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## Space and Missile Defense Conference

16 August 2011

### LTG Formica Remarks as Prepared

Is this a Hooah Day in Huntsville Alabama or what? It's really great to be here with you this morning. Congressman Brooks, Mayor Battle, General Officers, SES's, senior officers, NCOs, Civilians, and industry partners. Let me say thanks to the ASMDA, NDIA, ADA Association and the planning committee for hosting this event and for the opportunity to speak to you all. It's a great opportunity to be here today. The committee has lined up an impressive list of distinguished speakers – I'm really looking forward to learning from them.

The theme for this year's conference is providing capability to the Warfighter. In the command we do that through our Soldiers and our Civilians. This morning we want to present to you 10 of our recently recognized Soldiers – our SMDC/ARSTRAT NCO and Soldier of the Year and 8 NCOs recently inducted into the prestigious SGT Audie Murphy Club – I'd like to bring SGM Mattie and 1SG Adams up for the introductions.

It is an honor for me to be here representing the men and women of the U.S. Army Space and Missile Defense Command / Army Forces Strategic Command, and STRATCOM's Joint Functional Component Command for Integrated Missile Defense (JFCC-IMD). So, I'm here really wearing three hats.

So, most of you know that I grew up in the Army as a Field Artilleryman and Fire Supporter. I branch transferred to Missile Defense and career functionally designated to Space as an FA-40 late in my career. But I'm absolutely committed to both missions and these are good areas to be in at this time. Both are very, very important missions for our country, and I'm committed to them.

Today I'm going to cover three things with you. First, I always start off with a reminder about what our Army is up to. Then I'll share my view of



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SMDC/ARSTRAT, some of the things we've got going on there. And then I'll talk about what we're currently doing at U.S. Strategic Command's JFCC-IMD.

First, our Army is performing magnificently alongside the Navy, Air Force, Marines, DOD and service Civilians and our coalition partners in operations in Afghanistan and in Iraq.

Today the Army has some 246,000+ Soldiers deployed and forward stationed with more than 114,000 in operations in Afghanistan and Iraq. Our Soldiers are focused – and they're making progress every day under tough tactical conditions. And even under the most arduous conditions in which they operate, they continue to perform magnificently every day.

Our Soldiers, Sailors, Airmen, Marines, and Civilians are providing Space and Missile Defense for our country and for our Warfighters. They understand service, and they understand sacrifice.

No doubt the Army is stretched after a decade at war – sustaining two major operations while continuing a global presence and participating in stability operations and training exercises around the world. Our Soldiers and families feel the strain of multiple deployments with more than 6,000 Soldiers, Sailors, Airmen, Marines, and Civilians who have given their lives in this war against terrorism in Iraq, Afghanistan, and other parts of the world. We have all been touched by the ultimate sacrifice they have made in service to their country and the suffering it has brought to mothers...fathers...sisters....brothers...spouses, sons, and daughters, and friends. Yet, our Soldiers and families remain focused on their mission; dwell time in-between rotations is increasing; morale is good – and there's an enormous sense of pride in what we're accomplishing.

Just this Sunday, Huntsville honored CPT Chip Ramsey who gave his life in Afghanistan – he was remembered for being a great officer – and for being a good man who loved his country and served it with selflessness and pride.

Last week I visited several of our Warriors recovering at Walter Reed Army Medical Center. Those Soldiers that I visited inspire awe. They are incredible



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examples of courage, dedication, and selfless service. Despite their circumstances not one of them complained – they were proud of their service and understood the meaning of sacrifice.

It's to these Soldiers – and those still serving in harm's way and around the globe that we're committed providing space and missile defense capabilities.

Now let me talk a little bit about SMDC/ARSTRAT. I told you I wear three hats. Two of those hats are at SMDC/ARSTRAT, we have title 10 responsibilities to the Army, with one hat; and then the second hat, the Army service component command to USSTRATCOM. We are a force provider of both space and missile defense forces.

