

## Irregular Warfare

Major General Alan Peck

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**Major General Peck:** -- understanding of the concepts of irregular warfare, how the Air Force views irregular warfare, and I'll try to do that in a way that will be useful to you as military members or members of industry. We've got until 3:30. We may have time for a question or two afterwards.

I run what was then a doctrine center and we've since merged with what was known as Cadre to form the Doctrine Development Education Center. My folks put together, although we didn't do all the writing, we brought in the experts for Air Force Doctrine Document 2-3, Irregular Warfare, and I'll talk a little bit about that. So I've done some reading on irregular warfare. I am not the world's expert on it. I've had some operational experience which has been helpful at the operational level of war as the Deputy Combined Forces Air Component Commander (CFACC) over at Al-Udaid for a year, kind of overseeing the air operations in Iraq and Afghanistan, and then on about a weekly basis flying the F-15E doing tasks in NPISR in Iraq and Afghanistan and even dropped in and got some gas from General Borent up at Balad on at least one occasion.

Next slide.

I hope you all studied for the quiz, we'll see how you do on it.

First of all, let's start with an easy one. What is irregular warfare? We'll kind of walk through this. A [lesser included] form of traditional warfare. My own struggle for legitimacy influence. Conventional warfare. Can we agree with all of those, do you think? Some of them? All of them? Wrong.

B is correct. At least this is how the Air Force, and I think the joint community views irregular warfare. In fact it is a violent struggle between state and non-state actors where the center of gravity or the objectives are legitimacy and influence, but it is actually a separate form of warfare although it can exist at the same time as traditional warfare. And it's not conventional warfare fought against guerrillas, although you can conduct conventional warfare, but that's not the nature of irregular warfare.

Next slide.

I've got a couple of quotes, and you kind of guess who do you think said this? "War on rebellion is messy and slow, like

eating soup with a knife." John Nagel, any votes? Most people will vote for John Nagel because he wrote the book --

**Voice:** He said it last.

**Major General Peck:** He said it in the title of his book, Eating Soup With a Knife, but he took it from one of the other four. It wasn't the jungle book guy, it wasn't the warrior scholar, it wasn't Pershing, although I'm going to give you a little quote that I got from Pershing that I thought was pretty good.

Remember he led the expeditions against Pancho Villa back in the early 1900s in expeditionary warfare. Air power didn't have a great showing in that campaign. But Pershing said, "Aviators had a visionary faith in three-dimensional warfare that did not conform to reality nor to the teachings of West Point." [Laughter].

Actually, that quote is from Lawrence of Arabia, from Evolution of A Revolt.

Next slide.

Last question. Who said this? Essentially, how do you measure your progress? You can't do it by number of bridges, buildings, vehicles burned, et cetera, et cetera. The task to destroy the effectiveness of the insurgents' efforts and the ability to use the population going in.

Robert McNamara, Secretary of Defense? He was a bean counting kind of guy. He did have a lot of influence in development of irregular warfare capabilities, but he was pretty systems analysis, bean counting kind of guy.

It wasn't General Patraeus, one of the co-authors, if you will, of Field Manual 324, the Army's manual on counter-insurgency.

[Dugin Kowki], many of you probably don't even know who he was. He flew A-1Es, ran the South Vietnamese Air Force. Ended up being Prime Minister, then of course got overrun in 1975.

Harold Briggs. Anybody know who Briggs was? He was the architect of the Malaya campaign for the Brits.

But actually that quote is from our very own fifth Chief of Staff of the Air Force, Curtis E. LeMay who most of you would think of as a stone age Strategic Air Command kind of guy, but he actually had some understanding and insights into irregular warfare.

Let's talk about the nature of irregular warfare. That's what our Chief says. We are a nation at war. I'm certainly not going to disagree with him. I would say that not all the nation knows it's at war, but we are in fact at war. And this is in the forward to the doctrine document.

A key point here and a big idea is the nature of asymmetric advantages that air power brings to the fight. This is one of the big themes that you'll find in our doctrine is leveraging those. That is, by the way, it is a big idea, but it's not a new idea. In fact Air Force Manual 1-1 which was basically the Air Force's doctrine. If you can imagine this was, along with a larger book of war stories which was volume two, this was our doctrine up until about ten years ago and what 1-1 said, in 1964, "Maximum advantage should be taken of the friendly air capabilities since insurgents generally lack this source of military power." I would say that's even more true today than it was. The asymmetric capabilities of air power, things that we can do using the high ground of air power, things the insurgents can only dream about, is something we ought to be emphasizing.

