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U.S. Army Space and Missile Defense Command/Army Forces Strategic Command publishes the Army Space Journal quarterly, with special editions as required. The publication consists of four sections, THE LEADING EDGE – Leadership Updates; TALKING SHOP – Space Topics; TIP OF THE SPHERE – Space Cadre News & Features; and FLIPSIDE – USASMDC Features & Briefs.

The Journal provides a forum through which Space and Missile Defense 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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2012 SELTC



★ SPACE ★ MISSILE DEFENSE

Army Space Journal - A Professional Journal

SELTC MINI EDITION

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Let the Discussions Begin (*and Continue*)

Years before 9/11 and our nation's two wars, a debate of sorts went on within the ranks about the roles of enlisted leaders. Some felt NCOs should stay in their traditional lanes of moving troops while others felt the broader perspectives from the enlisted force leads to more informed decisions. I remember an old sergeant major saying it like this: "I can talk to the old man about haircuts, moustache trims, and PT scores. Or, I can talk to him about discipline, fitness, and the mission our Soldiers perform." I always understood his meaning that enlisted leaders should provide credible perspective in shaping the work Soldiers will need to do.

Wars, I guess, cause personal, organizational, and national viewpoints to focus on what is important. Somehow, I sense that the pressures on our military complex and nation over the last few years have made the environment a bit more receptive to this broader approach. The stakes are just too high to move forward without everyone being "all in" on the fight and putting petty stereotypes aside. I cannot imagine a military or civilian leader today turning a closed ear to an informed viewpoint. Maybe it comes down to personalities, but the military-Army-cannot afford to revert to old ways as it transitions from war.

This is why the strategy announced in January by the President, Secretary of Defense, and Chairman of the Joint Chiefs of Staff demonstrates a huge step forward. It is a critical distinction that these leaders determined our nation's defense strategy to use as a guide for the Armed Services and others to use to decide on programs and services to keep or lose. The fact this came out before any announcement or actual cuts illustrates a shift in mentality. The old way was more along the lines of "here are your cuts, let us know what you can do with the money left, and we will put it all together to figure out the resulting strategy."

The point of change-this one in particular-is being effective, efficient, and relevant during some pretty difficult and crucial times. In fact, there is an absolute need for these characteristics. History from the Civil War, World Wars I and II, and those in Korea

and Vietnam give us examples of the struggles to re-establish a peacetime national defense structure. The Cold War in the relatively recent years helped polarize the national security environment and, in effect, provided a comfort that we would not have all-out war. So the nation's military rebuilding occurred with some stability factors that do not exist this time.

This could explain the different mindsets that are no longer beneficial as we go forward. The cost is too high for failure in a world no longer polarized by national powers-a world with the very real threat of 9/11. It also explains another dimension-a reconnection between the citizens and the military effort for the future. LTG Richard Formica alluded to this when he mentioned at a recent town hall the need for our Army to reconnect with America. He was giving his perspective of the gratitude shown in airports toward the men and women in uniform, saying that he felt Soldiers should travel TDY in uniform. He also advocated an understanding across the ranks-civilian and military-of the new defense strategy. He suggested-rightly- that everyone in military organizations should be aware of how their work connects to what the nation wants to achieve. I would add that by linking these two thoughts, the new strategy helps each and everyone clearly understand and articulate their roles to family, friends, and acquaintances.

Which explains the purpose of this special edition focused on the strategy and our Space and Missile Defense capabilities. We print two special editions each year: one for the Senior Enlisted Leaders Training Conference in the Spring and the other late Summer for the Space Cadre Symposium. This year, for the first time, we will distribute these editions to our entire reading audience. Our thought is that the information impacts the broader community. A case in point is the topic of this special edition for the enlisted leaders.

Happy reading.

And continue the dialogue.

Focus on Our Capabilities



LTG Richard
P. Formica

Commanding General
USASMDC/ARSTRAT

—the—
Leading
Edge.
Leadership
Updates

The 2012 USASMDC/ARSTRAT Senior Enlisted Leaders Training Conference again had an exciting program and reinforced our NCO leadership team as an integral part of the Army Profession. After the conference, there are three areas I want the command's Senior Enlisted Leaders to keep in sharp focus:

- Providing capabilities
- Selfless service
- Small unit leadership

Providing capabilities: Providing capabilities to the Warfighter has been and continues to be our focus at SMDC/ARSTRAT. Our three core tasks are all about providing capabilities.

- Provide trained and ready Space and Missile Defense forces and capabilities (today)
- Build future Space and Missile Defense forces and capabilities (tomorrow)
- Research, test, and integrate Space, missile defense, high altitude, directed energy and related capabilities (day after tomorrow)

Senior Enlisted Leaders play a vital role in achieving these tasks as you Run the Army ... and Run the command ... in all three components (Active, Guard, and Reserve) and at every level. For you providing capabilities is about becoming experts in your assigned duties; training your crews and your Soldiers; maintaining and accounting for your weapons and equipment; and ensuring small unit readiness.

Selfless service: Selfless service is the foundation of all that we do. Selfless service breeds trust. And trust is the vital element to unit cohesion.

As NCOs and Senior Enlisted Leaders, you are expected to set the example of selfless service. We all came into the Army for different reasons – but we stay when we discover the satisfaction that comes with being part of something that's bigger than self. You must inculcate and reinforce a notion of selfless service in your troops. It ain't about me – it's about what's good for the nation, our Army, the unit. As we draw down, mentor your young Soldiers and leaders to take the tough jobs – those Soldiers deserve good leaders too. It's all about service. Leadership is service.

Small unit leadership: As NCOs Run the Army and the command, you do so by providing small unit leadership. It's what you do. You are charged to lead, train, discipline, care for, and serve your Soldiers and their Families. And you take care of, maintain, and account for our weapons and equipment. As our Army

draws down, the force that remains must be trained and ready. You have a stake in that in our command.

Lead and train your Soldiers. Retain those who want to stay AND who we want to keep. Expect your Soldiers to be precise, confident, fit, disciplined, and courageous.

- Maintain your equipment. You will have it a long time. Insist on disciplined operator and unit level maintenance. Take care of what we have got.
- Enforce basic property accountability. Be good stewards of our property; ensure command supply discipline.
- Sustain innovative training programs. Challenge your Soldiers and your units. We may not have the training resources we would all like – but innovative leaders can and must train their small units – expert Soldiers, crews, platoons are the foundation of good units. Train them to standard.
- Develop tomorrow's leaders today. It takes a full generation to develop the next platoon sergeant, company 1SG, and battalion CSM. Develop your young leaders today. Whatever our resourcing challenges are – we must not take our focus off developing leaders.
- Send your Soldiers to leader development courses like Senior Leader Course, Advanced Leader Course, Warrior Leader Course.
- Encourage Civilian education.
- Take time for good old fashioned foot locker counseling. Invest in your young Soldiers – they will lead us through the difficult times ahead.
- Instill the battle buddy concept in all that we do. Soldiers caring for and looking out for one another. Deployed. On duty at home. Off duty. Battle buddies take care of each other.
- Trust your leaders; rely on your training; take care of each other – Soldiers and Families. Build resilient Soldiers and self-supporting Families. Our Family Readiness Groups will be more important and more relevant than ever in the years ahead.

Thanks for your decision to serve in our Army and to provide senior level leadership. We value who you are and what you do. In the end, it's all about providing Space and Missile Defense capabilities, being selfless servants, and providing tough, competent, courageous, and caring small unit leadership.



**CSM Larry
S. Turner**

**Command Sergeant Major
USASMDC/ARSTRAT**

—the—
**Leading
Edge.**
Leadership
Updates

Why Strategy Matters

Keeping an NCO Focus

This year's Senior Enlisted Leaders Training Conference brought with it a number of changes in the world that we all need to understand. These range from the new defense strategy, drawdowns in Iraq and Afghanistan, downsizing across our Army, and the defense budget cuts. All of these will have significant impacts across the military landscape, not only on the Army's enlisted force. So it's important for all Army leaders to understand and implement change in the most effective manner possible. As leaders, it is our responsibility to ensure we have a trained and ready force that can meet national security requirements today, tomorrow and the day after tomorrow.

I want our Space and Missile Defense NCOs to ensure that we have the best enlisted force capable of delivering our capabilities to the Army both as we process through change and when we reach the objective.

Here are a few thoughts to consider.

The Army recently completed a year-long effort studying the Profession of Arms; last year's SELTC theme focused on that. In the end, feedback from the Soldiers and Civilians helped the Army shape this concept to now be called "The Army Profession." GEN Odierno stated, "The Army as a Profession is important as we look toward the future; it will be the foundation of everything we want to do as we build the Army of the future. We've earned the trust of the American people through our actions over the last ten years and it's important that we continue to do that."

The Chief of Staff of the Army's guidance serves as an underlying theme as we implement the new Defense Strategy in the face of budget cuts and force reduction. Our greatest challenge as Army leaders is to ensure we make use of the lessons learned from previous drawdowns. Our Secretary of Defense, the Service Chiefs and other senior leaders across the DoD are continually making that point. Our challenge as senior enlisted leaders is to help them execute the guidance in the most effective manner, ensuring we don't hollow out the force, and that we retain a well-qualified mix of leaders and Soldiers.

This won't be easy for us; as we're trying to plan for the Army of 2020, there are also current

challenges that require attention from leaders at all levels. As we reduce the overseas deployments to Afghanistan, we must help our Soldiers and Families adapt to redeployment issues – to include medical needs, combat-related stresses, home station training and, for some, employment opportunities as they leave the Army. As senior enlisted leaders, one of our biggest challenges is to ensure our Soldiers understand the Army Profession – and exemplify the Army values every day.

One important element that we can shape is small unit leadership. This is where our Soldiers can be most impacted – positively or negatively. With over ten years of war, our small unit leaders have a vast amount of operational experience. We must help them refine those skills to include mentoring and professional development of our Soldiers. SMA Chandler's guidance to all of us: "...this is an opportunity for us to seek out and retain the best-qualified people for our Army and for the nation. It's our obligation to do that. And as sergeant major of the Army, my expectation is that NCOs are doing what they're supposed to do: to counsel their Soldiers, to develop their Soldiers and to help their Soldiers get better. And I'm also expecting them to enforce standards and discipline."

Looking to the future, the new Defense Strategy calls for a military that is agile, flexible, and ready for the full range of contingencies—with many challenges related to our missions in Space and Missile Defense Command. Our command's core tasks, to provide trained and ready Space and missile defense forces and capabilities for today, to build future Space and missile defense forces and capabilities for tomorrow, and to research and development capabilities for the day after tomorrow, are integral to the Defense Strategy. It is our job to ensure we execute our mission in the most effective and efficient manner possible, as we provide capabilities and develop public servants on behalf of our nation.

**The
Sun
Never
Sets on
USASMDC/
ARSTRAT**

Defense Strategy Builds for the Future, *Top Leaders Declare*



The following pages contain transcript statements from the President, Secretary of Defense, and Chairman of the Joint Chiefs of Staff on Jan. 5 announcing the new defense strategy. The strategy itself can be found at http://www.defense.gov/news/Defense_Strategic_Guidance.pdf



President Barack Obama *“Keeping America Strong and Secure”*

The United States of America is the greatest force for freedom and security that the world has ever known. And in no small measure, that’s because we’ve built the best-trained, best-led, best-equipped military in history, and as Commander-in-Chief, I’m going to keep it that way.

Indeed, all of us on this stage, every single one of us, have a profound responsibility to every Soldier, Sailor, Airman, Marine, and Coast Guardsman who puts their life on the line for America. We owe them a strategy with well-defined goals; to only send them into harm’s way when it’s absolutely necessary; to give them the equipment and the support that they need to get the job done; and to care for them and their families when they come home. That is our solemn obligation.

And over the past three years, that’s what we’ve done. We’ve continued to make historic investments in our military—our troops and their capabilities, our military families, and our veterans. And thanks to their extraordinary service, we’ve ended our war in Iraq. We’ve decimated al Qaeda’s leadership. We’ve delivered justice to Osama bin Laden, and we’ve put that terrorist network on the path to defeat. We’ve made important progress in Afghanistan, and we’ve begun to transition so Afghans can assume more responsibility for their own security. We joined allies and partners to protect the Libyan people as they ended the regime of Muammar Qaddafi.

In short, we’ve succeeded in defending our nation, taking the fight to our enemies, reducing the number of Americans in harm’s way, and we’ve restored America’s global leadership. That makes us safer and it makes us stronger. And that’s an achievement that every American, especially those Americans who are proud to wear the uniform of the United States Armed Forces, should take great pride in.

This success has brought our nation, once more, to a moment of transition. Even as our

troops continue to fight in Afghanistan, the tide of war is receding. Even as our forces prevail in today’s missions, we have the opportunity and the responsibility to look ahead to the force that we are going to need in the future.

At the same time, we have to renew our economic strength here at home, which is the foundation of our strength around the world. And that includes putting our fiscal house in order. To that end, the Budget Control Act passed by Congress last year, with the support of Republicans and Democrats alike, mandates reductions in federal spending, including defense spending. I’ve insisted that we do that responsibly. The security of our nation and the lives of our men and women in uniform depend on it.

That’s why I called for this comprehensive defense review—to clarify our strategic interests in a fast-changing world, and to guide our defense priorities and spending over the coming decade—because the size and the structure of our military and defense budgets have to be driven by a strategy, not the other way around. Moreover, we have to remember the lessons of history. We can’t afford to repeat the mistakes that have been made in the past—after World War II, after Vietnam—when our military was left ill prepared for the future. As Commander in Chief, I will not let that happen again. Not on my watch.

This review also benefits from the contributions of leaders from across my national security team—from the departments of State, Homeland Security, and Veterans Affairs, as well as the intelligence community. And this is critical, because meeting the challenges of our time cannot be the work of our military alone, or the United States alone. It requires all elements of our national power, working together in concert with our allies and our partners.

As we look beyond the wars in Iraq and Afghanistan, and the end of long-term nation-building with large military footprints, we’ll be able to ensure our security with smaller conventional ground forces. We’ll continue to get rid of outdated Cold War-era systems so that we can

FAR LEFT
President Barack Obama briefs the media Jan. 5 with Defense Secretary Leon E. Panetta at the Pentagon. Obama, Panetta, and GEN Martin E. Dempsey, chairman of the Joint Chiefs of Staff, delivered remarks on a defense strategy for the Department of Defense going forward. Secretary of the Army John M. McHugh and Army Chief of Staff GEN Raymond T. Odierno stand behind Panetta and Obama. Photo by Erin A. Kirk-Cuomo

invest in the capabilities that we need for the future, including intelligence, surveillance and reconnaissance, counterterrorism, countering weapons of mass destruction, and the ability to operate in environments where adversaries try to deny us access.

So, yes, our military will be leaner, but the world must know the United States is going to maintain our military superiority with armed forces that are agile, flexible, and ready for the full range of contingencies and threats.

Our men and women in uniform give their very best to America every single day, and in return they deserve the very best from America. And I thank all of you for the commitment to the goal that we all share: keeping America strong and secure in the 21st century, and keeping our Armed Forces the very best in the world.

Secretary of Defense Leon E. Panetta *“World’s Finest Military”*

This guidance that we are releasing, and which has been distributed now throughout the department, really does represent a historic shift to the future. And it recognizes that this country is at a strategic turning point, after a decade of war and after large increases in defense spending.

But even as our large-scale military campaigns recede, the United States still faces complex and growing array of security challenges across the globe. And unlike past draw downs when often-times the threats that the country was facing went away, the fact is that there remain a number of challenges that we have to confront, challenges that call for reshaping of America’s defense priorities: focusing on the continuing threat of violent extremism, which is still there and still to be dealt with; proliferation of lethal weapons and materials; the destabilizing behavior of nations like Iran and North Korea; the rise of new powers across Asia; and the dramatic changes that we’ve seen unfold in the Middle East.

All of this comes at a time when America confronts a very serious deficit and debt problem here at home, a problem which is itself a national security risk that is squeezing both the defense and domestic budgets. Even as we face these considerable pressures, including the requirement of the Budget Control Act to reduce defense spending by what we have now as the number of \$487 billion over ten years, I do not believe—and I’ve said this before—that we have to choose between

our national security and fiscal responsibility. The Department of Defense will play its part in helping the nation put our fiscal house in order.

As difficult as it may be to achieve the mandated defense savings, this has given all of us in the Department of Defense the opportunity to reshape our defense strategy and force structure to more effectively meet the challenges of the future: to deter aggression, to shape the security environment, and to decisively prevail in any conflict.

There are four overarching principles that have guided our deliberations, and I’ve said this at the very beginning as we began this process. One, we must maintain the world’s finest military, one that supports and sustains the unique global leadership role of the United States in today’s world.

Two, we must avoid hollowing out the force. A smaller, ready, and well-equipped military is much more preferable to a larger, ill-prepared force that has been arbitrarily cut across the board.

Third, savings must be achieved in a balanced manner, with everything on the table, including politically sensitive areas that will likely provoke opposition from parts of the Congress, from industry, and from advocacy groups.

Four, we must preserve the quality of the all-volunteer force and not break faith with our men and women in uniform or their families.

