



# Space Systems Command





Delivering Lethal and Resilient Space Capabilities to Defend the Nation in the Contested Space Domain



### >>>> SSC's Priorities



Mission

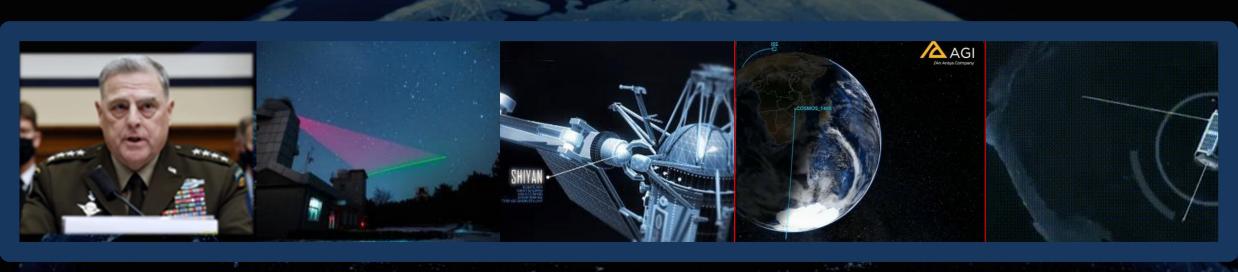
SSC develops, acquires, equips and sustains lethal and resilient space capabilities

Vision

Leverage partnerships and innovation to deter and dominate any future contest in space

### >>> What Motivates Us?





Top U.S. general calls China's hypersonic weapon test very close to a 'Sputnik moment.'

China launches world's first quantum communications satellite.

China is launching 'kidnapper' satellites, with grappling arms capable of plucking satellites out of orbit. Russian direct-ascent anti-satellite missile test creates significant, long-lasting space debris.

Russia has a new weapon that USSF dubs the 'Nesting Doll.' It opened up and another satellite came out. And it opened up and a projectile came out. That projectile is designed to kill U.S. satellites.

\* VIDEO CREDIT AGI

"The world is becoming an increasingly dangerous place and preserving US national security interest in space is growing hard everyday...A resilient, ready and combat capable Space Force is indispensable to deterrence today, tomorrow and every day after that." Gen. B. Chance Saltzman, Chief of Space Operations, U.S. Space Force



