

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

**SPACE OPERATIONS COMMAND
MISSION DIRECTIVE 201**



15 AUGUST 2023

Mission Directive

**HEADQUARTERS SPACE DELTA 2 –
20TH SPACE SURVEILLANCE
SQUADRON (20 SPSS)**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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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 United States Space Force USSF Space Domain Awareness (SDA) Squadrons. This MD applies to all Space Delta 2 20 SPSS units and personnel. This MD does not apply to Air National Guard, Air Force Reserve Command, or United States Air Force units and members. 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 appropriate Tier waiver approval authority, or alternately, 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 AFI33-322, *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.

1. Mission. The 20th Space Surveillance Squadron (20 SPSS), Site C-6, Eglin Air Force Base (AFB), Fla., is a multiplatform operational unit. It maintains and operates the AN/FPS-85 Eglin Phased Array Radar and holds command and control of operations for the AN-FSY-3 Space Fence Phased Array Radar, which is located on Kwajalein Atoll in the Republic of the Marshall Islands.

1.1. **20 SPSS organized/designed mission.** The mission of 20 SPSS is to detect, track, identify, generate narrow-band Space Object Intelligence (SOI) and provide reports on near-Earth and deep space objects for Space Delta 2 (DEL 2), in support of United States Space Command's (USSPACECOM's) space domain awareness (SDA) mission. 20 SPSS performs all-weather, 24/7 operations, to provide observations on cataloged objects, uncorrelated targets, and space events.

1.1.1. **20 SPSS Weapon Systems and equipment .** The 20 SPSS operates, maintains, and manages:

1.1.1.1. AN/FPS-85 Radar. The AN/FPS-85 is a ground based phased array radar that provides all-weather, 24/7 real time SDA data. It is capable of collecting metric observations as well as performing Space Object Identification (SOI) on near Earth and deep space objects.

1.1.1.2. AN-FSY-3 Space Fence Radar. The AN/FPS-85 is a ground based phased array radar that provides all-weather, 24/7 real time SDA data. It is capable of collecting metric observations as well as perform Space Object Identification (SOI) on near Earth and deep space objects. The AN-FSY-3 is physically located on Kwajalein Atoll in the Republic of the Marshall Islands. Level 1 contractor maintenance is provided through 20 SPSS OL A. There are no military or government civilians assigned to the Space Fence at Kwajalein Atoll.

1.1.2. **20 SPSS applicable Threat Environments.** 20 SPSS has been organized/designed to operate in Threat Level 1 and Threat Level 2.

1.1.3. **20 SPSS Future Requirements.** The 20 SPSS will operate the future Deep Space Advanced Radar Capability (DARC) from its Integrated Radar Operations Center (IROC). The IROC will consist of AN/FPS-85, AN-FS-3 Space Fence, and DARC AN/FPS-135 operations from a single operations center at 20 SPSS. Fully Operational Capability for DARC operations is projected for fiscal year 2028.

1.1.4. **20 SPSS Air Reserve Component Total Force Integration (TFI) relationship.** The 20 SPSS currently does not have any ARC associated units.

2. Command. Combatant Command authority is vested in Commander, United States Space Command (CDRUSSPACECOM), through its C2 facilities. CDRUSSPACECOM delegated tactical control of assigned space forces to Combined Force Space Component Commander (CFSCC). The CFSCC coordinates, plans, integrates, synchronizes, task, executes and assesses space operations. The unit commander is 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 DAFIs, SPFIs and SpOCIs which include: AFI 1-2, *Commander's Responsibilities*, 13-602 volumes, *Ready Spacecrew Program*, and SPOCMAN 13-6GBR, *Ground Based Radars (GBR) - Spacecrew Operations*.
- 3.2. Ultimately responsible for accomplishing assigned missions.
- 3.3. Unit members are trained, evaluated, and certified mission ready operators.
- 3.4. Provides administrative and logistical support to assigned personnel.
- 3.5. Establishes training and standardization and evaluation programs as directed by Higher HQ and Delta policy and guidance.
- 3.6. Evaluates on-site contractor performance in accordance with the statement of work (SOW) and guidance from the contracting officer.
- 3.7. Ensures adequate security is provided to protect any restricted access facilities and resources.
- 3.8. Assumes overall responsibilities for space systems maintenance, operations, training, evaluation, computer programming, computer operations, and satellite systems engineers.
- 3.9. Provides for the accounting, control, safeguarding, disbursing, and collection of government funds.
- 3.10. Provides data collection, processing, and reporting of operations and identifies capability assessment.
- 3.11. Implements procedures for accommodating new mission requirements or system enhancements.

STEPHEN N. WHITING, Lieutenant General, USSF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

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

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

AFI 13-602V2, *Spacecrew Standardization and Evaluation Program*, 10 October 2019

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

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

DAFGM2023-13-602V1, *Ready Spacecrew Program Training*, 10 March 2023

SPOCMAN 13-6GBR, *Ground Based Radars (GBR) - Spacecrew Operations*.

Prescribed Forms

None

Adopted Forms

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ADA—Air Domain Awareness

C2—Command and Control

CDRUSSPACECOM—Commander, United States Space Command

CFSCC—Combined Force Space Component Commander

CSO—Closely Spaced Object

DARC—Deep Space Advanced Radar Capability

DEL 2—Space Delta 2

DSP—Defense Support Program

DT—Developmental Testing

GEO—Geostationary Orbit

HEO—Highly Elliptical Orbit

IR—Infrared

LEO—Low Earth Orbit

OT—Operational Training

SDA—Space Domain Awareness

SMEs—Subject Matter Experts

SpOC/CC—Commander, Space Operations Command

TTP—Tactics, Techniques and Procedures

SDA—Space Domain Awareness

SSA—Space Situational Awareness

SSN—Space Surveillance Network

SYSCON—System Concept

TFI—Total Force Integration

UDL—Unified Data Library

USSF—United States Space Force

Office Symbols

20 SPSS—20th Space Surveillance Squadron