### Space and U.S. National Security: What to Expect in 2022 and Beyond John Galer

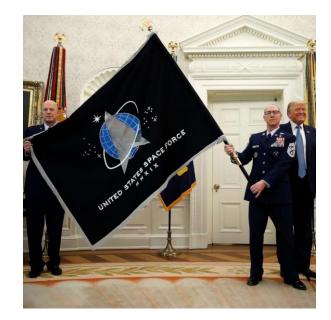
3 | 15 | 2022

## How Did We Get Here?

### From Schriever to Raymond







### **1954 to Present**

## What is National Security Space?



## **NSS Missions**



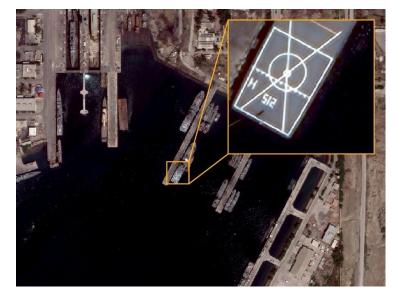
Position, Navigation, and Timing



#### Satellite Communications



**Environmental Monitoring** 



### Intelligence, Surveillance, Reconnaissance (ISR)



Missile Warning

## **NSS Missions (cont.)**



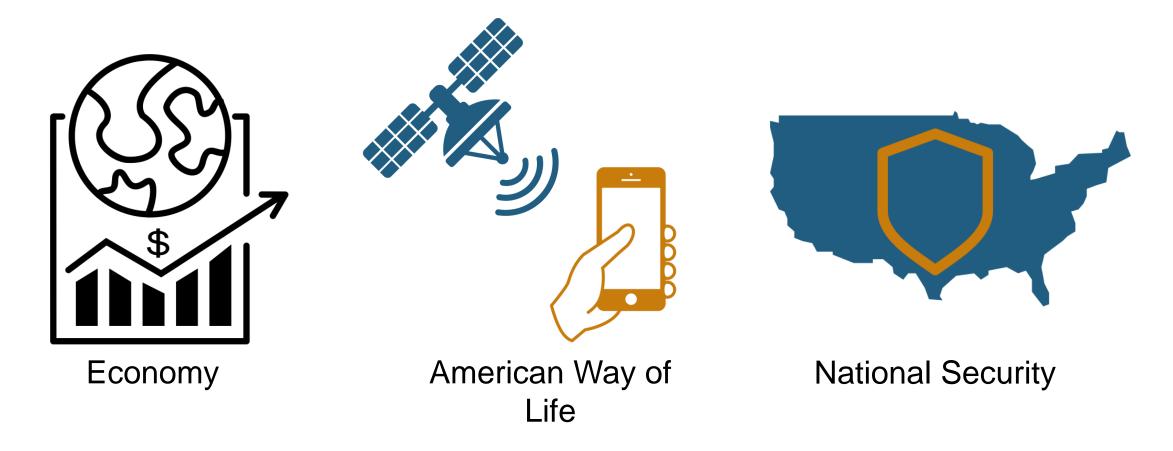
#### Space Electronic Warfare



Space Domain Awareness

## Why a Space Force?

### Dependence on Space



Why A Space Force? Space is Unique

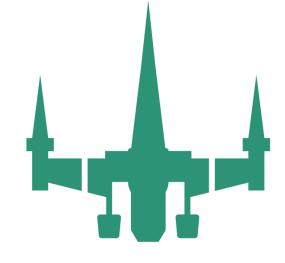
Asymmetric Advantage

**Evolving Threats** 



### **Dispelling Myths** As Seen On TV?









This



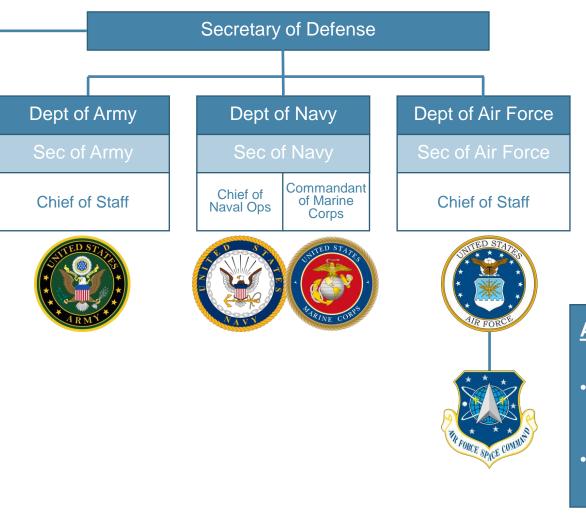
Not This

## **Organization – 2019**



#### U.S. Strategic Command (USSTRATCOM)

- Space warfighting mission, in addition to nuclear deterrence
- 1 of 10 Combatant Commands