Let's face it, the bad guys have dedicated foot soldiers, they've got trucks, they've got rocket powered grenades (RPGs), all kinds of capabilities they can bring to bear on the ground. What they don't have is access to air and space and now cyberspace, although they are contesting our use in cyberspace. But certainly we bring asymmetric capabilities to the fight that we ought to leverage to max advantage. That's what our Chief says.

Next.

Some definitions. Traditional warfare. The key here in traditional warfare, direct military confrontation as opposed to irregular warfare where it's a struggle between state and non-state actors where legitimacy and influence over the relevant population is the key.

That includes counter-insurgency where you're trying to defeat an insurgency and support to a counter-insurgency. In other words, where we're supporting a country that is undergoing an insurgency and we're supporting their efforts.

Counter-terrorism, offensive actions taken to defeat and deny terrorist activities or respond to it. Shaping deterrent activities to try to get ahead of the curve. Support for insurgency where maybe we want to be on the side of the insurgents which we've done in the past. And unconventional capabilities where we fight through surrogates and we've done that as well.

Next.

The construct as depicted on this diagram. At the top are the activities I just talked about, and then some of the key capabilities down here. I'm going to talk about these capabilities a little bit later. Building partnership capacity. The unconventional warfare capabilities, typically through our Special Operations forces. Intel, mobility, combat support, engagement, command and control. We'll go into a little bit more detail here in a bit.

Let me give you a little bit of a historic perspective.

Next.

This notion of irregular warfare is not new, and neither is the kind of rise and fall of our interest in irregular warfare. This has happened before. Right now there's a lot of interest in it, and I'm not saying when or if our interest will decline, but just so you know there have been cases in the past, we've had irregular warfare, it becomes a high interest item. We end up making changes in our service doctrine and our force structure and our culture. We get a relatively decent IW capability. It proves successful or otherwise. Then we say hey, we've got either a one-time event, or more likely, we have other priorities that now influence where we put our resources, threats to national interest and so forth. So we'll kind of put that back down.

The SOF community refers to this as the Phoenix Cycle, named after the mythical bird that would rise up and then would fall to flames and then from the ashes would come back up and there's a cycle that's repeated through that.

Let me talk a little bit about some of the specific history. It reminds me of Ambrose Bierce. Back in the early 1900s he said, "War is God's way of teaching Americans geography." I would say irregular warfare is a way of teaching us about the nature of warfare.

If you look at, like I said, the ebb and flow of capabilities, go back before World War II, but in World War II we supported the Office of Strategic Services which was a forerunner to the CIA, kind of sneaking people around the China, Burma, India theater where we helped move the Brits, Brit commandos in and out, guerrilla resupply, sneaking fuel in for Patton up here in this capability.

Korean War. We start off, in general our military was ill prepared. You know about Task Force Smith and so forth. Our military was ill prepared for the Korean War, and especially true in our case of irregular warfare capabilities. Cobbled together, you kind of see these words here, cobbling together a covert air

capability in an ad hoc effort to train the South Koreans. Then after we did that we disbanded it.

We did have some cases of successful irregular warfare operations in the Philippines in the '50s, which really spoke to our capability to build partnership capacity. The Philippines Air Force, for example. But we didn't institutionalize it, we didn't keep it around.

Next slide.

Then comes Vietnam. Actually the irregular warfare capability was directed from the political side. President Kennedy formed the Commandos. We end up fighting a conventional war later that kind of overwhelm the Commandos. Then afterwards we decide that hey, we've got more important things to do, we gutted our irregular warfare capability.

We all know at that time Iran got itself in the news after capturing the folks in the embassy. We launched the effort to pull them out with the disaster of Desert One. That was the single event that drove the creation of Special Operations Command and increased emphasis on our ability to do these special operations types of things.

Fast forward to 9/11. We all know we ad hoc developed some pretty good irregular warfare capabilities. We've seen the JTACs on mules and horseback in Afghanistan calling in strikes from B-52s with the Northern Alliance killing the Taliban after the major combat ops, and this turns into an insurgency. The SecDef puts pressure on developing irregular warfare capabilities and on going after the terrorists. In fact the SecDef has intimated that we need to get more of our conventional forces capable to do this building partnership capacity. Helping assist and train other countries to develop their own capability to fight and defeat an insurgency.

Next slide.

