

NEW SPACE

NEXUS

20

23

Level-UP!: Where's the Money?

A living guide to government agencies and contracting opportunities

8-2-2023

Part 1: Kirtland AFB Space Organizations

Space Organizations At KirTland

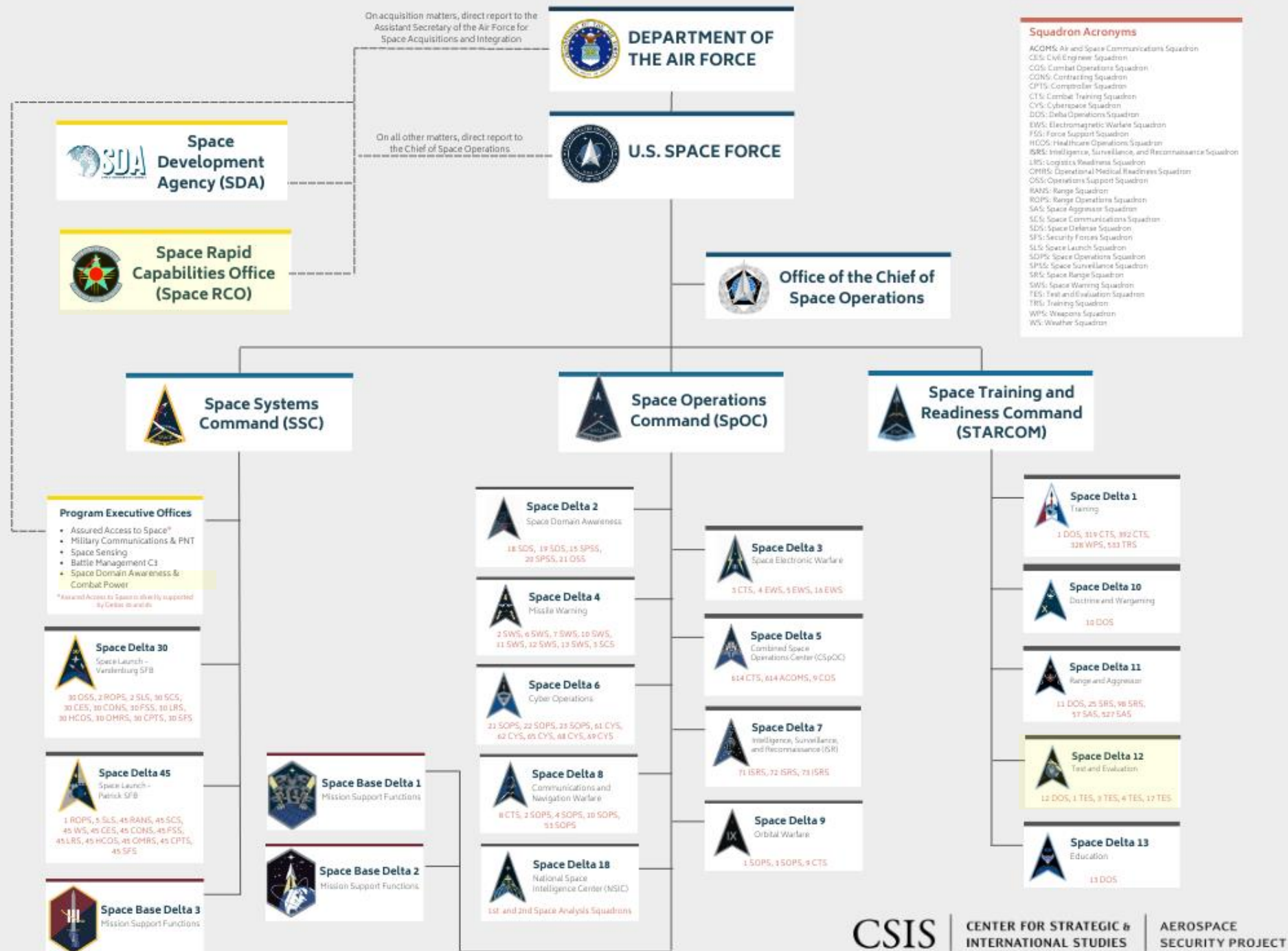
- **Air Force Research Laboratory (AFRL)**
 - **RV – Space Vehicles Directorate**
 - **RD – Directed Energy Directorate**
- **Space Systems Command (SSC/SZI)**
 - **DoD Space Test Program (STP)**
 - **AFWERX/SPACEWERX** – Falls under SZI, Deputy Director resides in Albuquerque. See [Ignitor Portal](#) for Slides/Video.
- **Space Rapid Capabilities Office (SpaceRCO)**
- **Joint Navigation Warfare Center**
- **Air Force Nuclear Weapons Center** – See [Ignitor Portal](#) for Slides/Video.
- **Air Force Safety Center**
- **STARCOM Delta 11 (Coming soon) – Training & Readiness Command**

