

# The Honorable Peter Teets

## MILCOM 2003 Luncheon Address

16 October 2003

- Thank you for that warm welcome - It's a real pleasure to be here in Boston after during that great American League Championship series.
- And I'd like to thank the AFCEA, the Communications Society of IEEE, and Lt Gen Looney of Electronic Systems Center for hosting MILCOM 2003.
- Bill, thanks for all the work your folks put into making this symposium a reality, and thanks too, for your great work at ESC; I look forward to your continued success as you move to take over Aeronautical Systems Center.
- It's a real pleasure to be here with you today to talk about the transformation that's taking place in our Air and Space Force and, more specifically, in National Security Space.

---

· Transformation has been quite the buzzword in Washington for the last couple of years, but what is it?

· Now that we're kicking off a new round of budget discussions (a continual process in Washington, I'm afraid), we see the word "transformation" attached to nearly every program.

· But I submit to you that transformation is more than a single program or even a series of programs.

· Transformation is a change of attitude - a cultural change.

· It is a process in which we break out of our comfort zones and the way we've always done business to explore new combinations of concepts, capabilities, and people in order to exploit our nation's advantages and protect our asymmetric vulnerabilities to sustain our strategic position in the world.

· I think the fact that I am here, not only as the Undersecretary of the Air Force, but also as the director of the National Reconnaissance Office and as the DoD executive agent for space, shows a cultural transformation taking place - that space is becoming fully integrated within the Air Force mission, and the joint warfighting mission.

· Transformation, at its core, is all about "jointness" - transforming from a collection of Services that do their individual missions to a team of specialists who work together to ensure that the joint or coalition forces act as a synergistic whole.

- It is about adjusting our mindsets to see the possibilities that exist for accomplishing the mission, not the limitations that prevent us from doing so.
- Let's consider a story we've all heard before, but one I think is still a good illustration of transformation.
- It's the story of the combat controller in Afghanistan who combined a horse, a laptop computer, a GPS receiver and laser goggles to pinpoint target location for a B-52 flying overhead to provide Close Air Support.
- In that one story, we see the combination of an ancient method of battle transportation, the horse, with a slightly less ancient aircraft, the B-52, and the more recent, but still not "new," laser goggles and the space-based Global Positioning System to provide a whole new capability - precision CAS in rugged locales from 30,000 feet.
- We also see that all that was required to achieve transformation in this case was the ingenuity to think in new ways about old systems and the effect they could provide when combined.
- On a larger scale, consider the effects we can achieve when we combine the assets of our joint services.
- For example, the secure and jam-resistant Milstar, our most advanced communications constellation currently on-orbit, was used jointly by all of our military services in execution of their missions during Operation Iraqi Freedom, and was dubbed the "work horse of the war."
- o It was used by the Navy to direct Tomahawk cruise missiles on the opening night of hostilities;
- o It was used to provide the daily air tasking orders to all US aircraft for the air campaign that involved well over 1000 airplanes;
- o And both the Marines and the Army relied on it to coordinate their rapid march to Baghdad.
- Transformation is about combining our joint assets to achieve maximum effect and thinking outside of the box to do that.
- General Jumper, a great champion of transformation, saw an opportunity to exploit the access provided by Predator UAVs to do more than just intelligence collection, as had been its primary mission.
- As he said, if it can find targets, why can't it designate them? So the first step was to put a laser designator on the Predator.
- That worked great, so the next logical question was, if it can find and designate targets, why can't it shoot them? Put a Hellfire on the Predator!

- He was told it would take 4 or 5 years and many millions of dollars to equip Predators with Hellfires - not because those folks weren't doing their jobs, but because they were thinking within the system - not looking at how something could be done, but at all reasons it couldn't.
  - General Jumper gave them \$3 million and 3 months and accepted the risk that causes folks to be extra cautious and reluctant to explore outside the safe boxes provided by the proverbial "system."
  - And they did it! - they met their cost and schedule, and the Predator with Hellfires worked great.
  - Indeed, we should not just stop at military assets, but consider what other elements of our government can provide and how we can use those to greatest effect - because it isn't just transforming Air Force assets, but those of National Security Space, and the National Reconnaissance Office, in particular, as well.
  - For instance, we envision Space Based Radar, with its persistent day/night all-weather capability, will act as the forward eyes for strike platforms - and, with the integration of SBR data with airborne ISR radars, will achieve greatly improved warfighting effects.
- 

- With such things in mind, one big element to achieving transformation will be horizontal integration.
- Horizontal integration is the gathering of information from all sources, space, air, ground, and collecting that information in a central data bank that warfighters can pull from to satisfy their information needs.
- It is a matter of breaking down stovepipes and facilitating the synthesis of different types of information into a common operating picture.
- As we saw in OEF and OIF, the delineations between civilian and military national security pictures are blurring.
- In the early days of those operations, we had CIA special operators fighting alongside military special operations forces.
- All required good intelligence - Joint warfighting, balancing the operations of many integrated parts to create a synergistic effect, requires good intelligence, regardless of the source.
- During times of crisis, in matters of national security, there is less distinction between what is military intelligence, providing actionable warfighting information, and what is national intelligence, providing information for national decision makers.