The United States military will remain capable across the spectrum. We will continue to conduct a complex set of missions ranging from counterterrorism, ranging from countering weapons of mass destruction, to maintaining a safe, secure, and effective nuclear deterrent. We will be fully prepared to protect our interests, defend our homeland, and support civil authorities.

Our goal to achieve the U.S. force for the future involves the following significant changes.

First, the U.S. joint force will be smaller, and it will be leaner. But its great strength will be that it will be more agile, more flexible, ready to deploy quickly, innovative, and technologically advanced. That is the force for the future.

Second, as we move towards this new joint force, we are also rebalancing our global posture and presence, emphasizing the Pacific and the Middle East.

Third, the United States will continue to strengthen its key alliances, to build partnerships, and to develop innovative ways to sustain U.S. presence elsewhere in the world. A long history of close political and military cooperation with our European allies and partners will be critical to addressing the challenges of the 21st century. We

We must maintain the world’s finest military, one that supports and sustains the unique global leadership.



Defense Secretary Leon E. Panetta speaks to the press about the new defense strategy as GEN Martin E. Dempsey, chairman of the Joint Chiefs of Staff, looks on at the Pentagon, Jan. 5, 2012.

Photo by Glenn Fawcett.

will invest in the shared capabilities and responsibilities of NATO, our most effective military alliance.

In Latin America, Africa, elsewhere in the world, we will use innovative methods to sustain U.S. presence, maintaining key military-to-military relations and pursuing new security partnerships as needed. Wherever possible, we will develop low-cost and small-footprint approaches to achieving our security objectives, emphasizing rotational deployments, emphasizing military exercises with these nations, and doing other innovative approaches to maintain a presence throughout the rest of the world.

Fourth, as we shift the size and composition of our ground, air, and naval forces, we must be capable of successfully confronting and defeating any aggressor and respond to the changing nature of warfare. Our strategy review concluded that the United States must have the capability to fight several conflicts at the same time. We are not confronting, obviously, the threats of the past; we are confronting the threats of the 21st century. And that demands greater flexibility to shift and deploy forces to be able to fight and defeat any enemy anywhere. How we defeat the enemy may vary across conflicts. But make no mistake, we will have the capability to confront and defeat more than one adversary at a time.

Lastly, as we reduce the overall defense budget, we will protect, and in some cases increase, our

investments in special operations forces, in new technologies like ISR and unmanned systems, in Space—and, in particular, in cyberspace—capabilities, and also our capacity to quickly mobilize if necessary. These investments will help the military retain and continue to refine and institutionalize the expertise and capabilities that have been gained at such great cost over the last decade.

The strategic guidance that we're providing is the first step in this department's goal to build the joint force of 2020, a force sized and shaped differently than the military of the Cold War, the post-Cold War force of the 1990s, or the force that was built over the past decade to engage in large-scale ground wars.

There is no doubt that the fiscal situation this country faces is difficult, and in many ways we are at a crisis point. But I believe that in every crisis there is opportunity. Out of this crisis, we have the opportunity to end the old ways of doing business and to build a modern force for the 21st century that can win today's wars and successfully confront any enemy, and respond to any threat and any challenge of the future.

Our responsibility—my responsibility as Secretary of Defense—is to protect the nation's security and to keep America safe. With this joint force, I am confident that we can effectively defend the United States of America.

It's a sound strategy. It ensures we remain the pre-eminent military in the world. It preserves the talent of the all-volunteer force.



GEN Martin E. Dempsey
Chairman of the Joint Chiefs of Staff
"We Will Win"

As chairman, it's my responsibility to work with the Joint Chiefs to ensure that the armed forces of the United States keep America immune from coercion. The strategy just described by the President and the Secretary of Defense enables us to fulfill that responsibility. It sustains the sacred trust put in us by the American people to defend them and our country.

This strategy emerges from a deeply collaborative process. We sought out and took insights from within and from outside the Department of Defense, to include from the intelligence community and other governmental departments. We weighed facts and assessments. We challenged every assumption. We considered a wide range of recommendations and counter-arguments. I can assure you that the steps we have taken to arrive

at this strategy involved all of this and much more.

It's a sound strategy. It ensures we remain the pre-eminent military in the world. It preserves the talent of the all-volunteer force. It takes into account the lessons of the last ten years of war. It acknowledges the imperative of a global, networked and full-spectrum joint force. And it responds to the new fiscal environment, though as a learning organization, it's important to note that even if we didn't have fewer resources, we would expect to change.

As a consequence, it calls for innovation, for new ways of operating and partnering. It rebalances our focus by region and mission. It makes important investments, as the Secretary noted, in emerging and in proven capabilities, like cyber and special operations.

Now, there's been much made—and I'm sure will be made—about whether this strategy moves away from a force structure explicitly designed to fight and win two wars simultaneously. Fundamentally, our strategy has always been about our ability to respond to global contingencies wher-

ever and whenever they occur. This won't change. We will always provide a range of options for our nation. We can and will always be able to do more than one thing at a time. More importantly, wherever we are confronted, and in whatever sequence, we will win.

We do accept some risks in this strategy as all strategies must. Because we will be somewhat smaller, these risks will be measured in time and in capacity. However, we should be honest. We could face even greater risks if we did not change from our current approach.

I'm pleased with the outcome. It's not perfect. There will be people who think it goes too far. Others will say it didn't go nearly far enough. That probably makes it about right for today. It gives us what we need in this world and within this budget to provide the best possible defense for our nation at a time of great transition. It prepares us for what we anticipate we will need in 2020.

This is a real strategy. It represents real choices. And I'm here today to assure you that it has real buy-in among our senior military and civilian leadership. This is not the strategy of a military in decline. This is a strategy and a joint force on which the nation can depend.

The real test, though, will be in execution. Fortunately, the young men and women who will be charged to carry out the lion's share of this strategy know something about leadership too. It's the very cornerstone of our profession, the profession of arms. And for the past ten years, they have done nothing but lead under the most difficult circumstances imaginable. And it's for that reason, above all others, that I'm absolutely convinced and fully satisfied that this strategy will meet our nation's needs for the future.



President Barack Obama walks with Defense Secretary Leon E. Panetta and GEN Martin E. Dempsey, chairman of the Joint Chiefs of Staff, to a Jan. 5 media briefing at the Pentagon. Obama, Panetta, and Dempsey delivered remarks on a new strategy for the Department of Defense.

Photo by Erin A. Kirk-Cuomo

DEFENSE BUDGET Priorities & Choices

Introduction

New Strategic Guidance to Budget Choices

The Defense Department's current strategic guidance was driven by the approaching end of a decade of war, a changing technological and geopolitical landscape, and the national security imperative of deficit reduction. The Department's investment choices for fiscal years 2013 to 2017 were derived from this guidance and conform to the 2011 Budget Control Act's requirement to reduce Defense Department future expenditures by approximately \$487 billion over the next decade or \$259 billion over the next five years. Reflecting these reductions, the Department will request funding of \$525 billion for fiscal year (FY) 2013, rising to \$567 billion by FY 2017.

Achieving these savings is hard but manageable. It is hard because we have to accept many changes and reductions in areas that previously were sacrosanct. Collectively, the changes align our investments to strategic priorities and budgetary goals, but individually, each one requires a difficult adjustment. It is manageable because the resulting joint force, while smaller and leaner, will remain agile, flexible, ready, innovative, and technologically advanced. It will be a force that is:

- Adaptable and capable of deterring aggression and providing a stabilizing presence, especially in the highest priority areas and missions in the Asia-Pacific region and the Middle East, while still ensuring our ability to maintain our defense commitments to Europe and other allies and partners
- Ready, rapidly deployable, and expeditionary such that it can project power on arrival
- Capable of defending the homeland and providing support to civil authorities
- Possessing cutting-edge capabilities that exploit our technological, joint, and networked advantage

- Able to reconstitute quickly or grow capabilities as needed
- Above all, manned and led by the highest quality professionals

Historical Context

After every major conflict, the U.S. military has experienced significant budget draw downs. The new budget level for the Defense Department will rise from FY 2013 to FY 2017; however, total U.S. defense spending, including both base funding and war costs, will drop by about 22 percent from its peak in 2010, after accounting for inflation. By comparison, the seven years following the Vietnam and Cold War peak budgets saw a similar magnitude of decline on the order of 20 to 25 percent.

However, there are several significant differences between the circumstances we face today and the post-Cold War drawdown. On the positive side, in contrast to the end of the Cold War when the reductions came entirely out of the base defense budget, under the new plan the base budget will roughly match or slightly exceed inflation after FY 2013. The cuts from today's overall defense spending levels are coming primarily from reduced war-related requirements and are reflected in lower Overseas Contingency Operations (OCO) budget levels. On the other hand, while the Cold War drawdown occurred as America's major military rival was in severe decline, today the U.S. military is still fighting in Afghanistan, countering violent extremism in other areas, and confronting a variety of emerging security challenges. Moreover, the post-Cold War drawdown was preceded by a decade-long defense build-up that emphasized procurement and modernization, resulting in a smaller but mostly new, relatively unused, and technically superior inventory of U.S. military equipment. By contrast, notwithstanding the large budget increases in the base defense budget over the past decade—including funding for weapons development and acquisition—we still have

We will resist the temptation to sacrifice readiness in order to retain force structure, and will in fact rebuild readiness in areas that, by necessity, were de-emphasized over the past decade.

— DOD Strategic
Guidance, January
2012

significant gaps in modernization that will need to be filled in coming years.

In preparing this budget, we endeavored to avoid the mistakes of previous draw downs that attempted to maintain more force structure than the budget could afford. Readiness suffered as a result, leading to a hollow force, which took years of investment to reverse. Our approach to readiness recognizes that after a decade of focus on counter-insurgency operations, the U.S. armed forces must re-hone other capabilities needed for a wider spectrum of missions and adversaries.

Protecting readiness also requires resetting damaged and worn equipment after years of war. Though this budget seeks to meet all of these compelling (and competing) demands, this is an area that will require continued monitoring.

Complete, Balanced Package

As a result of a thorough process that was guided by the strategy and that left no part of the budget unexamined, we have developed a well-rounded, balanced package. There is no room for modification if we are to preserve the force and capabilities that are needed to protect the country and fulfill the missions of the Department of Defense. A change in one area inevitably requires offsetting changes elsewhere, unbalancing the overall package. This package includes reductions across the following three areas that form the outline of this paper.

- More disciplined use of defense dollars
- Strategically driven shifts in force structure and modernization
- The All Volunteer Force

More Disciplined Use of Defense Dollars

In developing the President's budget request for FYs 2013 to 2017, we first turned to where DOD could reduce excess overhead, operations expenses, and personnel costs across the defense enterprise, and achieve better buying power in our acquisition of systems and services. As careful stewards of the American taxpayer's dollars, DOD's leaders should take these actions irrespective of budget pressures. Clearly, the more savings realized in this area, the less spending reductions required for modernization programs, force structure, and military compensation.

This was a continuation of the effort begun in 2010, which identified more than \$150 billion in savings over five years allocated among the three military departments, the defense agencies, combatant commands, and the Secretary's staff. This left less room for additional reductions to meet the new target of \$259 billion over FYs 2013 to 2017. Nonetheless, we did find about \$60 billion in new projected savings over FYs 2013 to 2017. Examples include:

- More skillful contracting practices to increase competition, reduce costs, and increase buying power
- Better use of information technology
- Better use of business and enterprise systems
- Streamlined staff
- Limitations on official travel
- Better inventory management
- Reductions in contract services
- Deferral of some military construction to align our facilities more closely with the size and posture of our future force
- Reductions in planned civilian pay raises

Beyond the roughly \$60 billion in efficiencies and overhead savings, we eliminated a number of poorly performing programs described later in the paper. The proposed force structure reductions described below also suggest the need for a corresponding reduction in the military's facilities infrastructure. We cannot afford to sustain infrastructure that is excess to our needs in this budget environment. Therefore, the President will request that Congress authorize use of the Base Realignment and Closure process with a goal of identifying efficient savings that can be reinvested in higher priorities as soon as possible.

Application of Strategic Guidance to Force Structure & Investment

It is not possible to accommodate a budget reduction of the magnitude called for by the Budget Control Act without scaling down force structure and delaying, decreasing, or in some cases

The Department must continue to reduce the "cost of doing business" ... before taking further risk in meeting the demands of the strategy.

— DOD Strategic Guidance, January 2012

We will of necessity rebalance toward the Asia-Pacific region ... the United States will continue to place a premium on U.S. and allied military presence in—and support of—partner nations in and around [the Middle East].

— DOD Strategic Guidance, January 2012

eliminating investments. The strategic guidance was written to guide these reductions in a manner that minimizes the risk to our ability to protect U.S. interests in an evolved national security environment.

The Department's leadership and subject matter experts assessed the potential strategic, military and programmatic risks associated with each budget decision in accordance with five major tenets within the President's strategic guidance.

- I. Rebalance force structure and investments toward the Asia-Pacific and Middle East regions while sustaining key alliances and partnerships in other regions
- II. Plan and size forces to be able to defeat a major adversary in one theater while denying aggression elsewhere or imposing unacceptable costs
- III. Protect key investments in the technologically advanced capabilities most needed for the future, including countering anti-access threats
- IV. No longer size active forces to conduct large and protracted stability operations while retaining the expertise of a decade of war
- V. To the extent possible, structure major adjustments in a way that best allows for their reversal or for regeneration of capabilities in the future if circumstances change

I. Rebalance Toward the Asia-Pacific and Middle East Regions

Asia-Pacific/Middle East Emphasis

The focus on the Asia-Pacific region places a renewed emphasis on air and naval forces while sustaining ground force presence. The Middle East has been dominated by ground force operations over the last decade; however, as we gradually transition security in Afghanistan and reestablish peacetime ground force presence, this region will also become increasingly maritime. Therefore we:

- Maintained the current bomber fleet
- Maintained the aircraft carrier fleet at 11 ships and 10 air wings
- Maintained the big-deck amphibious fleet
- Sustained Army and Marine Corps force structure

in the Pacific, while maintaining persistent presence in the Middle East

- Budgeted to forward station Littoral Combat Ships in Singapore and patrol craft in Bahrain
- Funded development of a new afloat forward staging base that can be dedicated to support missions in areas where ground-based access is not available, such as counter-mine operations

For these forces to remain capable, we had to invest in capabilities required to maintain our military's continued freedom of action in the face of new technologies designed to frustrate access advantages. Consequently, we increased or protected investment in capabilities that preserve the U.S. military's ability to project power in contested areas and strike quickly from over the horizon, including:

- Funding for the new bomber
- Design changes to increase cruise missile capacity of future Virginia-class submarines
- Design of a conventional prompt strike option from submarines
- Upgraded radars for tactical aircraft and ships
- Improved air-to-air missiles
- New electronic warfare and communications capabilities

To ensure sufficient resources to protect these strategic priorities, we will reduce the number of ships by slowing the pace of building new ships and by accelerating the retirement of some existing ships. These include:

- Retiring seven cruisers early—six did not have ballistic Missile Defense (BMD) capability, and the seventh with BMD capability is in need of costly hull repairs
- Slipping a large deck amphibious ship (LHA) by one year
- Slipping one new Virginia class submarine outside the Future Years Defense Program (FYDP)
- Reducing Littoral Combat Ships by two ships in the FYDP
- Reducing Joint High Speed Vessels by eight in the FYDP
- Retiring two smaller amphibious ships (LSD) early and moving their replacement outside the FYDP

With respect to tactical air forces, we concluded that DOD could, at minimal risk, disestablish six Air Force tactical-air fighter squadrons (out of 60) and one training squadron. As we reduce Air Force structure, we are protecting aircraft with multi-role capabilities versus niche capabilities. The resultant force will be capable of handling our most demanding contingency plans including homeland defense.

Europe & Global Partnerships

We will continue to invest in our responsibilities to the NATO alliance. We will adjust the posture of land forces in Europe in concert with overall Army transformation including eliminating two heavy brigades forward-stationed there. DOD will nevertheless maintain NATO Article 5 commitments and ensure interoperability with allied forces by allocating a U.S.-based brigade to the NATO Response Force and by rotating U.S.-based units to Europe for training and exercises. We will also forward station ballistic Missile Defense ships in Rota, Spain.

Across the globe we will seek to be the security partner of choice, pursuing new partnerships with a growing number of nations including those in Africa and Latin America. Whenever possible, we will develop innovative, low-cost, and small-footprint approaches to achieve our security objectives, relying on exercises, rotational presence, and advisory capabilities. We will preserve our key partnership development efforts, including:

- “Smart Defense” NATO initiatives such as Alliance Ground Surveillance
- National Guard State Partnership Program
- Five Regional Centers for Strategic Study that provide relationship-building opportunities to international students
- Combatant command Exercise and Engagement program that funds participation in exercises with partner nations
- Global Security Contingency Fund in conjunction with the State Department Security Force Assistance Program

Additionally, the gradual drawdown of the post 9/11 wars will release more Special Operations Forces capacity to partner in other regions. Furthermore, though the Army will decrease its current European footprint by two heavy brigades, it will establish and maintain a new rotational presence in Europe and capitalize on existing training opportunities with our

allies and partners. The Army will also align Brigade Combat Teams with each regional Combatant Command—establishing language and cultural expertise to better shape the security environment.