WHY

- Deeper understanding of key space organizations
- Contracting opportunities for these organizations
- Navigate toward MOU signatures

TECH Readiness Map







Air Force Research Laboratory

One AFRL / Two Services

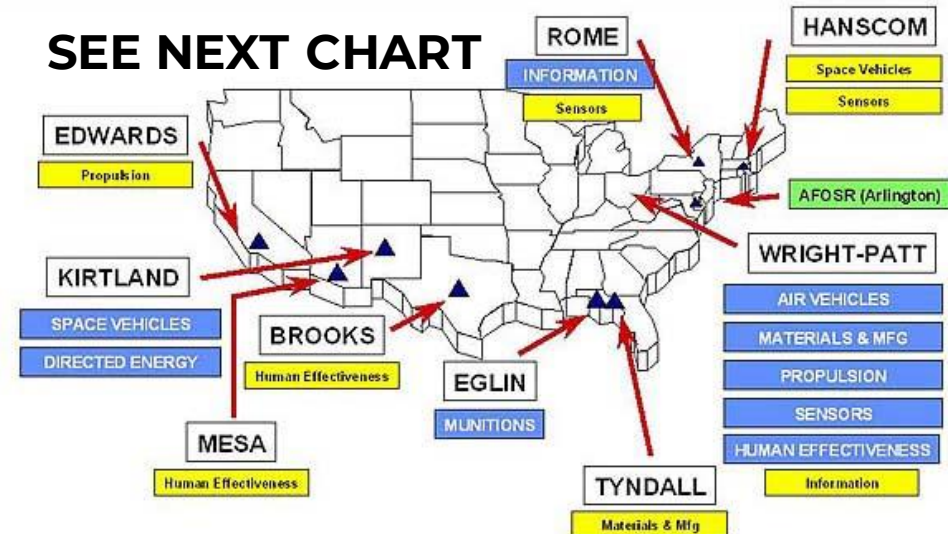
Mission: The Air Force Research Laboratory leads the discovery, development and integration of affordable warfighting technologies for our air, space and cyberspace forces.

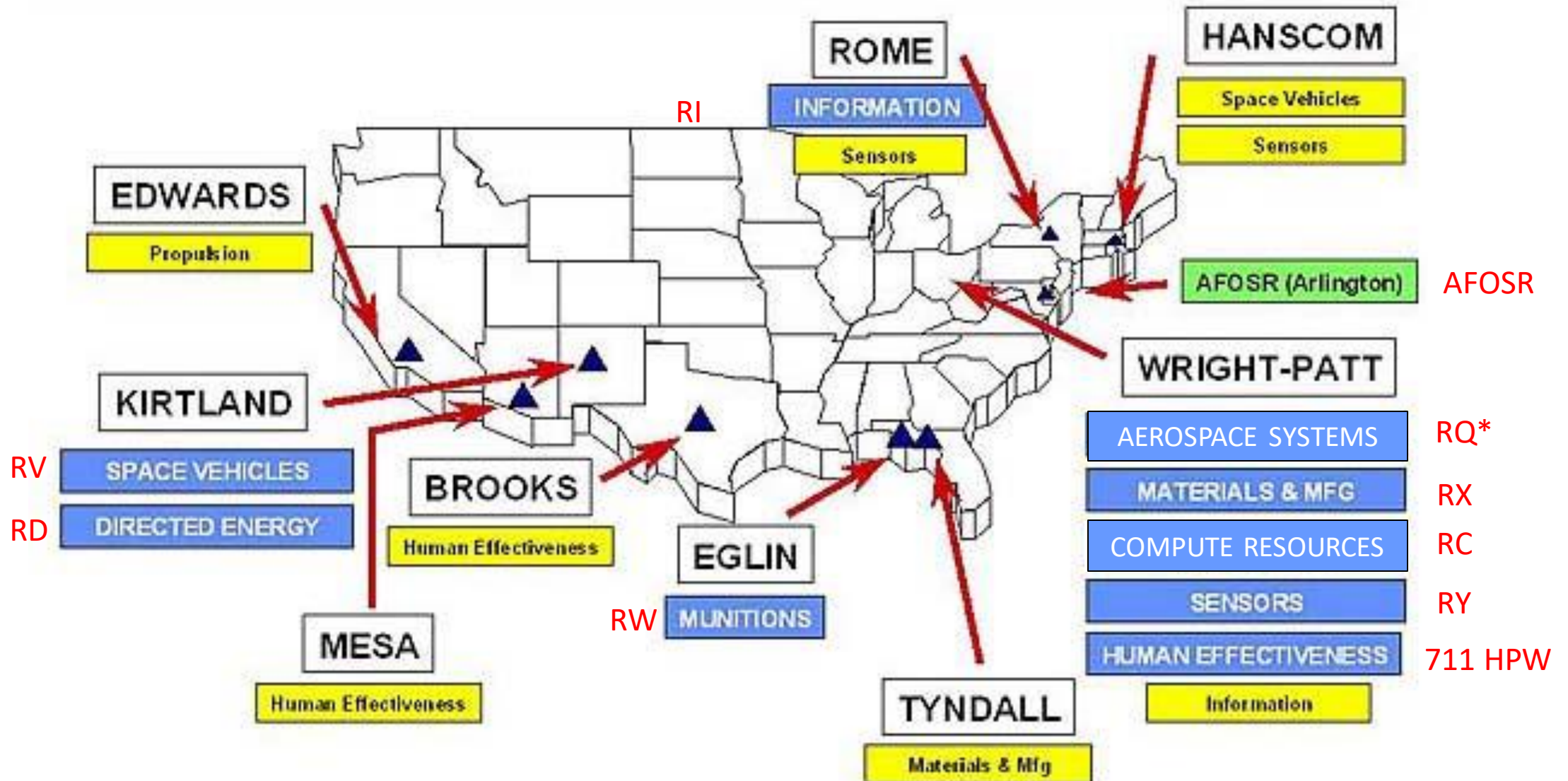
People: 11,500 military, civilian and contractor personnel

