



# **U.S. Army Space Capabilities:**

# **Enabling the Force of Decisive Action**

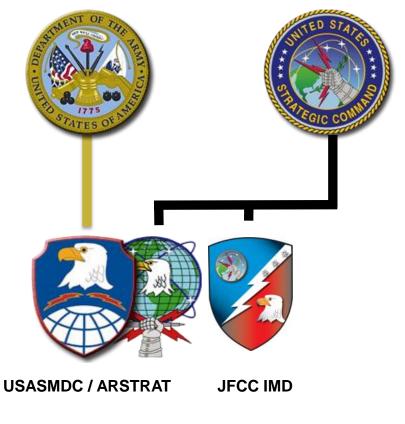
LTG Richard P. Formica

1 June 2012





# Our Reporting Chain Our Mission



"Three Hats"

USASMDC/ARSTRAT conducts space and missile defense operations and provides planning, integration, control and coordination of Army forces and capabilities in support of U.S. Strategic Command missions; serves as the Army force modernization proponent for space, high altitude and global missile defense; serves as the Army operational integrator for global missile defense; and conducts mission-related research and development in support of Army Title 10 responsibilities. Serves as Senior Mission Commander for U.S. Army Kwajalein Atoll/Reagan Test Site and Fort Greely, Alaska.

Assigned as Commanding General Joint Functional Component Command for Integrated Missile Defense.





# Organizational Vision Statement

- A diverse, complex, and global command that provides critical capabilities to our Army, USSTRATCOM, COCOMs/ASCCs; in synch with JFCC-IMD
- One command...split based...multi-component...diverse constituencies...dispersed locations...talented work force of Soldiers, Civilians, contractors; public servants
- The Army's force modernization proponent for Space, High Altitude, and Global Missile Defense; the Army's operational integrator for Global Missile Defense:
  - Providing trained and ready Space and Missile Defense forces and capabilities in service to the Warfighter and the Nation (today)
  - Building future Space and Missile Defense forces (tomorrow)
  - Researching, testing, and integrating Space, Missile Defense, cyber, directed energy, & related technologies (day-after-tomorrow)
- Close, collaborative relationships with MDA and a multitude of stakeholders
- Nested within the Army's enterprise; engaged with and embedded in the HQDA DAMO-AMD
- Provide staff support to ARCYBER; retain close organizational linkages
- Disciplined stewards of our nation's resources accountable cost culture
- Precise, confident, fit, disciplined, courageous Soldiers and Civilians; tough, caring, courageous leaders;
   committed to safety in all that we do
- A responsible and cooperative tenant on the installations on which we live and serve
- A values based command caring for and serving Soldiers, Civilians, Families





# **A Global Command**

Joint Tactical

**Ground Station** 

(JTAGS) - EUCOM

A&B Co/53rd Signal

Battalion

(Pavload Control)

Technical Center Future Warfare Center TCM- Space & Global Gold: Space Ops

Red: Missile Defense Ops

White: HQs, FWC, Technical
Center and Army
Astronauts

49<sup>th</sup> Missile Defense Battalion (GMD)

Senior Mission Cdr

1<sup>st</sup> Space Brigade

100<sup>th</sup> Missile Defense Brigade (Ground-Based Mid-Course Defense)

- Future Warfare Center
- Army Space Personnel Development Office

HQs USASMDC / ARSTRAT

100<sup>th</sup> MD Bde Det , VAFB, CA

D Co/53<sup>rd</sup> Signal Battalion (Payload Control)

> Regional SATCOM Support Center

Army Astronaut Detachment Regional SATCOM Support Center

Missile Defense (SGMD)

C Co/53<sup>rd</sup> Signal Battalion (Payload Control)

Regional SATCOM Support Center

(RSSC)

AN/TPY-2 Forward Based Mode - Turkey

JTAGS-CENTCOM Army Space Support Teams Commercial Imagery Team Space Support Elements

E Co/53<sup>rd</sup> Signal Battalion (Payload Control)

JTAGS-Korea

JTAGS-Japan

AN/TPY-2 Forward Based Mode - Japan

AN/TPY-2 Forward Based Mode - Israel

> US Army Kwajalein Atoll / Reagan Test Site (USAKA/RTS)

Senior Mission Commander

**Uniquely Organized – Geographically Well-Positioned** 

"Secure the High Ground"

The sun never sets on USASMDC/ARSTRAT





### The Strategic Landscape

#### New Strategic Guidance

- Defense Strategy, Army Strategic Guidance published
- Pivot toward Asia
- Space and cyber domains provide critical capabilities and must be protected