II. Confronting Aggression

Reduced force structure will result in less capacity to conduct operations in multiple regions. Accordingly, the strategic guidance calls for a fresh approach to the traditional “two war” force-sizing construct that had shaped defense planning since the end of the Cold War. If we are engaged in a major combat operation in one theater, we will have the force necessary to confront an additional aggressor by denying its objectives or imposing unacceptable costs. This evolution not only recognizes the changing nature of the conflicts in which the United States must prevail, but it also leverages new concepts of operation enabled by advances in Space, cyberspace, special operations, precision-strike, and other capabilities.

This strategic precept puts a premium on self- and rapidly-deployable forces that can project power and perform multiple mission types. This reinforces the need to maintain existing numbers of aircraft carriers, large-deck amphibious ships, and bombers. Furthermore, as the Marine Corps withdraws from the ground in Afghanistan, it will return to an afloat posture, with the capability to rapidly respond to crises as they emerge. These choices are consistent with our strategic emphasis on the Asia-Pacific region and the Middle East, but are applicable anywhere on the globe where U.S. national security or vital interests are threatened.

Mobility Aircraft Implications

The strategic guidance places a premium on forces present or able to rapidly reposition to deter aggression and respond as needed. It recognizes that we do not need to retain the airlift capacity to support two large, simultaneous and rapidly developing ground campaigns. When faced with competing demands, we can prioritize and phase movements. Air mobility studies have also shown significant excess capacity in the U.S. airlift fleets. As a result we are reducing the airlift fleet by:

- Retiring 27 aging C-5As, resulting in a fleet of modernized 52 C-5Ms and 222 C-17s
- Retiring 65 of the oldest C-130s, resulting in a fleet of 318 C-130s
- Divesting 38 C-27s

Most European countries are now producers of security rather than consumers of it ... our posture in Europe must also evolve.

— DOD Strategic Guidance, January 2012

We have sought to differentiate between those investments that should be made today and those that can be deferred.

— DOD Strategic Guidance, January 2012

These reductions enable the Department to streamline and standardize our airlift fleet by reducing the number of different types and eliminating the need to operate, sustain, and maintain aircraft excess to the requirements of the new strategy. Even when supporting a major war, we will have the lift available to move additional capability to another region.

Strategic Deterrence

Under the new strategic guidance, we will maintain a safe, secure, and effective nuclear deterrent. This budget protects all three legs of the Triad—bombers that provide both conventional and nuclear deterrence, intercontinental ballistic missiles, and ballistic missile submarines. To this end, we are committed to the procurement of a new bomber. However, we will delay the new Ohio submarine replacement by two years without undermining our partnership with the United Kingdom. While this delay will create challenges in maintaining current at-sea presence requirements in the 2030s, we believe this risk can be managed. An ongoing White House review of nuclear deterrence will address the potential for maintaining our deterrent with a different nuclear force.

III. Protect New Capabilities & Investments

Although our force will be smaller, it will employ both lessons from recent conflicts and new technologies developed to confront the most lethal and disruptive threats of the future. Meeting the requirements of the new strategic guidance entailed increasing funding for a few key capabilities while protecting others at existing levels or making comparatively modest reductions. Inevitably, investing in these high-priority areas requires deeper offsetting reductions in areas of lesser priority.

Counter-terrorism. Because we will continue to be engaged in counter terrorism operations around the globe, we protected key components of the force that are adept in executing this mission:

- **Special Operations Forces**—critical to U.S. and partner counter terrorism operations and a variety of other contemporary contingencies
- **Unmanned Air Systems**—fund enough trained personnel, infrastructure, and platforms to sustain 65 USAF MQ-1/9 combat air patrols with a surge capacity of 85. The Predator aircraft was retained longer than previously planned, allowing us to

slow the buy of the Reaper aircraft and gain some savings. We also protected funding for the Army's unmanned air system, Gray Eagle

- **Sea-based unmanned intelligence, surveillance and reconnaissance (ISR) systems** such as Fire Scout—important ISR assets where ground basing is not available
- **Advanced ISR**—new unmanned systems with increased capabilities

Cyber operations. The strategic guidance highlights the increasing importance of cyber operations. As a result, cyber is one of the few areas in which we actually increased our investments, including in both defensive and offensive capabilities.

Power projection. Our ability to project power is a key component of our strategic guidance. We protected important capabilities like the new bomber, upgrades to the small-diameter bomb, aircraft carriers, surface combatant modernization, and cyber capabilities. We also protected capabilities that allow us to project power in denied environments. In addition to those discussed earlier, such as funding for the new bomber and increasing the cruise missile capacity of future submarines, we protected anti-submarine warfare and counter-mine capabilities.

Missile defense. Missile Defense programs provide the capability to defend our homeland, support our allies, and protect U.S. military forces when operating in regions across the globe. Despite its importance, we were not able to protect all of the funding in this area. We protected investments in homeland defense and the Phased Adaptive Approach for Missile Defense in Europe aimed at protecting our allies. We reduced spending and accepted some risk in deployable regional Missile Defense and will increase reliance on allies and partners in the future.

Space systems. Space systems are critical to our surveillance, communications, positioning, and networking capabilities. Therefore, we protected funding for upgrades to the Global Positioning System, the Space Based Infrared System, and the Advanced Extremely High Frequency satellite programs.

Counter weapons of mass destruction. We protected investment in this area and expanded its scope in the area of biological weapons.

Science and technology. The Department believes that accelerating trends in both technology development and a dynamic threat environment dictate that we must maintain our edge by protecting our investments in development of future capabilities. As such, science and technology programs are largely protected within this budget.

Reasonable Reductions/Responsible Risks

In order to sustain the highest priority investments, we made substantial reductions to programs that:

Are experiencing schedule, cost, or performance issues:

- Joint Strike Fighter—committed to the JSF program of record that includes all three variants, but slowed procurement to complete more testing and make developmental changes to minimize concurrency issues before buying in significant quantities
- Army Ground Combat Vehicle—delayed by protest, thus freeing up available funding for other priorities
- Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System—curtailed due to concerns about program cost and operational mobility

Are offering or augmenting capability that already exists, but at significantly higher cost:

- Joint Air-to-Ground Munition—significantly reduced, but limited funding sustained to enable lower cost alternatives such as Hellfire
- Global Hawk Block 30—terminated

Are entering service before they are needed:

- Defense Weather Satellite System—terminated because premature to need
- Army aviation—delayed helicopter modernization by three to five years

Or are deemed excess to requirements:

- Commercial satellite imagery—reduced purchases for capacity excess to requirements, will still be substantially increasing coverage beyond today's capability
- High Mobility Multipurpose Wheeled Vehicles—terminated upgrades and focused modernization resources on the Joint Light Tactical Vehicle

IV. Forces Not Sized for Long-Term Stability Operations

In response to the demands of the Afghanistan and Iraq campaigns, active Army end-strength increased by 95,000 and Marine Corps end-strength by 30,000.

The U.S. military commitment in Iraq is complete and a security transition in Afghanistan is under way. In this budget, we plan to reduce the size of the active Army from a post-9/11 peak of about 570,000 in 2010 to 490,000 and the active Marine Corps from a peak of about 202,000 to 182,000. The Army plans to remove at least eight brigade combat teams from its existing structure; however, the future organizing construct of the Army is under review. Even with these reductions, the Army and Marine Corps will be larger than they were in 2001.

While the United States does not anticipate engaging in prolonged, large-scale stability operations—requiring a large rotation force—in the near- to mid-term, we cannot rule out the possibility. If such a campaign were to occur, we would respond by mobilizing the Reserve Component and, over time, regenerating Active Component end strength. Additionally, even as troop strength draws down, the Army, Marine Corps, and U.S. Special Operations Command will preserve expertise in security force assistance and counterinsurgency training.

These lessons apply to procurement as well; for example, the kind of troop transport vehicles needed to succeed and survive in an irregular warfare environment are included in the Army and Marine Corps modernization plans.

V. Protecting the Potential for Future Adjustments

We will retain, to the extent possible, the ability to adjust or reverse force structure and modernization changes being made today to preserve flexibility for tomorrow. The Army and Marine Corps are both working to retain a slightly more senior force by retaining mid-grade noncommissioned officers and commissioned officers even as their overall end strength decreases. The Army is preserving the organizational structure and training force upon which it may build if required. In this way, they will have the structure and cadre of experienced leaders necessary to build upon if we have to re-grow the force quickly.

Reserve Component

A smaller active force requires a capable and ready Reserve Component. Among other applications, a strong Reserve Component is a vital element of the concept of reversibility embedded in the strategic guidance. Consequently, we are making only

The Joint Force ... will have cutting edge capabilities, exploiting our technological, joint, and networked advantage ...

— Cover Memo, DOD Strategic Guidance, January 2012

Our planning envisages forces that are ... able to secure territory and populations and facilitate a transition to stable governance on a small scale for a limited period .

-DOD Strategic Guidance, January 2012

marginal reductions in the Army Reserve and Army National Guard and no reductions to the Marine Corps Reserve. Furthermore, we will leverage the operational experience and institute a progressive readiness model in the National Guard and Reserves in order to sustain increased readiness prior to mobilization. In particular, we will maintain key combat support capabilities such as sustainment as well as combat service support capabilities such as civil affairs maintained at a high readiness level in the Reserve Component. Similarly, the Air Force is balancing the size of its reserve and active components, including aircraft and manpower reductions, and adjusting the alignment of missions and installations to sustain the operational Reserve Component for the long term. The Air Force will augment the readiness of their reserves by increasing Active-Reserve Component associations.

Industrial Base Skills

Some domestic manufacturers have key skills in the design and manufacture of military systems that cannot be duplicated elsewhere in the economy or regenerated quickly. In support of the strategic guidance's tenet of reversibility, this budget plan sustains, where possible, these segments of the industrial base. However, the industrial base will require careful monitoring in the future. For example, adding the afloat forward staging base addresses urgent operational shortfalls and will help sustain the shipbuilding industry in the near-term and mitigate the impact of reducing ship procurement in the FYDP.

The All Volunteer Force

The All Volunteer Force is the foundation of our military and vital to the security of our nation. But the cost of military personnel has grown at an unsustainable rate over the last decade. Including wartime funding or OCO appropriations, military personnel costs have doubled since 2001, or about 40 percent above inflation, while the number of full-time military personnel, including activated reserves, increased by only 8 percent during the same time period. Within the base budget alone (i.e., excluding wartime funding or OCO) during this same time period personnel costs increased by nearly 90 percent, or about 30 percent above inflation, while the number of military personnel has increased by only about 3 percent.

In order to avoid unacceptable additional cuts in force structure or investments that could threaten our ability to execute the strategic guidance under the new budget constraints, DOD addressed the growth of personnel-related costs while keeping in mind that:

- The core of the U.S. military is our All Volunteer Force
- Military life entails unique challenges and stresses
- War-related deployments of the past decade have put extraordinary demands on many troops and their families

Wounded Warriors, Families, & Transitioning Veterans

This budget plan sustains or enhances key support programs while reforming and re-organizing others to be more effective and responsive to the needs of troops and their families:

- Wounded Warriors—extra funding added in the base and OCO budgets to enhance the Integrated Disability Evaluation System
- Transition Assistance—reform of the Transition Assistance Program and transition process for all service members through a collaborative DOD-Department of Veterans Affairs initiative that improves career opportunities and readiness focusing on education, technical training, job placement, and entrepreneurship preparation
- Family Support—effective programs sustained, expanded, or improved, including non-clinical counselors, marriage support, new patient support, and stress-reducing recreation for returning troops
- Psychological Health—programs sustained and particularly effective programs, such as those addressing traumatic brain injury and post-traumatic stress disorder, were significantly expanded
- Reserve Component Support—DOD's Yellow Ribbon Integration Program, which provides services and referrals to reservists, guardsmen, their families, and their employers through each stage of the mobilization cycle
- DOD Schools—facilities being restored and modernized
- Military Commissary System—current number and distribution of stores maintained

Compensation & Benefits

Reductions in the rate of growth in spending on military compensation and other personnel-related costs and benefits in the budget are significantly less than their share of total defense spending. Military compensation and benefits currently account for roughly one-third of the defense budget; however, the changes we are making in compensation and benefits account for about one-ninth of the total budget reductions we are making.

As the strain of deployments on a force that has served and sacrificed for over a decade of war are reduced—and the demands on recruitment and retention ease—we have an opportunity to address personnel costs in a way that is fair, transparent, and consistent with DOD's primary responsibility to protect the nation. These proposals are fully supported by the U.S. military's uniformed leadership.

Military Pay. Instead of reducing military pay, we created sufficient room to allow full pay raises in 2013 and 2014 to keep pace with increases in private sector pay. We will achieve some cost savings by providing more limited pay raises beginning in 2015. This will give troops and their families fair notice and lead time before these proposed changes take effect. We will, therefore, achieve some savings in the later years to invest in force structure and modernization. Despite this change, military personnel will see their pay check increase every year across the FYDP.

Health Care. Military health care has seen rapid growth relative to the rest of the defense budget. Most of the changes made in this budget will not affect active duty personnel or their families. We are also exempting medically retired and survivors of those who died on active duty from all health care changes. Those most affected will be working-age retirees under the age of 65 still likely to be employed in the civilian sector. These proposed changes include:

Further increasing and adding new enrollment fees for retirees under age 65 in the TRICARE program, using a tiered approach based on retired pay that requires senior-grade retirees to pay more and junior-grade retirees less; the resulting fees remain below comparable civilian equivalents

Establishing a new enrollment fee for the TRICARE-for-Life program for retirees 65 and older, again using a tiered approach; the resulting fees will be well below comparable civilian equivalents

Implementing additional increases in pharmacy co-pays in a manner that increases incentives for use of generics and mail order

Retirement. We will ask the Congress to establish a commission with Base Realignment and Closure-like authority to conduct a comprehensive review of military retirement in the context of total military compensation. The goal of the commission would be to recommend changes in order to meet the personnel needs of the DOD in a cost effective manner. DOD strongly supports protecting the retirement benefits of those who currently serve by grandfathering their benefits. Any reforms should only affect future recruits.

Conclusion

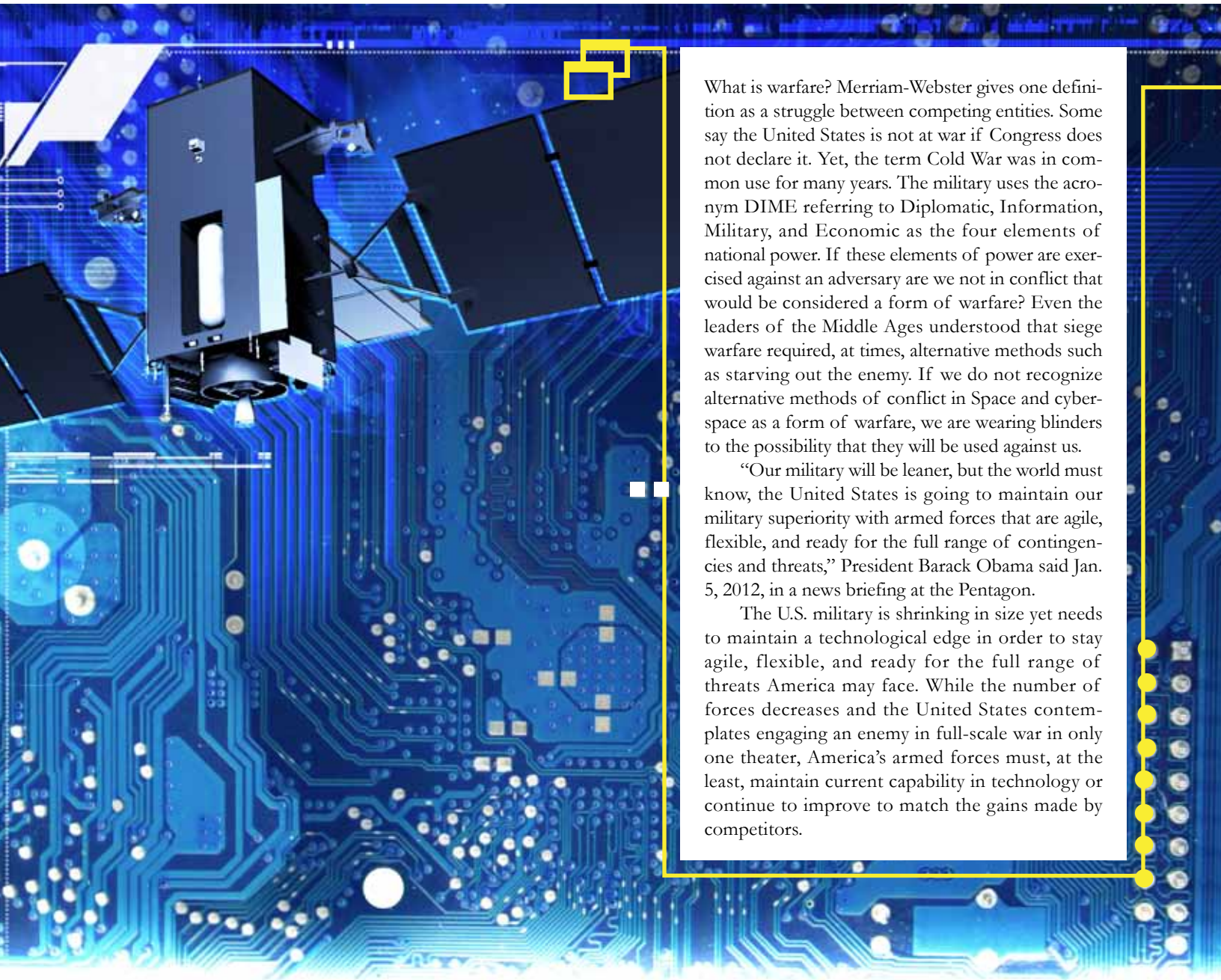
Clearly the Department was required to make difficult choices in order to provide a balanced force within the constraints of the Budget Control Act. These budget reductions are not without risk, but they were made in a judicious and considered way and guided by sound strategic guidance. The FY 13 budget sets the direction for an ongoing process of adaptation, resulting in a Joint Force of 2020. The Joint Force of 2020, while leaner and smaller, will remain agile and ready, comprised of professional Soldiers, Sailors, Airmen, and Marines employing cutting-edge technology. It will remain the strongest military force in the world, fully capable of protecting America's national security and global leadership in the years to come.

