21st SPACE OPERATIONS SQUADRON

LINEAGE
Constituted 21st Space Operations Squadron, 10 Jul 1991
Activated 1 Oct 1991

STATIONS
Onizuka AFB (later AS) CA, 1 Oct 1991

ASSIGNMENTS
2nd Satellite Tracking (later, 750th Space) Group, 1 Oct 1991

COMMANDERS

June 29, 2006
Air Force Space Command announced the results of the Vigilant Eagle operations squadron commander selection board. The board selected Lieutenant Colonel Samuel L. McNeil to move from the 50th Operations Group staff to command the 21st Space Operations Squadron. Lieutenant Colonel Kevin P. Reigstad, 50 SW Chief of Safety, was chosen to command the 23d Space Operations Squadron.

HONORS
Service Streamers
None

Campaign Streamers
None

Armed Forces Expeditionary Streamers
None

Decorations
None

EMBLEM

Sable, a mercator projection Azure gridlined Argent land masses of the first between in chief a lightning flash enarched fesswise Gules and in sinister base a mullet bendwise Argent pierced Red and issuing a contrail of the last arcing to a mullet charged at the United States on one mercator map Or, all within a diminished bordure of the last. (Approved, 18 Jul 1995)

On a disc Sable, a Mercator projection Azure gridlined Argent, land masses of the field, between in chief a lightning flash enarched fesswise Gules, and in sinister base a mullet bendwise of the second, charged with torteau and leaving a contrail of the fourth arcing to a mullet located in the Northwest region of the United States Or, all within a narrow border Yellow. Attached above the disc, a Black scroll edged with a narrow Yellow border and inscribed with the motto, "GATEWAY TO THE STARS," in Yellow letters. Attached below the disc, a Black scroll edged with a narrow Yellow border and inscribed "21ST SPACE OPERATIONS SQ" in Yellow letters.

EMBLEM SIGNIFICANCE
Ultramarine blue and Air Force yellow are the Air Force colors. Blue alludes to the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence required of Air Force personnel. The disc is black, symbolizing space, the area of mission operations for the Squadron. The map of the world denotes the unit's worldwide support of the Air Force Satellite Control Network. The stars represent an orbiting satellite and its earth station linked by a communication band. The lightning bolt stands for the speed of the unit's communication links

MOTTO
GATEWAY TO THE STARS

NICKNAME

OPERATIONS
Scheduled use of satellite control network resources, 1991

21 SOPS, located at Onizuka AS, is responsible for planning and conducting launch and on-orbit operations for a wide spectrum of vital DoD, allied and commercial space systems.

The 21 SOPS plans for and conducts launch, on-orbit and specialized communications operations for several DoD, allied, civil and commercial space missions, including Inertial Upper Stage (IUS) for NASA and DoD space assets, NATO Satellite Communications Systems and DSCS. In addition to satellite programs, the squadron provides tracking and telemetry support on every Space Shuttle mission and to several commercial launches.

It schedules, allocates, and configures Air Force Satellite Control Network common user resources; resolves resource allocation conflicts; monitors, maintains and updates the status of AFSCN resources and provides status, configurations, and readiness of con-trolled resources to multiple users and command centers.

The 21st SOPS maintains the facilities necessary to support a full deployment by 1st and 3rd SOPS, in the event of an emergency or routine relocation. Additionally, 21st SOPS maintains a

backup scheduling facility for the 22nd SOPS facility at Schriever AFB. It also manages communications systems for network operations and maintains and operates base communications. The squadron provides access to the worldwide Air Force Satellite Control Network and specialized support to the international space community by providing network communications, inter-range operations, and on-orbit test, checkout and troubleshooting services. The unit is also responsible for maintaining Onizuka's two 60-foot DSCS antennas. The 21st SOPS acts as the back-up for scheduling tracking station usage for satellite operators.

As host unit for Onizuka Air Force Station, 21st SOPS provides resources to operate and maintain the OAFS facility and to provide limited administrative and support services to base units and agencies, including security, civil engineering and safety. Further, the squadron provides some base support to units on Moffett Federal Airfield. The 21st Space Operations Squadron commander is designated the installation commander for Onizuka Air Force Station.

November 4, 2005 The 21st Space Operations Squadron put Satellite Operations Center 52 in "cold" status. The SOC had been the primary Air Force center supporting U.S. space shuttle activities until 2004.

