

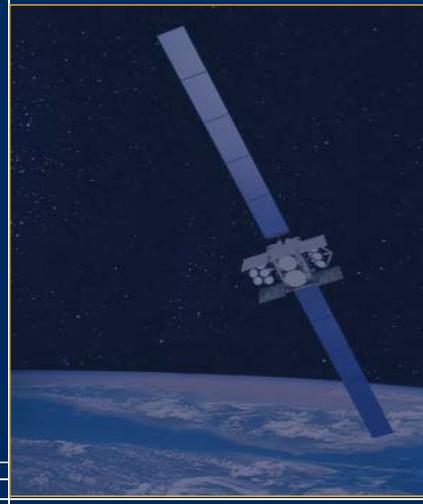
the Army Space Journal

A Professional Journal on U.S. Army Space Operations



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and Missile Defense Command

Space in Operations



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The U. S. Army Space and Missile Defense Command publishes **the Army Space Journal** quarterly, with special editions as required. The publication consists of four sections, FROM THE TOP — Leadership Updates; JOURNAL FORUM — Space Topics; TIP OF THE SPHERE — SMDC Features; and FLIPSIDE — Space Cadre News /Features.

The Journal provides a forum through which Space operations professionals can disseminate professional knowledge and furnish information within the U.S. Army. The purpose is to increase the effectiveness of Space operations through a professional discussion of events and lessons learned. It is also intended to inform the Army warfighter on Army Space issues.

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COLORADO ARMY NATIONAL GUARD'S COMMITMENT TO

**Interview with BG Stuart
Pike, Assistant Adjutant
General for Space and
Missile Defense, Colorado
Army National Guard**

SPACE

PAGE 4



National Guard Soldiers play a vital role in the defense and security of our Nation. These Citizen Soldiers are the first military responders in times of domestic emergency, but they also have boots on the ground, and make up a significant number of the U.S. troops deployed to Iraq and Afghanistan. They come from a wide variety of branches from infantry to aviation to Space. BG Stuart Pike is the Colorado Army National Guard's Assistant Adjutant for Space and Missile Defense. Pike recently sat down for an interview with the Army Space Journal to discuss the challenges and successes the Colorado Army National Guard has faced in their Space mission, and where he sees the future of the Guard in Space.



Photos courtesy of the 100th
Missile Defense Brigade (GMD)
and 117th Colorado Army National



Front and back covers: Photograph of Soldiers deploying in support of Operation Iraqi Freedom by Sharon L. Hartman. Artwork depicting DSP (Defense Support Program) Satellite and WGS (Wideband Global Satellite) courtesy U.S. Army. Cover design and layout, along with artwork depicting space-based capabilities, by Michael Kahl.

Journal Forum

Space Topics

1st Space Battalion
Keeping the Pressure On
 PAGE 14

Members of the 1st Space Battalion have had a continuous presence in the global war on terror since it began. Their mission is to provide 24/7/365 support to the warfighter, and it is a mission they take seriously. The Joint Tactical Ground Stations (JTAGS), Commercial Exploitation Team (CET) and Army Space Support Teams (ARSST) in Operation Iraqi Freedom and Operation Enduring Freedom provide key planning and operational capabilities for commanders on the ground.



53rd Signal Battalion —
 A battalion with dual histories
 PAGE 18

The satellite control history of the 53rd Signal Battalion (SATCON) began in 1966. From that time, the battalion went through various transitions until 1995 when they were officially stood up as the 1st Satellite Control Battalion. In October 2005, the battalion again went through a transition when it was redesignated to the 53rd Signal Battalion, gaining a another history that dates back to World War II.



117TH Colorado Army
 National Guard Space Support Battalion
 Playing a Vital Role in Space Support to the Warfighter
 PAGE 20

Activated only five short years ago, the 117th Colorado Army National Guard Space Support Battalion is the only National Guard Space Battalion in existence. It is comprised of a Headquarters and Headquarters Detachment and two Space companies, and is aligned with the 1st Space Brigade. Like the 1st Space Battalion, the 117th has deployed Army Space Support Teams and Commercial Exploitation Teams in support of the Global War on Terror.



Tip of the Sphere

SMDC Features

Living the Army Values By CSM Ralph Borjapage 22

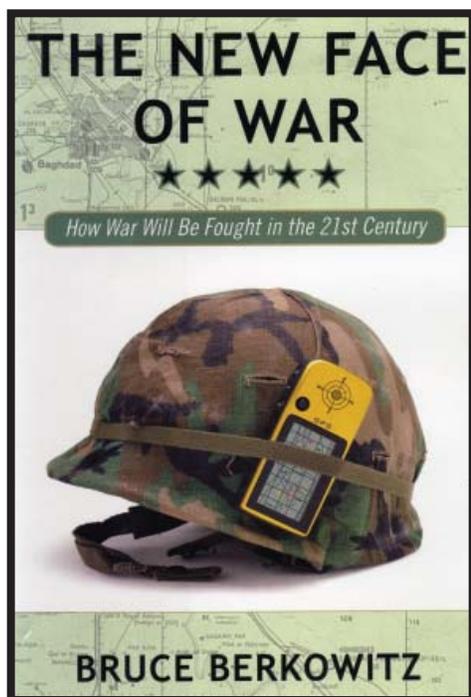
From Their Point of View By SGT Patrick Mann and SGT Martin Jensenpage 24

Soldiers display Warrior spirit at SMDC/ARSTRAT Competition By Sharon L. Hartmanpage 25

2007 SMDC/ARSTRAT NCO and SOLDIER of the YEARpage 26

2007 Candidatespage 28

What you Need to know ...



Berkowitz, Bruce. *The New Face of War*. New York, 2003

I found what I think is a concise answer to a critical, nagging question relating to strategic communication. It rested inside a post-9/11 book written about today's national security challenges. The big-picture answer: Obtain the latest, most accurate information about the enemy and do so inside the military leaders' "strategic art" decision cycle.

The simple question: What does the Army do in Space?

Or why is the Army in Space? Or how important is it? Or, even, how?

Bruce Berkowitz' 2003 book "The New Face of War: How War Will Be Fought in the 21st

Century" provides an insightful perspective of the impact of information warfare on combat operations. He outlines four specific aspects of what he sees as a necessary and new concept for fighting and winning a war on terrorism. They are: 1) asymmetrical threat, 2) information technology competition, 3) the race for decision cycles and 4) network organizations. He describes how the strategic military leader who wins must deal with an enemy who targets vulnerabilities and exploits technological changes by quickly assembling the right combination of forces for specific needs while reacting to rapid changes. Nested within the author's discussion is a special understanding of the

criticality of keeping an edge on the race for information in order to win against terrorists.

Of course, my interest in this is how we in the Army Space community communicate what we do. In some ways, it may be easier for combat Soldiers to clearly explain what they do for national security than our Space warriors. Combat troops patrol streets to keep the streets safe. They search out and find insurgents and their weapon stashes. With weapons, they fight the enemy and kill them if necessary. They train locals to secure their own country. The missions of cooks, mechanics, medics — and all the others who traditionally support — are also easily understood in that context. For Army Space warriors, though, their contribution is not so easily heard or seen.

It is difficult to grasp the value of Space warriors while considering our Army and military in conventional ways. Since the war in Iraq — and long before — our Soldiers have provided 24/7 support to our national security efforts through early missile warning and control of satellite communication payloads, along with satellite imagery and other Space-based capabilities through the contributions by Space Elements, Army Space Support Teams, FA40 Space Operation Officers and Commercial Exploitation Teams. The context that Berkowitz provides through his book puts a different light on the importance of those efforts. We in the Space community must make the effort to tell our story because in the War on Terrorism, it is an important one.

— Michael L. Howard
Editor in Chief

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COLORADO ARMY NATIONAL GUARD'S COMMITMENT TO

SPACE

Recently, BG Stuart Pike, Assistant Adjutant General for Space and Missile Defense, Colorado Army National Guard, sat down for an interview with an Army Space Journal reporter. In this interview, Pike gave his thoughts on the Colorado Army National Guard's commitment to Space, and the challenges and successes the Guard has seen and will continue to see in the Space arena. LTC Don Laucirica, commander, 117th Colorado Army National Guard Space Support Battalion sat in on the interview and also shared a few of his own thoughts about the future of Space as it pertains to the Guard. Here is what they had to say:

ASJ: How important is Space to the warfighter and how is the National Guard contributing to this effort?

BG Pike: I think Space makes a tremendous contribution, and not just because it is Space, but because of the larger processes that are going on today in the military. Probably the most central process that we are struggling with along with the warfight is transformation. Transformation is in many ways an information based policy or approach to warfighting. It is a new approach and Space is one of the critical aspects to it in the arenas of provision of information, rapid sharing of information and trying to get inside your enemy's decision making cycles.

Space has a fundamental place at the table right now as we are moving from a legacy force to as transformed force. In the warfight, no one would argue about the importance of Space and what you can get out of Space, especially when you can get Space Support teams down to what we call "disadvantaged units" or users.

Our goal is to get Space information, expertise and products to the commanders in a timely fashion. That is the goal in terms of transformation and that is the goal in terms of fighting in a conflict ... Space is here to stay ... without question, the role of Space is and will remain the provision of information, expertise and products. This will be its key role into the foreseeable future.

The role of the National Guard in Space is a strong one. The Space community is very small, and in terms of force structure, and all the Army's elements, Active Duty, Reserve and National Guard, are competing for

scarce resources. In the Guard, it is difficult to qualify a Soldier in Space because of the required clearances, the technologies and the learning curve.

The men and women who work in Space are critical to the success of the entire process and the National Guard contributes significant numbers of men and women to the field. Those men and women also bring skills to the table that, in many cases, go well beyond what they do in Space and allows many of them to become enablers in a wide range of other, non military occupational specialty related areas as well.

So, I think Space is here to stay ... the National Guard's role is here to stay. I think the issue for all of us is to try to figure out how to make sure that the Guard can be integrated into the larger force and continue to provide constructive support when it is needed, either here domestically, or on the battlefield.

ASJ: So now you have the 117th Space Battalion with its Commercial Exploitation Team deployed, and you are active in the fight.

BG Pike: And we have the 100th (Missile Defense Brigade) GMD if you are talking about the larger Space mission. Also, in the Colorado Guard we have an Air Force Space Warning Squadron. So, just in the Colorado Guard we have those three units. A lot of that has to do with geography and we have several different roles.

ASJ: So, how do you see the Guard positioning itself for a future role in Space?

BG Pike: I am not sure that the Guard is going to position itself. I think that might be a leading question.



NCOs. They are gone now, so there is no dedicated Space representation at the National Guard Headquarters.

Here in Colorado, there are a lot of good reasons why the Colorado National Guard should be associated with Space and can be involved in supporting Space ... and we do get a lot of support. My position is the only general officer position in the Army National Guard solely responsible for Space issues.

A lot of that has to do with the geography and the timing and a few other things. But it also is a reflection of the support that we have here in Colorado. No one in the Colorado Chain of Command would ask the question "What are you guys doing in Space?" That will never happen. They understand the importance to the nation and to the warfighter, and there is a strong domestic role associated with Space as well. Space has many, many uses.

ASJ: *You are the only National Guard General Officer with a Space mission. That is your focus. What are the challenges that you face?*

BG Pike: There are numerous challenges and a lot of them are just Guard specific challenges. One of the most basic challenges I have is that I am not a full time military person. I am what we call a traditional Guardsman.

I also have a civilian job, so, I have competing demands

I think the Guard has always responded to the requirements of the Department of Defense and specifically, to the requirements of our service. So, a lot of that will depend upon what the Army needs and where the gaps are on the active side. And that is where I think the Guard can play key roles, especially now, where the organization of Space is still evolving, so, I think right now the Guard has the ability to respond to the needs of the Army, whatever those needs are. And I think that will be our role for the length of our careers.

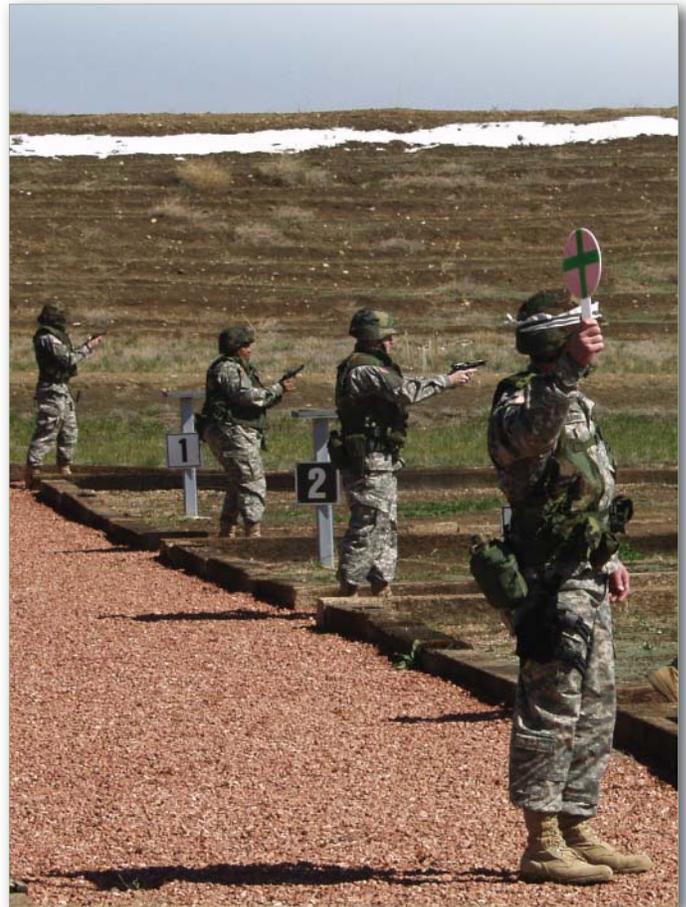
ASJ: *How does the Guard leadership see the Space support that they are providing?*

BG Pike: Like any organization, there are levels of leadership, and from my Guard perspective the leadership starts at the state. That is not everyone's perspective. The National Guard Bureau is a resourcing entity back in DC whose job is to resource the 54 National Guards. Each Guard is really a State's Army.

There are 54 State Armies. We are in the Army of the State of Colorado. When they hear that, Active Duty guys go, "What are you talking about?" because we wear all this stuff (the army ACU uniform) just like they do. But really we are Governor Ritter's militia.

So, when we talk about leadership, the Guard Bureau understands the necessity of Space and our role in Space, but they are faced with the same challenges that any other large headquarters is faced with. They have to balance a large number of very legitimate needs. Right now they are placing a tremendous focus on homeland security for example. They are trying to deal with a lot of domestic issues. They have goals they are trying to reach in terms of creating the Guard of the future. And they just stood down the small Space cell at the Guard Bureau.

It wasn't a big cell. It was a colonel and a couple of



Soldier with the 117th Colorado Army National Guard Space Support Battalion train at the range. Photo by DJ Montoya



Members of the 117th Space Support Battalion Commercial Exploitation Team show their pride. Photo courtesy of the Commercial Exploitation Team

on my time. I am also not located in Colorado Springs. These are a lot of personal issues ... (but) ... as a practical matter, (they are) challenges that many Guardsmen face. I have a very understanding boss in my civilian job who will allow me to do these things, but at the end of the day, my job is where I work and get paid. So, I dedicate about a day a week to the Colorado National Guard.

The biggest challenge for me is gathering information and making sure I have the right information, and then being able to interact with people who can influence certain decisions so that we can get to an end state that the Guard finds agreeable in terms of resourcing equipment and manpower. Facilities are going to start to be an issue for us as well. Whether or not it makes sense for other states to be involved in Space is also an issue.

ASJ: *So, each state has its own chain of command?*

BG Pike: ... Each state has its own chain of command from the governor on down. The Guard is not unlike the Active Army in that it is a political process at a certain level, and it has to be worked in that vein. So, the challenge that I face is that because I am not involved in the fight full time, my issues really become ones of communicating and gathering the right information. Without those two things I can't overcome my part time status. It just doesn't work.

ASJ: *In the same vein of the challenges you have faced, can you talk a bit about the surprises and successes you have had in this process?*

BG Pike: Let's talk about the surprises first. I have been astounded at the level of participation of the National Guard, and pleasantly so. I have known what LTC Laucirica and his folks in the 117th Space Battalion have done as long as they have been around, and to me

this is a perfect example of the National Guard in action. They are getting out on the battlefield and they look like, smell like, taste like, and act like their Active peers. It is impossible to distinguish them from an Active duty person in their environment, and that is our goal. That is what we want to do and that is where we want to be. And yet we don't want to lose our National Guard identity.

In terms of the successes, I think almost every day is a success. Like every other organization we have constraints. We have constraints in terms of our manning and we have constraints in terms of our equipment and to a certain degree in facilities although I don't view that as being a critical issue right now.

We are trying to field a service to the warfighter, and I think doing so very successfully. However, we have been going at it for a long time. It is the fifth year of the war in Iraq and Afghanistan and almost six years since nine eleven. The longer we continue the fight, the more we uncover weaknesses that we will have to work our way through.

And in doing so, we are in an environment that the National Guard is very familiar with. In many cases we are operating in an ad hoc fashion. I don't want to make that concept synonymous with "deficient" because it is not. We have to assemble teams for deployment that are not normally together all the time. They are taking equipment that they don't work with all the time and they are deploying and they are doing very, very well.

So, those are the challenges and they are starting to expose the seams in our operations as we accept missions and work through them until they are completed.

So many times in the Guard what will happen is that we will get a unit and the Guard Bureau will say "Well, it is supposed to stand up in 2010."

Policy allows us to create it two years early, but without resources – any full time manning – until the implementation date. So we say, okay, and we get the unit but we have to pull our full time manning out of other parts of the force and stick it in there.

This result is an interim ad hoc construct, but it is the model that we use to give us a couple of years to get the unit up and running before we start reporting. That is the environment that the Guard can thrive in.

ASJ: *It is more reactive than proactive?*

BG Pike: I would argue that it is both. I think it is reactive in terms that there is a need and that is where we work best. We have tried to do this where there is no need and that becomes problematic because the follow-on resources that you are promised never show up. But when you are reacting to need you are being proactive in the sense that you could just say, "No, we can't do it." And then there wouldn't be a capability.

When we react to it, we start to build a capability and we start to uncover our challenges or they start to become more evident ...

An interceptor is lowered into a silo at Fort Greely, Alaska. Photo courtesy 100th Missile Defense Brigade (GMD)

And then, we start to shape it, just like a potter shapes a pot, to get it to be like what we want it to look like and then we fire it. That might be the analogy that we want to use. We are trying to get the glaze on this thing right now, the final finishing touches and we will get it there. We will keep after it.

ASJ: *How long have you been in this position now?*

BG Pike: Since the 30 of March 2007.

ASJ: *So, it has been three or four months. That hasn't given you a lot of time to do a long term analysis of the situation.*

BG Pike: No. In the Guard world that gives me about six days. Now, that is a misnomer...

ASJ: *So melding your life outside the Guard and your Guard life is hard, but from what you have seen so far, what aspect of the Guard's efforts in Space are the most important right now?*

BG Pike: I have been in the military for 32 years. I started off as a private in the 82nd Airborne. I was on active duty and got my commission through OCS (Officer Candidate School). I had a few years on Active Duty as a lieutenant before I left and went into the Reserve component, (and) I have gone back to Active Duty periodically throughout my career. But absolutely the most important thing – and it doesn't matter what component we are talking about – is the human capital, the people.

Iraq, in my mind, and Afghanistan are proof of that. If we are just going to go over there and throw bullets downrange, we start to lose sight of our goals. I know it is out of favor now, but what was the term we were using for the Soldiers five or ten years ago? I believe it was "Warrior Diplomats."