Just like IW has gone through cycles, so has what we called it. This is one of the most confusing aspects of this thing, is that they keep changing the name. Didn't they used to call it this? Yeah, well, we sort of used to call it small wars. The Marine Corps wrote a very good manual on small wars back in 1940. We've called them limited wars. Low intensity conflict. In fact there is still an organization up in OSD called SOLIC, Special Operations Low Intensity Conflict, because that was crafted in the legislation that created them, and that at the time was what we called it.

Then we kind of transition to this either military activity short of war, or Military Operations Other Than War. Why did we

do that? Some would say it was because the administration wanted to do things but didn't want to have to call it war, because that's conflict and all that. But this sounded more I guess kinder and gentler so we called it military operations other than war (MOOTW). That hung around for a while until the late '90s, then that began to fall out of favor.

But at the time, this is not real well known, at the time we did have Air Force doctrine 2-3 which was MOOTW, Military Operations Other Than War.

The road map that OSD put together last year directed, among the other things that it talked about was hey, we need to have joint doctrine on irregular warfare. As many of you know, the Army after about a year and a half long effort developed Field Manual 324 which is Counter-Insurgency, in conjunction with the Marine Corps. And they published that document. If we have time for questions we can talk a little bit about that. As you all probably know, the air power discussion is largely limited to about a five page annex in the back which was a source of some ire of the Air Force, some of the senior leadership.

That was only partially a driver, though, for why we created 2-3. There were several other reasons. One of them is we had a hole in the doctrine, and we're fighting this right now. We didn't have any doctrine to talk about, capture the best practices, if you will, the warfighting principles of irregular warfare. And the second is that this summer, in fact just about a month ago, the joint community has started development of joint doctrine on counter-insurgency. For the Air Force to have a voice at the table we need to have doctrine written down, so we put the development of 2-3 on a fast track and the Chief signed it on the 1<sup>st</sup> of August this year.

Next.

Remember I said earlier, if you came in the Air Force, in fact I'll ask General Borent. What's the difference between this 1-1 and the one that you personally were given 20 years ago? Do you know? Can you tell from here?

This one the cellophane's been taken off and it's actually been read. [Laughter].

**Voice:** [Inaudible].

**Major General Peck:** Gotcha. [Laughter].

But you see, we developed the hierarchy of our doctrine. In fact you heard it here first. Here's what I think will happen. You see, we've got air warfare, we've got space warfare, we've got irregular warfare. The discussion we're having right now is

if we develop cyber operations doctrine, where would it go? We may do AirSpace and have to move this, we'll talk about that some future time. But Air Force Doctrine Document 2-3 fills that MOOTW hole there in our doctrine, and in fact we just approved the Foreign Internal Defense doctrine as well.

So that's where we are currently in the doctrine business.

Next.

Here are some of the things, if you don't have time, and I've got a few copies of it if you're interested and you want to come up afterward and get a copy of 2-3 I've got a few copies. But if you don't have time to read the whole thing, and I tell senior leaders this because you talk about you ought to go read your doctrine, and they kind of roll their eyes. Some of them will read specific parts. If you're a mobility guy you'll read mobility doctrine. If you don't have time to read all the doctrine, look at the foundational doctrine statements. Every one of those document pubs has a one-page, in this case it's on page eight of the introduction, has just a list of statements that are pulled out of the doctrine, and it's like Doctrine for Dummies. You can look at it and go okay, I've got the general idea. And maybe you'll even find it enough interesting to where you'll actually turn the page and read some more of it.

But here are some of the basic statements that you'll find in the foundational doctrine statements for AFDD 2-3. As we talked about earlier, they're not mutually exclusive and they can exist at the same time, but IW is not a lesser included form. That's what got the Army in trouble at Abu Ghraib was the view that FM 3-0 says full spectrum operations. If you can fight high end combat, you can do anything.

Well, you take soldiers and you put them in stability operations and they're not trained, they're not equipped, they're not prepared to do that kind of work where the objectives are different. You kind of get a result that is not what you want. It doesn't achieve your strategic end state. Good at combat, but not good at stability operations.

Legitimacy in influence, the main objectives in IW. That's not necessarily something you're worried about in high end combat, but that's the main point here. It doesn't have to be kinder and gentler, either. The Viet Cong in the '60s, they won influence of the population how? Not by going in and immunizing the kids and building schools. They did ten villages a night. They'd go in and grab a couple of the tribal elders and hang them. The population came out in the morning and would go oh, man. You can imagine, 3,000 a year is what they did. That's one way of getting legitimacy and influence. We have a little different approach to it.