The men and women who comprise the All Volunteer Force have shown versatility, adaptability and commitment ... as the Department reduces the size of the force, we will do so in a way that respects [their] sacrifices.

— DOD Strategic Guidance, January 2012

Space & Cyberspace in a *Leaner* Military

BY LTC ROBERT E. BERG



What is warfare? Merriam-Webster gives one definition as a struggle between competing entities. Some say the United States is not at war if Congress does not declare it. Yet, the term Cold War was in common use for many years. The military uses the acronym DIME referring to Diplomatic, Information, Military, and Economic as the four elements of national power. If these elements of power are exercised against an adversary are we not in conflict that would be considered a form of warfare? Even the leaders of the Middle Ages understood that siege warfare required, at times, alternative methods such as starving out the enemy. If we do not recognize alternative methods of conflict in Space and cyberspace as a form of warfare, we are wearing blinders to the possibility that they will be used against us.

“Our military will be leaner, but the world must know, the United States is going to maintain our military superiority with armed forces that are agile, flexible, and ready for the full range of contingencies and threats,” President Barack Obama said Jan. 5, 2012, in a news briefing at the Pentagon.

The U.S. military is shrinking in size yet needs to maintain a technological edge in order to stay agile, flexible, and ready for the full range of threats America may face. While the number of forces decreases and the United States contemplates engaging an enemy in full-scale war in only one theater, America’s armed forces must, at the least, maintain current capability in technology or continue to improve to match the gains made by competitors.

Maintaining the current level of technological capability, the minimum needed to remain a leader in the short term, would lead to a gradual shrinking of how the United States matches up against near peers such as China. New fields of warfare such as cyber will continue rapid development globally regardless of American military progress in the area. New developments in technology open up new military targets of opportunity, including on the civilian front. For example, Russia's actions in Georgia a few years ago demonstrated how cyber warfare can enhance conventional operations. If the United States does not continue to adapt to the changes in warfare, it risks being left behind.

History is full of examples of armies and nations succumbing to others because they did not adapt. The success of static defensive lines in World War I and lack of forethought concerning speed of maneuver, enabled by armored vehicle combat, led France to create the fixed-in-place Maginot line. Marshal Henri Petain, a French war hero and minister of defense in the mid-1930s, said, "They shall not pass." The Maginot line was in fact useless, as it was bypassed by the invading German military in 1940. Failure to adapt to new methods of warfare can result in obsolescence of what seems to be a great military construct.

Where does the United States stand concerning changes in the world and adapting to what is coming in the future for warfare? The cyber domain is one example of an area that is just beginning to be explored as a new field of combat where old methods can be bypassed. Continued development is needed as attacks are becoming commonplace and their impact can be great. The integrated global community relies upon being linked via the Internet. Money flows through cyberspace and can be hijacked. Infrastructure systems are linked via the Internet and can be attacked. Cyber attacks can result in denial of military capability.

America must not sit back and let others bypass us while we remain fixed in older methods of warfare, like the Maginot line. The

United States is seeking to adapt, having established U.S. Cyber Command. The 2013 presidential budget proposal includes full funding for the Justice Department's Comprehensive National Cybersecurity Initiative, \$769 million for the Department of Homeland Security National Cyber Security Division, and significant funding for Department of Defense cyberspace programs.

Economic warfare also is being used more often. It is the preferred approach by the United Nations, through implementation of sanctions. Iran is a current subject of sanctions applied by the European Union and the United States. President Obama recently stated sanctions were "so effective that even the Iranians have had to acknowledge that their economy is in shambles." With a linked global economy, economic warfare is likely to continue to be of increasing importance. Aggressor nations will seek to remain anonymous whenever possible, for reprisals can be costly in the cyber and economic realms. America's military needs to be concerned about adversary developments in these areas and their ability to remain hidden when conducting attacks.

The next generation of conflict also will involve attacks against U.S. Space-based assets. These valuable targets are ripe for exploitation. Modern warfare is greatly enabled by Space assets. Intelligence, surveillance, and reconnaissance (ISR) by Space-based platforms allow for reductions in manpower that would be needed to collect the same information with other platforms. Space-based ISR is also very important in meeting the anticipated operational environment as outlined in Army Doctrine Publication 3-0, Unified Land Operations. According to the document, U.S. forces must be able to project power into a region while being opposed. Space assets are of high importance when entering a region opposed. Space-based communication is required when there is not sufficient time or forces on the ground in advance to establish other conventional means of long-range communication. Position, navigation, and timing have become dependent

Where does the United States stand concerning changes in the world and adapting to what is coming in the future for warfare?

Moving to a leaner force also means the value will increase of Space and cyber warfare assets as a force enabler and force multiplier.

on Space-based assets in the military and the civilian community. Warning of adversary movements in opposition to front-line U.S. forces is highly dependent on Space-based assets. The integrated structure for missile warning also is heavily reliant on Space-based assets.

Overall, an adversary has the potential to deal severe blows to military operations and crippling blows to the nation through attacks against Space-based assets. These forms of attack are likely to increase in future conflicts because the payoff for adversaries can be large. These attacks may have temporary effects that do not bring international condemnation, so the United States may not be able to respond easily through conventional means. Attacks also may be difficult to attribute to the responsible actor. The ability to identify the aggressor and effectively counter or respond are keys in this form of warfare. Methods to attribute and respond are not always simple to achieve and need further development.

The United States has not fully developed and applied large-scale methods to defend Space-based assets. There have been some limited events affecting the United States such as denial of satellite broadcasts against the Voice of America, disrupting links to an unmanned vehicle overflying Iran, and localized GPS interference. Will the United States be able to identify future culprits responsible for cyber attacks, or those who deny satellite communications or blind satellite reconnaissance? There is still much work to be done in these new areas of warfare. With a move to fight only one major conventional conflict, focus on conventional warfare is implied. In the meantime, a war is occurring with continuous fighting in the domains of Space and cyberspace.

The Space and cyber fight is strongly linked to the U.S. potential to continue as a leader in conventional warfare. In demolition, the best way to collapse a structure is to cut away the supporting structure rather than poking holes in the walls. The analogy applies to American dependence on modern technology. Cyber and Space attacks against the supporting structure can take down the walls. For example, new combat systems tend to rely heavily on Space. Unmanned vehicles were a primary area of explosive growth for the United States during the conflicts in Iraq and Afghanistan. They typically require Space-based links to operate. A robust communications network is needed

should adversaries decide to target command and control in the easiest way possible, by jamming the communications link.

Growth in unmanned vehicle usage is likely to continue. It is quite cost effective to fly an unmanned aircraft that does not require a human occupant. Developments in artificial intelligence (AI) and autonomous systems will become important in supporting unmanned vehicle use and potential in warfare. In the future, when communication links are hampered, the unmanned vehicle must do more than just circle until its fuel is exhausted. AI and autonomy also will be a future cost saver. If a pilot who currently operates a single unmanned aircraft can instead operate a coordinated group of unmanned vehicles, the cost savings in manpower alone are significant. We already have seen some of this autonomous type of AI being developed for weapon systems such as the now-cancelled Army Tactical Missile System Brilliant Anti-armor Technology submunition. Autonomous systems also are used extensively in satellites and unmanned spacecraft. There must be a focus toward new development in these areas to meet the demands of new types of warfare.

Each new piece of military doctrine and policy guidance addresses the importance of Space and Cyberspace. In January 2012 a new defense strategy document was published, Sustaining U.S. Global Leadership: Priorities for 21st Century Defense. This strategic guidance from the President and the Secretary of Defense states a primary mission of the U.S. armed forces is to “operate effectively in cyberspace and Space.” It also goes on to state that we have “the imperative to sustain key streams of innovation that may provide significant long-term payoffs.”

Emphasizing the importance of these new domains, the Joint Operational Access Concept identifies the U.S. military’s need to maintain assured access to the four global commons areas of air, sea, Space, and cyberspace. Additionally, of the seven key anti-access capabilities outlined in the concept, three directly address Space-based and cyber capabilities: long-range reconnaissance and surveillance systems that include satellites; kinetic and nonkinetic anti-satellite weapons; and cyber attack capabilities.

The United States cannot just sit back on its heels and attempt to maintain a superior edge without continued work to stay abreast of the latest

changes in the world. Changes in technology lead to new capabilities, new vulnerabilities, and adaptations in how warfare is conducted. Changes in the way the world economy operates result in changes in what is important to a nation, where it can be hurt, and the methods used to prosecute warfare. To maintain a superior military edge we must be agile, flexible, and ready for the full contingency of emerging threats.

Meeting the challenge of maintaining a military edge while moving to a leaner force can be difficult. The United States must look to alternative ways to create desired effects through other means than the costly deployment of conventional forces. Once again the importance of Space-based systems and cyber warfare methods becomes apparent as they offer means to project effects to a region without a physical presence. Adversaries know the value of these methods and already are using them. Most forces cannot prevail against the United States on a conventional basis and have turned to seeking out and developing alternative means. Attacking the United States through Space and cyberspace is less risky and less costly for adversaries. They have learned to operate in a lean manner. Not only must we develop the means of defense against these cyber and Space warfare methods but also the ability to respond through similar means to counter enemy capabilities.

Moving to a leaner force also means the value will increase of Space and cyber warfare assets as a force enabler and force multiplier. The Army After Next studies found that “Space [is] key during power projection.” One Soldier can only do so much. One Soldier who has the capability of Space-based and cyber warfare systems backing him up can increase his effectiveness. Much like artillery support in a conventional battle, when Soldiers can call for capability and effects to be generated from some place away from the forward line of conflict, they gain advantages in capability—capability that can be applied rapidly without systems requiring costly physical movement and vulnerable exposure at a forward location.

To enable a leaner military to maintain a superior edge, autonomous systems again will be important. Unmanned systems with autonomous capabilities have the potential to greatly reduce the cost of force projection compared to manned systems. The United States and many other nations are making strides in unmanned vehicles in the air, on

land, and at sea. Operation of these unmanned vehicles is heavily reliant on Space systems. Unmanned systems also require support in the cyber warfare realm to remain effective. Use of unmanned systems must not become a Maginot line bypassed by cyber attacks or attacks against Space-based assets.

Developments in autonomy and AI will help more than just unmanned vehicles. Manpower-intensive processing of data such as satellite imagery and other intelligence information has the potential to be revolutionized and reduced in cost through autonomous methods. Already, many civilian firms are moving in this direction. The military also is exploring data fusion and processing in a more autonomous manner.

In addition to conventional conflicts, Space and cyberspace are used by the military in other instances such as natural disaster support or humanitarian relief. Special operations forces, tanks, attack aircraft, and other assets may not be needed in those types of events, but things such as satellite imagery and GPS are heavily used. The United States is likely to continue supporting such situations with the leaner military and will still need the support of Space operations and cyberspace.

Space, cyberspace, and autonomous systems are keys to moving to a leaner force while maintaining America’s superior edge. The inter-linkage of these areas and the importance of each will be driving factors in future conflicts for America’s leaner military. The U.S. military must continually move forward in development and use of Space systems, cyber warfare, and autonomy in order to maintain an edge in leaner times.



Author's BIO



LTC Robert E. Berg works in the Future Warfare Center Directorate of Training and Doctrine within the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command. His last assignment was at the Johns Hopkins University Applied Physics Laboratory where he worked on multiple projects, including a Disruptive Innovation Team that examined what new innovations are likely to change the nature of warfare.



FUTURE IS THE FOCUS

at Senior Enlisted Leaders Conference

BY DOTTIE WHITE, USASMD/ARSTRAT PUBLIC AFFAIRS

The annual Senior Enlisted Leaders Training Conference for U.S. Army Space and Missile Defense Command/Army Forces Strategic Command was held April 1-4 at Peterson Air Force Base, Colo.

This year's conference theme was "America's Army—Decisive Force: Space and Missile Noncommissioned Officers Teaching Our Warriors."

CSM Larry S. Turner, the command's highest ranking noncommissioned officer, kicked off the conference with opening remarks.

"The purpose of this conference is to provide a forum for senior enlisted leaders and senior noncommissioned officers to interact and share your experience, exchange ideas, and discuss lessons learned throughout your careers," said Turner.

"I'm sure each of you will find this conference productive, beneficial, and educational," he said. "I can't stress enough the fact that success depends on you. Your input and expertise are absolutely essential for this conference to be successful.

"This conference gives us an opportunity to address many key issues that impact our mission with our Space and Missile Defense senior enlisted leaders. We wanted to focus our NCOs on not only today, but tomorrow and the day after tomorrow. Our theme this year took us in the direction that the commanding general wants us to focus on—Space and Missile Defense Soldiers continuing their contribution to the Army's decisive force as we go into the future. I think it is important for us to know the direction the nation and Department of Defense are going in order to work through our future challenges to national security. This gives us the chance to consider the

impacts to what we do and to find ways to make things work smoothly."

After Turner's remarks, presenters from various areas of professional development provided overview briefs on topics such as U.S. Strategic Command, Air Force Space Command, U.S. Northern Command, Army Cyber Command, Department of the Army-level promotion boards, career counseling, Warfighters, and media and social networking.

Other highlights of the week included a video presentation from an Army astronaut, COL Mark Vande Hei, who spoke about his journey as a Soldier and to becoming an astronaut and answered questions. Following Vande Hei's remarks, Soldiers had an opportunity to speak with him and get autographed photos.

There also was a discussion panel with former command sergeants major. SGM John Mattie, of the USASMD/ARSTRAT operations branch, moderated the distinguished panel that included SMA (ret.) Jack Tilley and retired CSMs Ralph Borja, Frank J. Mantia, Tommy Williams, Al Hobbs, and Carl Christian. The retired CSMs provided opening remarks followed by questions from the NCOs in attendance.

Turner said he was very pleased with so many outstanding briefs and the success of the event.

"This year, we brought the conference to where the bulk of our NCOs live and work," he said. "This not only allowed us to bring the cost down by reducing the travel requirement, but it also gave us the opportunity to show key senior enlisted leaders, who we invited to the conference, some of our key capabilities in Space and Missile Defense."





< SFC David Garduque Jr. makes a comment during the USASMDC/ARSTRAT Senior Enlisted Leaders Training Conference in Colorado Springs, Colo.



^ CSM Patrick Z. Alston, Command Sergeant Major, U.S. Strategic Command, asks the group of senior NCOs to participate during his briefing.



< Chief Master Sgt. Linus Jordan briefs on new technologies and initiatives in Air Force Space Command.
Photos by Dottie White



The Sun Never Sets on

1. SSG Seamus Lynch, SGT Anthony Moore and SGT Kenneth Baerwald observe proper procedures for firing the M9 handgun during the 2012 USASMDC/ARSTRAT Best Warrior Competition.
2. SSG Brandon Kleiser from Alpha Company, 53rd Signal Battalion, makes adjustments to a satellite dish.
3. SGT Brian Bauchat, 53rd Signal Battalion, attempts to control the crowd during a situational training exercise.
4. SGT Ryon Powers, 1st Space Battalion, is inducted into the NCO Corps in Misawa, Japan.
5. SSG Joseph Kneze, 1st Space Battalion, re-enlists at a ceremony held in April.
6. SSG Martha Chavez awaits the arrival of a Fallen Warrior procession on Peterson Air Force Base.
7. A 1st Space Brigade Soldier renders a salute as a Fallen Warrior procession goes by on Peterson Air Force Base.
8. SFC Joseph Collins awaits his promotion to 1SG.



USASMDG/ARSTRAT

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9. SFC Joshua Ellis assists SPC James Melton with his gas mask during training.

10. 1st Space Battalion Soldiers await Safety Stand Down to begin.

11. SSG Branden Kleiser from Alpha Company, 53rd Signal Battalion, instructs SPC Branden Thompson on the controls for moving a satellite dish.

12. SPC Christopher Schmitz ascends the stairs of a mock hospital as a member of a fire team during a situational training exercise.

10



**Today. Tomorrow.
& the Day After Tomorrow.**



A crew undergoing training at Peterson Army Air Field in early 1944 gathers in front of a Consolidated B-24 Liberator bomber. The crew members later served in Italy.



Peterson Air Force Base is named after 1LT Edward Peterson, a Colorado native who died in an aircraft accident at the base in August 1942.