Annual Budget: ~\$7B (~80% resources out to industry)

• Organizational Structure:

- **Front Office:** Director, Dep Dir, Chief Scientist, Chief Engineer, Individual Mobilization Augmentee (IMA)
- **2 Letter:** Directorate (RD, RV, etc.)
- **3 Letter:** Division (RVS, RDS, etc.)
- **4 Letter:** Branch (RVSV, RDSM, etc.)





*AIR VEHICLES and PROPULSION Merged into AEROSPACE SYSTEMS (RQ)

Technology Executive Officer (TEO) and Deputy TEO for SpACE Focal points for USSF S&T Execution

Emphasizing the path for space-focused science and technology programs

- Determining Space S&T needs and priorities
- Developing and Maintaining Space S&T strategic Plan
- Providing direction and oversight of the Space S&T portfolio across executing organizations
- Developing the Space S&T element of the USSF POM
- Interacting, coordinating, collaborating, and partnering across the larger Space S&T community within the DoD, industry, private sector, other government agencies, and international

Integrate and execute the Space S&T portfolio across AFRL



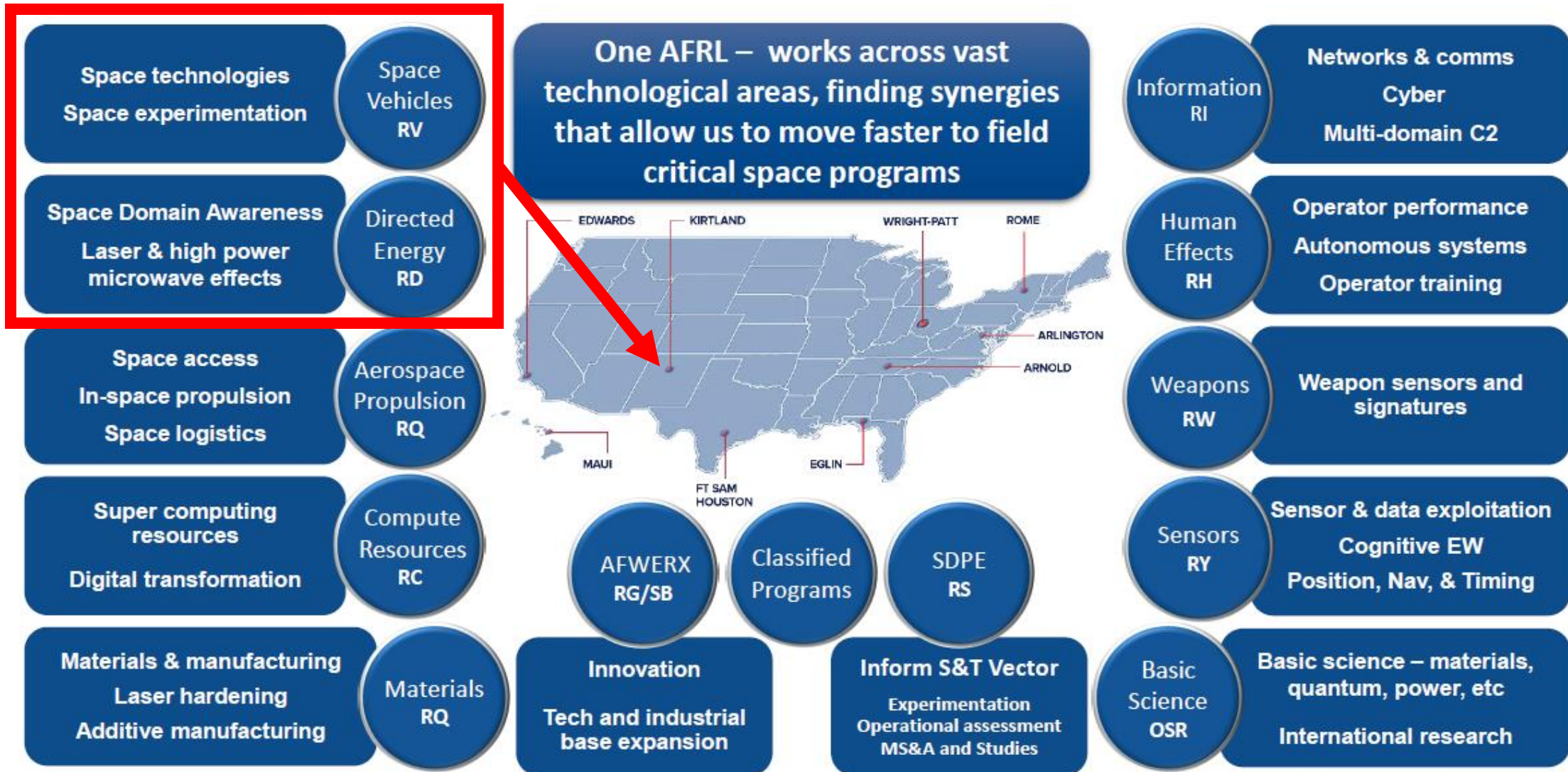
TEO
Brig Gen
Scott Cain



Deputy TEO for Space
Dr. Andrew Williams

← Works from and
Lives in Albuquerque

AFRL's Space Portfolio



Space Vehicles Directorate



Fact Sheet

Mission Area Technologies

- Position, Navigation & Timing & Space Communications
- ISR & Missile Warning
- Space Environment
- Space Control
- Nuclear Deterrence Operations
- Pervasive Technologies

← LOCAL →

Portfolio Leads

- Small Satellites
- Model Based Systems Engineering & Analysis (MBSEA)
- Agile Space Operations
- Pervasive Technologies

Mission: Air Force's center of excellence for space technology research and development. The Directorate develops and transitions space technologies to provide space-based capabilities to the warfighter.

People: 800 (includes Gov't & Military Scientists & Engineers, Support Contractors)

Annual Budget: ~\$500m

AFRL-Wide

AFRL Space Mission Area Leads
(Integrate tech capabilities across AFRL to provide technology for the USSF)

- Space Information Mobility
- Space Domain Awareness