Our organizational vision statement talks to who we are and what we do, who we do it with, and establishes our foundational values. I'd like to discuss the capabilities that SMDC delivers and in the context of our vision statement and our three core tasks. And then I'll follow with an update on JFCC-IMD.

SMDC/ARSTRAT is a diverse, complex and global command that provides critical capabilities to our Army, to US Strategic Command, to the geographic combatant commanders, and their Army Service Component Commanders. And that we must remain in synch with STRATCOM's Joint Functional Component Command for Integrated Missile Defense (JFCC IMD).

We are one command – split based - with part of the headquarters in Huntsville and part in Colorado Springs - but we are one command; and we are multi-component - active, guard, and reserve;

We're diverse - with Soldiers and Civilians operating around the globe in dispersed locations - and we consist of a talented and professional work force of Soldiers, Civilians and contractors - all of whom must be public servants

As the Army's proponent for space, high altitude, and global missile defense and as the Army's operational integrator for global missile defense, we have 3 core tasks:



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First, we provide trained and ready space and missile defense forces and capabilities to the combatant commanders and to the Warfighter – our operations function. We currently have more than 860 Operational Forces supporting BMDS and Space Operations who are CONUS-based, forward-stationed or deployed. We recently deployed two Army Space Support Teams (ARSST) to the CENTCOM AOR and have deployed 62 teams since the start of operations in Iraq and Afghanistan. These highly trained teams use their skills and various systems to deliver Army and Joint space capabilities to commanders.

We provide deployed-in-place multi-component missile defense crews at Fort Greely, AK, Vandenberg AFB, CA and Schriever AFB, CO; 24/7/365. We deliver theater missile defense warning to deployed forces via JTAGs to CENTCOM, PACOM, and EUCOM.

We operate five satellite communications operations centers located in the United States and overseas. As the SATCOM System Expert (SSE) for the Defense Satellite Communications System (DSCS) and the Wideband Global SATCOM (WGS) systems, SMDC/ARSTRAT is responsible for planning and managing global satellite communications (SATCOM) resources for the vast majority of DOD's SATCOM capacity. Our Soldiers and Civilians ensure crucial communications capabilities are available for deployed Joint forces, COCOMS, DOD, our national leadership, our Allies, and other agencies.

Through our Mission Management Center in Colorado Springs, we provide Friendly Force Tracking data to Joint, Interagency and Coalition Forces around the world, supporting C2 and situational awareness.

Our Geospatial Intelligence Division provides satellite imagery to STRATCOM, NORTHCOM and other GCCs. Recently, it provided special products to USPACOM on the damage to the Fukushima Nuclear power site and its continued impacts. Most recently, we supported disaster relief operations here in Huntsville and throughout Alabama and in the Midwest after this spring's tornadoes.



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We conduct space tracking and space situational awareness capabilities at our Regan Test Center on the Kwajalein Atoll.

And provide the Army astronaut detachment – we're proud of our astronauts – two are here today: LTC Mark Vande Hei and COL Shane Kimbrough.

Our second core task is to build the future space and missile defense forces – our capability development function. We follow Army and TRADOC's processes in building future space and missile defense forces. We use the DOTMLPF construct: doctrine, organizations, training, material, leader development, personnel and facilities. We develop space and the ground-based midcourse missile defense operations doctrine and have integrated Space and Missile Defense into the new Army's operating concept and the concept documents of the 6 Warfighting functions. We're responsible for developing the operational organizations and the force structure for space and the global missile defense forces, which includes both our 1<sup>st</sup> Space Brigade and the 100<sup>th</sup> Missile Defense Brigade.

We train our future missile defense operators. We are working with MDA to develop a plan for transitioning the GMD Operator Course to SMDC/ARSTRAT. We're also developing plans for enhancing space knowledge, institutional training, and leader development throughout the Army.

In support of AN/TPY-2 radar deployments to overseas locations, we're working closely with HQDA (thru DAMO-AMD), MDA, ASCCs, and JFCC-IMD to identify new placement sites. To prepare for operations, we are currently training the first set of sensor managers and detachment leadership for the TPY-2 radar that will be deployed in support of EPAA.

