



## **USSPACECOM Unified Command Plan SATCOM REQUIREMENTS**

UCP Signed 25 April 2023: Global Satellite Communications (SATCOM) Operations Manager. CDRUSSPACECOM is responsible for the planning, management, allocation adjudication, and execution of DoD SATCOM (narrowband, wideband, protected, and leased commercial) in support of other CCMDs, U.S. Government agencies, international partners, and other entities, as directed.



### **ROLES AND RESPONSIBILITIES:**

Organize, Train, and Equip

**Warfighting Operations and Requirements** 



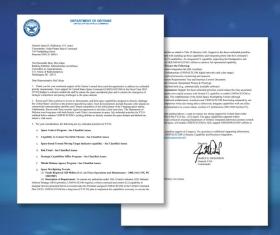


# **FY26 USSPACECOM INTEGRATED PRIORITY LIST (IPL)**

- 1 Resilient, Timely Space Operational C2
- 2 Integrated Space Fires and Protection
- 3 Modernized, Agile Electronic Warfare (EW) Architecture
- 4 Enhanced Battlespace Awareness for Space Warfare
- **5 Space Systems Cyber Defense**
- 6 Persistence and Resilient ISR
- 7 Communications and Data Transport Capacity All Bands
- 8 Global Sensor Management: Integrated Sensor Tasking and Data
- 9 Resilient Satellite C2 Architecture
- 10 Operational Intelligence

### **OTHER ADVOCACY MECHANISMS:**

- Strategic Engagements
- Unfunded Priority List
- Strategic Priorities
- Issue Papers



- The IPL establishes the warfighting priorities for the Command and how USSPACECOM will advocate for resources and funding
- It establishes priorities for Program Objective Memorandums (POM) two years ahead.
- Serves as advocacy to the Services, other CCMDs, and to Industry on where we are focused and where development focus will feed into
  our warfighting requirements.
- Significant and powerful when our priorities and those of the Services and other CCMDs align; such alignment increases chances of these
  priorities receiving funding.
- FY27 IPL changes/additions: Flexible SATCOM, Ground SATCOM Enterprise separately; not complete



### **SPACE SUPERIORITY FRAMEWORK-**



### **SPACE SUPERIORITY**

(OPLANS, All-Domain Operations)

**MISSION** 

**Joint Space Communications Layer (JSCL)** ICD: 04/FY23

PNT/NAVWAR ICD: Q4/FY23

SDA DCR DCR: TBD Missile Warning/ Tracking

ICD: Q1/FY24

**SUPPORTING** 

EW/Cyber Warfare

Directed Energy
ICD: Q4/FY23

Joint Space Integrated
Fires Support

Tactical Responsive
Space (TAC RS)