- Space Logistics, Access and Mobility
- Space Superiority
- Space Security & International Partnerships



- 3 Letter Level:
 - Technical Divisions
 - RVB: Geospace Technology
 - RVS: Spacecraft Technology
 - RVE: Integrated Experiments
 - Functional Divisions
 - RVF: Financial
 - RVI: Corporate Information Office
 - RVK: Contracting
 - RVO: Integration and Operations
 - SE: Safety Office



Contract opportunities

[MASE Project - Military Applications of Space Environment - SEEM Program](#)

[Neutron Strategic Technology Advanced Research \(Neutron-STAR\) Advanced Research Announcement \(ARA\)](#)
[Pacific-AFRL-National Agency Computing Environment for Analytics \(PANACEA\)](#)

[Research Options for Space Enterprise Technologies \(ROSET\)](#)

[Space Technology Advanced Research \(STAR\)](#)

[SPACE TECHNOLOGY ADVANCED RESEARCH-FAST-TRACKING INNOVATIVE SOFTWARE AND HARDWARE \(STAR-FISH\) ADVANCED RESEARCH ANNOUNCEMENT \(ARA\) WITH CALLS](#)

[SPACE SITUATION AWARENESS \(SSA\), CHARACTERIZATION, AND EVENT ASSESSMENT](#)

Tip

- Search R_K in Sam.gov for AFRL Opportunities
- Where “_” = 2nd letter in Technical Directorate abbreviation.
- e.g., RVK for space vehicles

AFRL/RD: directed energy Directorate



[Fact Sheet](#)

Mission: Leading the AF & Nation in Directed Energy Weapons Science, Technology and R&D

Vision: Innovating the Fight at the Speed of Light

Annual Budget: ~\$300M

People: 279 Gov't & Military Scientists & Engineers, + ~300 support contractors

Core Technology Competencies:

- **High Power Electromagnetics (HPEM)**: HPEM Effects & Numerical Simulation, HPEM Applications, HPEM Components
- **Laser Systems**: Laser Sources, Beam Control, Laser Systems Technologies, Integration, Demonstration, Laser System Effects, Modeling & Simulation
- **Directed Energy and Electro-Optics for Space Superiority (DEOSS)**: EO Phenomenology & Imaging of DEOSS, Space BMC2 & Protection, Atmospheric Characterization & Compensation
- **Weapons Modeling Simulation & Analysis**: Applied Weapons Engagement, Mission Analysis & Wargaming, Advanced Modeling & Simulation Development

