

**BY ORDER OF THE COMMANDER  
SPACE OPERATIONS COMMAND**

**SPACE OPERATIONS COMMAND  
MISSION DIRECTIVE 401**

**5 DECEMBER 2022**

***Mission Directive***

***SPACE WARNING SQUADRONS***



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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) Space Warning Squadrons (SWS), Operating Locations (OL), and Detachments (DET). This Mission Directive applies to DEL 4 and subordinate USSF units and personnel, and the Air National Guard. It does not apply to the Air Force Reserve Command, or United States Air Force units and members. Mission Directives for DEL 4 are codified in SPOCMD 400, *HQ Space Delta 4*. 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.** Space Warning units (with the exception of COBRA DANE) conduct the Missile Warning (MW) and Nuclear Detonation (NUDET) Detection sensor operations missions as part of the Integrated Tactical Warning and Attack Assessment (ITW/AA) system and provide reliable, unambiguous, timely, continuous, and accurate MW sensor information 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 Space Warning Squadrons is to provide strategic and/or theater missile warning and tracking data for the United States, International Partners, and CCDRs to deter attack, protect human lives, and, if necessary, enable a decisive response. DEL 4 units provide space warfighting effects, along with administrative control, command direction, and planning guidance in support of the Space Warning Squadrons and other subordinate units. DEL 4 units deliver reliable, unambiguous, timely, continuous, and accurate missile warning for theater and/or strategic missile launches utilizing both terrestrial-based and on-orbit assets to complete its assigned mission. DEL 4's ground segment offers complete polar coverage with seven ground-based radars (GBR) focusing on 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. 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 battlespace conditions known as Battlespace Awareness (BA), to provide Technical Intelligence (TI) and are also employed by civilian agencies to characterize environmental events such as wildfires and geologic activity. 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 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 specified period of time. Additionally, DEL 4 provides tipping and cueing and tracking data to missile defense forces in addition to battlespace awareness to CCDRs. Sensors contribute heavily to the SDA mission. 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 through all phases of conflict from periods of relative peace to a post-NUDET environment. Further, these units are responsible for protecting and defending their systems against natural and man-made threats across all domains and within the electromagnetic spectrum. The DEL 4 organization consists of the Command Staff, S-Staff, squadrons, DETs, and OLs. DEL 4 subordinate squadrons, DETs, and OLs are: 2 SWS, 6 SWS, 7 SWS (and OL-A), 10 SWS, 11 SWS, 12 SWS, 13 SWS (and OL-A and OL-CD), 3 Satellite Communication 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. Ground-Based units are organized under the DepID Code 9 Unit Type Code (UTC) of "1SWGA – SPC Space Warning Ground-Based" and Space-Based units are organized under the DepID Code 9 UTC of "1SWSA – SPC Space Warning Space-Based."

### 1.1. Space Warning Squadrons.

**1.1.1. 2 SWS organized/designed mission(s):** Located on Buckley SFB, Colorado, operates the SBIRS Mission Control Station (MCS) and is responsible for detecting and exploiting infrared data collected by space-based sensors primarily for the purpose of detecting ballistic missile events during their powered flight phases for both strategic and theater missile warning and to enabling missile defense decisions for commanders across all levels of government and allied forces. The unit conducts tactical planning, command and control, maintenance, and employment of space-based missile warning satellites designed to detect infrared energy. 2 SWS conducts management, maintenance, planning, command and control, and employment of the world-wide ground architecture that provides satellite command and control for missile warning satellites. Additionally, the unit ensures that missile warning data is analyzed, characterized, validated, and disseminated through, strategic and theater command and control nodes for attack assessment determination, intelligence analysis, and information sharing purposes. The unit also processes, assesses, validates, and disseminates data derived from Overhead Persistent Infrared (OPIR) satellites for the purposes of detecting and characterizing missiles and other infrared energy producing events. 2 SWS develops tactics, techniques, and procedures for the exploitation of detected infrared energy as-well-as for the defense of the satellite constellation and satellite command and control communication links. The unit is responsible for continuously training and evaluating missile warning professionals to conduct its mission while supporting test and development of future space and ground architectures. 2 SWS is also responsible for conducting satellite and ground architecture anomaly resolution as-well-as launch and early orbit checkout of new capabilities operating and maintaining satellite telemetry, tracking, and commanding (TT&C) for the Defense Support Program (DSP) satellites, SBIRS Geosynchronous Earth Orbit (GEO) satellites/sensors and SBIRS Highly Elliptical Orbit (HEO) sensors. 2 SWS tracks and reports all missile launches, nuclear detonations and infrared data of operational value across the spectrum of conflict in real-time. 2 SWS provides critical infrared data in support of MD as well as BA and TI activities in support of CCDRs. 2 SWS performs operations from the SBIRS Mission Control Station (MCS), Survivable Mission Control Station (SMCS), and/or Mission Control Station Backup (MCSB) at Schriever SFB, CO as necessary.