Sable, a mercator projection Azure gridlined Argent land masses of the first between in chief a lightning flash enarched fesswise Gules and in sinister base a mullet bendwise Argent pierced Red and issuing a contrail of the last arcing to a mullet charged at the United States on one mercator map Or, all within a diminished bordure of the last. Approved on 18 Jul 1995.

Scheduled use of satellite control network resources, 1991

The 21st Space Operations Squadron, a unit of the 50th Network Operations Group, 50th Space Wing, Schriever Air Force Base, Colorado, is located at Onizuka Air Force Station, Sunnyvale, California. The 21st Space Operations Squadron is the host unit at OAFS.

The squadron plans and conducts specialized communications for a wide spectrum of Department of Defense, allied, civil and commercial space systems. The 21st SOPS is a squadron that is rich in tradition. Every Space Shuttle mission in history has been supported from Onizuka. It schedules, allocates, and configures Air Force Satellite Control Network common user resources; monitors, maintains and updates the status of AFSCN resources and provides status, configurations, and readiness of controlled resources to multiple users and command centers.

The 21st SOPS maintains the facilities necessary to support a full deployment by 1st and 3rd SOPS, in the event of an emergency or routine relocation. Additionally, 21st SOPS maintains a backup scheduling facility, which is used as a backup to 22nd SOPS' facility at Schriever Air Force Base, Colorado. It also manages communications systems for network operations and maintains and operates base communications.

The squadron provides access to the worldwide Air Force Satellite Control Network and specialized support to the international space community by providing network communications.

The unit is also responsible for maintaining Onizuka's two, 60-foot, Defense Satellite Communication System antennas. The 21st SOPS acts as the back-up for scheduling tracking station usage for satellite operators.

As host unit for Onizuka Air Force Station, 21st SOPS provides resources to operate and maintain the OAFS facility and to provide administrative and support services to base units and agencies, including security, services, civil engineering and safety.

Further, the squadron provides some base support to units on Moffett Federal Airfield. The 21st Space Operations Squadron commander is designated the installation commander for Onizuka Air Force Station.

The 21st Space Operations Squadron was established in October 1991 and consisted of network scheduling, planners, directors and communications operations. In 1992, 21st SOPS assumed command of the Camp Parks Communications Annex, from 750th OSS and Inter-Range Operations from Air Force Systems Command. 21st SOPS assumed base support at OAFS with the deactivation of the 750th Space Group June 7, 1999. On 1 October 2002, 21st SOPS transferred the Camp Parks Communications Annex to SMC Detachment 12.

21st Space Operations Squadron, Onizuka Air Force Station, Sunnyvale California

The 21st Space Operations Squadron, a unit of the 50th Network Operations Group, 50th Space Wing at Schriever Air Force Base, Colorado, is the host unit at Onizuka Air Force Station in Sunnyvale, California

The mission of the 21st Space Operations Squadron is to plan and conduct specialized communications for a wide spectrum of DoD, allied, civil and commercial space systems. The squadron is rich in tradition. Every space shuttle mission in history has been supported from Onizuka. It schedules, allocates and configures Air Force Satellite Control Network common user resources; monitors, maintains and updates the status of AFSCN resources; and provides status, configurations and readiness of controlled resources to multiple users and command centers.

21ST SPACE OPERATIONS SQUADRON

The 21st Space Operations Squadron, a unit of the 50th Network Operations Group, 50th Space Wing, Schriever Air Force Base, Colo., is the host unit of Onizuka Air Force Station in Sunnyvale, Calif., 37 miles southeast of San Francisco.

The mission of 21st SOPS is to plan and conduct specialized communications for a wide spectrum of Department of Defense, allied, civil and commercial space systems. 21st SOPS is a squadron that is rich in tradition. Every Space Shuttle mission to date has been supported from Onizuka AFS. The squadron monitors, maintains and updates the status of Air Force Satellite Control Network resources and provides status, configurations and readiness of controlled resources to multiple users and command centers.

The squadron supports DoD-assigned space missions by operating, maintaining and providing

logistical support for the common user resources of the AFSCN. The 21st SOPS Network Operations Center at Onizuka AFS is the prime AFSCN resource for fault isolation/detection for the primary and additional operational switch replacement communication links. It monitors, maintains and updates the status of AFSCN communication resources; and provides status, configurations and readiness of controlled resources to multiple users and command centers. It also manages communications systems for network operations and maintains and operates base communications.