AFRL/RD: directed energy Directorate



- 3 Letter Level:
 - Technical Divisions
 - RDL: Laser Systems Division
 - RDM: High Power Electromagnetics Division
 - RDS: Directed Energy & Electro-Optics for Space Superiority Division
 - Functional Divisions
 - RDF: Finance
 - RDK: Contracting
 - RDM: Mission Support

AFRL/RD: directed energy Directorate



Contract opportunities

[High Power Electromagnetics \(HPEM\) Modeling and Effects BAA](#)

[Open Proposal Research Announcement for HPEM - Sources & Components](#)

[FA9451-22-S-0001-CALL-007- HPEM Numerical Simulation Tool Development](#)

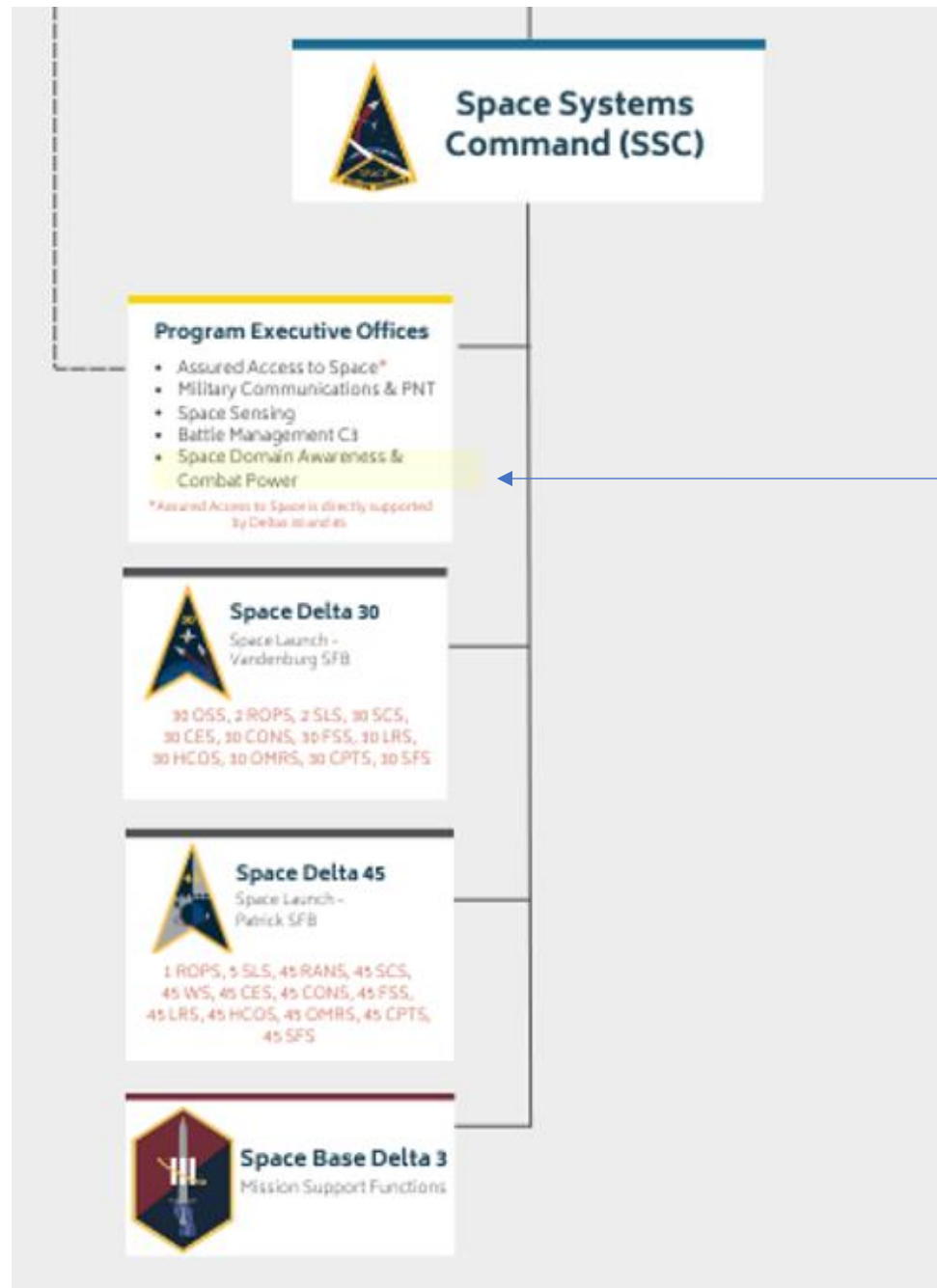
[Open Proposal Research Announcement for HPEM - Applications](#)