**1.1.1.1. Weapon System(s)/Equipment**

1.1.1.1.1. SBIRS Geosynchronous Satellite (SBIRS GEO). SBIRS GEO assets provide dual-sensor, persistent, global infrared energy detection using taskable and non-taskable sensors across the geosynchronous orbital regime.

1.1.1.1.2. Defense Support Program (DSP) Satellite. DSP assets provide single sensor, persistent, global infrared energy detection using a single, non-taskable, sensor across the geosynchronous orbital regime. They also provide nuclear radiation detection.

1.1.1.1.3. SBIRS Highly Elliptical Orbit (SBIRS HEO) Payload. SBIRS HEO assets provide single sensor, non-persistent, localized infrared energy detection using a single, taskable, sensor within the Highly Elliptical Orbit regime.

1.1.1.1.4. Mission Control Station (MCS) assets provide the primary ground station from which operators can conduct all functions of the designed mission in a

non-nuclear scintillated environment. This includes the necessary hardware and software suite to conduct satellite command, control, maintenance, and tasking. It also includes the hardware and software necessary to conduct management, command, control, and configuration of the global ground architecture for infrared data collection and dissemination. Further, it includes the hardware and software systems for processing, analyzing, characterizing, validating, and reporting infrared energy events.

1.1.1.1.5. Mission Control Station Backup (MCSB) at Schriever SFB, CO is the full mission ground station back-up to the MCS and as such contains the same hardware and software suites as annotated for the MCS.

1.1.1.1.6. Survivable Mission Control Station (SMCS) is the mission ground station designed to ensure 2 SWS operations in a nuclear scintillated environment.

1.1.1.1.7. 2 SWS infrastructure and system dependencies: 3 SCS for MILSATCOM, Relay Ground Station – Pacific (RGS-P), Relay Ground Station – Europe (RGS-E), Survivable Relay Ground Station (SRGS), Aerospace Data Facility – Colorado (ADF-C), Space Base Delta 2 (SBD 2) – for local utilities (power, water, sewer) and general installation support functions, 460th Security Forces Squadron (460 SFS) – for physical security, 460 Civil Engineering Squadron (460 CES) – for infrastructure and utility maintenance physical building infrastructure support, 460th Logistics Readiness Squadron (460 LRS) – for supply and logistical support, DEL 4 DET 2 – for mission qualification training, 62d Cyber Squadron (62 CYS) – for cyberspace defense of the ground and space architecture, 71st Intelligence Surveillance & Reconnaissance Squadron (71 ISRS) DET 4 – for intelligence support, Space Delta 5 Combined Space Operations Center (CSpOC) – for operational command and control, National Space Defense Center (NSDC) – for threat warning and defensive coordination, Theater Event System (TES) Architecture – for the dissemination of theater missile warning messages, Missile Defense System (MDS) – for dissemination of data into the missile defense architecture, ITW/AA Architecture – for dissemination of data into the strategic missile warning and nuclear command and control networks, Space Systems Command (SSC) – for the development and sustainment of satellite and ground architectures.

1.1.1.2. **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, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war. 2 SWS operates assets in the geosynchronous and highly elliptical orbit regimes within the space domain. The unit also operates a ground architecture across multiple continents. The unit must operate these assets in and through natural and man-made threats that span from inclement terrestrial weather to the harsh vacuum of the space domain. Further, the unit must operate in the radio frequency and infrared portion of the electromagnetic (EM) spectrum, including operating in and through natural and man-made threats to the unit's ability to exploit the EM spectrum to their advantage.

