BY ORDER OF THE COMMANDER
SPACE OPERATIONS COMMAND

SPACE OPERATIONS COMMAND
MISSION DIRECTIVE 400

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Mission Directive

HQ SPACE DELTA 4

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(DEVIN R. PEPPER, Brig Gen, USSF)

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This Mission Directive implements guidance in AFI 38-101, *Manpower and Organization.* Its purpose is to define the mission, organization, and responsibilities of the USSF HQ Space Delta 4 (DEL 4). This Mission Directive applies to DEL 4 and subordinate USSF units and personnel, and the Air National Guard. It does not apply to Air Force Reserve Command or United States Air Force units and members. Mission Directives for subordinate DEL 4 units are codified in SPOCMD 401, *SpOC Warning Squadrons*. Refer recommended changes and questions about this publication to the OPR using DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional's chain of command. Submit requests for waivers through the chain of command to the Publication OPR for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW AFI 33-322, *Records Management and Information Governance Program*, and disposed of IAW the Air Force Records Information Management System Records Disposition Schedule. This publication may not be supplemented or further implemented/extended.

SUMMARY OF CHANGES

Organizations/units have been updated throughout to align to USSF, as well as minor administrative corrections.

1. Mission. DEL 4 provides ready forces for reliable, unambiguous, timely, continuous, and accurate Missile Warning (MW) and Nuclear Detonation (NUDET) Detection sensor information as part of the Integrated Tactical Warning and Attack Assessment (ITW/AA) system to the USSPACECOM Missile Warning Centers and the North American Aerospace Defense Command (NORAD) command center, who in turn provide processed missile warning information and threat assessments to the President of the United States (POTUS), Secretary of Defense (SecDef), Prime Minister of Canada, Canadian Chief of Defense Staff, Combatant Commanders (CCDRs), and other users of ITW/AA data. The mission of DEL 4 is to provide ready forces for strategic and theater missile warning and tracking for the United States, International Partners, and Combatant Commanders to deter attack, protect human lives, and, if necessary, enable a decisive response. DEL 4 provides ready forces to deliver space warfighting effects, along with administrative control, command direction, and planning guidance in support of the Delta's squadrons and other subordinate units. DEL 4 provides ready forces to deliver combat effects utilizing both terrestrial-based and on-orbit sensors, processing systems, and embedded communications nodes to complete its assigned missions. DEL 4's ground segment consists of seven ground-based radars (GBR) focusing on providing MW and/or Missile Defense (MD) to North America, Allies, and deployed warfighters with extremely capable radar technology. The radars also support the Missile Defense (MD) and/or Space Domain Awareness (SDA) missions with the ability to track thousands of threat and non-threat ballistic and orbital objects. Further, these sensors provide measures and signals intelligence (MASINT) collections on orbital and sub-orbital objects on behalf of HQ Space Delta 7 and the National Space Intelligence Center. DEL 4's space segment consists of three satellite constellations providing global coverage delivering strategic and tactical launch notifications to national leadership, CCDRs, and Allies. Additionally, DEL 4's space-based systems are used to characterize terrestrial battlespace conditions known as Battlespace Awareness (BA) and orbital asset sensor data is used by external agencies to provide Technical Intelligence (TI) and are also employed by civilian agencies to characterize environmental events such as wildfires and geologic activity. Additionally, the on-orbit assets support the Air Force Technical Applications Center's NUDET detection mission through dedicated sensors and associated ground mission processing and communications via the Integrated Correlation and Display System (ICADS). Similarly, on-orbit assets mission data enables Level-0 intelligence collection in support of USAF Air Combat Command objectives via the Space Awareness and Global Exploitation (SAGE) system. Defense Support Program (DSP)/Space-Based Infrared System (SBIRS) and GBRs are separate and distinct systems that contribute to attack confirmation to National leadership; DSP/SBIRS MW outputs or radar data cannot, by themselves, provide unambiguous strategic warning. USSF fixed survivable and survivable/endurable (S/E) Mobile Ground System (MGS) use SBIRS sensors to provide survivable and endurable MW and/or U.S NUDET Detection System (USNDS) data in a nuclear environment for a classified period of time. Additionally, DEL 4 forces provide tipping and cueing and tracking data to missile defense forces in addition to battlespace awareness to CCDRs. All units must be able to operate in varying threat level environments to ensure reliable, unambiguous, timely, continuous, and accurate MW and/or NUDET reporting. The DEL 4 organization consists of the Command Staff, S-Staff, Space Warning Squadrons (SWS), detachments (DET), and operating locations (OL). DEL 4 subordinate squadrons, DETs, and OLs are: 2 SWS (and OL-CA), 6 SWS, 7 SWS (and OL-A), 10 SWS, 11 SWS, 12 SWS, 13 SWS (and OL-A and OL-CD), 3 Satellite Communications Squadron (SCS) (and OL-A), OL-F, and DET 2. While not administratively assigned to DEL 4, cyber and intelligence elements from DEL 6 and DEL 7 provide essential support to the DEL 4 mission,

