



# Delivering Space Capabilities to Enable the Tactical Warfighter

LTG Richard P. Formica

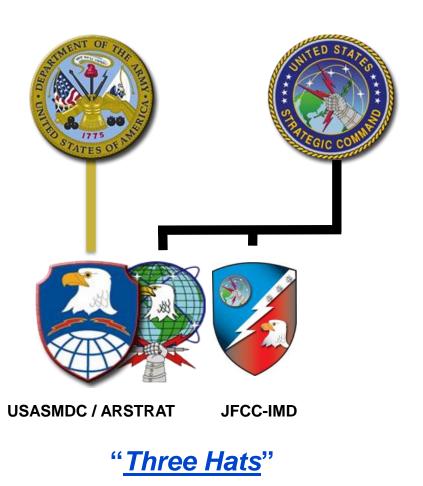
**AUSA National Meeting** 

11 October 2011





## **Our Reporting Chain**



#### **Our Mission**

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.

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





### The Army as a User of Space Capabilities

- Reliant on space-based systems for:
  - Persistent ISR
  - Global Communications
  - Reliable PNT (Positioning, Navigation, and Timing)
  - Assured Missile Warning
  - Weather
- Supports Combined Arms Maneuver/Wide Area Security critical to Army's ability to Shoot, Move, and Communicate; enables Mission Command
- Coordination with Joint community is critical seamless coordination across services, DOD, Joint agencies
- New Army Space Strategic Plan (CSA signed, May 2011)
  - Focus: to assure access to resilient and relevant space-enabled capabilities

"Army Space Vision: Assured access to resilient and relevant space-enabled capabilities to ensure Army operational and generating forces can conduct a variety of full spectrum operations around the world."

-- Army Space Strategic Plan, May 2011





## The Army as a Provider of Space Capabilities

- Intel Community delivers space-based intel to the Soldier, via Tactical Exploitation of National Capabilities
- Signal Community oversees Army's space-based communications; acquires equipment, provides trained SATCOM operators and controllers
- USASMDC/ARSTRAT provides space-based capabilities through operational forces, capability development and materiel development
  - Operations trained and ready space forces and capabilities (Today):
    - Army Space Support Teams (ARSST) & Commercial Imagery Teams (CIT)
    - DOD's Wideband SATCOM Operations Centers, SATCOM Support Centers, SATCOM System Experts
    - Theater missile warning (JTAGS)
    - Joint Friendly Force Tracking
    - Geospatial Intelligence products
    - Space tracking and situational awareness (Kwajalein)
    - Life Cycle Management for 300 FA40 Space Operations Officers





## The Army as a Provider of Space Capabilities (continued)

- Capability Development builds future Space forces (Tomorrow)
  - DOTMLPF integration & user representation for Army space-based capabilities
  - Army Space Doctrine (FM 3-14)
  - Space concept integration with Army Operating/Functional Concepts
  - Army Space Cadre & Army Space Knowledge/Leader Development Training
  - Army space requirements in coordination with Intel/Signal
  - Wargames, experimentation, & analysis for Army future force development
- Materiel Development Conducts versatile and affordable space R&D activities that enable full spectrum operations (Day after Tomorrow)
  - Small satellite Technology Demonstrations for niche communications & ISR needs
  - Low-cost, responsive small satellite launch system
  - Space Control Technology Development
  - Space Data Exploitation initiative
  - Other technologies in support of counter-IED & force protection capability gaps





## **Space Applications in Support of Army Operating Concept**

<b>AOC Supporting Ideas:</b>	<b>Space Capabilities</b>	Implications:
Operate decentralized	• SATCOM	<ul> <li>SATCOM enables mission command across extended distances</li> </ul>
Conduct continuous reconnaissance	• Sensors	<ul> <li>Space sensors provide environmental monitoring, threat situational awareness, and threat indications/warnings</li> </ul>
<ul> <li>Conduct air-ground operations</li> </ul>	• SATCOM, PNT	<ul> <li>SATCOM and PNT enable precision fires, Friendly Force Tracking, and both manned and unmanned aerial systems</li> </ul>
Expand capabilities at tactical levels	Space Knowledge	<ul> <li>Leaders must understand how space capabilities enable their ability to conduct mission command, integrate strategic Intel, and employ precision fires</li> </ul>
Space-based capabilities enable all elements of CAM/WAS		

"Secure the High Ground"