1.1.1.3. **Future Requirements:** 2 SWS must be able to onboard and integrate new space and ground architectures to include hardware and software updates. Be prepared to integrate, operate and sustain: SBIRS GEO satellite 6; Future Operationally Resilient Ground Evolution (FORGE); Enduring Future Operationally Resilient Ground Evolution (E-FORGE); Next Generation OPIR (Next-Gen OPIR); and Family of Advanced Beyond line-of-Sight Terminals (FAB-T). 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 in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

1.1.1.4. **Air Reserve Component Total Force Integration (TFI) relationship:** 2 SWS maintains a total force classic associate mission partner relationship with 8 SWS through the US Air Force Reserve Command (AFRC), located at Buckley SFB, CO.

1.1.2. **11 SWS organized/designed mission(s):** Located on Buckley SFB, CO, 11 SWS utilizes Overhead Persistent Infrared (OPIR) data to develop novel applications in support of the MW and Battlespace Awareness (BA) mission areas. The squadron is tasked with employing experimental solutions that address emergent missile warning threat detection. Additionally, 11 SWS provides near-real time OPIR data exploitation products that provide situational awareness for myriad end users.

1.1.2.1. **Weapon System(s)/Equipment:** 11 SWS utilizes a variety of applications to fuse data from DoD and ISR OPIR sensors to execute assigned missions, including the Space Awareness and Global Exploitation (SAGE) sensor suite.

1.1.2.2. **Threat Environments applicable to unit:** 11 SWS is designed to operate in varying threat level environments (Threat Levels I, II, and III as defined in JP 3-10) to ensure reliable, unambiguous, timely, continuous, and accurate MW and missile tracking data reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

1.1.2.3. **Future Requirements:** 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 in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans. This includes hardware and/or software upgrades or new application development to enable the ingestion of data from future DoD and ISR OPIR sensors, to enhance the portfolio of data fused and provided to end users.

1.1.2.4. **Air Reserve Component TFI relationship:** 11 SWS maintains a total force classic associate mission partner relationship with 4 SWS, a U.S. Air Force Reserve (USAFR) unit located at Buckley SFB, CO.

1.1.3. **6 SWS organized/designed mission(s):** Located at Cape Cod Space Force Station (CCSFS), Massachusetts, operates and maintains the AN/FPS-132 Upgraded Early Warning Radar (UEWR) system. This multi-mission phased-array radar system detects and provides attack assessment of intercontinental ballistic missiles (ICBM) and submarine launched ballistic missile (SLBM) attacks to support the MW mission, adds a robust MD capability to search for, acquire, track, classify and locate targets for interceptors for MD

mission execution and provides surveillance, tracking and reporting of space object metric observations and Space Object Identification (SOI).

1.1.3.1. **Weapon System(s)/Equipment:** AN/FPS-132 UEWB ground-based multi-mission radar system.

1.1.3.2. **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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

1.1.3.3. **Future Requirements:** Execute weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

1.1.3.4. **Air Reserve Component TFI relationship:** 6 SWS/CC is also the CCSFS Installation Commander and is responsible for security operations, oversight, management, and support infrastructure. CCSFS is a tenant on the Massachusetts Military Reservation (MMR) which is managed and operated by the U.S. Coast Guard (USCG). In addition to 6 SWS, the MMR houses several units from the Air National Guard (ANG), USCG, Army National Guard (ARNG), and other civilian agencies. 6 SWS has no ANG or USAFR affiliated units.

1.1.4. **7 SWS organized/designed mission(s):** Located on Beale AFB, California, operates and maintains the AN/FPS-132 UEWB system. This multi-mission radar detects and provides attack assessment of ICBM and SLBM attacks to support the MW mission, adds a robust MD capability to search for, acquire, track, classify and locate targets for interceptors for MD mission execution and provides surveillance, tracking and reporting of space object metric observations and SOI. Parent organization of 7 SWS OL-A which is responsible to remotely operate the LRDR system located on Clear SFS, AK and maintain the LRDR operational console systems located at Beale AFB, CA and Cheyenne Mountain SFS, CO. 7 SWS OL-A is described in [paragraph 1.2.6](#).

1.1.4.1. **Weapon System(s)/Equipment:** AN/FPS-132 UEWB ground-based multi-mission radar system.