receiving direction and intent from the DEL 4 Commander on operational matters. Delta 4 is organized under the DepID Code 9 Unit Type Code (UTC) of "9ABDA – HQS GROUP".

1.1. **DEL 4 organized/designed mission(s):** DEL 4 will generate and sustain trained and ready forces for the purpose of conducting strategic and theater missile warning, to include operating space-based and ground-based missile warning sensors. Additionally, DEL 4 forces provide track data, tipping and cueing to missile defense forces in addition to BA to CCDRs. Sensors will contribute heavily to the SDA mission, Measurement and Signature Intelligence (MASINT) collection, NUDET Detection, Environmental monitoring, Level-Zero intelligence collection and sensor data exploitation to include TI. DEL 4 forces inform and influence weapon system architecture evolution, ensure operations are intelligence-led, cyber-resilient, and driven by innovation, while maximizing readiness, resiliency, and endurability to operate in a Contested, Degraded, and Operationally-Limited (CDO) environment.

1.1.1. Ground-Based Radars (with the exception of COBRA DANE) provide tactical warning and support attack assessment of sea-launched ballistic missile (SLBM) and/or intercontinental ballistic missile (ICBM) attack against North America and portions of Europe. Warning data is sent to NORAD, the National Military Command Center (NMCC), United States Space Command (USSPACECOM), and any other command that requires warning data. All radars provide surveillance, tracking, and space object identification (SOI) support for SDA operations. In addition, Upgraded Early Warning Radars (UEWR) and COBRA DANE provide mission critical data required for Missile Defense Ground-Based Interceptor (GBI) ICBM engagements. Military Satellite Communication (MILSATCOM) Fixed Ground Command Post Terminals (AN/FRC-181) and Family of Advanced Beyond line-of-Sight Terminals (FAB-T) provide protected communications for the missile warning mission.

1.1.2. DSP/SBIRS operates throughout the full spectrum of conflict from peacetime through global nuclear war. The SBIRS ground segment is made up of fixed, non-survivable ground architecture, fixed survivable ground architecture and S/E MGS. SBIRS fixed, non-survivable ground architecture is scaled to satisfy ITW/AA requirements for pre-attack/peacetime operations at the Mission Control Station (MCS) and Mission Control Station Backup (MCSB). The S/E requirements for Transitional and Post (Trans/Post) nuclear attack are satisfied by the fixed MCS and MCSB, and Survivable MCS (SMCS) and the S/E MGS. SBIRS provides strategic ITW/AA for attack against North America and theater MW to theater commanders using the Theater Event System (TES) network. Additionally, SBIRS is used to collect and provide data and information to various organizations in support of BA, MD, and TI. MILSATCOM Fixed Ground Command Post Terminal (AN/FRC-181) FAB-T provides protected communications for the missile warning mission.

1.1.3. Mobile Operations. MGS is a S/E Tactical Warning and Attack Assessment (TW/AA) element. A one-of-a-kind national strategic asset, the MGS primary mission is to provide MW and NUDET data to POTUS, Nuclear Command and Control System (NCCS), ITW/AA, National Leadership Command Capability (NLCC) and CDRUSSPACECOM across the range of military operations. The MGS operates from a Main Operating Base (MOB) at Greeley, Colorado Air National Guard Station and can be operated from deployed locations as required/directed. The MGS consists of six standardized (personnel and equipment) worldwide-deployable Force Packages (FPAK).

Each FPAK is an autonomous self-defended, self-sustained unit that conducts MW, NUDET and chemical, biological, radiological and nuclear (CBRN) defensive operations. Deployed operations are performed outside of the MOB, in CONUS and OCONUS. While deployed to austere locations under hostile conditions, each FPAK is capable of conducting sustained autonomous operations necessary to process, exploit and disseminate MW and NUDET event data.