#### Joint Force

- Joint Operational Access Concept (Anti-access/ Area Denial)
- Global operations: theater security operations efforts through geographic combatant command
- Fiscal realities: modernization tradeoffs, forceshaping, budget reductions

#### USSTRATCOM

Campaign Plan; fighting in domains without geographic boundaries



"Modern armed forces cannot conduct high-tempo, effective operations without reliable information and communication networks and assured access to cyberspace and space

- Defense Strategic Guidance, 2012





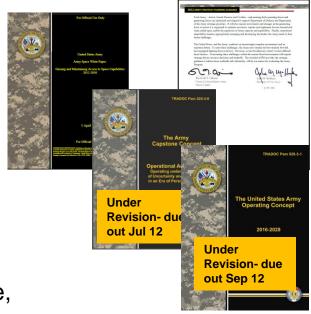
# **Army Concepts...informed by Space White Paper**

#### Army Space White Paper

- Foundational document for Army Space Capabilities-based Assessment
- Key paper that informed Army Strategic Planning Guidance, Army Capstone Concept, Army Operating Concept
- Nested with DoD and Joint Strategy/Concepts

#### Key concepts:

- If the Army wants to shoot, move and communicate,
   it needs space -- down to the lowest echelon
- Space is a contested domain; need cross-domain solutions
- "The Army requires unrestricted access to mission command systems including communications, missile warning, weather, GPS and cyberspace systems" - ASPG



"In nearly all situations, the Joint Force relies on the Army for satellite communications, assured direct theater missile warning, theater logistics, mission and other capabilities."

- Army Strategic Planning Guidance (ASPG), March 2012





# **Space in Support of Army Warfighting Functions**

- Army's Warfighting Functions rely on space capabilities for mission success
  - Mission Command, Movement and Maneuver, Fires, Intelligence, Sustainment, Protection
- Space provides SATCOM, PNT, ISR, Missile Warning, Environmental Monitoring
  - Enables mission command, situational awareness, force tracking, common operating picture, operational planning, etc.
- Supports all aspects of unified land operations



"Army space capabilities are combat multipliers that enable all six Warfighting Functions"

-- Army Space Operations White Paper,
April 2012





"Secure the High Ground"

The sun never sets on USASMDC/ARSTRAT





### Army as a Provider of Space Capabilities

- SMDC/ARSTRAT is Army proponent for Space and a force provider – space forces and capabilities to the Army, Joint Force
- Coordinates with Army Intelligence and Signal communities; USSTRATCOM; other Joint elements
- Provides trained and ready space forces and capabilities to the COCOMs and the Warfighter
- Builds future Space forces
- Conducts space mission-related research and development activities



Providing Army Space Capabilities to the Army and Combatant Commands





# SMDC Space – Our Focus for 2012-2013

#### Operations

- Continue to provide trained and ready space forces and capabilities: ARSSTs, SATCOM, Missile Warning, FFT
- Operational acceptance of WGS-4 and MUOS-1

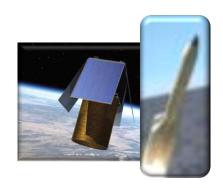
#### Capability Development

- JTAGS Modernization
- Providing space and high altitude capabilities to Network Integration Evaluations (cross-domain solutions)
- Integrating Space into Soldier/Leader Development
- Space Capabilities-based Assessment

#### Materiel Development

- Nanosatellite launch (NRO sponsored) summer 2012
- SMDC Nanosatellite Program (SNaP) Joint Capabilities
   Technology Demonstration launch in 2013
- Two pending JCTDs:
  - Kestrel Eye
  - Low cost responsive space launcher









### Take-aways

- Space-based capabilities are critical elements of the Army's ability to Shoot,
   Move, and Communicate
- Space is inextricably linked to warfighting recent DoD, Joint and Army concepts document the role of space
- Space capabilities enable the Army's Warfighting Functions
- Need to leverage Joint and Army space capabilities key element of antiaccess/area denial scenarios
- SMDC/ARSTRAT will continue to provide trained and ready space forces and capabilities to the COCOMs and the Warfighter; build future space forces; and research, develop, test, and integrate future space capabilities

"Like the machine gun, the truck and the helicopter, space-based capabilities are now indispensable to the force."

- GEN Sullivan (USA, Ret), AUSA Torchbearer, May 2012





# **Questions?**