1.1.4.2. **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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

1.1.4.3. **Future Requirements:** Remotely operate the Long-Range Discrimination Radar (LRDR) system located on Clear SFS, AK and maintain the LRDR operational console systems located at Beale AFB, CA and Cheyenne Mountain SFS, CO as critical assets to improve the United States' overall MD posture and to support the SDA mission. Execute UEWB and LRDR weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

1.1.4.4. **Air Reserve Component TFI relationship:** 7 SWS has no ANG or USAFR affiliated units.

1.1.5. **10 SWS organized/designed mission(s):** Located at Cavalier Space Force Station, North Dakota, operates and maintains the AN/FPQ-16 Perimeter Acquisition Radar Attack Characterization System (PARCS) ground-based radar system to detect and report SLBM launches, provide warning and attack assessment of ICBM attacks and provide surveillance, tracking and reporting of space object metric observations and SOI. 10 SWS is also responsible for the oversight and management of Cavalier Space Force Station. The 10 SWS/CC is also the Cavalier SFS installation commander.

1.1.5.1. **Weapon System(s)/Equipment:** AN/FPQ-16 PARCS ground-based multi-mission radar system.

1.1.5.2. **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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

1.1.5.3. **Future Requirements:** Execute weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

1.1.5.4. **Air Reserve Component TFI relationship:** 10 SWS/CC is also the Cavalier SFS Installation Commander and is responsible for security operations, oversight, management and support infrastructure. 10 SWS has no ANG or U.S. Air Force Reserve (USAFR) affiliated units.

1.1.6. **12 SWS organized/designed mission(s):** Located on Thule Air Base (AB), Greenland, operates and maintains the AN/FPS-132 UEWR system. This multi-mission radar detects and provides attack assessment of ICBM and SLBM attacks to support the MW mission, adds a robust MD capability to search for, acquire, track, classify and locate targets for interceptors for MD mission execution and provides surveillance, tracking and reporting of space object metric observations and SOI.

1.1.6.1. **Weapon System(s)/Equipment:** AN/FPS-132 UEWR ground-based multi-mission radar system.

1.1.6.2. **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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

1.1.6.3. **Future Requirements:** Execute weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

1.1.6.4. **Air Reserve Component TFI relationship:** 12 SWS has no ANG or USAFR affiliated units.

**1.1.7. 13 SWS organized/designed mission(s):** Located at Clear Space Force Station, Alaska, operates and maintains the AN/FPS-132 UEWR system and conducts MW, MD, and SDA in support of CCDRs. This multi-mission radar detects and provides attack assessment of ICBM and SLBM attacks to support the MW mission, adds a robust MD capability to search for, acquire, track, classify and locate targets for interceptors for MD mission execution and provides surveillance, tracking and reporting of space object metric observations and SOI. 13 SWS is also responsible for operations and maintenance of the AN/FPS-108 COBRA DANE radar located at Eareckson Air Station, Shemya Island, AK. COBRA DANE is a single faced, ground based L-band, phased array radar that primarily conducts three missions: MD, SDA (to include SOI), and TI. COBRA DANE provides midcourse sensor coverage through the acquisition, tracking, object classification, and data utilized for cueing and launch in support of MD operations. 13 SWS has two OLs, OL-A and OL-CD, addressed in [paragraph 1.2](#).

**1.1.7.1. Weapon System(s)/Equipment:** AN/FPS-132 UEWR ground-based multi-mission radar system and AN/FPS-108 COBRA DANE radar located at Eareckson Air Station, Shemya, AK.

**1.1.7.2. 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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Unit must operate throughout the full spectrum of conflict from peacetime through global nuclear war.

**1.1.7.3. Future Requirements:** 13 SWS will be responsible for the maintenance and sustainment of the LRDR located at Clear SFS. LRDR is a dual faced, ground based S-Band, solid state phased array radar that will provide persistent long-range midcourse discrimination, precision tracking and hit assessment in support of Homeland Defense. LRDR will be part of the layered Missile Defense System (MDS) as well as provide significant capabilities to the SDA mission. Execute weapon system upgrades to the AN/FPS-132 UEWR and AN/FPS-108 COBRA DANE systems to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

**1.1.7.4. Air Reserve Component TFI relationship:** 13 SWS Commander is responsible for oversight and management of Clear SFS to include base operations support (as installation commander) as well as overseeing Title 32 support of Title 10 missions. As part of a Total Force effort, the 268th SFS Alaska Air National Guard (AKANG) and the 213th Space Warning Squadron (213 SWS - AKANG) provide force protection and execution of the missile warning and tracking missions. The 213 SWS and 268 SFS, AKANG, are force providers enabling operations and security for the AN/FPS-132 ground-based UEWR system. 213 SWS operators and 268 SFS personnel transition from Title 32 to Title 10 and are gained via Operational Control (OPCON) to the USSF and Tactical Control (TACON) to USSPACECOM and USNORTHCOM while performing mission functions.