[Open Proposal Research Announcement for HPEM - Modeling & Effects](#)

[Directed Energy Technology Experimentation Research \(DETER\) Advanced Research Announcement \(ARA\) Open Announcement](#)

[Technical Applications for Optical Space Situational Awareness \(TAOS\)](#)

[Pacific-AFRL-National Agency Computing Environment for Analytics \(PANACEA\)](#)



**Space domain
awareness and
combat POWER
(SDACP/SZ)**

Space Systems Command



[Fact Sheet](#)

Mission: Space Systems Command develops, acquires, equips, and sustains lethal and resilient space capabilities

- \$15B space acquisition budget (annual)
- \$71.8 B total portfolio value (programs under acquisition & sustainment)

Mission Areas:

- Space Domain Awareness and Combat Power
- Battle Management Command, Control & Communications
- Space Sensing (e.g., missile warning, tracking, environmental monitoring)
- Assured Access to Space (e.g., launch capability)

SSC Acquires Operational Capabilities for the Space Force



Unclassified

Space Domain Awareness and Combat Power (SDACP/SZ)



* Dual Hatted Across SZ & BC

LEGEND

— Assigned
--- Matrix
Inbound
Outbound

CAO 16 JAN 23

#SpaceStartsHere

Unclassified



[Fact Sheet](#)

SSC Innovation & Prototyping Directorate (SSC/SZI)

Mission: Advance National Security Space Capabilities through Experimentation, Innovation, and Prototyping

- Headquartered at Kirtland AFB, New Mexico
- \$1.05B space acquisition budget

CONPS
and
Tactics

Key Mission Areas:

- Prototype Operations (satellite operations center)
- Innovation and Development (small satellites and hosted payloads)
- Enterprise Enabler Development (on-orbit demonstrations)
- [DoD Space Test Program](#): looking for S&T Payloads that exhibit potential military utility.

SSC/SZI is the innovation element of SSC -
Bridges gap between R&D and operational programs

Other SSC Offices for Small Businesses to Know

Opportunities



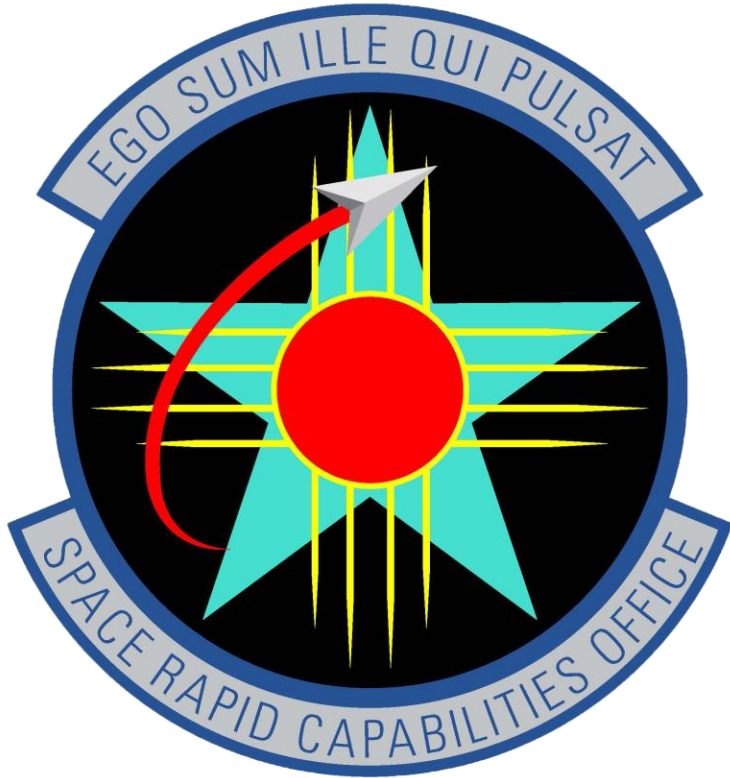
SSC Front Door

- Mechanism to build relationships with nontraditional space companies
- No funding, but provides access to appropriate SSC organizations
- [SPEC](#) OTA – Space Enterprise Consortium – Fee to be involved
- [Commercial Services Office](#) (SSC/CM or COMSO)
- New office "structured to take full advantage of the innovative commercial space industry"
- Programs include SpaceWERX, Front Door and others
- [IDIQ Contract](#) for Comm & Earth Observation

Use Front Door to connect with COMSO

Space Rapid Capabilities Office

Space RCO



[Fact Sheet](#)

Mission: The Space RCO mission is to develop and deliver operationally dominant space capabilities at the speed of warfighting relevance. We expedite delivery and deployment of space capabilities in response to the Commander, US Space Command requirements as assigned by our Board of Directors.

