

19 SPACE DEFENSE SQUADRON



MISSION

Innovate and federate space domain awareness operations to maintain freedom of action for U.S., allied, and commercial partners.

19 SDS provides tasking to the Space Surveillance Network (SSN), a worldwide network of satellite-tracking radar sensors and optical telescopes. 19 SDS, alongside its sister unit, the 18th Space Defense Squadron, located at Vandenberg Space Force Base, California, functions as hub for foundational space awareness and is responsible for maintaining custody of man-made objects in orbit, processing space events (launches, reentries, de-orbits, breakups, maneuvers, etc.), and predicting the likelihood of on-orbit collisions. Co-located and working hand-in-hand with Naval Network Warfare Command Space Operations (NAVNETWARCOM), 19 SDS enhances the Department of the Navy's satellite vulnerability program with near real-time notification to the Naval Fleet on domestic and potentially hostile space-based reconnaissance systems. Additionally, 19 SDS provides space domain awareness products and services in support of various missions under U.S. Space Command, which include expanding cislunar and extra-geosynchronous awareness via current SSN and commercial capabilities and contributions to the space-based environmental monitoring missions.

Every day, 19 SDS operators task global sensors to maintain up-to-date orbital parameters for over 40,000 man-made Earth-orbiting objects. This process ultimately provides over 113,000 users across 93 different nations with precise positional data of each individual satellite via the spacetrack catalog, available at www.space-track.org. Furthermore, this foundational awareness of space activities directly supports protection of \$250 billion invested in the domestic space enterprise and a \$320 billion industry reliant on space enablers.

19 SDS is comprised of 20 military, 31 civilian, and 7 contractor personnel, who operate as orbital analysts, automated data processing crews, information technology support, and administrators.

The unit is tasked with operating and maintaining several mission systems, including the Mission Processing System (MPS) for tasking, tracking, and maintaining awareness on satellites and providing satellite vulnerability support to U.S. Navy fleets; the Astrodynamics Standard Workstation (ASW) for assessing on-orbit and new launch conjunctions; the Common Framework Environment (CFE) for onboarding innovative, emerging, or non-traditional domain awareness tools; and the on-orbit constellations of the Defense Meteorological Support Program (DMSP) and the Electro-optical/Infrared Weather Satellite – Geosynchronous (EWS-G) program, which contribute to the nation's space-based environmental monitoring.

LINEAGE

19 Space Defense Squadron

STATIONS

Naval Support Facility Dahlgren, VA

ASSIGNMENTS

Space Delta 2

COMMANDERS

HONORS

Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

MOTTO

OPERATIONS

Naval Support Facility Dahlgren has a rich history in space operations. After the Sputnik launch in 1957, the U.S. realized it needed a means to track satellites. The Department of Defense turned to the Defense Advanced Research Projects Agency to develop a prototype solution. In 1961, that solution, the AN/FPS-133 Space Fence, became operational and was aligned under the U.S. Navy's Space Surveillance System at Dahlgren. In 1971, the U.S. Air Force activated its Alternate Space Control Center at Eglin Air Force Base, FL and assigned their back-up computation center at

Dahlgren. In 1987, the Alternate Space Control Center mission transferred to Dahlgren and operations integrated with the U.S. Navy's Space Surveillance System.

In 2004, the spacetrack mission transferred from the U.S. Navy to the U.S. Air Force and both the Space Fence and Alternate Space Control Center missions transferred to the 20th Space Control Squadron, Detachment One (20 SPCS, Det 1) under the 21st Space Wing. In 2010, the U.S. Air Force realigned the Space Fence and Alternate Space Control Center from the 20 SPCS, Det 1 to the newly activated 614th Air Operations Center, Detachment One (614 AOC, Det 1). In 2013, after 52 years of continuous operations, the U.S. Air Force chose to inactivate the Space Fence. On July 22, 2016, the U.S. Air Force deactivated the 614 AOC, Det 1, activated the 18 SPCS, Det 1, and transferred mission responsibility to 18 SPCS, Det 1. In 2020, 18 SPCS, Det 1 transferred from the U.S. Air Force to the U.S. Space Force. On April 6, 2022, the U.S. Space Force inactivated 18 SPCS, Det 1 and activated 19 SDS as a new squadron.

DEPARTMENT OF THE AIR FORCE UNIT HISTORIES

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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.