One of the truisms is that this protracted approach is, it's a long term strategy for victory for us, and this is very tough for democracies, it's tough for us to do because what it means is the insurgents don't have to win, they've just got to keep from losing for a long time and eventually will give up and walk away. That's kind of their strategy for victory.

Next.

And frustrating for us is that if you're familiar with the DIME concept, you've got diplomacy, information, military and economic elements. We're pretty good on the big M part of this, but that alone probably is not going to be enough to be decisive in counter-insurgency.

Next.

There are some who say we ought to take our Air Force and cash it all in and buy T-6s and P-51s and go -- well, we can't do that. We've still got high end threats we need to worry about. Our nation expects that we're going to be able to meet anybody anywhere, project influence, penetrate defenses, achieve objectives, and oh by the way, we've got to be able to fight this kind of warfare as well. We can't take our eye off the high end ball.

We'll talk about some of the valuable and unique capabilities, these asymmetric advantages that we bring to the fight.

And doctrine in general. This is kind of I guess a redundant statement. Doctrine is authoritative but not directive. What does that mean? Well, it's written by people that have the blessing of the Chief and sort of know what they're doing, but it's not a regulation, it's not an instruction. It's a template. Here's how you start. Rather than a blank sheet of paper, or hey, I've got a great idea, go read history, go get lessons, read the doctrine, and that ought to be a starting point from which you deviate.

All we're saying here is, all of these IWs are messy and slow and different and you may have to modify your command structure, you may have to be adaptive in how you fight this thing because every one of them's different and there's no template that can be applied to every operation.

Next.

Let me talk about some of the specific capabilities. Not all inclusive. I won't talk about space and combat search and

rescue (CSAR), but there are some basic capabilities that the Air Force brings to the fight.

We had George Will, the famous writer, I admire the guy. He came in and visited with us. His first question was basically, is the Air Force involved in operations in Iraq and Afghanistan? He kind of represents the view of Americans. We find it incredible, but there's a whole body out there, a general population, that whenever you hear about Iraq and Afghanistan you think soldiers and marines. That's not true.

As most of you know, the Air Force is involved in a big way in operations right now.

What I'm going to do here, I'll talk about at the strategic level about legitimacy and influence; at the operational level about these particular capabilities; but I'm also going to get down a couple of tactical levels. Not that it's all about Iraq and Afghanistan, but I'll give you a couple of examples of how we're doing this. Airmen can do that, right? We can operate at the strategic and operational or tactical level all at the same time on the same ATO, the same airplane, in fact. An A-10 can have strategic effects while a B-1 is having tactical effects. Rather than have kind of general Rotary Club kind of discussion, I'll bring in a little bit of examples of what we're actually doing.

Here's an example of what we're doing in Iraq and Afghanistan. Unfortunately, these are all what I would call measures of performance, not necessarily measures of effectiveness. But they're pretty impressive measures of performance. The numbers of sorties that we have flown. This is just over a 12 month period in terms of close air support and responses to troops in contact, the shows of force that we've done, the number of weapons employed which, by the way, most people don't realize. This has flip-flopped over the last year. Four or five times, three or four times as many weapons employed in Afghanistan as in Iraq. They've become much more kinetic over there.

Electronic warfare sorties, 3,000 electronic warfare sorties. ISR. The tankers which give us the persistence over the battlefield that allows us to take aircraft that would otherwise only be able to stay for say an hour overhead and fly eight or nine hour sorties. And then mobility capability of moving passengers and cargoes and detainees and the aeromedical evacuation. Numbers of sorties, 500,000, over half a million sorties since this thing started.

Next.

This I guess I could call the inoculation, if you will, against the disease. If you can get into a country and do the advise and the assist in the training mission and help them fight off the early stage of insurgency, maybe we won't have to go in there to apply combat power later on. So that's an important part.

Security assistance and a subset, foreign military sales are key parts or that where we can give them equipment and training or we can sell it to them, but that's another avenue we have for robusting militaries, and I our case air forces so that they themselves can support their government and either prevent or fight an insurgency.

Interestingly enough, we through excess material gave three C-130s to the Iraqi Air Force which has proven to be a success story. You've got to understand the culture. At Talil, at the ceremony where they took acceptance, this was in early 2005, they had a goat there. They sacrificed the goat, slit its throat, put their hands in the pool of the bucket and went up and put these handprints, so this airplane flew around for the next two months because it never rains there, flew around the country with these handprints on the side of the airplane.

Next.