Director's Priorities: Execute, Innovation, Engagement

Annual Budget: Classified

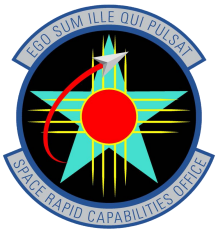
Enabling Technologies:

- Tactical threat & hazard awareness: Low false alarm rates
- AI, ML and/or Automation: ↓ operator workload, ↓ response time
- Tactical maneuver without regret: Advanced propulsion, refueling

NewSpace Nexus is read into Space RCO programs

Space Rapid Capabilities Office

Space RCO



- 3 Letter Level:
 - Technical Divisions
 - SCG Programs
 - ACG Programs
 - Transition Cell
 - Washington DC Branch
 - Functional Divisions
 - Finance (Mark DeVries)
 - Contracting (Col Owen Stephens)
 - Director's Action Group (Facilities, Protocol, Records, Safety, etc.)
 - Human Resources (John Dougherty)
 - Security (Stephanie Olson)
 - Information Technology (Bill McConnell)
 - Engagement (Matt Fetrow)

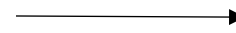
Space RCO Opportunity



HYPERSPACE
CHALLENGE

2023
PROGRAM

PROTECTING
SPACE ASSETS
THROUGH
INNOVATION



[Initial Interest Form](#)

Closes 15 Aug 2023

Space RCO is pursuing products that:

Increase Space Visibility and Awareness using threat and hazard awareness capabilities that can quickly and accurately detect and prioritize threats either from the ground or space.

Advance Space Analysis and Vehicle Autonomy using artificial intelligence, machine learning, and/or autonomous technologies that reduce ground-based vehicle operator workload, inform intelligent vehicle response decisions, and decrease vehicle response time.

Increase Space Vehicle Lifespan and Maneuverability using advanced propulsion, refueling capabilities, and/or other fuel conservation innovations that allow space assets to maneuver freely without future negative consequences.

***“... looking for companies
with proven track records
and mature technologies to
help protect space assets
from threats”***

Joint navigation Warfare Center



[Fact Sheet](#)

Mission: The JNWC's mission is to enable positioning, navigation and timing superiority for the Department of Defense, interagency and coalition partners.

- Subordinate center of [United States Space Command](#)'s [Combined Force Space Component Command](#).
- Planning and coordinating navigation warfare operations
- Plans, tasks, integrates, provides C2, and supports integrated Navigation Warfare (NAVWAR) worldwide

Vision: A bold, empowered organization committed to PNT superiority, actively shaping the environment and embracing selfless service in the defense of the nation.

AIR FORCE NUCLEAR WEAPONS CENTER



[Fact Sheet](#)

Mission: Deliver nuclear capabilities warfighters use every day to deter and assure.

- Nuclear-focused product center within Air Force Materiel Command (AFMC) synchronizing all aspects of nuclear materiel management on behalf of the AFMC commander and in direct support of Air Force Global Strike Command (AFGSC).

Vision: Ensuring our nation's most powerful weapon systems are never doubted, always feared.

Sub-Organizations:

- Air Delivered Capabilities Directorate
- Minuteman III Systems Directorate
- Nuclear Command, Control and Communications Integration Directorate
- Nuclear Technology and Integration Directorate
- Sentinel Systems Directorate

Space Overlap: Nuclear C2, Digital Engineering

AIR FORCE safety CENTER



Fact Sheet

Mission: Safeguard Airmen and Guardians, while protecting resources to enable mission success.

- Develops, implements, executes and evaluates Department of the Air Force aviation, occupational, weapons, space and system mishap prevention and nuclear surety programs and policy.
- Oversees mishap investigations, evaluates corrective actions, ensures implementation and maintains the mishap database DAF-wide.
- Conducts research to promote safety awareness/mishap prevention and develops and directs safety and risk-management education for all safety disciplines.

Personnel: 155 (Military and Civilian) plus support contractors

Sub-Organizations:

- | | |
|--------------------------------|---|
| • Aviation Safety Division | • Analysis & Cyberspace Ops Division |
| • Occupational Safety Division | • Training & Force Development Division |
| • Space Safety Division | • Personnel and Resource Division |
| • Weapons Safety Division | • Office of the Staff Judge Advocate |
| • Human Factors Division | • Public Affairs Division |