Our Soldiers are a community of people who have the maturity, the skills, the vision, and an understanding of the product they are supposed to deliver, and, finally, they have the willingness to deliver regardless of the cost to themselves when they are in that environment. Now, I don't mean that in some sort of heroic way, although that is often the case. I mean they are working long, hard hours. They will seek out the resources that they need. They will go the extra mile in order to deliver those products. They are our human capital and that is what it is all about.

ASJ: *If you were to put on a force development hat, what do you envision the Space force in the National Guard looking like in five, ten, fifteen years?*

BG Pike: I don't know that I can answer that question because we are reacting and I think a lot of where Space goes will be based on really, two main axes. One is clearly the warfight and the traditional military application. But the other one that I think we are starting to explore now, and we are wrestling with a lot of ancillary constructs around it, is the domestic



support stuff.

Let's talk about taking satellite images of croplands in Iowa, and let's talk about an economy that is based on bio-fuels. It will be very important for us to know how well our agriculture will perform each year. Think about the consequences of a drought twenty years from now when our fuels come from agriculture. What will the impact be on our society in terms of the fuel – and how will that impact the price of bread in the supermarket?

Right now these variables are somewhat connected, but are mostly independent. The price of fuel can go up and down, but you still spend two bucks for a loaf of bread. Think about when fuel goes to five bucks a gallon and bread goes to eight bucks a loaf. Now, let's transition back into Space. Space-based products can play a role in helping us avoid those kinds of effects by providing timely and accurate information on the health of our agricultural sector.

If we look over at the way we are structured in terms of domestic intelligence collection we have to answer some very important questions. What is intelligence? What is not? Who should collect it? Who can maintain it? Who can store it and for what purposes? These questions are going to be the nexus of very powerful, competing and many times conflicting themes.

Space has the capability to make enormous contributions, but I am not sure where it is going to go. I think the military axis is the most clear-cut in my mind because, as a guy who has been an infantryman, I understand it. I get it. I have a pretty good understanding of what it brings to the table. The domestic axis, I think, may ultimately be more important to us as a nation, but I am not sure how that will play out.

ASJ: *You were talking earlier about there essentially being 54 National Guard armies. Are you sort of envisioning that, for instance, the Colorado Guard would do some of these things that would have predictive capabilities for say crops in Colorado; the Iowa Guard could do it for Iowa?*

BG Pike: See that's the huge issue for the Guard component of it. And that's going to be one of the challenges. We are dealing with that right now with the 100th (Missile Defense Brigade) GMD. We have the (command and control) structure, for the most part, here in Colorado. We have a missile field in California that is right now being manned by California Guardsmen and we have a missile field in Alaska that (is) manned by Alaska Guardsmen. So, you have three separate (Guard) armies involved in the process now.

So when we talk about the application of Guard Space assets in the domestic environment that are crossing state boundaries, you

and tornadoes. And we have to make sure there is no SIGINT (Signals Intelligence) stuff. There is an inherent responsibility on us to ensure that we protect the privacy of our citizens and that they understand what we are doing and why. They have a right to know what we are gathering and what we are gathering it with. While protecting the privacy of our citizens, it is also important that in this process we do not create the perception that we are violating any of their rights either.

ASJ: *And that has got to be a dicey issue.*

BG Pike: It is a very dicey issue. I work in emergency management right now. An FBI agent may have



A camera crew gets an inside look at the missile interceptors used to defend the Nation against incoming missile threats. *Photo courtesy of the 100th Missile*

are going to immediately bump into potential conflicts between the states. Not that they can't be resolved, they can. What I can see happening in the domestic use of Space is to have a small Commercial Exploitation Team sitting in each state. They would be limited in capability and would not be deployable elements. And they would tap into the same set of contracts and the same imagery that the larger, warfighting Commercial Exploitation Team uses.

ASJ: *And use it for domestic support?*

BG Pike: Yes. Things like a Hurricane Katrina, earthquakes

some information and it is classified Law Enforcement Sensitive, and a Soldier may have some information and it is classified secret. As the civil emergency manager, the guy who is going to have to react to whatever happens; it is difficult if not impossible for me to obtain the information that others have. We have great difficulty sharing that information.

There is no uniform construct that allows me to see either a Law Enforcement Sensitive Document or a TS (top secret) document. As a civilian I can't get on SIPR (secret internet protocol router) or into the

FBI's classified data base. So those kinds of frictions exist as well. Space will have to try to resolve them just like everyone else is.

ASJ: *So, we are looking at Colorado as being kind of a center of gravity for Space for the Guard right now?*

BG Pike: We have the (Missile Defense) Brigade, the Space Battalion and the 137th Space Warning Squadron on the Air Force side. And the other thing that is important, because we tend to think of ourselves in terms of our own communities is that all of the other Space assets that exist around us in terms of components and services. I believe many of the answers to the challenges that we face lie within the larger community.

ASJ: *Such as the Air Force?*

BG Pike: Such as the Air Force, such as the Navy, such as the Reserve, such as the Guard. There are chunks of Space in every one of those elements that are all struggling with the same issues that we talked about here ... They are not unique to us. These issues include personnel, clearances, facilities, equipment training. If we agree that human capital is, in fact, the most important part of what we are doing, why can't we invest in multi-component units? That may not be the way we want to go, but I would suggest that our Space units should have billets that can be filled by individuals from any service.

So if LTC Laucirica needs an Intel analyst, an Air Force Reservist may have an Air Force Specialty Code that meets the requirements of the position. If so, LTC Laucirica should be able to hire (him or) her. She (or he) remains an Air Force Reservist but reports to (LTC Laucirica).

LTC Laucirica: That construct is not entirely without precedent. The JTAGS (Joint Tactical Ground Station) units, up until lately, were Joint. In terms of breadth and depth, that unit is a gap filler.

You know, they are talking about adding a SATCON (Satellite Control) element to our battalion. They are talking about adding a JTAGS element. That's the breadth side of it. On the depth side of it, we have 11 teams, two companies of ARSST (Army Space Support Teams). So our depth is a lot deeper than, say, the 1st Space Battalion. So, now we have a breadth gap that we show and a depth gap

that we show.

This is a place that the Regular Army folks know well. As people leave the Regular Army, they may be able to retrieve these folks back in terms of Guard elements that use the prior service enlisted or officers. So these folks are now able to be drawn back in to fill a gap in terms of depth if a war breaks out or, in terms of breadth when it comes to specific things like the JTAGS elements. They have a plan to replace those Navy folks out there but that is not easy. You are replacing 34 people.

The 117th, in terms of being a center of gravity for Space, has arranged to have three or four of the SSEs (Space Support Elements) that are part of other Guard divisions coming out to our FTX (Field Training Exercise) next weekend to observe. This is the first time that this has happened where we have had Guard folks from four different states meeting in one place as a logical extension of where the center of gravity is located. This is where people are going to come to train ... and this is where people are going to come to work with the largest group of National

Guard Space (noncommissioned officers) and officers in the country.

ASJ: *With some of these other state National Guards indicating an interest in Space, can Space then become a bridge? Instead of having these frictions at state borders, could it bridge those borders?*

BG Pike: Well, yeah, it will and I guess the one caveat I would like to throw down here is a perspective that you might find a little strange. Even though I started out as an Active Duty Soldier and officer and I was in the Reserves for a brief period of time, I am proud of my Guard heritage.

I am proud of the fact that I am "of a state," as opposed to a larger construct. So, I don't want that to go away but we certainly need to bridge it. I think Space has the potential to be the leader in the bridging effort that could potentially cover several areas.

Could we put together a logistics set so we no longer have a green, purple or blue logistics package? We just have a logistics pallet. Now, our warfighters would still retain a ... what's the proper term -- a domain focus, whether it would



Members of the 117th Colorado Army National Guard Space Support Battalion's Commercial Exploitation Team set up their equipment after arriving in Bahrain. Photo courtesy of the

be loaded out to fight in the air, on the ground or in the water.

The support functions don't necessarily need to reflect those domain concerns. So as we talk about Space, my question is will Space provide the opportunity for us to consolidate a domain? Will it be an experiment in terms of building a force that is not necessarily tied to a service or a component? Because, truly, that is where we are but we are also still all in our little stovepipes. That creates its own set of challenges.

So within Colorado we are a center of gravity because, whether you want to talk Army or Air Force and probably Navy too, whether or not you want to talk Active, Reserve or Guard it is all here in Colorado. All those services and components have Space units and capabilities. So, we have a pool of trained people, competent people. We have, generally speaking, Space technologies and equipment here and because of these things it is becoming a natural center of gravity for Space.

ASJ: *And that's based on favorable geography. Essentially, you are here because you are in the neighborhood.*

BG Pike: Yes. If NORTHCOM (U.S. Northern Command) was in Utah all this would be there.

ASJ: *So how does a state like Connecticut get into this arena?*

LTC Laucirica: I don't think they will. I mean, in the bigger Army they are talking about reachback. Why do they have a CET downrange when we can just call up here and get the same thing? That's kind of a big argument right now. Why do we have a CET downrange? Does it have to be downrange? What's the value of that?

So, what's the value added of having a Space element in Connecticut? Someone's got to pay for it and there has to be a bang for your buck there but our people would say that most of this stuff could be called into the Operations Center or the (Measurements and Signatures Intelligence) MASINT



Crew members from the 100th Missile Defense Brigade (GMD) continuously train on and man the system designed to defend the United States

node and everything could be done by utilizing reachback.

The value added for having the CET downrange is that they have people talking to the ground forces, the folks on the ground, getting their requirements, and there is nothing that replaces that. So, if you look at Connecticut, there has to be a mission or some need to be filled there. It may be a regional need, but maybe it isn't a Connecticut need, or maybe it is a Connecticut need and is also a regional need. I would suspect that there are probably going to be regional Space centers of excellence for support throughout the country, but I think they are all going to be connected back here because here you have Schriever (Air Force Base) and they are not going to build another Schriever in another state.

So, I think CETs or commercial exploitation, which is what the states would have to use because they can't connect to national assets due to the classification issues. They would have to go through some commercial means but then they would say, what do we need the military to do. Why can't we just call Digital Globe up directly and get that.

BG Pike: I think we just need to be careful to make sure we are all in agreement about what we are talking about. When we say Connecticut, to me that says "domestic" support. And when we are talking about the 117th, for example, we are talking about the warfight.

I think two separate sets of

rules apply. I think that (LTC Laucirica's) point is extremely valid. When you are in contact and you need something, and you get on the radio and call some guy back at headquarters who has a cup of coffee in his hand, it is not always easy to convince that other person that there is an urgent need.

Now, if you are talking to someone whose job it is to provide direct support, someone you can look in the eye and say "I need some help," you are more likely to get an immediate, positive response. He is there. I am there. We know that mortar rounds are coming in around us. I don't need to try very hard to transmit that sense of urgency to him.

Now, that is the warfight side. On the domestic side, I think that ultimately, I also agree with (LTC Laucirica). (Let's say) we need to provide support for Hurricane Katrina relief efforts ... It is an urgent need. We can roll a CET team down there or we can do it from a sanctuary (command post) of some sort and sit right back here, because we understand, vis-à-vis CNN news ... I don't think anyone misunderstood what was going on in Hurricane Katrina once it got going. So that sense of urgency is there and people will react to it and get it done. And we can always use that capability.

ASJ: *It seems that the argument for having the Guard provide that support over*

some commercial entity is that the governor then has control of it and it is not a market process, it is a service process for the people of the state.

LTC Laucirica: The problem with that is that every state would have a priority. Every state would probably say, for example, that they need water purification capabilities on the outside chance that they could have a water problem. Not every state (has water purification capabilities) no more than every state is going to have Space (capabilities). We have to have access to it in times of an emergency.

I think that is where Space hasn't been factored in to the planning at (the National Guard Bureau). How do we associate the asset that we have in this battalion to an emergency and what are the lead times ... I got a phone call when the Kansas tornadoes went down. We were asked if we could provide satellite support or something like that. Now, the call was from my own Sergeant Major, but he was trying to spin me up and I was going, "I don't know, how would you do that?" How would you spin up an ARSST team to be able to provide imagery quickly enough to be effective down there, any more than when the Democratic National Convention is coming here next year, what type of support (will be required), because they are expecting us to provide some type of support.

I have already been talking to the ground forces commander. I told him that we can probably get things in anticipation of the event but the idea that if a riot breaks out we are going to be able to provide satellite imagery quick enough to make a difference is a little bit of something you have to train your commanders about. You have to let him know that satellites aren't positioned, they are flown around in circles and they have some physics to that.

But there is a need for this kind of imagery support. If we were doing national conventions every year in Denver or something like that, then we would say, hey, the bang for your buck for Colorado, regardless that we have this unit down here, would be enough.

And, so, let's say New York, if they had enough expectations of impending terrorist attacks, then they might want to have a dedicated element in New York because the state of New York and the governor would see a need and would probably ask for that type of an element.

BG Pike: Those are whole separate processes. We are talking FEMA (Federal Emergency Management Association) and National Special Security Events and things like that. There is a fix there and I don't think people fully understand or appreciate what Space can potentially do if people are willing to invest the resources.

LTC Laucirica: And I don't think that Tennessee understands how difficult it would be to stand up an isolated element in terms of getting the money for the equipment ...

BG Pike: But they are Guards people too, so they are used to doing a lot with very little and they'll just use the same process we talked about earlier and try and make it work.

ASJ: *You all have talked about some of the challenges that you have for recruitment, but what about the equipment? When you have to lobby your legislators, you all have a special set of circumstances that you have to not only understand but master. Can you talk about those a little bit?*

BG Pike: ... That is where the Guard is fundamentally different from our Active Component counterparts. In the state of Colorado we do not have a schoolhouse system. Recruitment and training of our Soldiers is not an invisible process to the commander. On Active Duty, if I expect to lose someone, my S1 puts in a request and we get replacement Soldiers.

Well, in the Guard, if we need Soldiers, we need Soldiers. And so we have to go out and find them, we have to bring them in. We see them the first day that they come in to the Guard, and then we talk to them, they get shipped off to (school)... and that is one of the great news stories in the military during my career, now we go through all the Active component schools unlike back in the day when they had a separate track for guard guys ... so, we launch our guys off into their MOS producing schools and we get them back and we have to take care of them through that whole process. We assign them a slot when they go off to school so they are occupying one of our positions regardless of how long that education process takes.

Our Soldiers are a community of people who have the maturity, the skills, the vision, and an understanding of the product they are

Security clearances, all that stuff, we have to manage that. In the Space community that can take over a year.

LTC Laucirica: Imagine showing up for a drill and saying I have 80 people on the books but I only see 30 people in formation.

BG Pike: That is because people are off training...

LTC Laucirica: Or in high school still.

BG Pike: Yeah, exactly right.

LTC Laucirica: We have guys in high school taking up slots in their units in anticipation of them graduating and going to an MOS school. We probably have five or six kids that we are holding slots for, who are drilling with a recruiting element getting them ready to go to basic training.

BG Pike: And that is our world. It is nothing we complain about, it is just the way we are because each state can't have a FORSCOM (U.S. Army Forces Command) or a TRADOC (U. S. Army

Training and Doctrine Command). So, we inherit some of those roles, as individuals, as commanders, as entities. So those are the challenges we face. The Colorado Guard is one of the leading states in the nation now in terms of strength. We are at approximately 107 percent strength, something like that. A lot of that has to do with incentives, the warfight and the nature of our state as opposed to other states in terms of political perspectives and stuff, and what the kids think about what's going on in the world today. But that is part and parcel of being a guardsman.

LTC Laucirica: I had a kid stroll in yesterday, a specialist. He called me up Thursday, I never heard of the guy before. He just got back from the 96 Bravo course. He is an Intel guy, he brought over his resume and he wants me to help him find a job. He is a four year college graduate, 27-year-old specialist, with a TSSCI (Top Secret Sensitive Compartmented Information) in 96 Bravo. Now, he was on my books for probably a year and a half and I never knew who he was. It took him probably a good year to get his TSSCI while he was in class because you can't just go to 96 Bravo. But now I finally got him. The point here is that the recruiting I am doing now is probably not going to help me a lick but it is going to help the next guy who commands the battalion.

BG Pike: That's probably the biggest challenge. We don't have a replacement depot anywhere. We don't have a place to stick away our kids who are in the schoolhouse or in transition or something. They have to be on our books. The final analysis is that this gives us our most interesting challenges.

ASJ: *So regarding schools and training, let's go back to the Commercial Exploitation Team. The team deploys and you have people going down range with multiple skill sets. They are more than a regular Army Soldier; they have another dedicated skill set and they go downrange with that. How does that make the guardsmen more valuable?*

BG Pike: Guardsmen and women bring a broader experience to the



An aerial overview of Missile Defense Complex at Fort Greely Alaska is framed by mountain range. The Complex, carved out of the frozen tundra, houses the interceptors of the 100th Missile Defense Brigade (Ground-based Midcourse Defense). The interceptors are part of the nation's emerging ballistic defense program. Photo courtesy of the 100th Missile Defense Brigade.

fight most of the time. There is a comparison that is easy to make although it is certainly not always true. If you have an individual who is on Active Duty who came into the military at 18 years of age, out of high school, that MOS is that person's life experience and because of that this individual is very, very good at the MOS specific tasks they are assigned.

If you take a Guards person who has come out of high school, and they may have a college degree under their belt, they might be a carpenter, they might be a salesperson, and they could be working at public works somewhere. They could be a cop; a lot of cops are in the force. These people may have experiences that could go well beyond any that a typical Regular Army Soldier might have. And really these other non-military experiences are the mainstay of their lives and the military is the smaller part. So, when they deploy into theater, and because of the training we do, the Guard Soldier is reasonably competent and quickly gains proficiency in their military MOS within weeks, but he also





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brings this whole other set of skills.

LTC Laucirica: That's a huge problem is (Special Forces) right now. A guy is driving down the road in his Hummer, the Hummer breaks. He is done. You know, when we grew up, you learned things. If you broke down you would go out, get your matchbook out and you could gap the points and you mess around and you figure out how to get that thing going. Now, the machines are so complex, and the kids have so little exposure to those things – they are finished. But if you were a mechanic in civilian life you could get out and make that thing work again. And those are the kinds of things that a Guardsman can bring to the fight.

ASJ: *So if a Guard unit goes down range it can be a little bit more self-reliant, self-sufficient based on their life experience.*

BG Pike: Often times. And I still think the best things we

can do as a force is to mix components together. And I don't mean at the individual level. I don't mean to imply that we would give up our unit cohesiveness or somehow integrate units; because that is not something we would like to see in the Guard. I think it is very helpful to have Active Component organizations with Guard organizations and then that Guard organization can take advantage of the tactical and technical expertise of those Active Component counterparts and the Active Component counterpart can take advantage those other skills of the Guard.

ASJ: *So this is like the old cohort unit concept?*

BG Pike: Sort of. Significant challenges we face right now are the requests we get to deploy a battalion without its headquarters. The combatant commander doesn't want the battalion commander or staff. So they mobilize the companies and farm

them out to Active Duty battalions. And that is something we have been fighting and will probably continue to fight for as long as we exist. We don't like to see that happen for obvious reasons.

ASJ: *Are there any final thoughts you would like to share?*

BG Pike: I would just like to reinforce the idea of jointness and Space. I think we are going backwards if we think in terms of the Army, if we think in terms of the Guard, or we think in terms of Active Duty. We can't afford to do that. We must look at the larger structure. We have to think of Space in terms of a truly national asset, a DoD-wide asset. And as we look to solutions, to the extent that we can, that our institutions will allow us, we need to try to get past those institutional constraints and start to think about larger solutions that will take up all the expertise that we have available to have a better community. We need to ask how Space capabilities we now possess can serve the national community rather than just "How can the Guard do it here in Colorado?"



A 49th Missile Defense Battalion (Ground-base Midcourse Defense Soldier gazes at the Northern Lights. The 49th Missile Defense Battalion is a National Guard Battalion based out of Fort Greely, Alaska. They stand ready to defend the Nation against incoming ballistic missiles. Photo by SGT Jack W. Carlson III

Keeping the Pressure ON

1st Space Battalion support in OEF/OIF

The slogan “24/7/365 support to the warfighter,” is taken very seriously by members of the 1st Space Battalion. That slogan carries Space Soldiers across the globe to support ongoing combat operations and a wide variety of exercises.

“We have had a continuous presence in the war since it began,” said LTC Lee Gizzi, former 1st Space Battalion commander. “Our people continue to be in harm’s way to support the Joint warfighters on the ground and they do a magnificent job.”

The testament to Gizzi’s comment is that the coalition forces continue to support the deployment of Space Soldiers. The Joint Tactical Ground Stations (JTAGS), Commercial Exploitation Team (CET) and Army Space Support Teams (ARSST) in Operation Iraqi Freedom and Operation Enduring Freedom provide key planning and operational capabilities for commanders on the ground.

The current Battalion Commander, LTC Tom James, notes that “the Space forces we have deployed with Army, Joint, and Combined Commands provide more than just products. They have a key role in educating leaders and staff personnel on the myriad of satellite technologies available to support land component operations, and the processes to integrate them most effectively. In addition, 1st Space Battalion Soldiers bring an understanding of how enemy forces may rely on these same technologies to the commander’s planning process.” He goes on to add that “much of the support ARSSTs, JTAGs, and CET provide is not just focused on supporting U.S. military operations. They also support coalition and civilian agencies with access to satellite-based products, such as support to Katrina relief efforts, and commercial imagery support to the Iraqi civil government.”

The number of deployed Soldiers is small, but in this business it does not have to be a large number. It is the level of support that matters. Whether it is a JTAGS operator sitting behind a screen scanning for missile launches, ready to

warn units in the impact areas, or an ARSST member producing a 3-dimensional fly-through for mission rehearsal, the contributions of Space and Space-based products continues to help land component forces, in James’ words, “kill the enemy while protecting our forces. That’s our focus.”

The JTAGS system was developed as an after effect of the first Gulf War. Saddam Hussein had fired SCUD missiles at coalition forces, Israel and Saudi Arabia. He essentially let the offensive theater missile genie out of the bottle. The U.S. military recognized the need for a system that would provide early warning to the specific area where a missile would likely impact. Without JTAGS during Operation Desert Storm, the entire theater would stop what they were doing once a launch was detected and go into their protective gear until an all clear was sounded. This requirement played havoc with operational tempo.

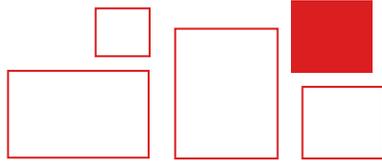
Not long after the war, an embryonic system was demonstrated to LTG Donald M. Lionetti, then commanding general, U.S. Army Space and Strategic Defense Command. He recognized the system’s potential and within two years the first prototype was completed. A second was completed shortly thereafter. These systems were demonstrated to the European and Pacific theaters respectively and were so well received that they remained in those theaters and began operations.

In the late 1990’s the first objective systems were emplaced in Europe and Asia, improving the capabilities of the original prototype systems. Today there are five systems, with one being used as a classroom for the military occupational specialty training. All the systems are deployable and all are manned by a crew of Soldiers and Sailors on a 24/7/365 basis.

JTAGS operators work in an enclosed shelter, constantly monitoring their given area of interest. Their mission is simple, according to SPC Amanda L. Dobbs, a JTAGS operator stationed in Korea.

“We use satellites to watch the world and detect missile events (launches). We can tell the Patriot batteries that (a missile) is coming before they even see it with their radars. That is the advantage of using satellites. We see it first and warn the defenders as well as warn units in the potential impact area.”

“We see it first and warn the defenders as well as warning units



JTAGS elements are currently stationed at strategic locations around the world to provide early warning to U.S. and coalition forces of any missile launches that occur.

“Our system provides early warning in-theater,” Dobbs added. “We are forward deployed and provide an in-theater capability ready to react. It is about immediacy. By being in-theater we reduce single points of failure in the early warning system.”

JTAGS operators get very specific training in a course held in Colorado Springs. This qualifies them to operate the system; however, it is just a beginning, an apprenticeship. It requires a certain amount of field experience to master the job.

“After I got the training, I wanted more operational experience,” said SSG Aaron Donaldson. “So I volunteered to go back in-theater to get that unique experience.”

Dobbs added, “You can be a JTAGS operator for years and still learn new things about the system and its capabilities. Additionally, each site has its own unique characteristics. If you are looking at the world from two different sites you will see something different at each one.”

JTAGS systems are only one way that Space supports the warfighter. Early warning is only one of the pillars in the Space support construct. Another aspect of the Space support provided by 1st Space Battalion is the Army Space Support Teams.

ARSST also evolved from an immediate need. During Operation Desert Shield the Army realized that they needed a way to navigate accurately across that part of Iraq called the “empty quarter.” A compass is absolutely dependable as long as there is a point in the distance at which to shoot an azimuth. In the open desert there are none. In the late 1980s the Army Space Exploitation Demonstration Program (ASEDP) had been carrying around something called a Small, Lightweight Portable Global Positioning Satellite Receiver (SLGR) that would become affectionately known as “Slugger.” This device used satellites to find and identify the user’s position on the ground. Indeed, during Operation Desert Storm there was a battle, the battle of 93 Easting, which is named after a GPS point on the ground since there is no other way of identifying the location where the battle took place.

The ASEDP was able to take emerging, off-



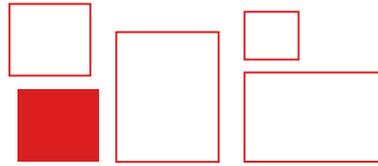
Top, Soldiers with 1st Space Company, 1st Space Battalion set up an antennae that support the Joint Tactical Ground Station. Bottom, Soldiers inside the station provide in-theater early missile

the-shelf technologies and put them directly into the hands of Soldiers. Those things that the Soldiers deemed useful or necessary, the ASEDP team members made available to the force. One key example is the International Maritime Satellite (INMARSAT) capability. This suitcase sized satellite telephone was carried into many places allowing immediate communications access to the user. From literally anywhere, planners and operators were able to connect and get things done. This was a huge success with the troops from the top down.

Eventually the ASEDP grew to a point where teams were assembled and they were given solid, proven technologies to bring Space support directly to the warfighter. Today the teams continue to provide day-to-day Space support to the warfighter and to natural disaster responders and humanitarian aid missions as they have since the mid- 1990s. Their missions became even more visible when the 1st Space Battalion was activated.

In the beginning, the teams were known for the INMARSAT, weather and imagery capabilities they brought to the table. With the imagery, the supported units were getting 2-dimensional and 3-dimensional images of the actual ground they would be moving over. The 2-dimensional aspect gave them a literal image of the ground taken from commercial satellites. The computer programs they used then put the same data that a military map would have on it, using the same symbols and even drawing to scale with grid lines appropriate to the scale. So, instead of relying on maps that might not have been updated in 20 or 30 years, they had an actual picture of the earth that might only be a few months old. This was a vast improvement that every planner and operator appreciated instantly.

In the 3-dimensional aspect, a commander or an operator could see an actual video of what it would look like to fly through the terrain. This could be done at varying



altitudes and speeds and enabled pilots and ground commanders to see what the enemy sees as they approach friendly positions.

From Iraq, SGT Kelli Holmes described the imagery support provided. “We do more things for S2s and the G2 than for any other shop. We provide them a lot of imagery support.”

Army Space Support Teams have been deployed to combat operations and disasters ranging from hurricanes to earthquakes. They provide products, capabilities and Space education to the supported units. The educational piece can be a constant effort that helps the commanders and their staffs understand what Space can and can’t do, and how to use Space capabilities in the best ways to support their missions.

“Our team provided a detailed capabilities briefing to anyone who asked and to some who didn’t,” said SGT Joshua Foye from his duty station in Iraq.

“The units we support greatly appreciate the products and services we offer them,” said SFC Dustin Swinney who deployed for Operation Iraqi Freedom. “And once we explained the products and what value their units could get from them, they were very excited to start receiving them.”

In another location, SSG Jay Stephenson said, “For the most part, education has had to focus on what technology cannot provide. A lot of our customers tend to see Space as a magic silver bullet that can solve any problem and detect anything anywhere.” And so the educational efforts go on as needed depending on the unit being supported and their familiarity with the technology.

SGT Chris Mavec said, “The only ‘Space’ related support we provide that we have had prior training on is GPS constellation health and welfare, GPS navigational accuracy and satellite imagery products. We have been put in charge of Theater Missile Detection for the theater as well as Personnel Rescue. Both capabilities are provided by pieces of equipment that we all had to learn on-the-job. Much of the support we currently provide has been learned on the fly.”

ARSST team leader MAJ John Hennessey describes the support to Operation Iraqi Freedom as compared to the exercises he has supported. “The work I am doing in-theater is very unlike the exercises I have participated in. Real world operations are much more dynamic and require much more thinking outside of the box. The exercises were often set-piece situations with spoon-fed inputs and textbook answers. In real world operations it is necessary for the Space team to

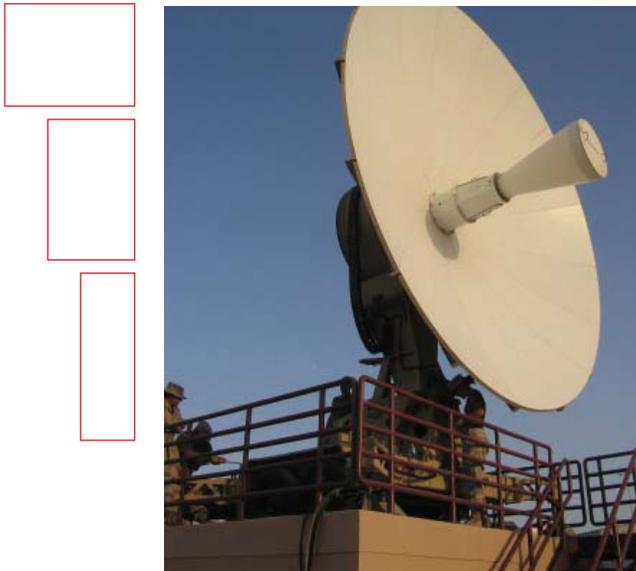


Photo courtesy of the Commercial Exploitation Team

“In real world operations, it is necessary for the Space team to think on their toes.”

understand what is going on around them and develop ideas on how to assist.”