Here are the places where the six SOFs, that one of our units, that's the unit in our Air Force, Special Operations Forces, AFSOF, that does this particular mission of building partnership capacities in 30-plus countries in which they either are operating or have operated. We don't have a lot of operations in Venezuela right now, for example, but we have supported these.

Largely these are existing air forces that need help in robusting their capabilities and taking advantage of some of the training that we can bring.

Next.

This is an example from the current effort in Iraq. That's a little bit different. There wasn't much left of their Air Force after we got done with it. So we were kind of starting from scratch here and lost a couple of years, to be honest with you, in the early CPA fumbling around, and then multinational security transition command Iraq (MNSTCI) which was very much ground forces focused until we could get some folks in there. Now you've got to build, train, educate, sustain an Air Force, help them conduct counter-insurgency operations and moving the troops around and conducting counter-land operations and eventually an ability to provide for homeland defense either through a command and control structure with fighters or SAMs or

something like that. This is part of our exit strategy, the Air Force exit strategy, is to provide these capabilities to where they can do this job for themselves.

Next.

Intel. One of the truths on page eight of chapter one of the doctrine, it talks about these truths for airmen in irregular warfare. This is a kind of enduring thing. Counter-insurgency is intelligence intensive. And it's not just intelligence for intelligence sake.

I've got a clip here, before we roll it, I think General Borent will recognize it because it occurred while he was commander at Balad, of a case where we were able to integrate ground-based sensors, the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) and the Q-36s with Predators, with Non-Traditional Intelligence, Surveillance, and Reconnaissance (NTISR) flown by F-16s with the rotary wing Apaches and ground response forces, and it really has to do with actionable intelligence.

Go ahead and roll this if you would.

[Clip shown].

Essentially after a mortar shot comes into the base they've got capability of figuring out about where it came from, slaving these ground cameras, beaming that up to the Predator, taking a look at hey, here's where it came from, here are some guys that we catch carrying a mortar tube back to their village. Of course this is the middle of the night so they think they've pretty much gotten away scot free.

They kind of stroll back to their house. Laser on to the Hellfire. A dog running away. Here's the flash from the launch. And kaboom.

What's interesting is, you watch that, then there was another launch and another shot taken, and then they rounded up the injured and took them over to the hospital. When they got to the hospital the ground force was waiting for them and rousted them up there as well.

So it's really all about, it's not just intelligence for intelligence sake, it's fusion of intelligence and actionable intelligence which is important.

Next.

This is what it says here. We tend to focus on the platforms and these are important and we've adapted them. We've

put lasers and sensors on Predators, for example. But it's not just the platforms. It's the people and the architecture and the PED -- the processing, exploitation, dissemination -- piece of this and then to make it actionable so then you can actually do something with it.

Next.

Here's an example of how important robust intel can be for preparing either urban ops type environment or irregular warfare. Of course you've got threats to the air ops. Figure out where the enemy is. The CDE part of that is something our folks do very very well in being able to predict what effects we're going to have in potential collateral damage.

Again, if your goal is legitimacy and influence, you've got to minimize the collateral damage to the maximum extent possible so you don't create more insurgents than you kill when you conduct an operation.

An example of this is gridded reference graphics. Go to the next slide. Here you take a picture of a city, but if you can grid it out and the folks on the ground, everybody in the air is all talking from the same sheet of music, immensely helpful so you don't have to spend a lot of time in the middle of an operation figuring out who's where and who's who.

Next.

Again, you can kind of drill on down. How much detail do you want to put? You've got sectors.

Next.

In the sector you can start labeling individual buildings, individual DMPIs. Now you've got a ground force that with the right intel or an airborne force, you've figured out hey, the bad guys are at a particular place. You've already done the mensuration, you don't have to do a lot of coordination, and bango, there you go, you can drop a weapon.

Next.

Info ops. Also important. This is the Air Force construct in 2-5, network warfare operations. And under the definition of network warfare that would essentially be cyber operations, the use of electronics and the electromagnetic spectrum to exchange data over a network. Cell phones, internet and so forth, the ability to get in there to protect our use and to prevent or disrupt the adversary's use of network ops.

EW. We've modified our EW platforms to be able to be used to jam enemy coms and do other things with enemy, things the enemy is trying to do with us.

Then the influence ops piece of this as well. There's a leaflet from a drop to try to get the reward data out on Zakari.

Next.