- Both military commanders and national decision makers are interested in the same areas and want information about those regions quickly.
- As the pace of operations increases, national level intelligence needs to be made available to warfighters in real- or near real-time so they can make timely decisions with the best information available.
- And fortunately, technology will now enable this to happen.
- By the same token, warfighters are gathering a lot of useful information through their weapons systems - information that intelligence analysts could use in their analysis
  - o Consider the RADAR system on the F/A-22 for example - it is truly a remarkable device, and we need to capture that information and make it available to others to meet their needs.
  - o Or the flight cameras on our fighter aircraft - often they can provide the basis for a first-look battle damage assessment.
- Horizontal integration means collecting all of this information into one database, with limited delay, available to commanders or planners, to pull the information they need to do their jobs and achieve the desired effects.
  - o Programs like the airborne-based Multi-sensor Command and Control Aircraft (MC2A) will provide integrated sensor information to the warfighter, but even before that system comes on line, we are looking at combining the information we get from various sensors
- Because the source would be transparent to the user - in fact the "best source" might prove to be a combination of sources.
  - o And it shouldn't matter if the information comes from a satellite, or a UAV, or a smart tanker, with sensors on board collecting information as it provides fuel to strike aircraft.
  - o And the information that smart tanker provides could be used by another tanker, or a transport aircraft, or even a soldier on the ground.
  - o If we are to deliver air and space power effectively, our future must be a fully integrated force of manned, unmanned, air and space assets.

---

· In order to accomplish horizontal integration, we need a visionary communications network that transcends air, space, sea, and ground and allows the easy transfer of data to and from individual users.

· As the demand for communications bandwidth and access across all sectors of our society continues to increase geometrically, the commercial sector can take some comfort from the fact

that fiber-optic technology is able to absorb most of the impact of accelerating information throughput requirements.

- But National Security forces don't have that luxury.
- By their very nature, our armed forces operate in exactly those places where fiber-optic cable networks are not: not only in remote locations on land, but also on the seas, in the skies, and in space.
- And it is in those places that our requirements are growing by leaps and bounds.
- That's why our efforts to transform communications are so critical.
- Rear Admiral Rand Fisher, director of our Transformational Communications Office, is leading the charge to develop the architecture we'll need to meet these huge, onrushing bandwidth and access requirements.
- As Admiral Fisher likes to make clear, our efforts are not about satellites, and they're not about terminals - they're about creating a whole new infrastructure to support future warfighting.
- We're going to exploit known technologies - such as fiber optics, laser comm., internet protocol networks, and packetized data switching - in new ways to vastly improve our information dissemination capabilities.
- And once again, horizontal integration, within the Global Information Grid, will be key to the successful implementation of a Transformational Communications architecture that will serve the needs of both our armed forces and the Intelligence Community.

---

· Yet transformation is not without risk - few things worth doing are - but the risk of remaining stagnant is far greater.

· And we must acknowledge that transformation is not just modernization -- new systems that address the same old operational constructs can be as obsolete as old systems.

· And in the same way, old systems considered in new ways can be transformational - consider the B-52 with GPS-guided JDAMS doing CAS.

· Only a few years ago the Air Force pondered the relevance of the B-52 in the post Cold War world, but in its new role, the B-52 has more than proved its continued relevance during this past conflict.

· That said, there is a limit to how much we can continue to count on old systems to take us into the future without planning for the eventual recapitalization of our air and space capabilities.

o We see it in the tanker fleet daily.

o I also see it in our space assets, many of which have been flying in the very harsh environment of space many years beyond their design life.

· There is no question that in order to maintain our capabilities, we must plan for the future when the age of our assets will be liabilities to our ability to conduct our mission.

· But recapitalization is an expensive proposition, particularly when presented with the bill in one fell blow, so we are looking at new ways of addressing our recapitalization issues.

· In the tanker lease proposal, we proposed a different method of addressing our recapitalization issues - using a method common in business to provide a necessary capability quickly.

· The tanker lease proposal is a good proposition for the taxpayer and a chance to take advantage of commercial development of a capability to address a crucial need for our future operations.

· Notwithstanding the difficulties we've had explaining the tanker lease proposal, I think we should continue to look at other business methods for laying a recapitalization foundation for our future.

---

· In order to bring all these vitally important capabilities to fruition, we must recognize, especially within National Security Space, that our first and foremost priority is mission success.

· Although cost and schedule are important to program success, it is the ultimate success of the mission that must be our fundamental priority when it comes to effectively developing and fielding our future capabilities.

· It is my longstanding belief that it is important to concentrate on the technical side of space programs early on - having proper systems engineering design discipline and an adequate test program.

· We have learned over time that the best way to achieve cost and schedule success is to concentrate on designing and building quality into the system - it's much better to retire risk and catch problems early than to catch them late.

· And it's very important that we maintain some stability in requirements as well - we need to establish key performance parameters, and then have reasonably consistent requirements throughout the program.

· Placing mission success as our first priority will require strong systems engineering, with dedication to providing strong leadership to our people working on the team, and a close working relationship with our mission partners.

- Most assuredly, we need to do this on our new developments, such as Transformational Communications, but we need to do so, as well, on our on-going developments.

---

- In facing the new threats to our homeland, we are at the brink of a national need for transformation - and space is at the heart of this transformation.

- I believe that in OEF and OIF we have demonstrated the transformative potential of our Air and Space Force.

- I am confident that we are headed on the right path to deliver on that capability with horizontal integration, and the programs that will enable it, like Transformational Communications.

- Through innovation, integration, perspiration, and a sincere commitment to mission success, we'll deliver that new potential.

---

- Thank you for having me here today -- I'd be pleased to take any questions you might have.