PETERSON AIR

From Municipal Airport to Global Space Mission

By Sharon Watkins Lang, USASMDC/
ARSTRAT Command Historian

EDITOR'S NOTE

The operational arm of the Army Space and Missile Defense Command/Army Forces Strategic Command has its roots in Colorado Springs, Colo. This article provides insight into that lineage.

Pictured in October 1943, the Peterson Army Air Field flight line contains P-38 and F-4 Lightning aircraft in the foreground and B-24 Liberator bombers in the background. At the time, the field's mission was transitioning from photographic reconnaissance training to bomber combat crew training.

Photos Courtesy of Peterson Air & Space Museum

Colorado Springs traces its history to the early 1870s. Founded by William Jackson Palmer, a Civil War general and Medal of Honor recipient, the city's goal was "to attract people of means and social standing with 'good moral character and strict temperance habits.'"¹ With the discovery of gold in 1891, many of the town's early inhabitants were later described by one period letter writer as disappointed gold seekers who had remained and settled the area as farmers and ranchers. In many ways Colorado Springs' future was tied to tourism; the dry climate was advertised as a destination for recuperation from tuberculosis and other respiratory diseases. With the arrival of the Denver & Rio Grande Railroad in 1873 and the construction of an airport as early as 1926, the city soon prospered, welcoming visitors from around the world.



Established in 1992 at Peterson Air Force Base, the Air Force's 21st Space Wing inherited the lineage and honors of a bombardment group and fighter group that date to World War II. It is the largest organizationally and the most geographically diverse wing in the Air Force.

FORCE BASE



LEFT
The Lockheed F-4 Photo Lightning was the reconnaissance version of the P-38 Lightning twin-engine fighter.

RIGHT
Instructors for the fighter pilot training school at Peterson Army Air Field are shown with a Curtiss P-40 Warhawk fighter, in approximately 1944.

The Great Depression, followed by outbreak of war in Europe, created an uncertain economic future for Colorado Springs. The 1940 census found 1,500 homes empty and abandoned.² Civic leaders made a concerted effort to attract a military installation to the area, extolling the frequently sunny weather, wide-open spaces, and other advantages to be found. Their efforts proved successful, and within months the population more than doubled as the U.S. Army established Camp Carson³ to the south in January 1942 and three months later Camp Hale⁴ in west-central Colorado for winter and mountain training.

The Colorado Springs Army Air Base also was established in April 1942, at the Colorado Springs Municipal Airport. With only two 5,000-foot runways and two hangars in existence, additional construction began immediately for military purposes. The initial mission for the base was photo-reconnaissance training with the F-4 Photo Lightning reconnaissance aircraft, a version of the Lockheed P-38 fighter. In a short period (1942-43), more than 20 reconnaissance and aerial mapping squadrons were organized, trained, and deployed. It was during this time, on Dec. 13, 1942, that the airfield was renamed Peterson Army Air Field or "Pete

Field" in honor of 1LT Edward J. Peterson, the first Coloradan to die in the line of duty at the field.

A Colorado native and operations officer for the 14th Photo Reconnaissance Squadron, Peterson was a graduate of the University of Denver with degrees in education. While a student he became interested in aviation and joined the Civilian Pilot Training Program, an initiative to create a pool of trained military pilots should the need arise.⁵ Thus, at age 24, Peterson was the most experienced F-4/P-38 pilot in his unit and as such served as the squadron test pilot. On the morning of Aug. 8, 1942, he took off on a routine flight to test a newly installed engine. The engine failed upon takeoff, forcing the left wing and its fuel tank to hit the runway. Peterson died later that day as a result of his injuries.

In October 1943 the 383rd Bomb Group transferred to Peterson Field, bringing with it a new mission—combat crew training for the B-24 Liberator heavy bomber. Hundreds of replacement crews were trained in strategic bombing before transferring to combat units. In June 1944 the bombers were replaced with P-40N Warhawk fighters, and fighter pilot training commenced under the 72nd Fighter Wing. Finally, in April 1945



The art deco passenger terminal built in 1941 for the Colorado Springs airport had several uses when the airport functioned as an Army air field during World War II. It now houses part of the Air and Space Museum at Peterson Air Force Base.

Peterson Field was assigned to the Continental Air Forces and became the home of the Army Air Forces Instructors School. At the end of the year, the base was inactivated, and the property later returned to the city.

Established as a separate military service in 1947, the U.S. Air Force twice reactivated Peterson during the 1940s for short periods, while developing its organizational structure. In January 1951 Peterson Field again returned to permanent active status, with the advent of the Cold War and subsequent creation of the Air Defense Command at nearby Ent Air Force Base.⁶ While the Air Defense Command controlled the radars, interceptor aircraft, and missiles deemed necessary to protect the nation, the 4600th Air Base Group at Peterson was organized to provide airfield and logistical support to it and the U.S.-Canadian North American Air Defense Command, established in 1958.

The 4600th achieved wing status in 1958. Its relationship with the Air Defense Command reflects the origins of the modern structure on Peterson. On April 1, 1975, the 4600th Air Base Wing was redesignated the 46th Aerospace Defense Wing, and most of its functions arrived at Peterson Field when Ent Air Force Base closed. Peterson Field was officially renamed Peterson Air Force Base on March 1, 1976. Three years later, Strategic Air Command assumed control following deactivation of the Aerospace Defense Command.

Peterson soon became a hub for Space activities as the home for the Air Force Space Command on Sept. 1, 1982, and later the 1st Space Wing on

Jan. 1, 1983.⁷ Host unit responsibilities subsequently were transferred to the 1st Space Wing when the 46th Aerospace Defense Wing inactivated in April 1983, and later to a newly created 3rd Space Support Wing in October 1986. They were joined in September 1985 by the newly created U.S. Space Command. The U.S. Army Space Command, originally established in 1986, was located in Colorado Springs but did not move to Peterson Air Force Base until 2002.

The current structure dates to the period after Operation Desert Storm in 1991 and the subsequent reorganization of the Air Force. On May 15, 1992, the newly created 21st Space Wing assumed the Air Force mission to provide global missile warning, Missile Defense, and Space control operations to commanders and forces worldwide. At the same time, it inherited the personnel and equipment from the inactivated 1st and 3rd Space wings. To accomplish these missions, the 21st wing has locations across the globe.⁸

Today, in addition to the 21st Space Wing, Peterson Air Force Base is the home of U.S. Northern Command, North American Aerospace Defense Command, Air Force Space Command, Air Force Reserve 302nd Airlift Wing, and the operational forces headquarters for U.S. Army Space and Missile Defense Command/Army Forces Strategic Command.⁹

Footnotes

¹ Fort Carson 2011 Post Guide and Telephone Directory (Anchorage, Alaska: AQP Publishing, 2011), p. 48.

² Fort Carson, A Tradition of Victory (Fort Carson, Colo.: Public Affairs Office), p. 3, <http://www.carson.army.mil/pao/History%20Book/History%20Book.pdf>.

³ Named for noted frontiersman BG Christopher "Kit" Carson, the camp originally consisted of 60,048 acres and later doubled its size in 1964. Within months, the camp's facilities would house 35,173 enlisted men, 1,818 officers, and 592 nurses.

⁴ Camp Hale provided a location for specialized training in skiing, rock climbing, and cold weather survival skills, modeled after the ski warfare tactics of the Finnish army. Units based at the camp included the 10th Mountain Division, 38th Regimental Combat Team, 99th Infantry Battalion, Women's Army Auxiliary Corps, and a prisoner of war camp. The Central Intelligence Agency trained Tibetan freedom fighters there in the 1950s and 1960s. In July 1965, the Army deactivated Camp Hale and returned the lands to the Forest Service.

⁵ Jeff Nash, "Tragic Accident Gave Base Its Name," Air Force Print News Today, Sept. 16, 2008, http://www.peterson.af.mil/news/story_print.asp?id=123115383.

⁶ Located in downtown Colorado Springs, Ent Air Force Base is now the site of the U.S. Olympic Training Center.

⁷ Also in 1983 the Air Force broke ground for the new Falcon Air Force Station, east of Colorado Springs. Developed to house the Consolidated Space Operations Center, Falcon was renamed Schriever Air Force Base in 1998, in honor of Gen. Bernard Schriever (1910-2005), a pioneer in the Air Force's ballistic missile programs.

⁸ Included among these is Cavalier Air Force Station, N.D., which was originally developed by this command. The Perimeter Acquisition Radar was part of the Safeguard system, the first missile defense system deployed in the Western world. The site transferred to the Air Force in 1977.

⁹ The then-U.S. Army Space Command, a subordinate element of the U.S. Army Space and Missile Defense Command, formally dedicated the new facility on Oct. 9, 2002. The headquarters became known as Building 3 or the "Army Building" within the Space complex.

Guard ... Engage ... Destroy FOR NONE SHALL PASS

The 100th Missile Defense Brigade



By Sharon Watkins Lang, USASMDC/
ARSTRAT Command Historian

100TH MISSILE DEFENSE BRIGADE COMMANDERS

COL Edward E. Hildreth

July 19, 2012, to present

COL Gregory S. Bowen

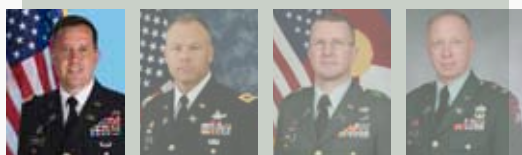
May 15, 2009, to July 19, 2012

COL Michael L. Yowell

April 18, 2006, to May 15, 2009

COL Gary W. Baumann

Oct. 16, 2003, to April 18, 2006



The origins of the 100th Missile Defense Brigade (Ground-based Midcourse Defense) can be traced to a specific piece of legislation, the National Missile Defense Act of 1999. Signed by President Bill Clinton, the act stated that “It is the policy of the United States to deploy as soon as is technologically possible an effective National Missile Defense system capable of defending the territory of the United States against limited ballistic missile attack (whether accidental, unauthorized, or deliberate).”¹ Later that year the Department of Defense’s Joint Requirements Oversight Council recommended that the Army be designated the lead service for the land-based National Missile Defense (NMD) System. Under Secretary of Defense for Acquisition Jacques Gansler formally assigned these duties on Nov. 15, 1999.

Given these initiatives, it was necessary to develop an organization capable of manning the new system. The U.S. Army Space and Missile Defense Command (USASMDC) already had submitted to the Army Training and Doctrine Command (TRADOC) a force design update for the future NMD system in April 1998. The TRADOC System Manager for NMD was chartered later that year, and USASMDC became “the Army’s representative, manager, and integrator for the entire spectrum of doctrine, training, leader development, organizational, materiel, and Soldier products” associated with the land-based NMD system.

The ABC news program “Nightline” profiled the 49th Missile Defense Battalion operations center at Fort Greely, Alaska, in March 2007.

100th Missile Defense Brigade Activation

LTG Joseph Cosumano, commander of U.S. Army Space and Missile Defense Command (center), presents the flag of the newly activated 100th Missile Defense Brigade to brigade commander COL Gary Baumann.



Actual manning for the new system fell to the Army National Guard. As the Guard explains on its Web site, “Defense of the homeland is a traditional and well-suited mission for the National Guard. Homeland Security is an Army core competency, and Missile Defense is a pillar of Homeland Security.”² The National Guard established a Missile Defense planning cell in July 2000.

With the new presidential administration the program accelerated. On Dec. 13, 2001, President George W. Bush announced that the United States would exercise Article XV of the 1972 Antiballistic Missile Treaty and withdraw from the treaty in six months. In a statement released on June 13, 2002, the President observed

With the Treaty now behind us, our task is to develop and deploy effective defenses against limited missile attacks. As the events of September 11 made clear, we no longer live in the Cold War for which the ABM Treaty was designed. We now face new threats from terrorists who seek to destroy our civilization by any means available to rouge states armed with weapons of mass destruction and long-range missiles. I am committed to deploying a defense system as soon as possible to protect the American people and our deployed forces against the growing missile threat we face. Because these threats also endanger our allies and friends around the world, it is essential that we work together to defend against them, an important task which the ABM Treaty prohibited.³

Two other documents issued in 2002 are key to the development of the brigade. On Jan. 2, 2002, Secretary of Defense Donald Rumsfeld issued a memorandum outlining his Missile Defense Program Direction. The four priorities for the program were: (1) to defend U.S. deployed forces, allies, and friends; (2) to employ a Ballistic Missile Defense System that layers defenses to intercept missiles in all phases of flight; (3) to enable the military services to field elements of the overall system as soon as practical; and (4) to develop and test technologies to provide early capability and improve the effectiveness of deployed capability by inserting new technologies as they become available or when the threat warrants an accelerated capability.

Finally, as the year concluded, President Bush signed National Security Presidential Directive 23 on Dec. 16, 2002. Eliminating the distinction between national and theater missile defense, Bush stated that “our policy is to develop and deploy, at the earliest possible date, ballistic missile defenses

drawing on the best technologies available.” With the deployment of initial defense capabilities now scheduled for 2004, the United States would employ an evolutionary or spiral approach to development and deployment to take advantage of technological improvements and better address the changing threat environment.

Having determined how we will fight, the initial cadre for what would become the 100th Missile Defense Brigade (GMD) was organized in April 2003, one year after construction had begun at the Fort Greely, Alaska, testbed. Just six months later, in a ceremony conducted at U.S. Northern Command (NORTHCOM) headquarters on Peterson Air Force Base, Colo., USASMDC commander LTG Joseph Cosumano Jr. and Air Force Maj. Gen. Mason C. Whitney, adjutant general of the Colorado National Guard, formally activated the Colorado Army National Guard Missile Defense Brigade. The 90-member unit was tasked with providing command and control operations for the fledgling Ballistic Missile Defense System from NORTHCOM facilities in Cheyenne Mountain. As COL Gary Baumann, the first commander, observed, “This unit’s activation is a small step towards ensuring the safety of our nation. Our Soldiers, chosen from the best across the state and nation, are well-trained, excited, and looking forward to the challenge.”⁴

As defined in early 2003, the USASMDC presented a brigade manpower requirement of 1,276: 658 military and 618 contractor manyear equivalents. The 164 officers, 19 warrant officers, and 475 enlisted personnel were distributed throughout the brigade that, at this point, included a Headquarters and Headquarters battery and two GMD battalions. They represented National Guard units from Colorado and Alaska and personnel from the active-duty Army. These levels have not yet been achieved while the brigade pursues an evolutionary development, and the actual numbers on board are somewhat less.

The next step in the process came on Jan. 22, 2004, with the activation of the 49th Missile Defense Battalion (GMD). Hosted by Alaska Gov. Frank Murkowski, the activation ceremony was attended by key leaders from the National Guard Bureau as well as the Alaska and Colorado National Guards and MG Larry Dodgen, USASMDC commander. An operational arm for the brigade, the 49th is stationed at Fort Greely, Alaska, and is staffed by volunteers from across the nation assigned to the Alaska National Guard. Personnel attached to the battalion protect the missile fields and operate the Ground-



49th Missile Defense Battalion Activation

Members of the 49th Missile Defense Battalion, Alaska Army National Guard, unfurl the unit's flag during an activation ceremony.



1st Missile Defense Detachment Activation

At the ceremony for the 1st Detachment, 100th Missile Defense Brigade in May 2011, COL Gregory Bowen (left) passes the guidon to CPT Orlando Cobos.

Photo by SGT Benjamin Crane

based Midcourse Defense system. As the new commander, MAJ Greg Bowen, promised the audience, "Be assured, we are on watch, we will not fail."⁵

Geographic expansion of the Ballistic Missile Defense System took place that same year. Growing from small beginnings as a two-person liaison office in 2004, Detachment 1 of the 100th Missile Defense Brigade was officially activated May 13, 2011. Located at Vandenberg Air Force Base, Calif., the Ronald Reagan Test Site was dedicated in March 2006. Activation for the detachment, however, was delayed pending the required revisions to add California to the brigade's manning document. Now a seven-person team, the detachment provides 24/7 operational support and coordination between contractor personnel and representatives of the Department of Defense. Other organizational changes are anticipated as the brigade is reconfigured to incorporate new X-band radar detachments and other developments in the GMD system deployment.

With the expedited timeline in the short time since activation, the brigade, battalion, and detachment have participated in all aspects of the GMD development and deployment from the integrated ground tests conducted in Huntsville, Ala., in the summer of 2004 to a GMD flight test from Vandenberg Air Force Base in 2006 and successful intercept tests in 2006, 2007, and 2008. The training continues on a regular basis as the brigade prepares for development of the next-generation equipment or software and has grown to include exercises conducted by the U.S. Strategic Command. Given the nature of the mission, the training is stringent; the minimum successful score on personnel certification tests is 90 percent. As COL Gary Baumann wrote in a 2005 article in *Air Defense Artillery*, "Failure is not an option!"⁶ This ethic and dedication were recognized in December 2005, when policies were revised and the first members of the 100th Missile Defense Brigade were awarded the prestigious Air Force Space and Missile Badge.