We train and educate the Army space professionals – military and civilian, and we teach space operations at leader development courses at the Command and General Staff College, at West Point and at the various branch centers of excellence. We are expanding our use of mobile training teams to increase our reach into the force. As the Army proponent for space, high altitude, and missile defense capabilities, we are currently developing a persistent platform



capabilities requirement document to help inform the Army for future investments in high altitude platforms.

Our third core task is to research, test, and integrate space, missile defense, directed energy, and related technologies – our materiel development function.

Our focus here is to find implementable solutions that fill the gaps in current capabilities – solutions that can be successfully transitioned to the Warfighter.

For example, to fill identified gaps in communications, we're working to develop nano-satellite concepts and capabilities such as our recently developed and launched SMDC-ONE nano-satellite. To help address gaps in ISR capabilities, we're developing the Long Endurance Multi-Intelligence Vehicle (LEMV) which is scheduled for operational demonstration in support of OEF early next year. We're also developing nano-satellite solutions such as Kestrel Eye which will provide 1.5 meter resolution imagery and can be tasked by the theater.

Despite setbacks, we continue to work in High Altitude Airship (HAA) platforms. HAA goal is to have an altitude greater than 60,000 feet for a long duration. HA platforms will provide a much needed persistent 24/7 capability for surveillance and communication platforms to see over-the-horizon for theater and homeland defense operations.

To fill gaps within Counter Rocket, Artillery and Mortar, we're working to field solid-state lasers. This year, we successfully fired a 100 kW solid-state laser system – capable of providing C-RAM as well as C-UAV capabilities; and are working towards testing a 400 kW capability in the near future – capable of providing theater defense. We're also working to help fill the Counter Improvised Explosive Device gap through the use of High Power Microwave Weapons and other technologies.

The United States Army Kwajalein Atoll Reagan Test Site provides operational and developmental range testing of both theater and strategic level missile defense systems. Kwajalein's strategic geographical location, its unique systems and unsurpassed capability to support ballistic missile testing and



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space operations has served the nation for over 40 years and will continue to provide us with a valuable testing platform for years to come.

The Ronald Reagan Ballistic Missile Defense Test Site (RTS) is actively engaged in performing mission planning and execution in support of a variety of important test and space customers while concurrently executing major range improvement and modernization projects. Planned RTS DoD Test missions include Missile Defense Agency (MDA) tests, Glory Trip (GT) or ICBM reentry missions, and hypersonic vehicle test missions to include the recently completed DARPA Hypersonic Test Vehicle (HTV-2) flight test and the Advanced Hypersonic Weapon flight test later this year. In the next year RTS will support a test of our layered missile defense system.

The RTS Distributed Operations program is transforming RTS from a locally operated range to a globally operated national asset allowing distributed operations from Huntsville. The newly established RTS Operations Center - Huntsville (ROC-H) is currently performing 80 hours per week of space operations and we are planning to begin supporting full test operations later this year. This capability will improve RTS customer support making mission planning and execution possible from Huntsville reducing travel and infrastructure costs. We invite you to come and see ROC-H on Thursday afternoon the (18th) 1300-1600 - Three tours for conference attendees are planned at 1300, 1400 and 1500 hrs. Please see Jack McCreary who is at the SMDC/ARSTRAT booth.

We are uniquely organized to execute our three tasks – our operational staff with two brigades; a missile defense brigade and a space brigade – are in Colorado Springs, but have elements operating in 16 locations around the world; a Future Warfare Center – which does capability development; and a Technical Center – which does materiel development.

And we are geographically well-positioned for our three tasks. In Huntsville we're co-located with the Missile Defense Agency (MDA), Army Materiel Command/Army Aviation and Missile Lifecycle Management Command (AMC/AMCOM), Program Executive Office (PEO) Missiles and Space, PEO



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Aviation, Missile and Space Intelligence Center (MSIC), NASA -- and the tech base there. In Colorado Springs we are co-located with MDA, NORTHCOM, US Air Force Space Command, JFCC-IMD, and again with the particularly space-oriented tech base there.