1.2. **Weapon System(s)/Equipment:** Defense Support Program (DSP), SBIRS Geosynchronous Orbit (GEO), SBIRS Highly Elliptical Orbit (HEO) satellites/sensors and associated ground stations and systems (MCS and MCSB, MGS, SAGE, ICADS and USNDS sensors), AN/FPS-132 UEWR, AN/FPQ-16 Perimeter Acquisition Radar Attack Characterization System (PARCS), AN/FPS-108 COBRA DANE Radar.

1.3. **Threat Environments applicable to unit:** All units must be able to operate in varying threat level environments (Threat Levels I, II, and III as defined in JP 3-10, *Joint Security Operations in Theater*) to ensure reliable, unambiguous, timely, continuous, and accurate MW and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

1.4. **Future Requirements:** Be prepared to integrate, operate and/or sustain: SBIRS GEO 6; SBIRS Survivable Endurable Evolution (S2E2); Long Range Discrimination Radar (LRDR); NUDET Detection System (NDS) Build 7; Joint Tactical Ground Stations (JTAGS); Future Operationally Resilient Ground Evolution (FORGE); Enduring Future Operationally Resilient Ground Evolution (E-FORGE); and the Next Generation OPIR (Next-Gen OPIR) in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans. Continue weapon system upgrades and sustainment to address advanced/evolving threats and to ensure reliable, unambiguous, timely, continuous, and accurate data in support of all assigned missions.

1.5. **Air Reserve Component Total Force Integration (TFI) relationship:** DEL 4 maintains total force associate mission partner relationships with: 4 SWS, located at Buckley SFB, CO; 8 SWS, located at Buckley SFB, CO; 137 SWS, located at Greeley Air National Guard Station, CO; 213 SWS, located at Clear SFS, AK; and the 268th Security Forces Squadron, located at Clear SFS, AK.

2. Command. As currently assigned, combatant command authority resides in Commander, United States Space Command (CDRUSSPACECOM), through its C2 facilities. CDRUSSPACECOM delegated tactical control of assigned space forces to Commander, Combined Joint Task Force-Space Operations (CJTF-SO). The CJTF-SO coordinates, plans, integrates, synchronizes, tasks, executes and assesses space operations. Resource management for Space Warning Squadrons is provided by the Commander, Space Operations Command (SpOC/CC) via DEL 4. USSF SpOC is the responsible Lead Command, Using Command, Operating Command, Functional Area Manager, and Management Headquarters for space-based and ground-based warning systems contained in this SPFMD. The DEL 4/CC reports directly to the Commander, Space Operations Command (SpOC/CC). DEL 4 executes administrative control (ADCON), Using Command, Operating Command, and provides command direction, and planning guidance to subordinate units. Unit commanders are authorized to communicate, coordinate, and work with other units or agencies on matters relating to mission accomplishment

or regarding administrative or logistical support under applicable agreements and memorandums of understanding.

3. Responsibilities.

3.1. Comply with requirements identified in all HHQ instructions, DAFIs, SPFIs and SpOCIs including: AFI 1-2, *Commander's Responsibilities*, AFSPCI 10-1204, *Satellite Operations*, AFSPCI 10-605, *Operational Acceptance Process*, AFI 13-602, Volumes 1 through 3, *Spacecrew Training, Standardization/Evaluation, Operations*.

3.2. Generate and sustain trained and ready missile warning forces for presentation to CCDRs at Secretary of Defense direction.

3.3. Execute assigned tasks from the operational commander to whom assigned or attached, e.g. CDR USSPACECOM or other CCDR.

3.4. Inherit former Wing and Group Commander authorities in existing Air Force Instructions, Manuals, and Guidance. The commander may delegate authorities to lower command echelons as deemed appropriate and as permitted by instruction or law.

3.5. Exercise ADCON over assigned and attached US service forces.

3.6. Exercise delegated command authorities over assigned and attached forces.

3.7. Provide recommendations for the mobilization of Air National Guard and Air Force Reserve Command assets.

3.8. Provide comprehensive missile warning mission manpower/forces oversight by managing talent within DEL 4 to ensure optimal manpower utilization practices and professional development to execute the operational mission under SpOC's generation and sustainment of space mission assets.

3.9. Participate in Geographically Separated Unit (GSU) support management board.

3.10. Coordinate with Installation Commanders on installation operations requirements in support of assigned and attached forces.

3.11. Perform all duties and be responsible for all programs assigned under his/her Commander capacity.

3.12. Assume all legal authorities and responsibilities associated with the position as captured in HHQ directives.

3.13. Evaluate on-site contractor performance in accordance with the statement of work and guidance from the contracting officer.