Ssg James Wayman, a volunteer on his team spoke of how this deployment helped him as a leader. “This is my second deployment to Southwest Asia and much like each exercise has been different, so too has this deployment. As the only Active Duty Soldier on this team, it has been a very unique experience working with the Reserve Soldiers. I think having served with them in this capacity has added another facet to my capabilities as a leader. My approach to work has not changed, however my methods of motivation and accomplishing the mission have,” Wayman said.

The support the Army Space Support Teams have provided has spread out from the Army to the U.S. Marines and today, one ARSST provides dedicated support to U.S. Marine elements in Iraq.

Some of the skills they now use had to be learned in-theater as missions evolved. Space Soldiers adapted, learned and overcame in order to succeed in their mission.

“One of the key benefits that ARSST Soldiers bring to a land component force is the ability to look at integrating



This satellite image provided by the 1st Space Battalion shows oil fires in Baghdad. Imagery provided by the



satellite technology into planning and operations from a comprehensive point of view,” said James. “They are not just focused on the signal, intelligence, navigation and timing, or missile warning areas of Space force enhancement. This allows them to discover innovative ways to use satellite systems designed to fight the Cold War, or new emerging technologies of both government and commercial satellites, to assist forces engaged in counter insurgency operations. Our Soldiers aggressively pursue these solutions in support of warfighters in that fight today.”

The CET has been deployed to Southwest Asia since 2004 with Active, Reserve and National Guard Teams sharing the year-long rotations. The CET provides a unique capability to the Warfighter. The team is focused on imagery exploitation and mainly uses commercial imagery to produce many different products. They have been tasked to provide soil moisture analysis, change detection in search of cache sites, slope analysis, and vegetation analysis – functions that the ARSSTs are not as well versed in. The benefit of using commercial imagery is that it is easily releasable to Iraqi Forces (as well as other Coalition forces).

The CET obtains bent pipe imagery data directly from Digital Globe, owner of QUICKBIRD and newly launched WORLDVIEW satellites, within a few hours of collect. The team is then able to process the data into a usable image file and distribute to the Warfighter much faster than the normal collection management channels. The CET also has the capability to exploit SPOT and RADARSAT imagery. SPOT is a much lower spatial resolution than QUICKBIRD but has better spectral resolution – better for spectral analysis. RADARSAT has the added benefits of providing imagery in almost all weather conditions, day or night, including limited use during sandstorms. The CET adds to the Warfighter’s tool kit bag of ways to gain useful information in the Area of Operations.

The battalion has a short but eventful history and its capabilities are continuously evolving and adapting to a variety of support situations. Its Soldiers are rightly proud of what they have accomplished. As they continue to serve in-theater and around the world they are practicing their chosen profession, enabling U.S. Forces to win decisively on the battlefield.



53rd Signal Battalion —

A Battalion with Dual Histories

By Mark Hubbs,
SMDC/ARSTRAT Historical Office

The 53rd Signal Battalion has two distinguished histories. How can a single battalion have two histories? The battalion was re-flagged as the 53rd Signal Battalion (SATCON) on Oct. 16, 2005. Although the battalion had inherited a proud lineage with the 53rd title, its parallel history as a satellite control organization extends back to the 1960s.

“We Control the High Ground”

The U.S. Army Signal Corps experimentation with Space-based communications began in 1946 when a high-powered radar was used to bounce signals off the face of the moon. The Signal Corps remained an innovator in satellite design and launched its first communication satellite in December 1958, less than a year after America’s first satellite, Explorer I, was put into orbit. That first communication satellite, the Signal Corps Orbiting Relay Equipment (SCORE), stayed in orbit only 12 days and paved the way for more successful and powerful devices. The Army’s role in Space communication evolved to development and manning of ground communications equipment that could “talk” to the satellites put in orbit by the U.S. Air Force.

The satellite control history of the battalion began in 1966, long before the organization became an Army battalion. In June of that year, the Department of Defense launched its first Defense Satellite Communication System (DSCS) satellites into orbit. This constellation of 26 satellites would be the first of three increasingly improved phases of the DSCS. The DSCS is a high-capacity super high frequency subsystem of the Defense Communication System. It provides worldwide secure voice and high

data rate communications for command and control, crises management, and intelligence data transfer. Its services are used by all branches of the military, the White House Communications Agency, the Diplomatic Telecommunications System and other NATO allies.

The ground communications segment of the DSCS was operated by U.S. Army Signal Corps Soldiers who manned several ground terminals in the continental United States, Europe and Asia. These separate detachments of Soldiers were assigned to the U.S. Army Information Systems Command (USAISC). On Oct. 1, 1990, in an effort to consolidate Army Space assets, the Army DSCS mission was transferred to the fledgling U.S. Army Space Command (ARSPACE). Simultaneously, Army Auxiliary Satellite Control Terminals (ASCTs) and Ground Mobile Forces Satellite Communication Systems (GMFSC) were also transferred to ARSPACE. In total, more than 300 Signal Corps Soldiers were transferred to Military Satellite Control (MILSATCON) Directorate of ARSPACE as part of this realignment.

The next great milestone in the unit’s history came on May 1, 1995, when the MILSATCON Directorate was converted to a battalion organization — 1st Satellite Control (SATCON) Battalion. Each of the DSCS detachments were organized as companies with the battalion headquarters collocated with ARSPACE headquarters in Colorado Springs. This move marked a significant recognition of the role played by Space technology in the Army of today. The 1st SATCON was composed of Headquarters at Peterson Air Force Base, Colo.; Headquarters Company at Schriever Air Force Base, Colo.; A Company at Fort Detrick, Md.; B Company at Fort Meade, Md.; C Company at Landstuhl, Germany; D Company at Camp Roberts, Calif.; and E Company at Fort Buckner, Okinawa. 1st SATCON was the first battalion in the history of the Army with an operational mission directly tied to the control of Space systems and capabilities. The new battalion was awarded the motto: “We control the high ground.”

Photo courtesy U.S. Army



First - Last - Always!

On Oct. 16, 2005, 1st Satellite Control Battalion was converted to a MTOE organization and was redesignated 53rd Signal Battalion (SATCON). With this change, BG Jeffrey Horne, deputy commanding general-operations noted that “the Army formally recognizes this unit’s operational warfighting mission. Soldiers in this battalion make vital communications happen for our civilian leaders and joint warfighters.” The old 53rd Signal Battalion had been inactivated at the end of its Vietnam War mission in 1971, but its lineage and honors were resurrected with this reactivation. The mission for the new 53rd remains unchanged from the 1st SATCON mission to provide 24/7 on-orbit command, control and communications of the Defense Satellite Communications System constellation in support of tactical and strategic missions. An official unfurling ceremony of the colors and guidons occurred on Oct. 26, 2005.

The 53rd Signal Battalion was authorized by the Regular Army on Oct. 18, 1927, but the battalion was not activated until the eve of World War II. The battalion was activated at Camp Bowie, Texas, on June 1, 1941, and began the long train-up for deployment. The 53rd participated in “Operation Torch” in November 1942 and landed in North Africa as part of the II Corps, 5th Army. It was the first Signal Battalion in the U.S. Army to go into combat in European/African Theater of operations. The battalion would support combat operations in Algeria and Tunisia before the end of the North Africa campaign. The 53rd went on to make the assault landings during the Sicily campaign and then spent the rest of World War II making the long push up the Italian peninsula. At war’s end the 53rd was in the Po River Valley of northern Italy. The battalion was inactivated at Leghorn, Italy, on Sept. 30, 1945. The 53rd received a Meritorious Unit Citation for its service during World War II.

The 53rd was brought back into service again on Sept. 21, 1954. During the intervening years

the battalion served at several places including Fort Hood, Texas, and Fort Huachuca, Ariz. The Battalion was deployed to Germany during the Berlin Crisis from December 1961 until June 1963. Charlie and Delta Companies were deactivated at Fort Huachuca in August 1965. The remainder of the battalion was deployed from Fort Hood to the Republic of South Vietnam in May 1966. The 53rd was stationed at Long Binh and assigned to the II Field Force as a III Corps communication and combat photo unit.

The 53rd also manned a radio relay station on a barren hilltop several miles from Long Binh. “Hill 837” was a remote, sporadically resupplied site that came under frequent mortar and small arms attacks. Men from the 53rd helped to defend the Long Binh perimeter during the Tet Offensives of 1968 and 1969 and provided radio/teletype teams to any II Field Force unit that was conducting combat operations. The 53rd served in Vietnam until 1970 when it was redeployed to Fort Lewis, Wash. The battalion was inactivated on June 23, 1971, at Fort Lewis. Its Vietnam service was recognized with three Meritorious Unit Commendation streamers for the years spanning 1966 to 1970 with credit for participating in various military campaigns.

The battalion’s new designation, the 53rd Signal Battalion (SATCON), represents its dual history well. The 53rd’s name brings a proud heritage of service during World War II and the Vietnam War. The “SATCON” reminds us that the battalion led the Army as the first battalion with a Space mission.



CPT Norine Amato, former commander, Headquarters and Headquarters Company, 53rd Signal Battalion unfurls her company’s new guidon during the 53rd’s redesignation ceremony in October, 2005. Photo by MSG Dennis E. Beebe

117TH



Playing a Vital Role in Space Support to the Warfighter

By Ed White

Five years ago the Colorado Army National Guard had no idea that they would be the proud owners of the National Guard's only Space Battalion. Today, the 117th COARNG (Colorado Army National Guard) Space Support Battalion is providing a variety of support for military and civil missions.