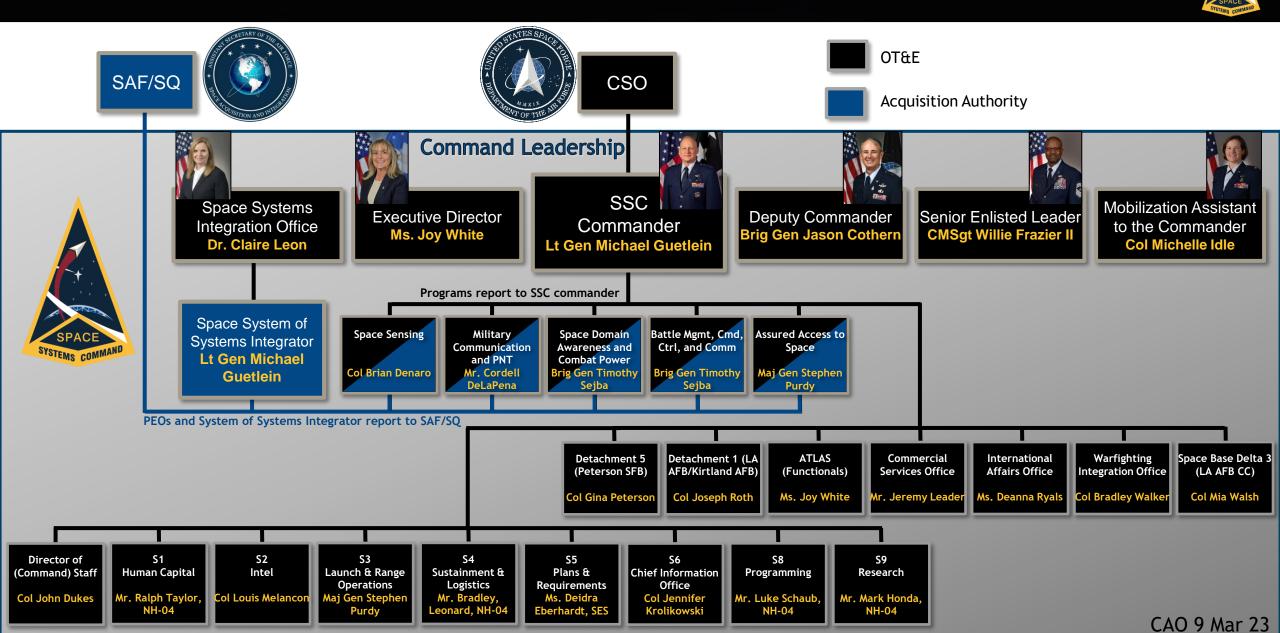
# >>>> U.S. Space Force Organization



The U.S. Space Force Will Innovate Faster to Outpace Threats from Adversaries

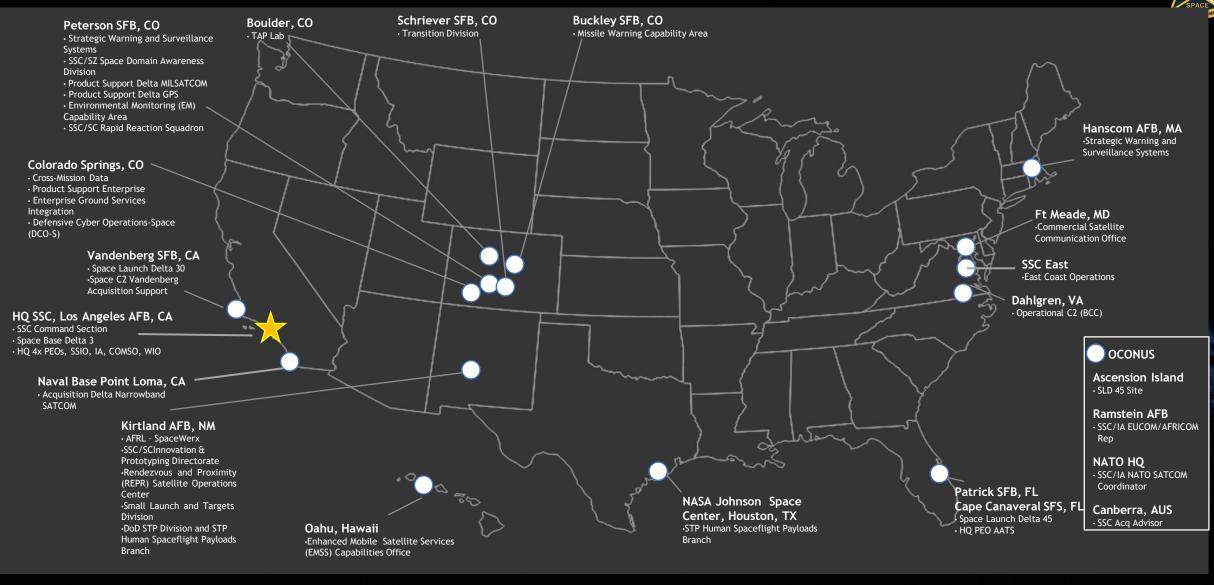


## >>> SSC Organization





### >>> Where We Are



#SpaceStartsHere



## >>>> FIELDCOM Integration



### **PEOs**

### **Programs**

### **Acq Deltas**

### **Ops Deltas**



Delta 4 Delta 7

Delta 2 Delta 3 Delta 4

Delta 3

Delta 8

Delta 9

Delta 2 Delta 5 Delta 6

**SLD 30 SLD 45** 

Next Gen GEO/Polar/SBIRS/FORGE MEO/WFOV EWS/WSF-M **USNDS** 

DARC/Silent Barker/GBOSS/Space EO **UEWR/Cobra Dane/SEWS/ITW-AA** CCS/Cyber/NSTTC/STAO Space Control P&D/Space Safari Adv SATCOM Prototyping/STP/SpaceWERX

ESS/Polar/AEHF/Milstar PTS/PTES/WGS **MUOS** GPS Space/Grnd/C2/User Equip **OCX** 