#### AF Space Command (AFSPC)

Houses almost all AF space personnel and missions
1 of 11 Major Commands

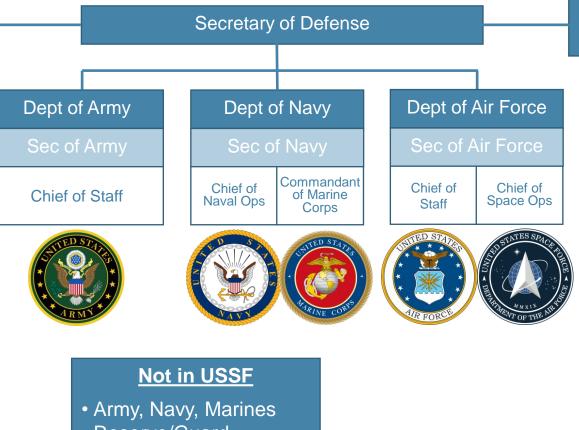
## **Organization – 2022**





#### U.S. Space Command (USSPACECOM)

- Est. Aug 2019
- Space warfighting mission
- 1 of 11 Combatant Commands HQ
- Current Colo Springs, CO
- Future Huntsville, AL



- Reserve/Guard
- Space Development
   Agency
- Ayenc
- NRO

#### **OSD Space Policy**

 FY21 NDAA elevated Space Policy to Assistant SecDef (ASD)

#### Gen Raymond



#### U.S. Space Force (USSF)

- Est. Dec 2019
- Elevated from AFSPC
- 16k Members
- People & Systems
- HQ Pentagon
- 3 Field Commands

## **Other NSS Stakeholders**





### White House National Space Council



**Congress** 8 Committees

#### **Many Others**





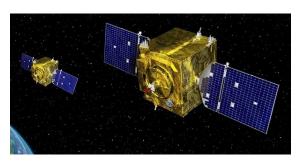


**Dept of Commerce** Space Traffic Management

## Challenges – 2022 and Beyond



Threats



Norms and Behaviors



Space Sustainability





Pentagon Wars



Commercial Integration

# QUESTIONS?

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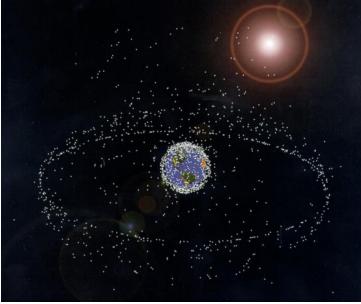
# BACKUP

## **Organizational Reform...**

### ...we've tried this before

#### Report of the

COMMISSION TO ASSESS UNITED STATES NATIONAL SECURITY SPACE MANAGEMENT AND ORGANIZATION



Rumsfeld Commission 2001



#### EXECUTIVE SUMMARY OF INDEPENDENT ASSESSMENT PANEL ON THE ORGANIZATION AND MANAGEMENT OF NATIONAL SECURITY SPACE

he Independent Assessment Pauel (IAP) was charered to review and assess the DoD management and organization of National Security in Space and make appropriate recommendations to strengthen the U.S. position. The panel members are unanimous in our conviction that significant improvements in National Security Space (NSS) leadership management, and organization are imperative to maintain U.S. space preeminence and avert the loss of the U.S. competitive national security advantage. NSS inadequaries are unacceptable today and are likely to grow, but leadership can reverse this trend.

#### Scope of National Security Space

The National Security Space enterprise comprises a wide range of government and non-government organizations responsible for providing and operating Space-based capabilities serving both military and Intelligence Community needs.

 Military Space responsibilities are shared among many DoD components including the Office of the Secretary of Defrane, Joint Staff, Defrase Agencies, Combatant Commands, the Military Services and Defrase Advanced Research Projects Agency (DARA) activities involving Space-based capabilities (Space control, and precision tavigation and timing as well as hunch, Space ranges, and research and development (R&D).

 Intelligence Space responsibilities include reconnaissance and related satellite systems and operations.

 The National Oceanic and Atmospheric Administration (NOAA) responsibilities include weather and remote sensing.

Allard Commission 2008

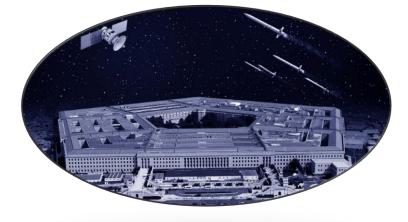
G Ed Anderson was a member of the 2008

and Management of National Security Space (also

known as the Allard Commission). He is currently

serving as a Principal in Booz Allen Hamilton

ent Assessment Panel on the Organization

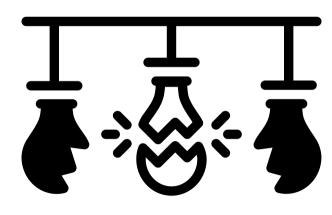


#### More Pentagon Efforts Than One Can Count

## Why a Space Force?

### Multitude of Reasons





Funding Prioritization

Broken Acquisition System

#### GAO Finding 1: DOD Space Acquisitions, Management, and Oversight Are Fragmented Across Approximately 60 Stakeholders<sup>12</sup> DOD (continued Office of the Secretary of Defense Secretary of the Navy · Under Secretary of Defense for Acquisition, Technology, and Logistics · Assistant Secretary of the Navy for Research, Development and Acquisition - Assistant Secretary of Defense, Acquisition - Office of the Chief of Naval Operations Assistant Secretary of Defense, Research & Engineering Naval Research Laboratory - Deputy Assistant Secretary of Defense, Space, Strategic, & Intel Systems - Program Executive Office, Space Systems - Deputy Assistant Secretary of Defense, C3, Cyber, & Business Systems - Office of Naval Research - Performance Assessments & Root Cause Analyses U.S. Marine Corps, Plans, Policies and Operations Under Secretary of Defense for Intelligence U.S. Strategic Command Joint Functional Component Command for Space · Under Secretary of Defense for Policy - Deputy Assistant Secretary of Defense, Space Policy Defense Advanced Research Projects Agency Under Secretary of Defense (Comptroller)/Chief Financial Officer Defense Special Missile and Astronautics Center Director, Cost Assessment and Program Evaluation Missile Defense Agency Director, Operational Test and Evaluation · Chief Information Officer **Executive Office of the President** - Defense Information Systems Agency Office of Management and Budget Joint Chiefs of Staff Office of Science and Technology Policy Secretary of the Air Force/ Principal DOD Space Advisor National Security Council · Assistant Secretary of the Air Force, Acquisition - Deputy Assistant Secretary of the Air Force, Directorate of Space Programs Intelligence Community Program Executive Officer, Space Office of the Director of National Intelligence · Deputy Under Secretary of the Air Force (Space)/Director, PDSA Staff Central Intelligence Agency · Air Force Cost Analysis Agency National Air and Space Intelligence Center Air Force Materiel Command Defense Intelligence Agency - Air Force Research Laboratory National Geospatial-Intelligence Agency Air Force Intelligence, Surveillance and Reconnaissance Agency National Reconnaissance Office - Air Force Technical Applications Center National Security Agency · Air Force Space Command - Air Force Space and Missile Systems Center **Civilian Community** - 14th Air Force Department of Commerce: National Oceanic and Atmospheric Administration Secretary of the Army Department of Energy: Lawrence Livermore, Los Alamos, and Sandia National · Army Space and Missile Defense Command Laboratories Program Executive Office, Missiles and Space Department of State Army Research Laboratory Department of Transportation: Federal Aviation Administration National Aeronautics and Space Administration 12 Stakeholders are organizations that have a role and responsibility in defense space acquisition management or oversight, or are customers or users of defense space programs.

Fragmented Decision Making

## Why a Space Force?

### Threats



## **Dispelling Myths**

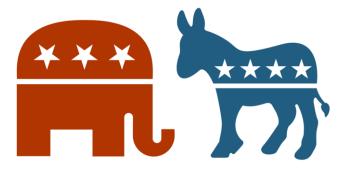




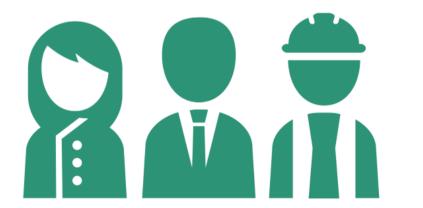
A New Idea?

Not Bipartisan?

## **Immediate Opportunities and Challenges**



Maintain Bipartisan Support



Attracting, training, and retaining workforce





Leverage innovation and technology

## **Strategy and Vision**



#### 2020 Defense Space Strategy



#### Space Capstone Publication