"We are continually funneling people into theater," said LTC Don Laucirica, battalion commander. "We have a Commercial Exploitation Team (CET) in-theater now and have provided Army Space Support Teams (ARSST) as well. This is a 24/7/365 mission and we are well prepared to accomplish it."

Not only do they support the active Army side of things, the battalion sent an Army Space Support Team to support the Hurricane Katrina recovery efforts and there is the potential for Army Space Support Team to provide support to any number of in or out-of-state natural disasters such as earthquakes, forest fires or floods.

Laucirica holds that National Guard Soldiers bring a special mix of skills to the fight. "Our guys work in two worlds," he said. "They have their military specialty and they have their civilian occupation. Sometimes these two things dovetail, sometimes they don't, but the National Guard Soldiers are most often recognized for both the jobs they are assigned, as well as for contributions that they have

made outside their normal military lane. It is this added dimension that makes their contributions both unique and valuable."

The 117th (COARNG) Space Support Battalion is composed of a Headquarters and Headquarters Detachment and two companies, the 217th and 1158th Space companies. The Space companies control six Army Space Support Teams and one Commercial Exploitation Team each.

The "War Trace" element for the 117th is the 1st Space Brigade. A War Trace element is the unit the battalion is aligned with in a go-to-war situation. For administrative, logistical and pay support they fall under the 89th Troop Command headquartered in Denver.

Commanding a unique unit poses its own set of challenges, Laucirica said. These include the need to lobby a number of publics for money to buy equipment, and the constant need to recruit good people.

"Space Soldiers are extremely difficult to come by in the National Guard," Laucirica said. "It is such a small field and the way the Guard's system works, we can have a Soldier in the unit but until he or she is qualified in their MOS (military occupational specialty), they do not appear on the books. This means that when we drill, I might only have 40 or 50 people there with the others off in schools or other training to get MOS qualified."

"I talk to interested individuals and their families all the time," he said. "This is not something my



CPT Matthew Pollock (right) is charged with command of the 1158 Space Support Company by former 117th Space Battalion Commander, LTC Scot

Regular Army counterparts ever have to worry about, but it is part of the lifeblood of any National Guard unit.”

A new recruit might not make a real contribution to the unit’s mission for several years, until they are MOS qualified and fully counted on the rolls.

“I could have only 60 percent of my officers and enlisted MOS qualified at any one time. In the regular army this would be a very hard thing for a unit to deal with, but in the Guard it is the norm,” Laucirica added.

Once a Soldier is MOS qualified, they are put on a team, either an Army Space Support Team or a Commercial Exploitation Team. Then they begin working together. “These Soldiers have the advantage of working together for years because one aspect of the nature of a National Guard unit is that while we have them, we enjoy longer term personnel stability. This gives our teams an advantage when they deploy, based on the fact that they know each other and can readily take up each other’s slack because they will have done just that during exercises and training events.

Laucirica faces two problems on the enlisted side. First is that once a Soldier reaches E-6 there is really no more opportunity for promotion in the unit. It takes them a long time to get MOS trained and by the time they reach that point they can easily move on in a

related field to a position where promotion opportunities are more plentiful. As an example, he cites that one of his first sergeants is an E-6.

“I believe we can get our manning document changed so we can begin promoting our Soldiers into the upper level enlisted ranks,” Laucirica said.

The second problem is that continuing opportunities in the civilian job market make many of his Soldiers very mobile. “Many of them can go anywhere in the U.S. and find a great job.

They are not tied to this area.”

All in all though, Laucirica sees Space as a “growth industry” within the National Guard. The capabilities are easily accepted by the leadership of the units they support and, thanks to an ever-present educational thrust to capabilities briefings, and a truly customer oriented approach to providing support, supported units are learning how best to use the capabilities the battalion provides.

“It is always great to see the light go on when one of the senior leaders realizes what we can do to help them. And our Citizen/Soldiers are very user friendly. They have to be. They work in a highly competitive capitalistic marketplace in their day-to-day jobs. Customer service is what much of their experience is built on and they just naturally carry it over. Commanders love this attitude and tend to maximize their use of the capabilities.”

Laucirica, whose goal during his tenure as commander is to double the size of the unit, believes that the battalion is only getting better. “We have a strong group of dedicated, committed men and women at all levels. They bring their Soldier skills added to their civilian skill sets with them to the fight. There are unique talents and abilities found on every team. That, coupled with the willingness to think and act outside the box where needed, continues to help us succeed throughout the entire spectrum of missions we have been assigned from the Army or the State of Colorado.”

LIVING THE ARMY VALUES



Photo courtesy Department of the Army

By CSM Ralph Borja

Over the past years, the Department of the Army, hosted by the Sergeant Major of the Army, has conducted the Noncommissioned Officer and Soldier of the Year Warrior Competition -- an annual, traditional event. It's important that we as Noncommissioned Officers and our Soldiers know that competing in this type of competition really sets the bar for our Soldiers and Noncommissioned Officers in career progression and career enhancement.

As long as I've been in the Army, every Soldier has been an infantryman and warrior. I don't want to focus on the Space warrior because our Soldiers are warriors as a whole, regardless of their military occupational specialty. In our organization, it's important we represent not just U.S. Army Space and Missile Defense Command/U.S. Army Forces Strategic Command, but our higher command being the Department of Army. By continuing to conduct these types of competitions, we set the tone for our Noncommissioned Officers and Soldiers, and ensure they are being taken care of and are being set on the right track for success.

For this year's SMDC/ARSTRAT competition, the ball was already rolling with my predecessor, CSM David Lady. Once I was selected as the SMDC/ARSTRAT Sergeant Major, my job was to come in and pick up the ball where he

left off. That included this competition, but there were sergeants' major, senior Noncommissioned Officers, as well as junior enlisted Soldiers, that were behind the scenes making things happen. These key personnel conducted in-progress reviews, and ensured the resources, the support and the equipment needed to conduct this event was there, allowing the competitors to focus on the overall event without any worries.

This year's competition went exceptionally well. The candidates were highly motivated, determined and had exceptional drive. They maintained the Warrior Ethos; upheld the Soldier's creed and lived, and continue to live, the Army values.

Throughout my career, from battalion to brigade to division, and now the MACOM level, it has always been important to make changes in an effort to improve ourselves and our operations. In this tradition, the Department of Army and the Sergeant Major of the Army guidance is to have a change to the overall Warrior Competition each year. Changing one thing such as assemble and disassemble of weapons systems to maneuvering through STX (situational training exercise) lanes makes a difference as we continue in the Global War on Terror. We want to have a focus with our Warrior Competitors to relate to what our warfighters are actually doing on the ground in places like Iraq, Afghanistan and Kuwait.

Based on the guidance from higher up, this year's SMDC/ARSTRAT competition involved the Army Physical Fitness Test followed by the written exam, the urban warfare orienteering course, followed by weapons qualification, the STX lanes, which covered the warriors tasks and drills as they maneuvered through the lanes, and ended with the formal portion of the board.

During the competition, every competitor had

a mind set of his or her own, but they all wanted to achieve a higher expectation as a candidate and represent their organization well. They all wanted to continue competing here and then move onto the Department of Army Noncommissioned Officer and Soldier of the Year board. Out of the two Noncommissioned Officer candidates, SGT Patrick Mann competed and won as a Soldier at last year's competition. Because of this, he may have had a slight edge against the other noncommissioned officer SSG David Engelhardt, but they both contributed and went head to head throughout the entire competition. For the Soldiers, with this being their first time competing at this level, it was different; it was a challenge to them. They did not know the unknown.

As leaders we must continue encouraging, our Officers, Noncommissioned Officers, Warrant Officers, as well as our Soldiers. We need to make sure there's an incentive that we put out to our Noncommissioned Officers and Soldiers. At the awards presentation, the incentives and tokens the winners received from corporate sponsors were tremendous. That alone was a motivating factor, but at the same time, knowing that our Soldiers and Noncommissioned Officers are scattered not just in the U.S. but abroad, we need to influence and definitely encourage the subordinate senior enlisted leaders, as well as the commanders, to push their Noncommissioned Officers and Soldiers to strive for excellence. As the Space and Missile Defense Command Sergeant Major, I expect that we are going to have Noncommissioned Officers and Soldiers that will continue to reach for their goals and be more successful.

This year's competition took place in Colorado Springs, but an assessment will be made to see if it will be feasible to move the competition to Huntsville, Ala., Redstone Arsenal, for next year. Everything's pending right now, but this is the second or third time the competition has been conducted in Colorado Springs and through

talks with Noncommissioned Officers, as well as Soldiers, they'd like to compete in a different environment, a different installation, which is a legitimate comment. Every year, the Department of Army event is conducted in Virginia. Having our Soldiers move and conduct this competition at a different installation raises the bar and builds their motivation.

SGT Patrick Mann and SGT Martin Jensen won the SMDC/ARSTRAT Noncommissioned Officer and Soldier of the Year titles, respectively. (Jensen was promoted after earning the title of the European Region Soldier of the Year and continued the competition for that title.) They went on to Fort Lee, Va., to compete in the Department of the Army Warrior Competition in early October and proudly represented our command. The Sergeant Major of the Army Kenneth O. Preston, as well as Department of Army, tried to equally balance all of the tasks throughout the competition. Every warrior is a shooter and when it comes to this type of competition, we basically look at details, standards, basic standards at certain levels, but I believe the Department of Army tried to level the playing field whether the Soldiers have deployed or not deployed, the latter being the case for SMDC/ARSTRAT's two competitors.

In closing, I would like to thank and recognize a few people for their unwavering support for this year's event: the commanders, the sergeants major as well as our staff members. I look forward to the same for next year's event. And of course, we could not have done this without the support of our corporate sponsors. I personally appreciate their overall sponsorship and support for our Noncommissioned Officer and Soldier of the Year, as well as the support of our civilian and Department of Defense contractors in this organization of ours, so again thank you. I look forward to continuing to serve with each of you over the next several years.



Secure the High Ground!

Command Sergeant Major,
U.S. Army Space and Missile Defense Command/
U.S. Army Forces Strategic Command



Tip of the Sphere

Soldiers display Warrior spirit at SMDC/ARSTRAT Competition

By Sharon L. Hartman

FORT LEE, Va. -- Twenty six of the U.S. Army's best Noncommissioned Officers and Soldiers competed against each other to earn the titles of Department of the Army Noncommissioned Officer and Soldier of the Year, Oct. 1-5. Among this elite twenty six stood two members of U.S. Army Space and Missile Defense Command/U.S. Army Forces Strategic Command, both proudly representing the command and proving that the warrior spirit does not only live within Soldiers who serve on the front lines.

"We had the opportunity to represent all the outstanding Soldiers from within our MACOM," said SGT Patrick Mann, SMDC/ARSTRAT's 2007 NCO of the Year and the SMDC/ARSTRAT 2006 Soldier of the Year. "It was a great honor to be able to show to the rest of the Army the quality of Soldiers that proudly serve within SMDC/ARSTRAT."

SGT Martin Jensen represented SMDC/ARSTRAT as the 2007 Soldier of the Year. He began the competition through company and regional levels as a specialist, but was promoted to sergeant shortly before the MACOM board. Both Mann and Jensen are satellite network controllers stationed with Charlie Company, 53rd Signal Battalion in Landstuhl, Germany.

The DA competition put the Soldiers through a wide range of events to include a board chaired by the Sergeant Major of the Army, Kenneth O. Preston, a traditional Army physical fitness test, a written exam, day and night urban orienteering, M4 rifle qualifications, battle drills and the infamous mystery events.

Having competed in 2006 for the Soldier title, Mann commented that "the competition was very similar to last years, so there were no real surprises for me. However, the mystery events are always a challenge and they did a great job picking a wide variety of tasks."

In the end, SSG Jason R. Seifert from the National Capital Region was named the Army's top NCO and SPC Heyz T. Seeker with U.S. Army Special Operations Command was selected the Army's top Soldier.



Photos by Sharon L. Hartman



From Their Point of View

By SGT Patrick J. Mann
& SGT Martin A. Jensen

LANDSTUHL, Germany — The saying, “work hard, play hard” has been around for many years. The expression conveys the idea that although we as individuals are strenuously focused on our work mission, we also have other personal activities that we participate in with the same zeal and passion as our work.

This statement could not have been truer than it was for us as the U.S. Army Space and Missile Defense Command/U.S. Army Forces Strategic Command’s Soldier and Noncommissioned Officer of the Year. The hard work was not even close to over after we were selected to represent SMDC/ARSTRAT in the Sergeant Major of the Army’s Best Warrior Competition in October at Fort Lee, Va. As we prepared for that competition, there was plenty of hard work. It started months earlier with countless hours of PT [physical training], land navigation, Army Warrior Tasks, weapons, and of course studying regulations and manuals.

The sergeants major of SMDC/ARSTRAT had some top-rate, challenging training arranged for us at the operational headquarters in Colorado Springs, Colo. We spent two weeks in September at Fort Carson, Peterson Air Force Base, and the Air Force Academy training on anything and everything that might be thrown at us during the competition in Fort Lee. We spent three days at the range qualifying with the M4 from the foxhole, prone, kneeling and standing positions. We covered dozens of miles in full battle rattle practicing day and night land navigation, both with and without the PLGR [Precise Lightweight GPS Receiver]. We practiced our Modern Army Combatives in addition to regular morning PT.

On the weekends, we’d take all our gear and a 35-pound rucksack and head off for a ruckmarch through the Garden of the Gods. There was also extensive training on chemical, biological,



Photo by Sharon L. Hartman

radiation and nuclear attacks, improvised explosive devices, urban warfare, and the EST 2000 was used to help us practice our escalation of force and rules of engagement. We also had the M249, M240B, M2, and M9 readily available to practice disassembly, assembly and functions check. As to be expected from a world class organization such as SMDC/ARSTRAT, the teams in Colorado Springs did an incredible job.

So we’ve talked about working hard, but what about playing hard. This really began the moment we were announced as the winners of the SMDC/ARSTRAT competition. We were given hundreds of dollars in gift certificates and traveler’s checks, numerous coins and plaques, an ACU [Army camouflage uniform] assault pack, complete set of dress blues, and even an official Army Noncommissioned Officer sword.

Our first duty as the 2007 Soldier and Noncommissioned Officer of Year was to attend the uncasing of the colors at Redstone Arsenal, Ala. This was our first opportunity to see the outstanding team at Redstone and get a VIP tour of the Von Braun Complex. Just a short month later and we were back in Huntsville for the 2007 Space and Missile Defense Conference. The week began with a four-person best ball tournament where the SMDC/ARSTRAT Commanding General LTG Kevin T. Campbell, CSM Ralph C. Borja, 1st Space Brigade CSM Kevin McGovern, and SGT Mann shot a very respectful nine under par, just missing a top three finish.

2007 SMDC/ARSTRAT NCO of the Year SGT Patrick J. Mann



Photo courtesy Department of the Army

After competing in the Best Warrior Competition in October, we again had the opportunity to relax and have some fun in Washington, D.C., during the Association of the U.S. Army Conference. The first thing on After Cour agenda was a Potomac River Cruise sponsored by Gerber Knife. The fully catered, three-hour cruise was a salute to some of Americas Wounded Warriors with about 15 Soldiers from Walter Reed Hospital able to attend. We were lucky enough to have our family with us, and they were able to enjoy the cruise along with CSM Borja and his wife.

Tuesday evening was spent moving amongst the various hospitality suites sponsored by the numerous AUSA vendors. Throughout the night, CSM Borja introduced us to many of his friends and contemporaries. The culmination of the week was Wednesday night during the George C. Marshall dinner. Just before the dinner, we pinned on our VIP passes and walked the conference floor with CSM Borja, walking away with some of the best loot the AUSA conference had to offer.

Only 10 days after our time in D.C., we were off again, this time to the Kennedy Space Center in Cape Canaveral, Fla., to view the Space Shuttle Discovery launch. Once again we were able to link up with our families and CSM Borja for the activities. We were again given VIP passes, this time to tour the visitor center and museums, attend mission briefings from NASA officials, and view the launch. The night before the launch, we were invited by Army Astronaut COL Douglas Wheelock



2007 SMDC/ARSTRAT Soldier of the Year SGT Martin A. Jensen



Photo courtesy Department of the Army

to a reception in his name. It was a fun and festive evening as hundreds of people celebrated the achievements of this distinguished SMDC/ARSTRAT officer.

The next day was the much anticipated launch. We loaded the bus around 8:30 a.m. and headed out to our prime viewing location at Banana Creek. As the clock hit 10 seconds the crowd joined in and began counting down. At T-0, you could see the flames bursting out of the solid rocket boosters and the shuttle began to lift off the pad as hundreds of spectators cheered and yelled. Shortly after lift off, the sound waves finally made it across the water and shook everyone to their core as they watched in awe.

The shuttle was actually in view for about a minute and half, but at the same time it seemed to go by in a split second and take an eternity. This latest trip seemed to epitomize the entire experience that came with winning the titles of SMDC/ARSTRAT Soldier and Noncommissioned Officer of the Year. There were monumental challenges that were met and overcome, as well as amazing once in a lifetime opportunities given and taken.

All in all, it was an incredible journey that will not soon be forgotten. And, much like the shuttle launch, it seemed to take forever while simultaneously passing in the blink of an eye.

It was an experience that helped to define the lives and futures of these two very fortunate Soldiers who would not trade it for the world.



NCO

SSG David A. Engelhardt

2007 SMDC/ARSTRAT Western Region NCO of the Year
Runner up, 2007 SMDC/ARSTRAT NCO of the Year

Photos by Sharon L. Hartman

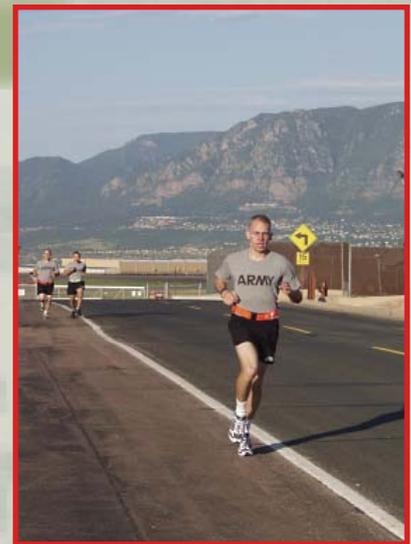
Delta Company,
53rd Signal Battalion (SATCON)
Camp Roberts, Calif.



Soldier

SPC James E. Cox

2007 SMDC/ARSTRAT Western Region Soldier of the Year



Headquarter and Headquarters Company,
53rd Signal Battalion (SATCON)
Schriever Air Force Base, Colo.

CANDIDATES



Soldier

SPC Joseph B. Knece

2007 SMDC/ARSTRAT Pacific Region Soldier of the Year
Runner up, 2007 SMDC/ARSTRAT Soldier of the Year

Charlie Detachment, 1st Space Company,
(Joint Tactical Ground Station - Pacific), 1st Space Battalion
Osan Air Base, Republic of Korea



Soldier

SPC Ericka A.W. Melius

2007 SMDC/ARSTRAT Eastern Region Soldier of the Year



Alpha Company,
53rd Signal Battalion (SATCON)
Fort Detrick, MD



BLUE FORCE TRACKING



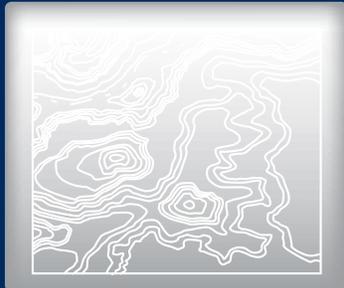
EARLY MISSILE WARNING



SATLLITE COMMUNICATIONS



SPACE SUPPORT



COMMERICAL IMAGERY



HOMELAND DEFENSE

SMDC / ARSTRAT

U.S.ARMY SPACE AND MISSILE DEFENSE COMMAND / U.S. ARMY FORCES STRATEGIC COMMAND