> EGS / SCN Cross Msn Data/UDL BMC2 **ABMS**

Atlas / Delta Vulcan / Falcon **RSLP/Small Launch/Targets** Payload Intg/Future Procure ER / WR

Strat MW Resilient MW Envir/TacISR

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SDA Strat Warn/Surveil Warfighting Ent Space Warfighting Adv SATCOM Innovation/Proto

Strat SATCOM Tactical SATCOM **NB SATCOM GPS Space** GPS Grnd/C2/UE

> Operational C2 Tactical C3

Launch Execution Mission Solutions

STARCOM

Delta 1

Delta 10

Delta 11

Delta 12

Space

Cao 1 Feb 23 V1

Assured

Access to

#SpaceStartsHere

# >>>> Getting after the 2026 fight



Exploit what we have

Buy what we can

Build only what we must

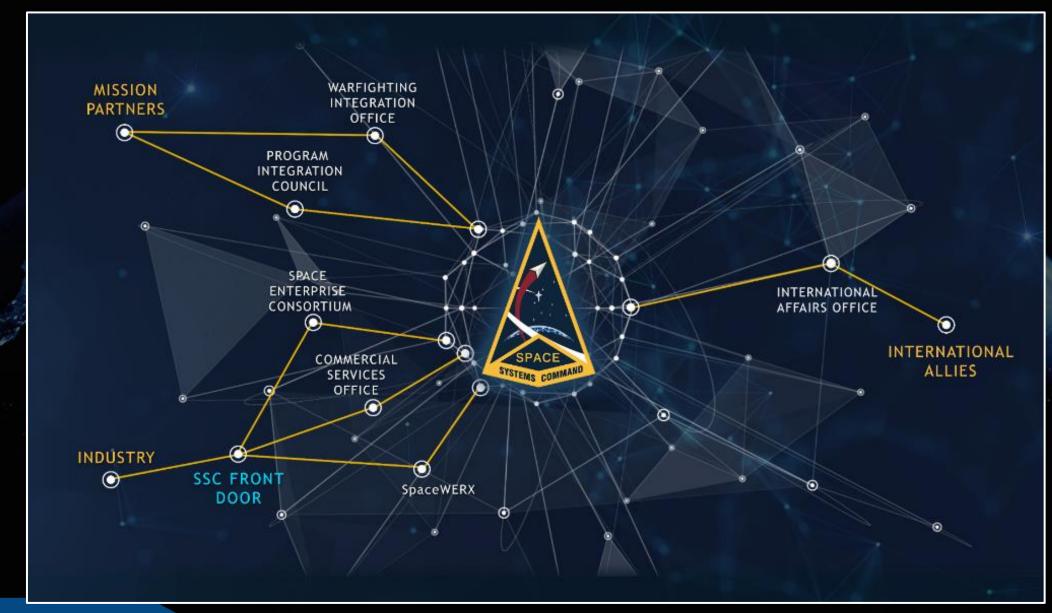






Pivoting to an Exploit and Buy model allows for speed, use of latest technology, and architecture-level resilience

# >>> External Stakeholders



## >>>> Force Design to Execution



**Space Warfighter Analysis Center (SWAC)** 

Develops the Force Design "What we need"

**Chief Strategy and Resourcing Officer** (CSRO)

Turns the Force Design into a set of requirements

**Space Systems Integration Office** (SSIO)

Convenes the Program Integration Council (PIC)



**US SPACECOM STARCOM DAF RCO** SAF/SQ **SpRCO SWAC SpOC SSDP** MDA NRO **SDA** 

SSC

PEO/Program Office

Execute the programs

Acquisition **Decision Authorities** 

**Appropriate Acquisition** Decision Authority assigns the program to a Program **Executive Officer** 

PIC

Determines how to best implement requirements

Ensures delivery of the "right integrated capabilities at the right time"