3.14. Ensure adequate security is provided to protect any restricted access facilities and resources.

3.15. Assume overall responsibilities for space systems maintenance, operations, training, evaluation, computer programming, computer operations, and satellite systems engineers.

3.16. Provide for the accounting, control, safeguarding, disbursing, and collection of government funds.

3.17. Implement procedures for accommodating new mission requirements, systems, or system enhancements.

3.18. Ensure adequate support is provided per host-tenant/host-government agreements and memorandums of understanding and agreements (MOUs/MOAs).

3.19. Integrate Deception and Operations Security TTPs to protect and support assigned mission operations in the information environment.

STEPHEN N. WHITING, Lieutenant General, USSF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 1-2, *Commander's Responsibilities*, 8 May 2014

AFI 13-602V1, *Ready Spacecrew Program Training,* 17 December 2019

AFI 13-602V2, *Spacecrew Standardization and Evaluation Program*, 11 October 2019

AFI 13-602V3, *Spacecrew Operations*, 6 September 2019

AFI 38-101, *Manpower and Organization*, 29 August 2019

AFI 33-322, *Records Management and Information Governance Program,* 23 March 2020

AFSPCI 10-605, *Operational Acceptance Process*, 20 June 2016

AFSPCI 10-1204, *Satellite Operations*, 15 May 2014

JP 3-10, *Joint Security Operations in Theater*, 25 July 2019

SPOCMD 401, *SpOC Warning Squadrons,* 19 October 2022

Prescribed Forms

None

Adopted Forms

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ADCON—Administrative Control

ATRR—Advanced Technology Risk Reduction

BA—Battlespace Awareness

CBRN—Chemical, Biological, Radiological and Nuclear

C2—Command and Control

CCDR—Combatant Commander

CDO—Contested, Degraded, and Operationally-Limited

CDRUSSPACECOM—Commander, United States Space Command

CJTF-SO—Commander, Combined Joint Task Force - Space Operations

DEL 4—HQ Space Delta 4

DET—Detachment

DSP—Defense Support Program

E-FORGE—Endurable Future Operationally Resilient Ground Evolution

FAB-T—Family of Advanced Beyond line-of-Sight Terminals

FORGE—Future Operationally Resilient Ground Evolution

FPAK—Force Package

GBI—Ground Based Interceptor

GBR—Ground Based Radar

GEO—Geosynchronous Earth Orbit

GSU—Geographically Separated Unit

HDR-H—Homeland Defense Radar - Hawaii

HEO—Highly Elliptical Orbit

ICADS—Integrated Correlation and Display System

ICBM—Intercontinental Ballistic Missile

IMA—Individual Mobilization Augmentee

ITW/AA—Integrated Tactical Warning and Attack Assessment

JFC—Joint Force Commander

JFSCC—Joint Force Space Component Commander/Command

JTAGS—Joint Tactical Ground Station

LEO—Low Earth Orbit

LRDR—Long Range Discrimination Radar

MASINT—Measurement and Signature Intelligence

MCS—Mission Control Station

MCSB—Mission Control Station Backup

MD—Missile Defense

MGS—Mobile Ground Station

MILSATCOM—Military Satellite Communication

MOB—Main Operating Base

MOU/MOA—Memorandum of Understanding/Agreement

MW—Missile Warning

MWC—Missile Warning Center

NCCS—Nuclear Command and Control System

NLCC—National Leadership Command Capability

NMCC—National Military Command Center

NORAD—North American Aerospace Defense Command

NUDET—Nuclear Detonation

OL—Operating Location

OSS—Operations Support Squadron

PARCS—Perimeter Acquisition Radar Attack Characterization System (AN/FPQ-16)

POTUS—President of the United States

S2E2—SBIRS Survivable Endurable Evolution

SBIRS—Space Based Infrared System

SCS—Satellite Communications Squadron

SDA—Space Domain Awareness

SECDEF—Secretary of Defense

S/E—Survivable and Endurable

SFB—Space Force Base

SLBM—Submarine Launched Ballistic Missile

SMCS—Survivable Mission Control Station

SOI—Space Object Identification

SWS—Space Warning Squadron

TES—Theater Event System

TFI—Total Force Integration

TI—Technical Intelligence

UEWR—Upgraded Early Warning Radar (AN/FPS-132)

USNDS—United States Nuclear Detonation Detection System

USNORTHCOM—United States Northern Command

USSPACECOM—United States Space Command

UTC—Unit Type Code