If you've ever flown over Baghdad, we've got capabilities to drop leaflets and to disseminate the UHF television signals, but Baghdad, a city of millions of people in mud huts and ghettos, but almost every one of the buildings has got a satellite dish on the top of it. That's what you need to be able to influence if you want to win the information war.

Next.

I really can't say enough about air mobility. This is one of the keys to success, the ability to move our forces around. Again, it's something the adversaries cannot do. They cannot pick up large groups of folks and move them from one place to another like we can do and bring in supplies pretty much at will.

Next.

Here's kind of the daily averages of what's going on, these unsung heroes. Number of sorties, the pax that get moved around -- some days up to 5,000 passengers. In fact we put between 1,000 and 1,500 troops a day are going R&R back to Qatar or to Kuwait to be flown back to the States. It's incredible, just the number of movements of DVs. The air evacuation, we could spend a long time talking about that. The fact that our troops know if you can get them to the theater hospital they can get evacuated back, they've got a 95 percent chance of surviving if you can get them to the Air Force theater hospital at Balad.

Next.

We have done airdrops for a long time. What we've found is that particularly in Afghanistan, you don't have the typical huge area in which to drop, put smoke out here and drop and have the troops come out there. Some of these things are like little postage stamps up here in the mountains.

Next.

That's where they are. Of course if you're a little bit left, the stuff will roll down here and the bad guys will get it. Trying to hit something like that is pretty tough.

So what we end up doing is coming in very low and trying to drop and hit this thing, and of course then we've got airplanes coming back with holes in them because they're flying low, so we developed essentially a Joint Direct Attack Munitions (JDAM) like capability to drop air supplies.

Next.

Go ahead and click on that. It's called JPADs.

[Clip shown].

The Army threw a lot of money at this, the Air Mobility Center's been working this.

We can drop food, ammunition, water, humanitarian supplies. In the case, you heard about the SEAL who was isolated and was the only one of his team who got picked up. Kind of as a thank you to the village that, the village elders ended up protecting him against the Taliban, it's a rather amazing story. But we ended up dropping humanitarian supplies to the village to kind of thank them for taking care of our guy. A very important tool in this legitimacy and influence business.

Next.

Originally, I was going to talk about air power and the Combined Force Air Component Commander capability, but the COMAF4 business is also very important in this. These are Air Force service component commander capabilities in agile combat support, logistics, medevac civil engineering, all these things, operating in Indian country on the forward edge of the battlefield. A different kind of Air Force than the one we grew up in, obviously.

Next.

Pakistan. The earthquake in late October of '05 is another example of using humanitarian capabilities. We went into Chaklala Airfield in Islamabad. We were able to bring in humanitarian supplies, and I would tell you, the difference between what happened in Islamabad Airport in '05 is night and day compared to Tarana back in, if you remember 1999 during the Kosovo thing where Tarana Airfield was just a chocolate mess because Doctors Without Borders and all kinds of do-gooders would come in and drop their blankets and food and leave, and before you knew it you couldn't do anything on the ramp because it was just completely cluttered. You didn't have the professional management for slot times and ramp space and moving the logistics. This was completely different. Made a big difference in terms of helping the Pakistani people and helping shape opinion. Maybe not a titanic, 90 degree shift in opinion, but a

change in opinion of favorable towards the West because we were able to help that region that was affected by that huge earthquake.

Next.

Then operating outside the wire. While we can't do this at every one of our bases all the time, we've proven, our security forces and OSI teams have proven the capability of operating outside the wire at, for example, at Balad and securing sectors and being able to suppress the enemy keep them from shooting into the base, operating very effectively.

Next.

Command and control. I've got a simplified diagram down here of the Theater Air Control system. If you want to we can come up and talk in some detail about that. But essentially that's how we link together from the CAOC all the way down to the lowest elements and tie into our Army or ground buddies, through this system here.

A robust architecture. What does that mean? What it really means is this isn't like World War II where you can launch the bombers from England and then when they come back a few hours later you count noses and ask how you did. We've got to have the capability of reaching out and touching all these folks while they're executing because we may have a change of plans. The Theater Air Control system gives us the capability of doing that. And the linkage to the ground commanders so we know what the ground scheme of maneuver is and connect -- If any of you were in General Wooley's brief, he didn't actually do the briefing. He was smart. He had some great staff sergeant come up here and give his briefing about a battle that he fought as a JTAC, and it was great. But that's what we're talking about, is the ability to get the word down to here, the TCPs. That's who talks to the airplanes. That's who brings air effects to bear for the ground commander.