21st SOPS provides access to the worldwide AFSCN and specialized support to the international space community by providing network communications. The unit is also responsible for maintaining two 60-foot satellite communication antennas and one 33-foot Data Link Terminal.

Its sister unit, 22nd SOPS at Schriever AFB, schedules tracking station usage for satellite operators at Schriever AFB and other locations, which ensures users can communicate (through the tracking stations) with the satellites for which they are responsible. A standby system at Onizuka AFS mirrors the scheduling area at 22nd SOPS, providing back up for this important mission.

21st SOPS provides resources to operate and maintain the Onizuka facility and to provide limited administrative and support services to base units and agencies, including security, civil engineering and safety.

In 2005 the Base Realignment and Closure process identified the Air Force missions at Onizuka AFS to be realigned to Vandenberg AFB and Onizuka AFS to close by Sep 2011.

The 21st SOPS commander is the installation commander for Onizuka AFS.

The birth of the nation's National Security Space Enterprise presence in space was the Corona photo intelligence gathering satellite program. Recently declassified, this program convinced the Air Force that a dedicated unit was needed to provide satellite-tracking. In April of 1959, the 6594th Test Wing was activated with its temporary headquarters in Palo Alto, Calif. In 1960, land was purchased in Sunnyvale to form the Air Force Satellite Test Center. Construction on the "Blue Cube" was completed in 1968, and on Jan. 1, 1971, the Sunnyvale facilities became Sunnyvale Air Force Station. The installation was renamed to Onizuka Air Force Station on July 24, 1986, in honor of Lt. Col. Ellison Onizuka, who lost his life in the Challenger Space Shuttle explosion.

21st SOPS rose out of this rich history. It was activated on Oct. 1, 1991, and within one year, 21st SOPS absorbed the roles of the 2nd Satellite Tracking Group Operations Division and the 1999th Communications Squadron Operations Division. After the 1995 Base Realignment and Closure Committee directed realignment of Onizuka AFS, 21st SOPS absorbed the roles of the 750th Space Group and all subordinate units and the 5th Space Operations Squadron. nd quality control services.

Space Ops Unit Gets New Home: Construction in now complete of the new Ellison Onizuka Satellite Operations Facility at Vandenberg AFB, Calif. The $40 million facility will house the 21st Space Operations Squadron. The unit is a geographically-separated component of the 50th Space Wing at Schriever AFB, Colo. The squadron manages the Air Force satellite control network. Vandenberg officials held the facility's dedication and ribbon-cutting ceremony on July 30. Prior to relocating to Vandenberg, the 21st SOS operated at Onizuka AFS, Calif., which was officially shuttered on July 28. Vandy's new facility is named after Col. Ellison Onizuka, an Air Force astronaut who died aboard Space Shuttle Challenger on Jan. 28, 1986. Onizuka's widow, Lorna, spoke at the dedication ceremony. Monday August 09, 2010

November 4, 2005 The 21st Space Operations Squadron put Satellite Operations Center 52 in "cold" status. The SOC had been the primary Air Force center supporting U.S. space shuttle activities until 2004.
December 2005 The 50th Space Communications Squadron's "Standard Desktop," under development since about October 2003 was selected for testing and eventual implementation as the AF Standard Desktop personal computer configuration with possible deployment throughout the federal government. The standard desktop configuration prevented the installation of unapproved software, and provided increased network security, while improving the ability of network managers to respond to vulnerabilities.

October 11, 2000
Space Shuttle Discovery (STS-92), on a mission to deliver equipment and supplies to the International Space Station, suffered a Ku-band antenna failure. 21st Space Operations Squadron operators used the Air Force Satellite Control Network to receive data from the shuttle and relay it to the National Aeronautics and Space Administration mission controllers, conducting 201 support events for the mission.

July 29, 2010
Air Force Space Command ordered the inactivation of Operating Location A (OL- A) of the 21st Space Operations Squadron and the activation of Detachment 4, 21st Space Operations Squadron as a result of the squadron's move to Vandenberg Air Force Base, California.

September 30, 2011
Detachment 4, 21st Space Operations Squadron inactivated. The detachment was activated to oversee Onizuka closure activity following the relocation of the 21st Space Operations Squadron to Vandenberg AFB.

Air Force Order of Battle
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Sources