### >>>> SSC Capability Delivery Organizations



- **PEO for Space Sensing** 
  - Resilient MW/MT/MD & Integration
    - Combined effort SSC-MDA-SDA
  - Environmental & Tactical Surveillance
  - MW/MT/MD GEO & Polar
- **PEO for Military Communications and** Positioning, Navigation & Timing
  - SATCOM: Tactical, Strategic, Narrowband (USSF transfer)
  - PNT/GPS: Space, C2, User Equipment
- PEO for Battle Management, Command, Control & Comms (BMC3)
  - Operational C2
  - Tactical C2 & Information Mobility

- PEO for Space Domain Awareness & **Combat Power** 
  - Warfighter Enterprise
  - Space Warfighting
  - Advanced Comms
  - Space Domain Awareness
  - Strategic Warning & Surveillance
  - Innovation & Prototyping
- **PEO for Assured Access to Space** 
  - Space Launch Deltas (operational)
  - Launch Services, Launch Enablers
- **Space Systems Integration Office**
- **Warfighting Integration Office**
- **International Affairs Office**
- **Commercial Services Office**



## >>> SPACE SENSING

MISSILE WARNING / MISSILE TRACKING / MISSILE DEFENSE (MW/MT/MD)

**ENVIRONMENTAL MONITORING** TACTICAL SPACE-BASED ISR

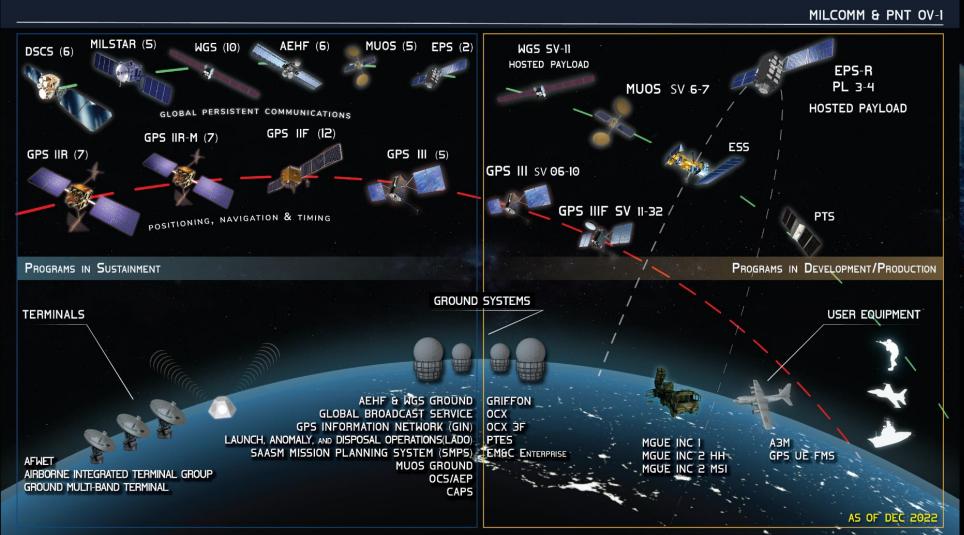
Delivering persistent space sensing for integrated all domain awareness to deter, defend, and win



# >>>> MILITARY COMMUNICATIONS POSITIONING, NAVIGATION, & TIMING







- Military **Communications**
- Positioning, **Navigation and Timing**

Rapidly delivering premier MilComm & PNT capabilities resilient to the threat by the relentless pursuit of warfighter needs and acquisition excellence



## >>>> SPACE DOMAIN AWARENESS AND COMBAT POWER



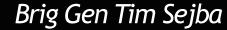
space for the joint fight







# >>> BATTLE MANAGEMENT COMMAND, CONTROL, AND COMMUNICATIONS







- Space Ground and Communications
- **Operational Command and Control**
- **Tactical Command and Control**





### Maj Gen Stephen Purdy





- Launch and Range Operations
- Orbital Resiliency





Delivering On-Demand Orbital and Sub-Orbital Services, Materiel, and Capabilities to the Warfighter