**1.1.8. 3 SCS organized/designed mission(s):** Located at Buckley Space Force Base, Colorado, operates and maintains both survivable and non-survivable link segments for SBIRS, ensuring the uninterrupted data delivery of missile launch, nuclear detonation and



infrared data of operational value across the spectrum of conflict. 3 SCS operates and maintains the Ground Communications Network Modernization (GCNM), which translates, and transports data received from SBIRS and global sensor sites. GCNM forwards missile warning messages to correlation centers, which are then processed and distributed to CCDRs, deployed forces, and our allies.

**1.1.8.1. Weapon System(s)/Equipment:** 2FRC-181V2/AS-40-98 (MILSTAR), GKC-1/OK-191 (Satellite Readout Station), AN/GSC-52Bv5/OE-371G (DISA Modernization of Enterprise Terminal).

**1.1.8.2. 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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

**1.1.8.3. Future Requirements:** Be prepared to integrate FAB-T and SBIRS Survivable Endurable Evolution (S2E2). Execute weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

**1.1.8.4. Air Reserve Component TFI relationship:** Not applicable.

**1.1.9. 137 SWS / 233 Space Communications Squadron (SCS) / 233 Logistics Readiness Flight (LRF) / 233 SFS organized/designed mission(s):** Located at Greeley Air National Guard Station, Colorado, operates, maintains, and protects the AN/MSQ-118 Mobile Ground Terminal (MGT) and AN/TSQ-180V4 MILSTAR Communications Vehicle (MCV) that combine to make up the MGS. The system and personnel conduct survivable and endurable, strategic MW and NUDET detection in support of CCDRs. This capability is deployed CONUS and OCONUS in six Force Packages (FPAKs) providing global coverage via direct downlink from the DSP constellation. This mission has multiple support vehicles to sustain personnel and equipment deployed to austere locations. Support equipment includes a tanker, Crew Quarters Vehicle (CQV), Crew Support Vehicle (CSV), and Field Spares Vehicle (FSV). The MGS fills a unique and critical ITW/AA role by fulfilling the situation monitoring requirement throughout the full spectrum of conflict.

**1.1.9.1. Weapon System(s)/Equipment:** AN/MSQ-118 MGT and AN/TSQ-180 MCV.

**1.1.9.2. 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) to ensure reliable, unambiguous, timely, continuous, and accurate MW and NUDET reporting. Unit must operate throughout the full spectrum of conflict from peacetime through pre-, trans-, and post global nuclear war.

**1.1.9.3. Future Requirements:** The 137 SWS, 233 SCS, 233 LRF, and 233 SFS are potential organizations to support S2E2 requirements along with 2 SWS. S2E2 will replace the MGS and provide strategic MW via direct downlink of the SBIRS GEO constellation and NUDET detection via direct downlink from the Global Positioning System (GPS) constellation. The 137 SWS, 233 SCS, 233 LRF, and 233 SFS will

operate, maintain, and protect the MGS through sunset and decommissioning plans once S2E2 is operationally accepted.

**1.1.9.4. Air Reserve Component TFI relationship:** The 137 SWS, 233 SCS, 233 LRF, and 233 SFS are Colorado Air National Guard (COANG) units and represent all of the organizations aligned to the mission area.

## **1.2. Operating Locations and Detachments.**

**1.2.1. Delta 4 OL-F organized/designed mission(s):** Support for, and liaison to Royal Air Force (RAF) personnel operating and maintaining the AN/FPS-132 UEWR system at RAF Fylingdales, United Kingdom. Coordinate and standardize operations, maintenance, activities, and contract/logistical/technical support with RAF personnel at the Fylingdales UEWR site.