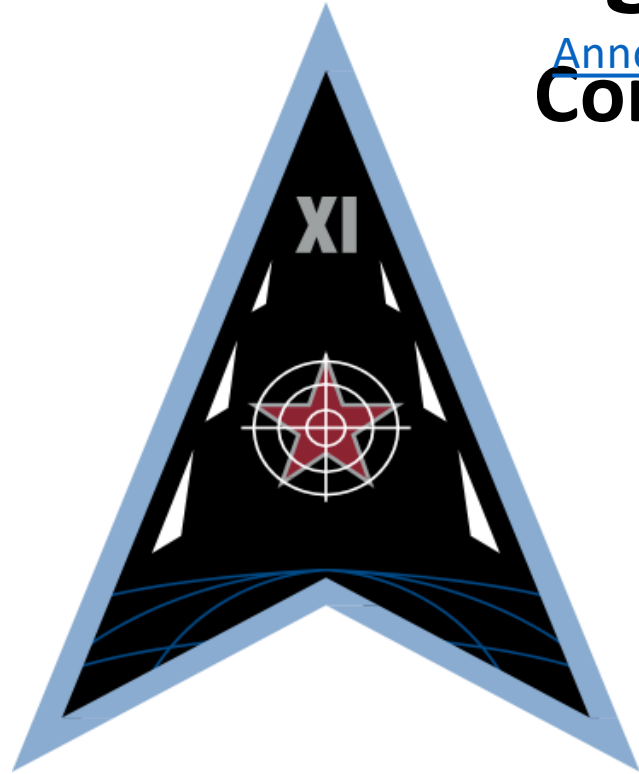
AFSC has a Space Safety Division

STARCOM Delta 11 (Range &

Aggressor

Announcement Coming Soon

- [Space Delta 11](#) is expected to call Kirtland Air Force Base in New Mexico its home. Training there will focus on live and virtual programs to prepare Space Force members.



[Fact Sheet](#)

Mission: DEL 11 delivers realistic, threat-informed test and training environments through the provision of live, virtual, and constructive range and combat replication capability in order to prepare USSF, joint, and allied forces to prevail in a Contested, Degraded, and Operationally-Limited (CDO) environment.

Vision: Elite Range and Aggressor professionals fortifying the combat credibility of our nation's space warfighters and warfighting capabilities.

Sub-Organizations:

- [11th Delta Operations Squadron](#)
- [25th Space Range Squadron](#)
- [57th Space Aggressors Squadron](#)
- [98th Space Range Squadron](#)
- [527th Space Range Squadron](#)

Questions & Announcements

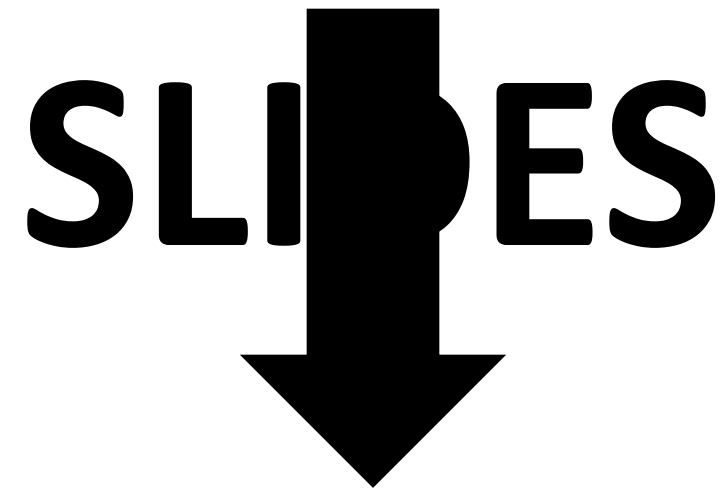
Questions?

- Was this helpful?
- What organizations are you most interested in seeing next

Announcements

- PACA Briefing For Industry (BFI)
 - Opportunity for pitch (Government, Primes, Investors)
 - Up to 5 minutes for Elite
 - Up to 2 minutes for AAA
 - Up to 1 Minute for AA
 - Please respond to Ariel DeHerrera if interested
- Please join the [NewSpace Alliance](#)
- **Ignitor Applications** are always open! If you know of any other companies that could benefit from the program, please direct them to us.
- These slides and other important info is available on our [Ignitor Portal](#)
- Meetings with Space Advisory Group (Severin Blenkush)
- 1-on-1 meetings with Ignitor Expert Network for New AAA companies.

BACKUP



SLIDES

ES

Space Force & Space Command

A Simple Explanation



What it is: A military service that trains members and acquires systems for specific warfighting areas (air, land, sea, & space)

What it does: Provides the people and technology that protect the space-enabled advantages (GPS, communications, etc.) that America and its allies rely on.

- **Headquarters:** Washington, DC
- **Leadership:** General B. Chance Saltzman, Chief of Space Operations
- **Composition:** Only Space Force Members



• **What it is:** A combat command that uses the military services' people and technology to conduct worldwide war and peacetime missions.

- **What it does:** Plans, operates, and directs the forces for space warfighting.
- **Headquarters:**
 - Current: Colorado Springs, CO
 - Future: TBD
- **Leadership:** General James H. Dickinson, Commander
- **Composition:** All service branch members



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