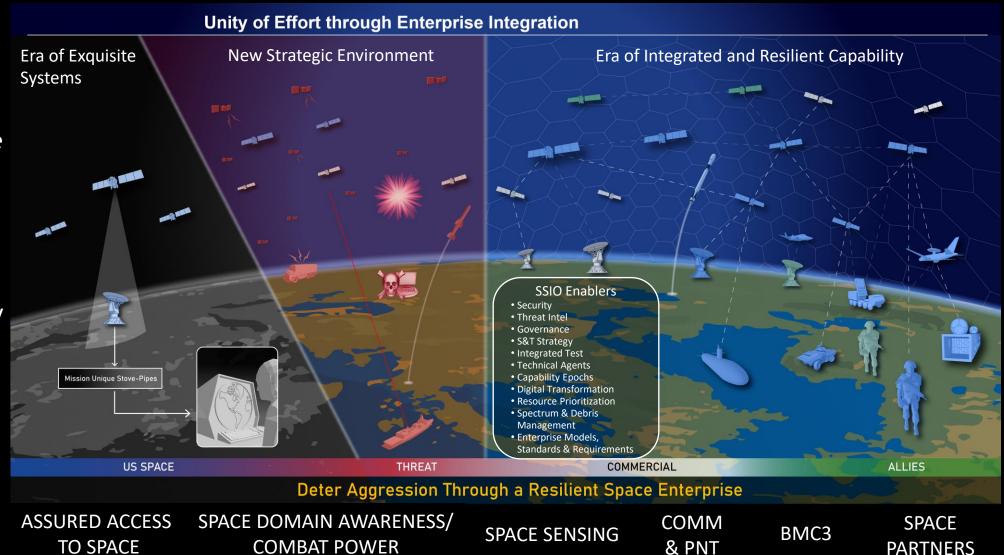


### >>>> SPACE SYSTEMS INTEGRATION OFFICE

Dr. Claire Leon



Aligning, integrating and enabling space capabilities to achieve a resilient and integrated space enterprise, deter competitor aggression and assure the uninterrupted delivery of all-domain combat power





### >>>> Distinct Missions, Strong Partners





Chartered in 2013 by DoD & DNI to blend Title-10 & -50 analysis



Established in 2015: jointly manned for daily coordination and contingency response



Air Force Space Command & NRO pivot to resilience vs. threats



Joint Industry Days beginning in 2018 (2020 canx for COVID)



2020 Joint Space Warfighting Forum



2020 Space Force Acquisition Council & **Program Integration** Council



Organize, Train and Equip

**Develop Military Spacepower Doctrine** 

**Generate & Present Ready Forces** 

**Integrate Joint Space Requirements** 

**Develop Capable Allies & Partners** 

Synergized Acquisition Synchronized Architecture **Commands Operations in the Space AOR** 

**Develop OPLANs and Annexes** 

**Provide Joint Space Forces to other CCDRs** 

**Influence & Information Ops Campaigns** 

**Security Force Assistance** 

**Warfighter Support** 

**Support to Full-Spectrum Response Options** 

**Develop, Launch, Acquire & Operate IC Sats** 

Combat Support Regist **I&W for National & Joint Military Leaders** 

**Monitor Proliferation of WMD** ince Agency &

- **Operational Planning**
- Wargames
- **Exercises**

Rapidly Evolving Architecture, Technology and Operations to Stay Ahead of Threats





### >>>> SSC Incubators and Successful Industry Days



- Space Enterprise Consortium Vehicle for partnering with non-traditional industry, has awarded almost \$3B across 101 prototype projects in its first 5 years
- SpaceWERX Small business incubator awarded over \$227M in contracts to more than 160 companies
- Space Test Program Utilizing excess capacity on commercial satellites to host new payloads
- Instituted recurring Industry Days for transparency and to better communicate government needs
  - Reverse Industry Days allows industry to freely share approaches (Tac-ISR event completed 35 one-on-ones!)
  - Completed Industry Days: Space to Space Comms, TacISR, SDA/Cislunar, Tac-RS, ISAM, and RIoT AoA over 400 attendees representing 200 companies at the SDA/Cislunar event alone!
  - Next Industry Days: AI/ML and Space Analytics, Civil Augmented Space Reserve (CASR), International Industry Days, and more! (2023)
- International Affairs 11+ International Partner Visits in 2022!
  - Co-Chair for the Capabilities Architecture Working Group, leading 3 multinational teams--better allied-data sharing

Well postured to maximize use of commercial space capabilities for the USSF