We must sustain close and collaborative relationships with the Missile Defense Agency - and the many Army, Joint, civic and industry partners involved in Space and Missile Defense.

We must be nested within the Army's enterprise framework; we'll sustain a unique relationship with Army Cyber Command.

And we must be disciplined stewards of our government's resources. We are accountable for our programs and we'll reflect a cost culture in all that we do. This will be particularly important in an environment of tight budgets and with today's fiscal realities.

Our units consist of precise, confident, fit, disciplined, and courageous Soldiers and Civilians who are led by tough, competent, caring, and courageous leaders. And we are responsible and cooperative tenants at Redstone Arsenal, Peterson Air Force Base and on the installations on which we live and serve.

And finally, we are a values-based command - which cares for and serves our Soldiers, Civilians and Families in the command.

Let me now switch to JFCC-IMD. In that capacity I command STRATCOM's Joint Functional Component Command that provides Integrated Missile Defense. It's a separate and distinct command, a functional component of USSTRATCOM. JFCC-IMD supports U.S. STRATCOM's unified command plan mission responsibilities synchronizing associated operational level missile defense planning and global missile defense operations support.

Shortly after I took command, a couple of months actually, that I realized that I was selected as the CG of JFCC-IMD because I was the CG of SMDC/ARSTRAT, and not the other way around. It's the unique capabilities



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that SMDC/ARSTRAT offers that benefit JFCC-IMD. And so we must maintain a synergistic relationship between the two commands.

We'll never subsume one over the other, or one won't ever be integrated into the other, but they clearly must be in sync, and there's operational benefit.

U.S. STRATCOM has seven assigned responsibilities in the unified command plan. At JFCC-IMD, we focus those in four key tasks.

First, we synchronize global ballistic missile defense planning across the various areas of responsibility, the AORs.

Second, we optimize the global force as the assigned joint functional manager for ballistic missile defense.

Third, we coordinate operations by conducting BMD asset management, which is really the day-to-day management of what's available.

And we provide alternate missile defense execution support in times of crisis.

To accomplish each of these four tasks we must sustain a close collaborative relationship, again, with the Missile Defense Agency, with the geographic combatant commands, the services, OSD, the Joint Staff, our coalition allies and our industry partners. And we must be in synch with both the Army's SMDC/ARSTRAT and the Navy's air and missile defense command.

The environment in which we provide missile defense capabilities – and many of you have been watching this longer than me – but it seems to me it is changing. And so I'll identify three areas where I think that environment is changing.

First, I believe that the rigid bifurcation of ballistic missile defense and integrated air and missile defense is blurring. Over time, this will impact our organizations, our C2 systems and our processes.

Second, as authenticated in the Ballistic Missile Defense Review, defending the homeland remains our pre-eminent priority, but regional missile defense is an added priority and growing in importance. Within that context, again from



the JFCC-IMD view, cross AOR operations will be the norm. And that impacts our force allocation, decision mechanisms, processes and procedures.

And third, we have to prepare for changes in indications in warning that we've planned for in the past. As the threat develops more capable and more mobile systems, we can anticipate less time to prepare and different indications in warning. And this too will challenge our current processes and procedures. This places even more emphasis on working through cross AOR command and control processes and establishing agreed upon doctrine.

I'd like to briefly review for you some of the activities that we're working closely with the rest of the missile defense community as we provide capabilities and set the conditions for integration of those capabilities in JFCC-IMD.

First, the global ballistic missile defense framework. On behalf of USSTRATCOM, we're currently leading efforts to synchronize BMD assets globally by establishing a baseline framework for the allocation of those missile defense assets across the globe.