Then this whole business of centralized control, it would be easier to do things decentralized control, but we believe in centralized planning and direction and synchronization. We could go back to the [route pack] system in Vietnam, where Navy, you do this; Brits, you do this; Marines, you do this. But it's not as effective. Centralized control of air power, planning, direction, synchronization is as, we believe, is as important in irregular warfare as it is in traditional warfare. But you still execute decentralized. The folks having the pointy end, they see the weather, they're listening, they know the details, they do the execution.

Next.

We've come a long way, by the way, in our ability to do command and control and to bring weapons to bear. That's what I'm going to talk about in a little bit here, how much our ability for intel, command and control, accuracy of weapons has improved.

It used to be all done over radio link -- UHF, VHF, FM radio. And you would have to transmit and reply. Nowadays it's almost like using semaphore flags, if you will. We now have the capability over digital networks to transmit that information secure and instantaneous and give you a graphical display so you've got situation awareness of where the good guys are and the bad guys are. Pass a nine-line up so you can bring kinetic effects to bear. Put a laser spot tracker on the ground and then put it up on the link so that whoever comes in after you can then go to the exact same place just by grabbing the link off of Link 16.

Next.

Airspace control. I won't go into details on this, but combat air space management is more important, I would argue, in irregular warfare than in high intensity conflict. You go how could that be? In high intensity conflict, typically what you're doing, you've got your various areas that are carved out, but the folks, the fighters and the bombers will come in on their routes, they'll hit a target, and they'll go back, get refueling, and they'll land.

What we're doing now is sustained presence over the battlefield. And by the way, we've got civil and military transports coming in. If you look at a place like Baghdad, you've got civil aircraft overflying, you've got civil aircraft landing at Baghdad, you've got military transports, you've got fighters, and the other thing is you've got the unmanned system. Very persistent flying 20 hour orbits. You've got surface to surface fires. You've got ROSES set up for the SOF folks. It's a very very complex environment.

So we need to move from procedural control to positive control and dynamic ability to do airspace management. I would say as important or more important in irregular warfare than in traditional, high intensity conflict.

Next.

We've got a couple of gee whiz pictures on how you take this actionable intel and take, everybody's seen, go ahead and click on the Zargawi, because I always like to see this. But this didn't just happen. This is weeks, this is months of intelligence gathering and tracking to come to this end where a

GBU-12 and then a GBU-38 is dropped on his cranium. And by the way, our folks are doing this every day. This happened to be Zargawi, but supporting the integration between our conventional forces and our SOF forces have gotten to be where this kind of stuff is happening pretty much every day.

Next.

I won't have time to go through all of these. I'll talk a little about weapons. One thing we've found is that the gun is a very effective weapon in irregular warfare. Low collateral damage, highly accurately, a quarter or so of the attacks that we make, the kinetic attacks that we're making right now are with a gun.

This is a case, go ahead and play this. This is a family out on a bike ride. If you didn't have intelligence, that's what you'd think. The fact is, these guys have just killed a Canadian soldier and they're escaping on their bikes.

A Bore 03 takes care of them with 170 rounds of 30mm.

Again, you've got to be able to link intelligence to the platform to make it actionable.

Next.

Why don't we go ahead and push past this.

We've got to have precise munitions but the right munitions. Here you've got a mosque, obviously. You've got some good guys and you've got some bad guys clustered around right here. They're kind of leaning up against the mosque figuring hey, we're not going to blow them up because then we're probably going to drop something on the mosque. But with precise and the right level -- a 2,000 pounder, probably too big. Maybe a 500 pounder too big. How about a 100 pound Hellfire. Go ahead and shoot.

Laser on, boom. Eliminated.

Tactical weapons can produce strategic effects if you don't use them right.

Next.

Here we've gone through a considerable amount of science on taking the accuracy of weapons, the fusing, the delay of the fusing, the size of the warhead, the type of structures, and try to predict okay, big bomb, big blast; smaller bomb, smaller blast; and do it in a predictable kind of way to where we can tailor the type of weapon that we use. The 500 pounder right now is the preferred weapon of choice. A BGU-38 or a GBU-12 for most

of the high CD type of conditions that we find in Iraq or Afghanistan.

Next.

Here's what you need. Low collateral damage, precise, the right yield. They've got to work. You can't have fins fall off. Ninety percent is about what we're battling right now, but if you have one where the fin falls off and it hits 500 yards away from where you're aiming it could be a catastrophe.

