms that we can swing as we need to in support of the warfighters.

And that is across the board. That is every service. And you can see it where we’ve had those systems and we have been able to adjust them very well. And we have to be thinking that way that you can—and really, hybrid warfare requires that kind of flexibility. Because we don’t have the money to have systems for everything. We have to have a system that supports the concept that the war fighting commander will say, “This is what I need to do to win.” And we’ve got to be flexible enough to deal with that.

**PANELIST:** Brian, I might just add that I think this construct captures a bit of a strategic struggle that is going on in the defining what adversaries might do in the future. I think it clearly acknowledges that you can’t discount a conventional, more conventional kind of enemy and a threat. But increasingly, you see actors growing in a spectrum that grows from theater security cooperation through terrorism to countering space threats, countering cyber threats—and an enemy, if you will, that is agile among all of those domains.

So I think this term hybrid warfare is an attempt to try to capture that it is not just irregular. It is not just conventional. It is really a spectrum in between. And we have to be organized, trained and equipped to operate across that spectrum. You know, the war

colleges will muse on this some more I'm certain. But I think that is where the Secretary is trying to come up with a way to not limit us but to force us to adapt across a very broad series of operations.

**GEN Fridovich:** I would like to jump on that one a little bit. It is going to be talked about for a long, long time. And it is going to, I guess, remain still to be defined completely. Probably never will get there completely. If you think in terms of ...(inaudible) in that they know how to politically empower but not avail themselves of the target. Below the line they have got everything they need to project power. They've got everything they need to politically, you know, help run a government or be part of a government and be recognized legitimately. Yet, they still can do things globally with a wide variety of tactical operational, even strategic outcomes engineered with a chain of command.

That might be one of those places to point to and say, "That is truly a hybrid enemy that understands political power, understands not gaining too much where you become an absolute target and then can be disenfranchised from that political power. And they know right where those operations design lines are and stay beneath those. Thinking about that as the higher end of a hybrid enemy, then there are other, lesser I suppose, cases out there that know a little bit about that but haven't crossed over.

Or you might look from an Israeli perspective. Hamas helped themselves to cross over. And as soon as they do, they become the governance. They avail themselves of the target, especially when they start applying some of their weapons technology outside and breaking the red lines that the Israelis might have.

So when you start thinking about it in those notions, and look and understand globally where there are linkages between those players, then we can start saying, if we understand that part of it, now how do we engineer ourselves to be able to counter that, if that is at all possible. This gets you into alacrity, flexibility but probably more than anything else a very deep understanding of the operational and strategic environment that they are using against you and getting into your decision cycle.

Which is one of the things that I failed to mention, one of the strategic notions of a SOCOM is not to be reactive. It's to finally get out there and be pro-active and think about where are the opportunities in the globe that we need to get to, where a small investment might have huge dividends in the future—and start mapping the future that way instead of always reacting to things, trying to get out ahead of that. And I think that is really where our next steps are going to be for the next year or two at a minimum if not longer.

But that does start getting back to the notion of the hybrid. Does that come close to answering?

**GEN Trautman:** I think we are on a slippery slope when we try to characterize warfare with stark terms. We better be ready as warriors to flex between various types of things that we will encounter in the battle space. You may think that you are on occupation duty in Lebanon or the Gaza for years. And you may, indeed, be there. But then, the next thing you need to do is figure out how to integrate fire and maneuver rapidly, and operationalized intelligence—and respond in a wholly different way from the way that the force has been used in the previous months.

Same thing in Iraq. You may be in a COIN environment in Al Anbar and find out you have a very tough urban fight in Fallujah. It is the nature of warfare that you need to be able to flex among the various options that the enemy chooses to place you in.

So I sort of like the term hybrid warfare. I don't know why none of the panelists said it. In my mind, and I think in most of the Marines' mind, a fair description, an apt description of what the future holds for us.

**DR. PERRY:** General Edgington, did you want to weigh in on this at all?

**GENERAL EDGINGTON:** I guess I probably need to because General Mattis is one of those who has kind of embraced the hybrid concept. And when he was first reading about it and was just starting to embrace it, it was the Hezbollah, as General Fridovich points out, using RPGs in the second Lebanon war—that a traditional, terrorist enemy is having modern weapons. And so where is the line being drawn?

Getting back to the question, specifically, it dawns on me that we are a society of labels. We need to label something and define it. And there is certainly purpose in that. But as soon as we do, we create the opportunity for seams. And so I think hybrid is probably the best word in the English language to define that. We just have to put aside the boxing, the container-izing of exactly defining what this type of warfare is—and realize, especially in light of the cyber world that we are going into now, and the potential of where we can get challenged—that warfare can encompass just about anything that we have thought about and probably some things that we haven't thought about.

So let's continue to be open to define the fact that war is not uniformed militaries across the Maginot Line fighting it out like what we had studied in school. It has evolved. But I would tell you that probably in World War I there were flag officers discussing something of this nature of, "Hey! This is a new way of warfare. What is this?" And trying to work on a label for it at that time, too. So I would just resist trying to fully define it and get the concept of the fact that warfare can include just about anything.

**DR. PERRY:** Does anyone have one, last, burning question? This gentleman right here. And then we will close it there.

Japan Self-Defense Force Officer: I have a question with regard to missile defense. Admiral Greenert, you touched on the missile defense capability somehow. Do you have somehow a joint doctrine or concept of operation to respond to ballistic missile and cruise missiles simultaneously?

**ADMIRAL GREENERT:** We don't now. I mean we have a concept. If we had what we wanted for radar fire control, but you are talking about a ballistic missile launch simultaneous with a cruise missile launch. I think that is what you said. If you are talking about the same vessel, then that is part of what we would look toward a future radar for, a multi-volume, if you will, radar, multi-level radar. But we do have that concept within the sea base if you will and defense therein.

So, in other words, the concept of operations among several platforms is there today, but we don't have a platform right now today that does both simultaneously.

**DR. PERRY:** General Renuart.

**GENERAL RENUART:** I might just add, Jon, there is a joint, integrated air and missile defense construct that is being circulated through the services for final approval. And it is designed to acknowledge that you could have air or ballistic or cruise missile threats near simultaneously. What it attempts to define, and we've been involved with PACOM and the Navy and others in developing this concept, is that it depends upon a system of sensors that allows you to look for both and can capture and characterize and assess, especially low altitude, high speed, low visibility targets, like a cruise missile.

So we are pursuing this forward in the area of homeland defense. But it also has significant impact for deployed forces forward. And I think we still have a little work to do. And there are not yet sensors that allows us to be highly confident that we can capture all of those pieces simultaneously. There are pieces and parts and we are working through that.

**DR. PERRY:** Well, it only remains for me to thank you all for being with us and giving us your time and the benefit of your vast knowledge, and it was vast. I appreciate it very much. This is the end of the session and we will now have closing remarks by Dr. Pfaltzgraff and General Schwartz. (END OF SESSION)