**1.2.1.1. Weapon System(s)/Equipment:** AN/FPS-132 UEWR ground-based multi-mission radar system.

**1.2.1.2. 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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

**1.2.1.3. Future Requirements:** Execute weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

**1.2.1.4. Air Reserve Component TFI relationship:** Not applicable.

**1.2.2. Delta 4 Detachment 2 organized/designed mission(s):** Detachment 2 (DET 2) is located at Buckley SFB, Colorado and trains guardians to operate SBIRS and potentially other systems in support of the missile warning enterprise. DET 2 provides system and mission specific training while USSF STARCOM provides US Space Force Level training.

**1.2.2.1. Weapon System(s)/Equipment:** DET 2 operates, maintains, and manages the Standard Space Trainer (SST) - a common-platform, enterprise-level training solution designed to provide U.S. Space Force spacecrew operators with a lower-cost training solution than many legacy training systems. SST supports multiple missions within the Missile Warning Enterprise under a common software architecture/framework, allowing different sites to run common mission software packages (i.e. SBIRS software available to run on Buckley servers, and UEWR running on other sites). SST provides a solution for Mission Qualification Training (MQT) as well as Advanced Training (AT).

**1.2.2.2. 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).

**1.2.2.3. Future Requirements:** DET 2 will be prepared to assume responsibility for training any new missions and systems within the missile warning enterprise (i.e. Joint Tactical Ground Station (JTGS), LRDR, etc.). Execute weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

- 1.2.2.4. **Air Reserve Component TFI relationship:** 8th Space Warning Squadron (8 SWS) is the Air Force Reserve Command (AFRC) reserve associate unit to 2 SWS. 8 SWS integrates with DET 2 for training collaboration and provides support of reserve component members in accomplishing the Missile Warning mission.
- 1.2.3. **13 SWS OL-CD organized/designed mission(s):** 13 SWS OL-CD is responsible for operations and maintenance for the AN/FPS-108 COBRA DANE radar located at Eareckson Air Station, Shemya, AK. COBRA DANE is a single faced, ground based L-band, phased array radar that conducts three missions: MD, SDA (to include SOI) and TI. COBRA DANE provides midcourse sensor coverage through the acquisition, tracking, object classification, and data utilized for cueing and launch in support of MD operations.
- 1.2.3.1. **Weapon System(s)/Equipment:** AN/FPS-108 COBRA DANE MD and SDA Radar.
- 1.2.3.2. **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) to ensure reliable, unambiguous, timely, continuous, and accurate MD, SDA, and TI reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.
- 1.2.3.3. **Future Requirements:** Execute weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.
- 1.2.3.4. **Air Reserve Component TFI relationship:** 13 SWS OL-CD has no ANG or USAFR affiliated units.
- 1.2.4. **13 SWS OL-A organized/designed mission(s):** 13 SWS Operating Location A (OL-A) provides COBRA DANE logistical functions for Eareckson Air Station (EAS) through the oversight of Interservice Support Agreement material shipments. OL-A provides local support to the Program Management Office for functions such as Communications/COMSEC management and Joint Base Elmendorf-Richardson (JBER) mission support advocacy. Additionally, OL-A coordinates timely cargo airlift missions as well as Air Mobility Command (AMC) travel between JBER and EAS for all COBRA DANE radar personnel and site visitors.
- 1.2.4.1. **Weapon System(s)/Equipment:** Not applicable
- 1.2.4.2. **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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.
- 1.2.4.3. **Future Requirements:** Not applicable
- 1.2.4.4. **Air Reserve Component TFI relationship:** Not applicable
- 1.2.5. **3 SCS OL-A organized/designed mission(s):** Located at a DATA MASKED location, operates and maintains link segments for SBIRS, ensuring the uninterrupted data delivery of missile launches, nuclear detonations and infrared data of operational value across the spectrum of conflict.

1.2.5.1. **Weapon System(s)/Equipment:** Relay Ground Station - Europe, 2 additional SATCOM terminals.