Also in 2005 the 100th adopted new insignia to solidify its identity. MAJ David Bennett,

assistant training and operations officer, designed the shoulder sleeve insignia and distinctive unit insignia. The patch and the crest share many features—the eagle which corresponds to the mission to defend the nation; a lightning bolt which reflects the unit's strength and power as well as its relationship with USASMDC; and the mountain ridge which replicates the Colorado state seal and represents ties to the Colorado National Guard. The unit motto, "Contegamus et Cassamus" or "Guard and Destroy," is incorporated into the distinctive unit insignia. The words reflect both the unit's National Guard heritage and its mission to guard the nation and destroy incoming ballistic missiles. In August 2006 the unit added its special designation or nickname—Centennial. The name was proposed to the Center of Military History as it reflects both the unit's numerical designation and its ties to Colorado, the Centennial State.⁷

In the brigade's short history, the ultimate test came in July 2006. During that summer, North Korea in violation of a previous moratorium began preparations to conduct a series of tests of short- and long-range ballistic missiles. Intelligence reports determined that the long-range missile configuration put Alaska and the West Coast potentially within range. In response, NORTHCOM brought the GMD system to operational status. Canceling leaves and training, members of the brigade and the battalion—in Colorado, Alaska, and California—stood trained and ready to defend the nation. Although the North Korean missiles malfunctioned and fell far short of being an actual threat, the brigade proved that it was up to the task.

To paraphrase the unit's senior enlisted leader, CSM Russell Hamilton, the members of the 100th Missile Defense Brigade (GMD) are honored to be among the 300 charged with protecting 300 million Americans and the American way of life, 24/7/365.⁸

Footnotes

¹ National Missile Defense Act of 1999, Public Law 106-38, signed July 22, 1999.

² Army National Guard, "National Guard Bureau Missile Defense," <http://www.arng.army.mil/aboutus/Pages/MissileDefense.aspx>.

³ White House press release, "Statement by the President," June 13, 2002, <http://georgewbush-whitehouse.archives.gov/news/releases/2002/06/20020613-9.html>.

⁴ Quoted in Laura Kenney, "First Ground-based Midcourse Defense Brigade Activated," *Army News Service*, Oct. 23, 2003.

⁵ Quoted in Laura Kenney, "Army Activates Space Defense Battalion in Alaska," *Army News Service*, Jan. 30, 2004.

⁶ Gary Baumann, "100th Missile Defense Brigade—Homeland Security for the Future," *Air Defense Artillery*, October-December 2005, p. 11.

⁷ Colorado is known as the Centennial State because it gained statehood in 1876 during the nation's centennial celebrations.

⁸ Quoted in Benjamin Crane, "End of an Era," Nov. 17, 2010, <http://www.army.mil/article/48237/end-of-an-era/>.



FIRST IN SPACE

The 1st Space Brigade

By Sharon Watkins Lang, USASMDC/
ARSTRAT Command Historian

1ST SPACE BRIGADE COMMANDERS

- A. **COL James R. Meisinger**
July 20, 2012, to present
- B. **COL Eric P. Henderson**
June 29, 2010, to July 20, 2012
- C. **COL Jeffrey A. Farnsworth**
July 10, 2008, to June 29, 2010
- D. **COL Timothy R. Coffin**
July 27, 2006, to July 10, 2008
- E. **COL Kurt S. Story**
Aug. 12, 2004, to July 27, 2006
- F. **COL David W. Shaffer**
Aug. 22, 2002, to Aug. 12, 2004
1st Space Brigade (Provisional)
activated April 11, 2003
- G. **COL William J. Partridge**
March 22, 2001, to Aug. 22, 2002
- H. **COL John V. Klemencic**
August 2000 to March 22, 2001
Klemencic was commander of Army Space Command from May to August 2000, when USASMDC created the Deputy Commanding General, ARSPACE/Operations. He then continued as commander of Army Space Forces.

Marking the traditional origins of Army Space, the 1st Space Brigade was established as a provisional unit on April 11, 2003. Two years later then-BG Richard P. Formica, the Director of Army Force Management, officially approved the activation, and the ceremony took place May 25, 2005. The roots of this unit, however, go back much further.

1st SATCON/53rd Signal Battalion

The first component of the 1st Space Brigade was formed a decade earlier in May 1995. That month the U.S. Army Space Command established the 1st Satellite Control (SATCON) Battalion from the Directorate of Military Satellite Communications.¹ As managers of the Defense Satellite Communications System (DSCS) satellites, this group had seen its workload grow exponentially since 1991's Operation Desert Storm, the first Space war. To many, the role of Space in the future battlefield was realized with the creation of this unit, which became the first battalion in the history of the Army with an operational mission directly tied to the control of Space systems and capabilities.

With a mission of providing payload and transmission control of the DSCS constellation, the battalion's companies were organized according to location and situated around the globe at Forts Detrick and Meade in Maryland; Landstuhl, Germany; Camp Roberts, Calif.; and Fort Buckner, Okinawa, Japan. As technology has evolved, so too has the mission. With the addition of the Wideband Global System configuration and its support requirements, D Company left Camp Roberts in 2011 and now is located at Wahiawa, Oahu, Hawaii.

The current organizational structure dates to 2002 and the approved Modified Table of

Organization and Equipment or MTOE structure for Army Space units. The impact for the 1st SATCON Battalion was dramatic and brought with it significant changes. Effective Oct. 15, 2005, the battalion and its companies were formally inactivated. One day later the battalion's mission, functions, and personnel were activated as the 53rd Signal Battalion (SATCON) and assigned to the 1st Space Brigade (Provisional).² As BG Jeffrey Horne, Deputy Commanding General for Operations at the U.S. Army Space and Missile Defense Command, noted during the ceremony, "The Army formally recognizes the unit's operational warfighting mission. Soldiers in this battalion make vital communications happen for our Civilian leaders and joint Warfighters."

1st Space Battalion

Given the recognition that the tactical Army did not fully comprehend the roles, functions, and organizations of Army Space, the next step in the development of the brigade, the normalization of Space, came in 1999. As the 20th century was coming to a close, the U.S. Army Space and Missile Defense Command stood up the 1st Space Battalion on Dec. 15, 1999. Previously assigned to the Army Space Command's G-3 Operations directorate, this new battalion was designed to provide an institutional Army structure for the command's then four Army Space Support Teams (ARSSTs) and five Joint Tactical Ground Stations (JTAGS). Grouped according to mission, the battalion was composed of a Headquarters Company, Army Space Support Company, Theater Missile Warning Company, and Mobile Technology Team. Emphasizing the role of Army Space in the evolution of the Army, USASMDC commander LTG John Costello observed that "this unit is an example of the type of organization that will 'enable' the smaller, lighter, more agile fighting forces envisioned by GEN Eric Shinseki, Army Chief of Staff"³

Structured for flexibility, response, and growth, the battalion began to evolve immediately. A fifth ARSST was added later that year and an additional four reserve component teams in the years that followed. With the introduction of new technology, the toolkit for the ARSST and the Commercial Imagery Teams has expanded. Beyond that, in April 2001 a new mission was introduced to the battalion: Space control operations for the National Command Authority and American and allied forces. To support this effort, the battalion established a new Space Control Detachment and later the 3rd Space Control Company. Similarly, the development of new technology has impacted the organization. With the AN/TPY-2 missile warning radar, for example, new detachments were created with-

in the headquarters company to include Detachment Three, which stood up in Shariki, Japan, in 2006.

Organizationally the 1st Space Battalion achieved its next milestone in 2003. That October the battalion officially activated as an MTOE structure. In addition to the Headquarters and Headquarters Company, the battalion was composed of the 1st Space Company (Theater Missile Warning) which consisted of three detachments and six JTAGS sections providing around-the-clock theater missile warning; 2nd Space Company (Army Space Support) with five active duty and four reserve Space Support Teams; and the 3rd Space Company (Provisional), which was formally activated in October 2005 to provide ground mobile surveillance and assessment of Space systems. As needs increased the 4th and 5th Space companies were established.

From its initial beginnings with a small force of 100 Soldiers deployed around the globe, the components of the 1st Space Battalion have played a role in Army, joint, and coalition contingencies and exercises since the early 1990s. With the advent of the Global War on Terrorism, the battalion has remained consistently engaged with teams deployed in regular rotation. In many respects the battalion has become what LTG Costello envisioned in 1999—"the 911 force of our contingency Army, adding significant capability to our field forces."⁴

193rd/117th Space Support Battalion

Although preparations had begun earlier in October 1999, the 193rd Space Support Battalion officially stood up on Sept. 28, 2001. This group of 30 Soldiers in the Colorado Army National Guard and the Army Reserve became the first Guard unit with a Space mission, making Army Space Command a total Army effort. Training began in January 2001 for four Army Space Support Team and Space Operations officers who would initially supplement the 1st Space Battalion.

From these modest beginnings, the 193rd immediately began to serve in the war on terrorism with the first mobilization beginning in November 2001. Teams from the battalion have deployed to Iraq, Afghanistan, Kuwait, Oman, Bahrain, and South Korea. In 2005 Army Space Support Teams 10 and 11 deployed to New Orleans following Hurricane Katrina, to provide Internet connectivity and Internet Protocol telephone service as well as satellite imagery to support recovery operations. This was the first time an ARSST had deployed in the United States for a disaster relief operation.

The 193rd designation was assigned to the battalion by the state of Colorado as it stood up as a Table of Distribution and

Army Space Support Teams and Commercial Imagery Teams from the 1st Space Battalion and the 117th Space Battalion have been continuously deployed since operations began in 2002.

Photo by Mike Howard



Allowance organization, scheduled to convert to an MTOE in fiscal year 2008. The first operational element, the 217th Space Company, activated Oct. 23, 2005. Consisting of ARSSTs and Commercial Exploitation Teams, it was the first warfighting Army National Guard company with a Space operations mission. Two years later the “Space Cowboys” of the 193rd were formally re-designated the 117th Space Support Battalion as the unit transitioned to a permanent status.⁵ In conjunction with this ceremony, the unit unfurled its new guidon. Presented by former Army astronaut COL (ret.) Patrick Forrester, these colors had flown in Space aboard the Space shuttle Atlantis.

At the command level, with three battalions now under the umbrella of the Army Space forces, it was time to formalize the relationship and establish the brigade. Following the Sept. 11, 2001, attacks against America and the ensuing Global War on Terrorism, the need for a brigade was immediately evident to organize Army Space forces in support of military operations overseas, homeland security, and the commander, U.S. Strategic Command’s desire for in-theater command and control of Space forces. As the foundation already was in place, by 2005 the goal to normalize Space was realized; operational Space units were established at all levels of the U.S. Army—Active, Reserve, and National Guard.

These Joint Tactical Ground Station Soldiers of B Detachment, 1st Space Company, 1st Space Battalion of the 1st Space Brigade represent the more than 60 Soldiers deployed from the brigade in January 2011. During their nine-month deployment, the JTAGS detachment provides around-the-clock ballistic missile early warning. *Photo by Ben Spears*

Footnotes

¹ Established in 1988, the Army Space Command became a subordinate command to the newly created U.S. Army Space and Strategic Defense Command in 1992. It ceased to exist in 2003, with the internal reorganization of the U.S. Army Space and Missile Defense Command.

² The new 53rd Signal Battalion (SATCON) was authorized the lineage of the original 53rd Signal Battalion. Originally authorized by the Regular Army in October 1927, the 53rd served in North Africa and Italy during World War II. Inactivated after the war, it was returned to active duty in September 1954, serving in Texas, Arizona, Germany, South Vietnam, and Washington state. The unit was again deactivated in June 1971.

³ Quoted in Jim Tice, “First Space Battalion Activated in Colorado,” *Army Times*, Jan. 17, 2000.

⁴ LTG John Costello, e-mail message, Subject: Army Space Support Teams, May 2, 1999.

⁵ With the reactivation of the 193rd Military Police Battalion by the Colorado National Guard, the 193rd Space Support Battalion designation was rescinded. In the short interim, the unit was known as the Colorado Army National Guard Space Support Battalion.

WGS: THE SATELLITES

- Approximately 13,000 pounds separated mass and 135 feet long after solar array deployment
- First launch was conducted 10 October 2007, coverage stretches from U.S. Western Coast to Southeast Asia
- The second launch was conducted on 11 October 2008 and covers Iraq and part of southwest Asia
- The third launch was conducted on 1 December 2009 and covers the eastern Atlantic Ocean
- Fourth launch (WGS-4) was conducted on 19 January 2012
- WGS 5 and 6 are currently under construction
- When all WGS are launched, they will replace the DSCS system



The Wideband Global SATCOM constellation is a high-capacity satellite communications system designed to support the Warfighter with newer and far greater capabilities than those provided by current systems, yet it is compatible with existing networks and terminals. WGS provides two-way X-band and Ka-band communications as well as Ka-band broadcast services to U.S. Armed Forces and other agencies worldwide. The procuring agency is the U.S. Air Force Space Command's Space and Missile Systems Center at Los Angeles Air Force Base, California.

Jointly funded by the U.S. Air Force and U.S. Army, the WGS contract includes options for as many as six Boeing 702 satellites and associated spacecraft and payload ground control equipment. Operational, logistics, and training support are also included in the program.

WGS will augment and eventually replace DOD communications services currently provided by the Defense Satellite Communications System, which provides Super High Frequency wideband communications, and by the Ka-band Global Broadcast Service, which uses direct broadcast satellite technology to provide critical information to U.S. and allied forces. With the initial launch, 10 October 2007, aboard an Air Force Evolved Expendable Launch Vehicle, WGS provides early transformational capabilities supporting government objectives for a Transformational Communications Architecture.

The Capabilities

- Increases communications capabilities for U.S. military and its allies, allowing increased tactical command and control
- Offsets the decline of the capability of the existing DSCS constellation
- Instantaneous switch-able bandwidth, allowing more than 10 times the capacity of a DSCS satellite
- Used in Blue Force Tracking

Maintained by U.S. and Australian forces at six locations worldwide

- Fort Detrick, Md.
- Fort Meade, Md.
- Wahiawa, Hawaii
- Landstuhl, Germany
- Okinawa, Japan
- Colorado Springs, Colo.



GEOSPATIAL INTELLIGENCE

The Measurement and Signature Intelligence/Advanced Geospatial Intelligence Node is an operational element of the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command (SMDC/ARSTRAT) G-2 and its primary focus is on Geospatial Intelligence (GEOINT) and Advanced Geospatial-Intelligence (AGI) production.

The MASINT/AGI Node performs AGI and GEOINT exploitation of a variety of commercial, civil, and DOD imagery data available from space and airborne sources. This includes data ranging from 4-band multi-spectral imagery sensors to hyperspectral imagery sensors as well as commercial radar imagery.

Because the MASINT/AGI Node is capable of exploiting data from a variety of commercial, civil, and DOD spectral imaging payloads, the MASINT/AGI Node can provide many unique products to the Warfighter at the lowest classification level possible. As an example the MASINT/AGI Node provided a wide variety of intelligence, topographic, and operational products in support of Operation Enduring Freedom, Operation Iraqi Freedom, and many of the recent disaster relief efforts.

STANDARDIZED AREAS

- Imagery and content format
- Feature encoding
- Meta-data reporting
- Information transfer

USASMDC/ARSTRAT USES

- Advanced Geospatial Intelligence Node
- Used in disaster relief efforts
- Works in a partnership with the U.S. Air Force to provide specific data sets tailored to customers

ALSO USED BY

- Australian Army
- U.S. Marine Corps



FRIENDLY FORCE TRACKING

The Mission Management Center (MMC) began operations on 10 October 2001 to provide critical force tracking capabilities to combat operations in Afghanistan. Today, the MMC provides direct operational support to each Combatant Command (CCMD), interagency partners, and allied forces. Supported operations include Operation Enduring Freedom, Operation New Dawn, various Overseas Contingency Operations and various Homeland Security operations.

The MMC currently receives Joint Friendly Force Tracking (J-FFT) data from over 50 types of tracking devices that use either national technical means or commercial Space assets to receive their signals. This FFT data is delivered to the MMC, processed, and disseminated via network pathways or Over-The-Air broadcasts directly to the CCMDs and lower echelons. J-FFT is used by commanders for command and control, situational awareness and to aid in anti-fratricide measures. Data provided by the MMC is primarily displayed on a Common Operational Picture at the strategic, operational, and tactical levels.

CAPABILITIES

- Instantaneous updates
- When out of radio reach, allows for imagery and text messaging
- Secure data encryption
- Communication between units in low-signal areas with no line of sight
- Users can input or update operational graphics on-the-fly to update situational awareness
- Can be used on a map or GPS system

HOW IT WORKS

The system is continually transmitting, and sending images to the Army Tactical Operations Center where it is consolidated to a Common Operational Picture and sent out to numerous destinations.



WHO DO YOU THINK YOU ARE?

The Genealogy of an Organization USASMDC/ARSTRAT

By Sharon Watkins Lang, USASMDC/
ARSTRAT Command Historian

As a widely popular television series on celebrity genealogy has shown, we are a product of our environment and those of our ancestors. This also could be said for organizations. Who or what is U.S. Army Space and Missile Defense Command/Army Forces Strategic Command? The command can trace its history to a small 24-person office on Redstone Arsenal, Ala., established in October 1957, the Redstone Anti-Missile Missile Systems Office. In the intervening years, it has grown, gaining missions and personnel to become a major command and subsequently an Army Service Component Command with units in 11 states and eight foreign countries.