As we implement EPAA – and develop the Asia-Pacific, this framework will provide a useful construct that enables us to flex our limited BMD assets through a series of BMD defense condition levels, and will provide a basis for increasing BMD capabilities to the geographic combatant commanders. As we have developed the framework to this point, it's exposed to us the reality that there simply aren't enough assets to meet all of the GCC demands, particularly if the threat were to escalate in more than one theater at a time; and in validating the need for a global perspective in allocating the high demand, low density and high dollar missile defense systems that we have.

Second, USSTRATCOM global ballistic missile defense assessment. We're collaborating closely with GCCs to assess the level of risk associated with their respective plans and the ballistic missile defense capabilities that are provided to them. We'll use these assessments to provide a global BMD assessment to the commander of USSTRATCOM, and that assessment of missile defense



capability will inform our input to the prioritized capability list and it will shape our recommendations for future capability investments.

Third, integrated master test plan. The MDA, as you know, executes a robust operational test plan and we at JFCC-IMD work closely with MDA and with the GCCs to optimize the benefits that we can derive from MDA's test plan. And then we provide feedback directly to MDA as to the operational priorities for scheduling and conduct of those tests as we balance the operational needs for those tests against the resources available.

Fourth, global asset management. Every day we're engaged in the management of the day-to-day missile defense assets, sensors and shooters, in order to balance operational readiness conditions, scheduled and unscheduled maintenance activities and MDA's test requirements.

Finally, Nimble Titan. Nimble Titan is a global war game that we sponsor on behalf of USSTRATCOM. It involves 13 participating nations and NATO. It has enabled us to address issues such as command and control, consequence management and rules of engagement. It provides transparency in missile defense planning and has allowed for allied integration and participation as we examine regional issues associated with the European Phased Adaptive Approach, NATO command and control, and the emerging Phase Adaptive Approach and bilateral missile defense issues in the Pacific.

We just completed the Nimble Titan Pacific regional war game and we're scheduled for Nimble Titan European war games later this year in Germany. We're also engaged in the operationalization of the command and control, battle management and communications C2BMC system. And we work with STRATCOM to strengthen the defensive posture of the BMDS network.

BMDS is extremely complex. It's joint and it's global. It's cross AOR, and the nature of all that demands that we have a robust training and exercise program.

We must use our Tier 1 exercises, participate in regional exercises, conduct tabletop exercises in the MDA's test program to address cross AOR issues.



These include sensor management, engagement authority, shot doctrine, command and control. These exercises, and participation in those others, provide our senior leaders opportunities to make critical decisions and sort through processes before the missiles begin to fly.

Now, we all recognize there simply aren't enough missile defense capabilities to meet all the potential threats. So it's important that we consider the full application of capabilities available to us in missile defense. This is similar to what I would characterize as strategic proactive counter-fire, and that includes strike and the application of kinetic and non-kinetic effects to disrupt threat missile systems when it's appropriate to do so. We need to have the right offense-defense mix in our missile defense planning.

To that end, it's important that we continue to develop those technologies, as we are in the advanced hypersonic weapons, directed energy weapons and other related technologies that will provide capabilities necessary to meet the full range of threats. It also reinforces the need to build and maintain strong partnerships with our allies around the world as we prepare for this uncertain future.

So, SMDC/ARSTRAT is engaged in providing space and missile defense capabilities – today, tomorrow and the day after tomorrow through our three core tasks: provide trained and ready Space and Missile Defense forces and capabilities (today); build future Space and Missile Defense forces (tomorrow); research, test, and integrate Space, Missile Defense, directed energy, high altitude, and related technologies (day after tomorrow). JFCC IMD is integrating Global Missile Defense for US STRATCOM and it brings a global perspective to missile defense. The collaborative partnership of the Missile Defense Agency, geographic combatant commands, the services, OSD, joint staff, our coalition and industry partners, and with the funding provided by Congress, has brought energy and resources to bear that provide our nation with the means to face the challenges that we'll have over the next several years.



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I'm honored to serve in this capacity and look forward to the next three years. I'm proud of our Soldiers, Sailors, Airmen, Marines and Civilians who professionally execute both the space and missile defense missions every day. Thank you for your attendance and your attention.

I'll now take your questions...