1.2.5.2. **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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

1.2.5.3. **Future Requirements:** Be prepared to integrate FAB-T, S2E2. Execute weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

1.2.5.4. **Air Reserve Component TFI relationship:** Not applicable

1.2.6. **7 SWS OL-A organized/designed mission(s):** 7 SWS OL-A will be responsible to remotely operate the LRDR system located on Clear SFS, AK and maintain the LRDR operational console systems located at Beale AFB, CA and Cheyenne Mountain SFS, CO. This multi-mission platform adds a robust MD capability to search, acquire, track, classify, continuously discriminate and locate targets for interceptors for the MD mission and provides surveillance, tracking and reporting of space object metric observations and intelligence data collection to support the SDA mission.

1.2.6.1. **Weapon System(s)/Equipment:** LRDR ground-based multi-mission radar system.

1.2.6.2. **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) to ensure reliable, unambiguous, timely, continuous, and accurate MW, MD, BA, TI and/or NUDET reporting. Operates throughout the full spectrum of conflict from peacetime through global nuclear war.

1.2.6.3. **Future Requirements:** Integrate, operate, and sustain the LRDR system. Execute weapon system upgrades to address advanced/evolving threats in accordance with USSF force development concepts, fielding plans, sustainment plans, and sunset/decommissioning plans.

1.2.6.4. **Air Reserve Component TFI relationship:** Not applicable

**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 Commander 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. Provide reliable, unambiguous, timely, continuous, and accurate information to execute assigned ITW/AA, MW, MD, SDA, BA and/or TI missions as assigned.

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

3.4. Execute 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 force/manpower oversight by managing talent 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 Commanders on installation operations requirements.

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 (SOW) 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

***Prescribed Forms***

None

***Adopted Forms***

DAF Form 847, *Recommendation for Change of Publication*

***Abbreviations and Acronyms***

**ADCON**—Administrative Control  
**AKANG**—Alaska Air National Guard  
**AT**—Advanced Training  
**BA**—Battlespace Awareness  
**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  
**DAFI**—Department of the Air Force Instruction  
**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

**GBR**—Ground Based Radar

**GCNM**—Ground Communication Network Modernization

**GEO**—Geosynchronous Earth Orbit

**GSU**—Geographically Separated Unit

**HEO**—Highly Elliptical Orbit

**ICBM**—Intercontinental Ballistic Missile

**IMA**—Individual Mobilization Augmentee

**ITW/AA**—Integrated Tactical Warning and Attack Assessment

**JFSCC**—Joint Force Space Component Commander/Command

**JTAGS**—Joint Tactical Ground Station

**LRDR**—Long Range Discrimination Radar

**MASINT**—Measurement and Signature Intelligence

**MAT**—Mission Area Team

**MCS**—Mission Control Station

**MCSB**—Mission Control Station Backup

**MCV**—MILSTAR Communications Vehicle

**MD**—Missile Defense

**MDS**—Missile Defense System

**MGS**—Mobile Ground System

**MGT**—Mobile Ground Terminal

**MILSATCOM**—Military Satellite Communication

**MOB**—Main Operating Base

**MOU/MOA**—Memorandum of Understanding/Agreement

**MW**—Missile Warning

**MWC**—Missile Warning Center

**MQT**—Mission Qualification Training

**NORAD**—North American Aerospace Defense Command

**NUDET**—Nuclear Detonation

**OL**—Operating Location

**OPCON**—Operational Control



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

**POTUS**—President of the United States

**RAF**—Royal Air Force

**S2E2**—SBIRS Survivable Endurable Evolution

**SAGE**—Space Awareness and Global Exploitation

**SBIRS**—Space Based Infrared System

**SCS**—Satellite Communications Squadron

**SDA**—Space Domain Awareness

**SECDEF**—Secretary of Defense

**S/E**—Survivable and Endurable

**SFS**—Security Forces Squadron

**SLBM**—Submarine Launched Ballistic Missile

**SMCS**—Survivable Mission Control Station

**SOI**—Space Object Identification

**SOW**—Statement of Work

**SST**—Standard Space Trainer

**SWS**—Space Warning Squadron

**TACON**—Tactical Control

**TES**—Theater Event System

**TFI**—Total Force Integration

**TI**—Technical Intelligence

**TT&C**—Telemetry, Tracking, and Commanding

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

**USAFR**—USAF Reserve

**USNDS**—United States Nuclear Detonation Detection System

**USNORTHCOM**—United States Northern Command

**USSPACECOM**—United States Space Command

**UTC**—Unit Type Code