Then some possible improvements we're looking at. We've got fusing. You can change the impact angle, looking at maybe even being able to adjust the yields on the weapons. All these things to try to create the right effect at the right time.

Next.

Go ahead and do the click here.

Our weapons, that's why if you look at a lot of the discussions about air power in like air power and small wars, a lot of them talk about things, how we were doing 30 years ago. Well I would tell you, air power has changed considerably in our ability to command and control weapons and to have intelligence and to improve the precision of our weapons, particularly with DPS. It all has to do with the adaptability of air power.

Next slide.

If you think about it, targeting pods. We built targeting pods so that we could put a laser spot on a target and have a seeker on a bomb go find it. What we then found was if you can do that day and night that would be pretty cool, so we put these optics and IR seekers on there. Then you could sort of do it in marginal weather. And then we found, by the way, if you put that on a link you can actually identify a target, put that location on a link so your wingman can also point to the same target, everybody else can see it as well, and you can guide a JDAM to it. So all part of this machine to machine connectivity over the network.

Here's a case of Rover, which is, the Rover laptop. We've got about 1500 of them out there. It essentially allows a JTAC to be able to see what the Predator sees, what a gunship sees, or what a Sniper or LITENING pod, what the pilot's looking at, and can in some cases can even talk back to him. He can scribble on it and go no, not that one. You need to move over here.

Next slide.

Here's a case where it would take you 20 minutes to get a talk on to this building, and here you put the cursor here, now move it up and over, and you can take out that building right there. It's almost like cheating.

Next.

I've got some more videos and stuff but I just wanted to give you a flavor, like I said. Hopefully you've got a little bit better idea than you came in here on what is this business of irregular warfare, how do we feel about it, and maybe that will be useful to you. I hope this has been a useful expenditure of your last 40 minutes.

If you've got any more questions, if you want to come up and grab a copy of it, I've got some up here. We have web sites where you can go find this stuff.

I appreciate your kind attention.

We've got a couple of minutes if there is a question out there.

**Question:** I was just curious, with the IW operations [inaudible] planning, [inaudible], especially in Afghanistan right now. Go in, contact, [inaudible], we're having trouble getting [inaudible] back to ground. I was just curious about your experience and what you see today in terms of being able to [inaudible] and see what all the sorties are turning in to, translated to the ground commanders [inaudible].

**Major General Peck:** That's probably an hour long briefing in itself, but let me -- The question is the nature of the planning and tasking and execution cycle has changed from your traditional way we plan air campaigns to a more dynamic aspect.

Now there's still a planning aspect. Somebody's got to put those sorties there so they can be used for NTISR or to respond to a TIC. There is a planning aspect to it.

The challenge we face is that the ground forces and air forces plan differently. And if you think about it, if you're a ground commander you have terrain, you'll have commanders' intent that comes down, the battalion will build his plan, he'll brief it up, they'll put that together at the brigade level. They'll brief it to the division level. Maybe up to Multi-National Corps Iraq(MNCI). Now you have an operational plan.

We don't do that. We don't go to each base and say okay, build the plan for your base. Balad, you build me a CAS plan. Al-Udaid, you build me an interdiction plan. Bagram, you build -- that's not how we operate. We do the building at the

operational level. That's why we have difficulty in communicating when, our planners at the operational level have difficulty communicating because by the time they talk at the operational level with MNCI or the folks in Afghanistan, the plan's done.

What happens is they end up building a plan that says okay, we'll do this, this and this. And oh by the way, you air power guys, we need fires. You know, if we'd been there at the table when you were doing the planning, we might be able to use air power to make the enemy react and make them go this way to deceive them, to use non-kinetic effects. I mean all kinds of things we could have done.

So that last bullet, if you'll remember I had the last bullet down there on the IW foundational doctrine statements addresses exactly what you're talking about. We need to be flexible and willing to make adjustments. If we have to, we may have to push smart people down to lower levels in the ground force if we're going to be able to influence how the ground forces do their planning. Otherwise we will continue to face this struggle that we get treated as fires and not as a maneuver force.

The full discussion of that, I didn't do justice to it, but the bottom line is there's probably flexibility on both parts. I don't think air power is being used to its fullest capabilities in Iraq or Afghanistan, but it's going to take a lot of effort on both parts to improve that. I'm hoping we don't take what we're learning here as precedent, that that's how we start the next conflict. We'll probably be in some trouble.

With that, I thank you very much for your kind attention. If you want to come up and ask another question or get a copy of our literature, please feel free to do that.

Thanks very much for the opportunity.

[Applause].

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