Within months the Redstone systems office became the Nike-Zeus Project Office, perpetuating the heritage of the Nike series of air defense missiles. During the next seven years, the office developed and demonstrated a ballistic Missile Defense (BMD) system to protect the nation from the evolving threat. Assigned the highest national priority by the National Security Council, the Nike-Zeus system united a long-range nuclear-tipped Zeus interceptor with a series of specialized radars (acquisition, discrimination, target tracking, and missile tracking) that would be deployed in 70 batteries across the United States. Even as the project office proved the feasibility of intercepting an intercontinental ballistic missile (ICBM), with the first intercept in December 1962, the Secretary of Defense assigned a new requirement—an anti-satellite capability. They achieved this mission with Project Mudflap and a successful intercept of an Agena D satellite in May 1963.

Despite these successes, it was determined that the Nike-Zeus system was neither technologically feasible nor cost effective at that time, and a change came in 1964. The

anti-ballistic missile (ABM) program, however, retained its top priority and system manager. The new Nike-X program was designed to address the threat of the 1970s. Through a series of studies, projects, and tests, Nike-X improved the Zeus interceptor and developed new high-speed, high-capacity computers and radars as well as a new short-range nuclear interceptor. At the same time, the Nike-X program office was assigned responsibility for the Kwajalein Test Range, based upon the significant role that it played in the Army's ABM research and development effort. During this phase the program office devised a new ABM system comprised of a long-range Spartan interceptor, a short-range Sprint, and two radars: the Multifunction Array Radar and Missile Site Radar. Studies conducted in 1966 found that "Nike-X would add to U.S. deterrence and provide significant reduction in fatalities in the event deterrence fails."

The year 1967 would be a turning point in the ABM program. In November 1966, Secretary of Defense Robert McNamara announced that the Soviet Union had deployed an ABM system around Moscow. At a summit meeting in Glassboro, N.J., in June 1967, the Soviets refused to discontinue this program. That same year, the threat posed by China was renewed as the Chinese exploded their first thermonuclear device and launched a nuclear-tipped missile. The American response came in September, when McNamara announced the decision to develop a light ABM system called Sentinel.

To implement this decision the Nike-X Project Office became the Sentinel Systems Command (SENSCOM) in November 1967. The Sentinel effort had two goals: to defend urban and industrial areas against ICBM attacks by China and an accidental launch by any power. It also included an option to defend the Air Force's Minuteman ICBM sites. The Army and SENSCOM were given 54 months to reorient the pro-

In 1991, Operation Desert Storm conducted in Kuwait, Saudi Arabia, and Iraq saw the direct application of Missile Defense and Space assets. A small lightweight Global Positioning System receiver, for example, allowed Soldiers to navigate the desert while modified Patriot anti-aircraft batteries intercepted Iraqi Scud missiles.

gram from research and development to production and deployment. An initial proposed deployment consisted of six Perimeter Acquisition Radars, 17 Missile Site Radars, and 480 Spartan and 220 Sprint silo-launched interceptors at sites across the nation from Boston to San Francisco and Honolulu. Given the political environment of the time—opposition to the war in Vietnam and to the concept of nuclear weapons—this deployment plan was not well received.

With the inauguration of President Richard Nixon in January 1969, the deployment was halted as he ordered a review of all strategic offensive and defensive priorities. In March, Nixon announced a new program, the Safeguard. Safeguard reoriented the ABM program based upon three priorities: (1) “to protect land-based retaliatory forces against a direct attack by the Soviet Union;” (2) to provide a “defense of the American people against the kind of nuclear attack which Communist China is likely to mount within the decade;” and (3) to protect “against the possibility of accidental attacks from any source.”

Now known as the Safeguard Systems Command, the command was charged to deploy this new BMD system with a first site operational within the original 54-month deadline. Ultimately ten locations were identified across the country, but construction would begin only at sites near Grand Forks Air Force Base, N.D., and Malmstrom Air Force Base, Mont. Again, outside events would come into play. Even as construction proceeded, the United States and the Soviet Union conducted the Strategic Arms Limitation Talks that produced the Antiballistic Missile Treaty of 1972. This agreement limited both nations to two ABM sites, one near the national capital and the other near an ICBM site.² As a result, the Malmstrom effort halted in 1972. The program proceeded in North Dakota. Officially designated the Stanley R. Mickelson Safeguard Complex, this site achieved full operational capability in September 1975. Thus the command deployed the Western world’s first ABM system. The system, however, was short-lived. Despite Department of Defense protestations, the fiscal year 1976 Defense appropriations bill provided that funds for the Mickelson complex were to be used for the “expeditious termination and deactivation of all operation of that facility.”³

Even as work progressed on the Safeguard deployment,

the command was assigned a new mission to develop a next-generation system known as Hardsite Defense, a prototype demonstration program. Soon thereafter, in May 1974, the Secretary of the Army realigned all BMD efforts under one organization, the Ballistic Missile Defense Organization. The Safeguard Systems Command became the Ballistic Missile Defense Systems Command (BMDSCOM), and a Ballistic Missile Defense Advanced Technology Center (BMDATC) replaced the Army’s Ballistic Missile Defense Agency. The BMDSCOM would oversee the development of the Site Defense and later a new concept, the Low Altitude Defense/Sentry designed to support the proposed mobile MX ICBM program. At the same time the BMDATC/BMDSCOM would explore future technologies, within the boundaries of a 1974 congressional ban on prototyping that limited research and development to the subsystem and component levels. It was during this phase that the command began to explore non-nuclear options—kinetic kill technology and directed energy weapons to include lasers and a neutral particle beam. The Homing Overlay and the Flexible Lightweight Agile Guided experiments would effectively demonstrate the feasibility of “hitting a bullet with a bullet.”

In March 1983, President Ronald Reagan announced a new national security policy, the Strategic Defense Initiative, which sought to eliminate the threat posed by nuclear weapons. The Army’s years of experience provided the foundation for this multi-service effort. In 1985 a newly merged BMDSCOM and BMDATC became the U.S. Army Strategic Defense Command (SDC). Of the 12 components to the “Star Wars” program, the SDC managed or contributed to nine. These included direct oversight of the Exoatmospheric Re-entry Vehicle Interceptor Subsystem, High Endoatmospheric Interceptor, Ground Based Radar, Airborne Optical Adjunct, Ground Based Laser, and Ground-based Surveillance and Tracking System and contributions to the Space-Based Laser, Neutral Particle Beam, and Battle Management Command, Control, and Communications.

As these programs evolved, in 1985 the command began to explore the theater implications for Missile Defense. Three years later a joint program was initiated with Israel to develop the Arrow, a high altitude interceptor system. Finally, in 1991, all theater Missile Defense (TMD) functions would be

assigned to SDC. As in the Nike-Zeus era, anti-satellite applications were recognized, and anti-satellite programs began or were affiliated with the command. Also during this era, Secretary of the Army Michael Stone directed that the High Energy Laser Systems Test Facility at White Sands Missile Range, N.M., be transferred to SDC to centralize high-energy laser research within one organization.

Concurrent with these developments, the Army began to explore the potential applications of Space and Space assets to support operations. An initial planning group in 1986 became the Army Space Agency, “the foundation of the Army’s operational capability in Space” and a component of the newly formed, multi-service U.S. Space Command. The agency provided the Army input with regard to Space support to ground forces and the strategic defense planning process. Following a 1988 reorganization, it became the Army Space Command (ARSPACE). In addition to the planning and coordination missions of its predecessors, ARSPACE was responsible for the Consolidated Space Operations Center Detachment, Army Astronaut Detachment, and three Regional Space Support Centers. The Defense Satellite Communications System platform and payload control missions further extended its operational role.

In 1991, Operation Desert Storm conducted in Kuwait, Saudi Arabia, and Iraq saw the direct application of Missile Defense and Space assets. A small lightweight Global Positioning System receiver, for example, allowed Soldiers to navigate the desert while modified Patriot anti-aircraft batteries intercepted Iraqi Scud missiles. Lessons learned from the Gulf War led to the creation of Army Space Support Teams (ARSSTs) and Joint Tactical Ground Stations (JTAGS) as well as a greater emphasis on theater Missile Defense.

At the same time, President George H. W. Bush reoriented the Strategic Defense Initiative to establish a new Missile Defense system, Global Protection Against Limited Strikes (GPALS), which would address limited attacks of up to 200 warheads, with particular attention given to the boost-phase capabilities of the Brilliant Pebbles program. In keeping with efforts to streamline the acquisition system, the Program Executive Office GPALS was established in 1992.⁴ It consolidated project offices from SDC with the Program Executive Office Air Defense (Corps Surface to Air Missiles and Patriot) from the U.S. Army Missile Command. Under the agreement, the Ground-Based Interceptor, High Endoatmospheric Interceptor, Ground Based Radar, Ground-based Surveillance and Tracking System, Battle Management Command, Control, and Communications, Adjunct Sensors, Testbed Product Office, and TMD programs such as the Extended Range Interceptor, Theater High Altitude Area Defense, and Arrow transferred to the new program executive office.

A separate study conducted after the Gulf War reassessed the Army’s organization for Space. After reviewing several options, officials opted to merge ARSPACE and SDC, creating the U.S. Army Space and Strategic Defense Command

(SSDC) in 1992, with the ARSPACE as a subordinate command. The SSDC continued to perform research and development for strategic and theater Missile Defense technologies and anti-satellite efforts in directed and kinetic energy. The new organization became the Army’s focal point for Space and Missile Defense.

Given this guidance, the SSDC continued to provide research and development support to the Strategic Defense Initiative Organization and matrix support to the GPALS office, and retained responsibility for Kwajalein and the High Energy Laser Systems Test Facility. The command, however, continued to evolve, and new initiatives were added to the mission set. In 1994, SSDC was named the operational advocate for TMD. In 1996, under an agreement with Israel, the SSDC began to develop a Tactical High Energy Laser. The Battle Integration Center stood up to combine the four elements of TMD to better test concepts and train Soldiers. And the command began to explore new applications for its technologies, including a study of aerostats as sensor platforms, an initiative that would lead to the 2007 decision to make USASMD/ARSTRAT the Army proponent for high altitude.

In addition, as the focal point for Space, the SSDC gained new responsibilities as Army officials decided to consolidate Army Space programs into one entity. This process began in 1992 with the transfer of network management and control for the Milstar military satellite communications constellation. In 1993, the Army Space Technology Research Office, which managed the Space research and development programs, merged and became the Space Applications Technology Directorate. One year later, the Army Space Program Office transferred to SSDC bringing with it the Tactical Exploitation of National Capabilities Program. At the same time the command began to explore ways to better provide Space support to the Warfighter. In addition to the development of ARSSTs and JTAGS units, the Military Satellite Control Directorate was converted to the 1st Satellite Control Battalion.

In 1996, the SSDC withstood efforts to merge it with another command and was instead designated a standalone Army Component Command by the Vice Chief of Staff of the Army. GEN Ronald Griffiths based his decision upon the fact that SSDC “[carried] out responsibilities in scope and magnitude unlike other Army organizations.” One year later, the command achieved a new milestone as it was elevated to major command status and subsequently renamed the U.S. Army Space and Missile Defense Command (USASMDC). The establishing general order identified three specific areas for the command: the Army’s specified proponent for Space and national Missile Defense and the overall Army integrating command for TMD.

As established in agreement with the U.S. Army Training and Doctrine Command (TRADOC), the USASMDC now assumed responsibility for determining Space requirements and leading the integration of Doctrine, Training, Leader Development, Organization, Materiel, and Soldier Support

Footnotes

The final link in the command's genealogy also can be traced to 2002 and the reorganization that transferred U.S. Space Command missions to a new U.S. Strategic Command (USSTRATCOM).

solutions across the Army and within appropriate joint agencies. This agreement also led to the establishment of the Space and Missile Defense Battle Lab, the only battle lab outside TRADOC, to plan and conduct Space and Missile Defense warfighting experiments. In a concurrent effort, in 1999 the USASMDM stood up the 1st Space Battalion “to institutionalize Space within the Army,”⁵ followed in 2001 by the Colorado Army National Guard’s 193rd Space Battalion and finally the 1st Space Brigade in 2003.

Essentially, the command ensured that Army Warfighters have (1) access to Space assets and the products they provide to win decisively with minimum casualties; and (2) effective Missile Defense to protect the nation as well as deployed U.S. forces and those of its allies. To that end, as technologies developed, programs transitioned to the program executive office. As the Army was designated the lead service for land-based national Missile Defense, the National Missile Defense TRADOC System Manager was chartered. When new missions were assigned to the U.S. Space Command, USASMDM as the Army Service Component Command assumed new assignments such as computer network attack, computer network defense, and joint blue force situational awareness.

2002 marked another milestone in the command’s evolution. Two significant events would shape the command’s missions and functions. In June, the United States formally withdrew from the Antiballistic Missile Treaty. In his announcement, President George W. Bush observed “we no longer live in the Cold War world for which the ABM Treaty was designed.” He added his commitment to create a Missile Defense system as soon as possible to protect the American people and deployed forces. While much rested with the Missile Defense Agency, as the Army proponent USASMDM proceeded with the reactivation and transfer of Fort Greely, Alaska, to implement the Ground-based Midcourse Defense (GMD) Testbed, and stood up the 100th Missile Defense Brigade (GMD) in October 2003 and the 49th Missile Defense

Battalion (GMD) in January 2004.

The final link in the command’s genealogy also can be traced to 2002 and the reorganization that transferred U.S. Space Command missions to a new U.S. Strategic Command (USSTRATCOM). As part of this realignment, USASMDM became the Army Service Component Command to USSTRATCOM and as such became the Army Forces Strategic Command or USASMDM/ARSTRAT.⁶ Its missions are in many ways tied to USSTRATCOM. A significant change came in 2003, when Unified Command Plan Change 2, signed by President George W. Bush, assigned global strike; information operations; Space; command, control, communications, computers, intelligence, surveillance, and reconnaissance; and integrated Missile Defense to USSTRATCOM. Based upon this relationship, USASMDM/ARSTRAT, for example, has assumed the measurement and signature intelligence and advanced geospatial intelligence mission and in 2009 was named the interim Army Forces Cyber Command, pending the establishment of a separate fully operational command.

Throughout its history, USASMDM/ARSTRAT has evolved to meet the needs of our nation, Warfighters, and allies. It has traditionally held a unique role as the researcher and developer, tester, trainer, and operator. Today USASMDM/ARSTRAT, as the Army proponent for Space, global Missile Defense, and high altitude and the operational integrator for global Missile Defense, continues this tradition with its three core tasks to provide trained and ready Space and Missile Defense forces and capabilities to the Warfighter and the nation; build future Space and Missile Defense forces; and research, test, and integrate Space, Missile Defense, cyber, directed energy, and related technologies.⁷ Ultimately, USASMDM/ARSTRAT remains on the cutting edge providing the most up-to-date Missile Defense and Space products and services, and most recently returning the Army to Space with the launch of the SMDM-Operational Nanosatellite Effects nanosatellite.

¹ Due to length restrictions, it is not possible to describe all of the programs and missions that can be traced to the command and its dedicated workforce. This article does, however, try to explain the evolution of the whys behind the name changes and the influence of outside forces upon an organization.

² The Antiballistic Missile Treaty also specified the number of interceptors and launchers and the number and types of radars allowed. A protocol added to the treaty in 1974 limited each nation to one ABM site and further reduced the number of launchers.

³ Members of Congress reasoned that the costs of operating the system, combined with the ABM Treaty limitations and the Soviet development of multiple warhead, independently targeted reentry vehicle missiles, rendered the benefits from the Safeguard system negligible. The Perimeter Acquisition Radar, though, was not affected. Its benefits to the nation’s early warning system and deep Space tracking were recognized, and the radar transferred to the Air Force in 1977.

⁴ In subsequent years, the PEO GPALS was renamed the PEO Missile Defense (1993), PEO Air and Missile Defense (1996), and PEO Air, Space, and Missile Defense (2003) and is currently the PEO Missiles and Space (2005). The PEO now is affiliated with the Army Aviation and Missile Life Cycle Management Command.

⁵ Comments by LTG John Costello, USASMDM commander, Dec. 15, 1999.

⁶ Although generally accepted, with new insignia, etc., this name change was not formalized until General Order 37 in October 2006. The Army Forces Strategic Command designation was selected to correspond with the command’s service counterparts in U.S. Strategic Command.

⁷ U.S. Army Space and Missile Defense Command/Army Forces Strategic Command, “Core Tasks,” Dec. 20, 2011, <http://www.smdc.army.mil/2008/Vision.asp#CORE>.