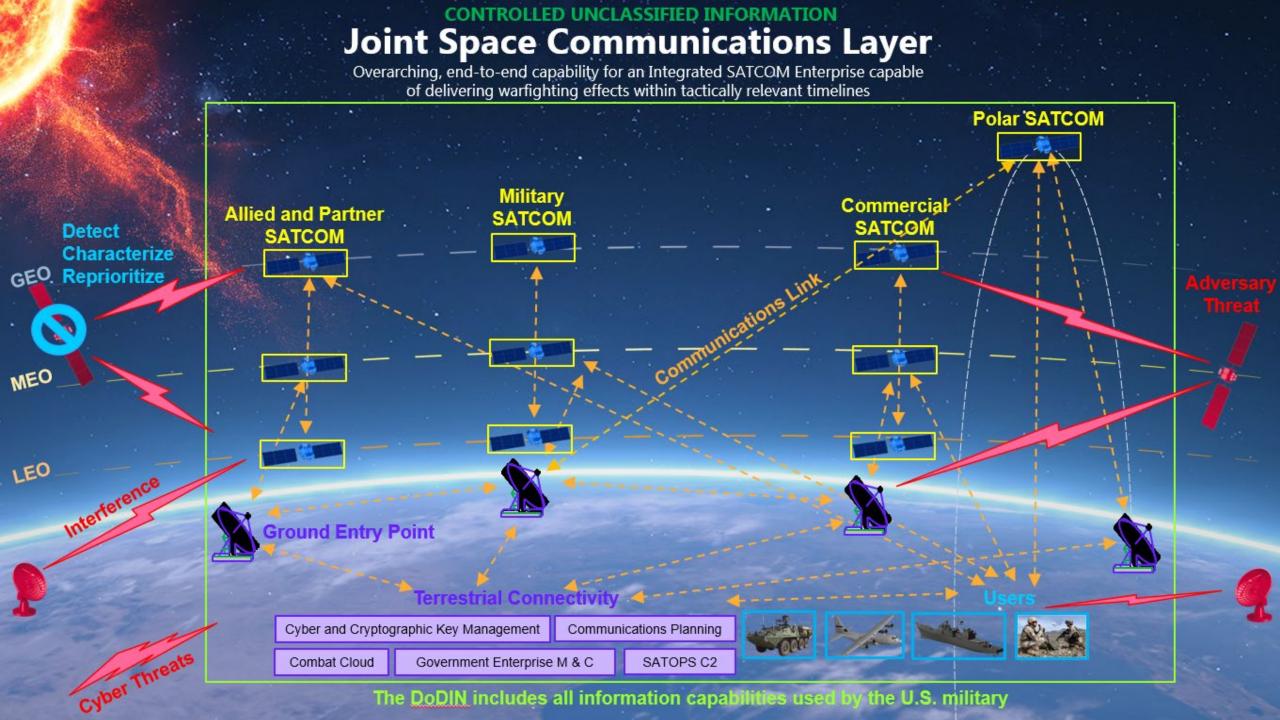


**FOUNDATIONAL** 

Joint Space C2: Command and Control ICD: JROCM Signed 25 Jul 22 SDA:
Space Domain Awareness
ICD: JROCM Signed 03 Apr 23

Space Combat Power ICD: JROCM Signed 20 Oct 22





#### UNCLASSIFIED

# **SPACE DOMAIN AWARENESS**

Identification, characterization, and understanding of any factor, passive or active, associated with the space domain, that could affect space operations and thereby affect the security, safety, economy, or environment of our nation





Space Combat Power OV-1 not available at this classification level



Awareness



**Maneuver/Diversity** 



Defense

**UNCLASSIFIED** 



# **USSPACECOM J8 SATCOM STRATEGIC THEMES**

### ICD AWARENESS AND INTEGRATION

• CDDs must have traceability to ICD identified requirements within Space Superiority ICD Framework (must be threat informed derived threshold/objective values)

### SPACE CAPABILITIES ARE INHERENTLY JOINT AND REQUIRE SYNCHRONIZATION

- USSF is designated space capability integrator. However, other services procure terminals and acquire ground architecture.
- Terminal delivery needs to match on-orbit capability and be interoperable

### SPECTRUM AGILITY REQUIRES ROBUST ENTERPRISE SATCOM MANAGEMENT

- Maneuverability across EMS, orbits, systems, terminal interoperability
- ESC-MC to provide mobility, automated resource allocation and reallocation, SA, EMI mitigation and continuity of operations

To win a multi-domain fight, Services need to fully fund hybrid terminal development capable of multi-waveform, multi-orbit, multi-band, and coalition-capable operations in concert with satellites with protect and defend and SATCOM management capabilities



# **INDUSTRY PORTAL & USSPACECOM J8 SATCOM POC'S**

### **UNCLASSIFIED**

www.spacecom.mil/Partnershipsand-Outreach/Industry-Engagement-Portal

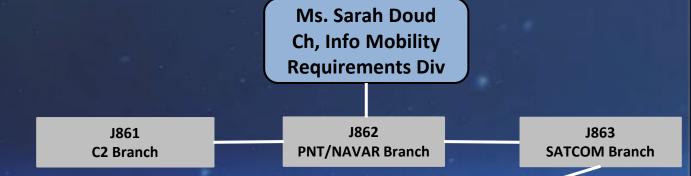
### **SIPR**

intelshare.intelink.sgov.gov/sites/uss pacecom-j8/industry

### **JWICS**

https://intelshare.intelink.ic.gov/sites/usspacecom-j8/industry

# QUESTIONS?



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# **CURRENT NARROWBAND AREAS OF FOCUS**

Not tracking any new CDDs

**Interoperability with Allies and Partners** 

FLTSAT & UHF F/O Years Beyond Design Life

### **Terminals**

- WCDMA Terminals
- Bridging capability between Legacy and WCDMA; impact to Allies and Partners

### **COMSATCOM** w/in Narrowband

 Inherent risks of COMSATCOM versus MILSATCOM; ensuring diversified PACE plans across waveforms, orbits, and constellations is important

SWAC AoA due June 2024 CDD: No new CDDs SV Launch: FLTSAT-8 in 1986 MUOS-5 in 2016 MUOS-6/7 in ??