Rockets & Missiles Developed on Redstone Arsenal

* Developed by USASMDC/ARSTRAT or its predecessors

Honest John	SRHIT/FLAGE*
Private A & Private F	ERIS*
Corporal	HEDI*
Sergeant	Ground-Based Interceptor*
Hermes A-1	Multiple Launch Rocket System
Bumper WAC	TOW
Little John	Patriot
Redstone	Stinger
Nike-Ajax	PAC-3*
Nike-Hercules	THAAD*
Jupiter C	Arrow*
Nike-Zeus*	High Mobility Artillery System
Spartan*	SLAMRAAM
Sprint*	Army TACMS
Sprint II*	Hellfire
Juno II	MEADS*
Shillelagh	Low Cost Interceptor*
Lance	Non-line of Sight Launch System
Pershing & Pershing II	Javelin
Dragon	Avenger
Hawk	Hydra 70
Lacrosse	EKV*
M-72 Rocket Grenade	Agile Kill Vehicle*
Mauler	Multipurpose NanoMissile System*
Redeye	
entac	
U.S. Roland	
M22	
M200A1	
Dart	
Lacrosse	
Loki	
Redeye	
Chaparral	
Low Altitude Defense (LoAD)/Sentry*	
Homing Overlay Experiment*	

TARGETS

STARS*
STARS II*
MSLS*
Storm*
Hera*
SRALT*
Economical Target-1*



REDSTONE & THE ROC

By Sharon Watkins Lang, USASMDC/
ARSTRAT Command Historian

Founded in 1809, the city of Huntsville in northern Alabama has a long history with the military from the War of 1812 to today. Until World War II, however, Huntsville was known as a cotton center and later as the Watercress Capital of the World. On the eve of WWII, in July 1941, Huntsville became home to two new arsenals—Huntsville, a chemical munitions plant, and Redstone, an ordnance assembly facility—and began a new era in its history.

The first production facility on the Huntsville Arsenal was activated in March 1942, followed soon thereafter by the Huntsville Chemical Munitions Depot. During World War II Huntsville Arsenal



ARSENAL ROCKET CITY

manufactured more than 27 million items of chemical munitions. It was the sole producer of colored smoke munitions and also was noted for its significant production of gel-type incendiaries.

New components were frequently introduced in the Huntsville Arsenal inventory. Two chlorine plants were constructed to support the production of mustard gas. In addition to these production plants, there were two filling plants operating until 1945. In a separate plant, employees filled ten types of munitions with white phosphorous. In November 1942 the arsenal began to produce white smoke munitions, production of which continued until September 1945. In 1943 Huntsville also was involved in the manufacture of Lewisite and carbonyl iron, and in December 1943 began

to manufacture tear gas, followed by phosgene in February 1944. Huntsville Arsenal was well respected, earning the Army-Navy “E” award four times for its outstanding efficiency.

Redstone Arsenal was the only Army Ordnance Corps manufacturing arsenal below the Mason-Dixon Line. Between March 1942 and September 1945 it loaded and assembled 45.2 million units of ammunition. In addition to the items produced for Huntsville Arsenal, the Redstone inventory included burster charges, rifle grenades, and bombs of varying weights and sizes. A new specialty was added to the Redstone inventory in 1943, demolition blocks. By the end of the war Redstone had produced and shipped 11,756,000 blocks to the troops. On other lines, workers assembled and packaged detonation cord. The workers at Redstone Arsenal were equally industrious, earning the Army-Navy “E” Award five times.

Following the war, Huntsville Arsenal gradually ceased production of chemical weapons. New missions came with the task of disassembling more than 378,000 gas masks and the subsequent storage of production equipment and mask components as war reserve and the demilitarization of various incendiary devices. At the same time, the arsenal continued to sell property and lease out production facilities and land. After two years in surplus standby status, Huntsville Arsenal ceased to exist as a separate installation on June 30, 1949. Its remaining staff, property, lands, and leases were transferred to Redstone Arsenal (RSA).

The pivotal point for RSA came in October 1948, when the Chief of Ordnance designated it the research and development center for rockets and related fields. Within the year, RSA was assigned its first rocket program, the T-133 High Explosive Rocket, and began to recruit technical and professional people to support this effort. Reactivated as the Ordnance Rocket Center in June 1949, RSA's role in rocket development was solidified in October 1949, when the Secretary of the Army authorized the transfer of the Ordnance Research and Development Division Sub-Office (Rocket) from Fort Bliss, Texas, to RSA. Included in this transfer were Dr. Wernher von Braun and his team of 120 German scientists and technicians who had come to the United States after WWII as part of Operation Paperclip.

Since 1950 every Army rocket and missile program can be traced to the pioneering efforts of personnel assigned to RSA. The mission expanded in 1951 to include the development of anti-aircraft rockets and aerial towed targets and in 1952

The Army's family of missiles is shown in 1961. From left to right are Nike Hercules, Hawk, Sergeant, Nike-Zeus, Pershing, Lacrosse, and Nike-Ajax. The Soldiers are holding the M-72 Rocket Grenade, the Redeye, and the French-developed ENTAC.

Building 5250, building I in the Von Braun Complex, has been the Huntsville, Ala., home of the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command since 2004.



to study anti-tank rockets. In 1955 intermediate-range ballistic missiles gained the highest priority. As the arsenal continued to explore various types of rockets and missiles, the Ordnance Corps established the Ordnance Guided Missile School at RSA. The arsenal was fast becoming the center for all Army missile assets, to include some manufacturing. Huntsville became the Rocket City.

The U.S. Army Space and Missile Defense Command/Army Forces Strategic Command also can trace its mission and history to this early period. The Nike anti-aircraft systems provided the foundation for the new Missile Defense mission. In 1957 the Redstone Anti-Missile Missile Systems Office, the first Army organization devoted to Missile Defense, was established on RSA. It looked at the feasibility of developing an anti-ballistic missile system, the Nike-Zeus, to address the impending threat posed by intercontinental ballistic missiles. Although deployed in a very limited capacity, the Zeus proved the concept and led to the development of the Spartan missile. This long-range interceptor combined with the short-range Sprint and specialized radars were deployed as the Safeguard system in the 1970s, the first anti-ballistic missile network deployed in the western world.

Having outgrown its two buildings on RSA in 1969, the command (then the Sentinel System Command) moved to a new home on Wynn Drive in the recently created Cummings Research Park in Huntsville. The larger facility allowed the command to unite and grow and from here, the command conducted research and development, oversaw test and evaluation, and for a short period commanded the deployed Soldiers of the Safeguard Command. In later years they developed and demonstrated the feasibility of non-nuclear interceptor technology and directed energy systems, and served at the



forefront in the Strategic Defense Initiative and the development of theater Missile Defense systems. The ties to RSA, however, remained and ultimately, USASMDC/ARSTRAT moved in 2004 to the newly constructed Wernher von Braun Building.

From artillery, bombs, and early guided missiles and field artillery rockets, RSA programs evolved to incorporate systems capable of launching satellites and humans into Space. In the past 70 years Redstone Arsenal has grown tremendously. Today its 37,910 acres and 11.7 million square feet of building space are home to a number of Army organizations, including the Army Materiel Command, Aviation and Missile Command, Army Contracting Command, Security Assistance Command, Program Executive Office Aviation, Civilian Personnel Operations Center, and FBI training facility. From the perspective of USASMDC/ARSTRAT, however, it is also the nucleus of the Army's Missile Defense programs, housing not only USASMDC/ARSTRAT but also the Aviation and Missile Research Development and Engineering Center, Redstone Technical Test Center, and PEO Missiles and Space, as well as the joint Missile Defense Agency. After six decades RSA and Huntsville remain at the center of missile and Missile Defense development.



The first three interceptor missiles developed by predecessors to today's U.S. Army Space and Missile Defense Command/Army Forces Strategic Command: Spartan, Nike-Zeus, and Sprint on display at Redstone Arsenal, Ala

Women were a large part of the World War II workforce at the Army arsenals in Huntsville, Ala.



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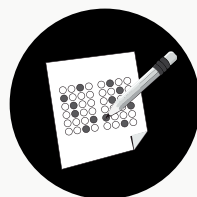
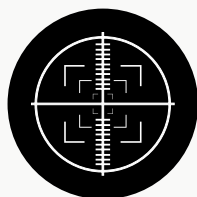
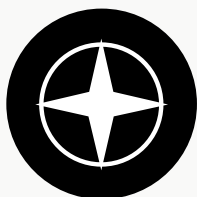
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JTAGS
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Upgrade

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Navigation . Boards . Range . Exam . Fitness . Warrior Drills

Soldiers Battle for Top Spots

By Rachel L. Griffith, USASMDC/ARSTRAT Public Affairs

COLORADO SPRINGS, Colo.—The U.S. Army Space and Missile Defense Command/Army Forces Strategic Command selected its 2012 Best Warriors following a weeklong competition in May.

The Noncommissioned Officer of the Year is SGT Brandon Kitchen, 53rd Signal Battalion, 1st Space Brigade. The Soldier of the Year is SGT Anthony Moore, 1st Space Battalion, 1st Space Brigade.

The command brought eight candidates to Peterson Air Force Base to compete for the title. Four Soldier candidates and four noncommissioned officer candidates were put through a series of mental and physical challenges meant to gauge their ability at warrior tasks.

“The intent of the Best Warrior Competition is to promote morale, esprit de corps, and cohesion within the command. It is also to identify, recognize, and send the best-prepared NCO and Soldier to the Best Warrior Competition hosted by the Sergeant Major of the Army,” said 1SG Steven Adams, at the time first sergeant for the USASMDC/ARSTRAT Headquarters and Headquarters Company.

“I’ve been looking forward to this day for awhile now,” said SFC Andrew B. Brown, the command’s 2011 NCO of the Year. “I’m happy to hand over my title. When you look at this group of competitors, they’re all winners in my book.”

The candidates arrived from the command’s worldwide geographic locations a few days before the competition started. They began with a test aimed to assess their skills in warrior tasks and drills.

All eight competitors completed the Army Physical Fitness Test, performed at an altitude of nearly 7,000 feet above sea level. Later during day

one, they went to Fort Carson to compete in a situational training exercise that tested their abilities at crowd control, gathering information, and finding a high-value target.

They were given little sleep before returning to the competition, where candidates led a group of Soldiers through a physical fitness warm-up drill. Immediately following the drill, they wrote an essay. Later that afternoon, they returned to Fort Carson to shoot the M-4 rifle in a day and night firing range. They ended the competition by appearing in front of an administrative board.

Kitchen and Moore have begun a rigorous training schedule to prepare them to compete at the Department of the Army Best Warrior Competition this fall in Virginia.

“I know a little bit more about the competition, so I’m not going to be blind-sided,” said Kitchen, who was named the command’s Soldier of the Year in 2011. “I’m personally going to do whatever I can to get started and work on getting up to speed so that myself and SGT Moore can do the best that we can in representing USASMDC/ARSTRAT.”

“Hopefully, we’ll be able to go there and prove that just because we aren’t a combat arms MOS, we are Space Soldiers, and we are an integral part of the U.S. military. I’m excited to go. I’m excited to compete again, and I really hope that SGT Moore and I can come out on top and show the rest of the Army what USASMDC/ARSTRAT is all about.”

Candidates were awarded the Army Achievement Medal for their selection as regional representatives in the competition. Kitchen and Moore additionally received the Army Commendation Medal.

2012 USASMDC/ARSTRAT



BEST OF THE BEST





U.S. Army Space and Missile Defense Command/ Army Forces Strategic Command conducted the 2012 Best Warrior competition in Colorado Springs. Events included range drills, tactical exercises, and appearances before an administrative board of senior enlisted leaders. This year's winners will go on this fall to compete for the Department of the Army Best Warrior. *Photos by Dottie White*



Soldier of the Year
SGT Anthony Moore



Noncommissioned Officer of the Year
SGT Brandon Kitchen



Navigation . Boards . Range . Exam . Fitness . Warrior Drills



Participants in the American Cancer Society Relay for Life at Osan Air Base, Korea, included USASMDC/ARSTRAT Soldiers (FROM LEFT TO RIGHT) SSG Ryon Miller, SSG Kenneth Graw, SGT Joshua NeSmith, SSG Alan Soderberg, SPC Morgan MacLeod, and PFC John Brannan. Photo by Alyssa Graw

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JTAGS KOREA RELAYS FOR LIFE

By Rachel L. Griffith, USASMDC/ARSTRAT Public Affairs

OSAN, South Korea—The Soldiers of Joint Tactical Ground Station-Korea donated their time and energy May 12-13 to support the American Cancer Society's Walk for Life.

The JTAGS team accepted pledges for the annual fundraising event. Operations sergeant, SSG Alan Soderberg organized the team, but he was not alone in the planning.

"SSG Ryon Miller, SSG Kenneth Graw, SGT Joshua NeSmith, SPC Morgan MacLeod, and PVT John Brannan have been doing the fundraising," Soderberg said. "Each team that participates is asked to set a fundraising goal for the event. Ours was \$1,000, and we have already passed that with more than \$1,100."

The event as a whole raised more than \$36,000 for charity.

The team from Detachment C constructed "Forward Operating Base JTAGS" at the athletic track, and it was a big hit amongst the participants.

"The FOB's many amenities included two TVs, two Xbox360s, a coffee pot, and plenty of cots. It was a great place to relax between laps on the track," Soderberg said.

The JTAGS Soldiers were the only non-Air Force team participating in the event. Despite being one of the smallest teams, they raised the third highest amount of money for charity. The top two teams had 20 participants while the JTAGS team had six members. Because JTAGS Soldiers have a 24-hour a day mission, detachment Soldiers took care of the mission while the team walked the track.

This is not the first time the Soldiers stationed in the remote location have supported charitable causes. A group pitched in to clean up a playground at one of the housing communities on base April 26. They have since received an outpouring of thanks from the residents.

"We've received lots of thanks by way of Facebook and e-mail messages from the families who live there," Soderberg said.

"Forward Operating Base JTAGS" served as the home base for 24 hours May 12-13 to the Joint Tactical Ground Station-Korea Soldiers participating in the American Cancer Society's Relay for Life event.

Photo by SSG Alan Soderberg

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Alpha Company Soldiers Staff Sgt. Branden Kleiser (on ladder) and Spc Brandon Thompson (holding the ladder) perform routine maintenance on one of the satellite dishes adjacent to the new WSOC at Fort Detrick, Md. *Photo By DJ Montoya*

WIDEBAND
SATELLITE
COMMUNICATIONS
OPERATIONS
CENTER

FORT DETRICK [WSOC]

RECEIVES STATE-OF-THE-ART UPGRADE

By DJ Montoya,
1st Space Brigade Public Affairs

FORT DETRICK, Md.—Key leaders from the U.S. Army's 1st Space Brigade, 53rd Signal Battalion, and Alpha Company cut a ceremonial red, white, and blue ribbon in front of the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command's newest Wideband Satellite Communications Operations Center at Fort Detrick on March 7.

The event marks the second of four brand new WSOC building upgrades slated through early 2014. Soldiers at the operations centers manage payloads for the growing constellation of high-capacity Wideband Global SATCOM satellites.

"Today represents an important milestone in our first core task of providing trained and ready Space and Missile Defense forces and capabilities," said LTG Richard P. Formica, commanding general of USASMDC/ARSTRAT.

Addressing a crowd of local officials, Soldiers, Civilians, contractors, and Family members, Formica stated, "As we dedicate this new facility we replace the 1980s-era satellite control capability here at Fort Detrick with this 27,244 square foot state-of-the-art facility. This center here serves as the new operations center for the Army Space



< LTG Richard P. Formica explains the importance of the new Wideband Satellite Communications Operations Center that opened its doors during a ceremony March 7 at Fort Detrick, Md.
Photo by DJ Montoya

Soldiers of Alpha Company, 53rd Signal Battalion in our 1st Space Brigade.

“These Soldiers are the controllers of the Defense Satellite Communications System and Wideband Global SATCOM constellations. That means that they command the payload on these satellites.”

The ground breaking for the facility began in January 2010 with construction starting shortly afterwards. The Army Corps of Engineers, Baltimore District completed the building under contract in early summer 2011 at a cost of \$10.5 million. Initial operational capability for the facility was declared in January 2012.

But this new WSOC facility is more than bricks and mortar, according to LTC Benjamin C. Jones, commander of the 53rd Signal Battalion at the time of the ceremony.

“We have some of the very best and brightest Soldiers here at Alpha Company,” said Jones. “Our Soldiers performing satellite control are selected from among the best in the 25S community (the military occupational specialty for the Army’s satellite communication systems operator/maintainer.)

“In addition to completing this advanced individual training at Fort Gordon, Ga., they must attend an additional 19 weeks of a follow-on course to earn their identifier as controllers. At that point their training as a satellite controller has really just begun. Because once they arrive at the unit they begin an intensive training and certification program, which must be completed before each Soldier is autho-

rized to serve as a member of a crew on our operations floor.”

“I’m extremely proud of the hard work of our Soldiers, Civilians, and the contractors who perform our important mission set 24/7 365,” said Jones.

The U.S. Air Force launches and parks the WGS satellites in orbit. It is then that the Army’s role concerning the system becomes clearer, according to CPT Mickey J. Pletcher, commander of Alpha Company.

“Pretend like we are a school bus,” said Pletcher. “The Air Force are the guys behind the wheel driving it, and I’m the bus monitor. I let people on and off the bus. I configure the seats on the bus. I make people sit in the appropriate seats, and when it is time for them to get off I direct them off the bus.

“The payload represents the seats inside the bus and the users are the people who get on the bus to ride it between point A and B. And that is what we do here with our 61 Soldiers who are trained and ready,” said Pletcher.

There are a total of five WSOC locations around the globe including the one at Detrick. The others are: Wahiawa, Hawaii; Fort Meade, Md.; Landstuhl, Germany; and Okinawa, Japan. These facilities are the focal point for conducting payload command and telemetry functions. The WSOCs also perform transmission-monitoring functions, control terminal access, monitor the health and welfare of the spacecraft, and evaluate the quality of communications links and implementation of restoral plans on a 24-hour basis.



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