Terminal Fielding:
On orbit capabilities
since 2017
WCDMA IOC?



### **CURRENT WIDEBAND AREAS OF FOCUS**

### PROTECTED ANTI-JAM TACTICAL SATCOM (PATS)

- Protected Tactical SATCOM Family of Systems (PTS FoS) CDD pending JROC approval
- PTS-P on WGS 11/12 and PTS-P Free-flyer on ESPAStar-HP satellite
- PATS Modems Development and Fielding status
- PTS Ground Entry Terminal Prototype (PGET-P) surveys for potential locations
- Protected Tactical Enterprise Service (PTES) anticipated IOC in 2025

### **COMSATCOM W/IN WIDEBAND**

- Current and future pLEO constellations (Starlink/Starshield, Kuiper, etc.) and MEO constellations (mPower)
- Inherent risks of COMSATCOM versus MILSATCOM; ensuring diversified PACE plans across waveforms, orbits, and constellations important

### WGS

- Location of WGS 11 on-orbit and ground element
- Cost for launch and ground segment of WGS 12 (\$297M) not funded by Congress; potential for Partner funding
- Beam Optimization and Operational Management (BOOM) status
- Mitigation Anti-jam Enhancement (MAJE) status

### **TERMINALS**

- Development of multi-band, multi-orbit, multi-waveform terminals and modems: USN: Satellite Terminal Non-Geostationary (STtNG), USAF: Global Lightning/Hybrid SATCOM, USA: NGTT
- SATCOM Teleport Roadmap (STR)

SWAC Broadband Force Design JROC Validated 2023

CDD:

PTS FoS (Currently in JCIDS)

SV Launch:

**DSCS** in 1997

WGS-11/12 in ??

Terminal Fielding:

STtNG, PTS, STR

PTW capable modems?

WGS-11/12 Ground?



# **CURRENT PROTECTED AREAS OF FOCUS**

### Impacts of Crypto MOD 2 Implementation

### **Crosslink concerns across enterprise**

### **Terminals**

- FAB-T; original contract 2002; IOC FY24
- Air/Maritime versions behind in development
- Terminal access to legacy and multi-orbit regimes

### **EVOLVED STRATEGIC SATCOM (ESS) CDD**

- · Concerns:
  - Survivability
  - Strategic need date
  - International Partner interoperability

CDD:

ESS (Currently in JCIDS)

Split of Strategic and Tactical
Users

SV Launch:

Milstar-1 1994

EPS 1 & 2 in 2019

EPS-R 1 & 2 in 2023

Terminal Fielding:

FAB-T

**NMT** 



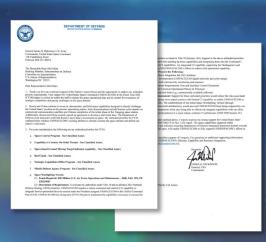
# ADDITIONAL USSPACECOM J8 SATCOM ADVOCACY MECHANISMS

### **UNFUNDED PRIORITY LIST:**

- Every CCMD directed to submit to Congress annually, by law.
- Provide one year funding for a program.
- USSPACECOM solicits inputs from components and program offices that may have shortfalls, or needs for increase in program capacity or acceleration.

### **ISSUE PAPERS and STRATEGIC PRIORITIES:**

- If Services do not fund a CCMD priority, the CCMD may input requests for funding for warfighting capabilities.
- These documents then create a demand signal from USSPACECOM to all Services where these funding requests are supported.
- Expected changes to the # and criteria for issue papers expected for this year's submission.





# BALANCING RESILIENCY, RISK, AND COST WITH CAPABILITIES DEVELOPMENT

Recently validated ICDs from USSPACECOM have initial objective values (as do all ICDs). CDDs must clearly demonstrate how factors affecting the capability are balanced/mitigated:

